

Master Plan

for

Birch Run Township

Adopted October 28, 2002

Amended April 25, 2005



ROWE INCORPORATED

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MAP 1 ! LOCATION MAP

DEMOGRAPHIC ANALYSIS

The purpose of this section is to analyze key indicators of change in Birch Run Township (see Map 1). The degree of change within the Township will enable community leaders to better understand current and projected trends taking place. It is with this understanding and knowledge that informed decisions can be made regarding “future growth” within the community.

Key indicators that are analyzed can be grouped in the following categories:

- P Size of Population/Population Growth
- P Household Size
- P Number of Households
- P Household Composition
- P Age Distribution
- P Housing
- P Income and Occupation
- P Projections

These indicators are analyzed, over time, in order to identify trends and make projections that may have a significant impact on future land use planning in the community. Of greater importance to the Township may be the impact on future services and programs needed to accommodate and manage growth.

POPULATION GROWTH

During the last three decades, population growth has been slow and in some areas negative, as shown on Map 2. Between 1980 and 1990 Birch Run Township gained only 70 new residents, for a modest increase of just 2 %. However, from 1990 to 2000 the township experienced population increase of 42%, or 1,829 additional residents. In comparison, Census data indicates that between 1980 to 1990 the Village lost 204 people, which represents a drop of 21 % over the ten-year period. However, between 1990 and 2000, the Village also experienced a marked increased in population of 67%, or 661 additional residents. In fact the only community in Saginaw County documented in table 1 that experienced a drop in population was Frankenmuth Township. The drop-in Frankenmuth Township was only 3%, or a loss of 73 persons in the community. The four neighboring municipalities in Genesee County that were documented in table 1 all experienced a reduction in population between 1990 and 2000.

**TABLE 1
POPULATION OF BIRCH RUN AND SURROUNDING COMMUNITIES
1980—2000**

Community	1980	1990	2000	Total Change 1990-2000	Percent Change 1990-2000
SAGINAW COUNTY					
Birch Run Township	4,292	4,362	6,191	+1829	42%
Village of Birch Run	1,196	992	1,653	+661	67%
Bridgeport Township	13,978	12,747	19,558*	+6,811	53%
Buena Vista Township	12,768	10,903	19,321*	+8,418	77%
Carrollton Township	7,482	6,521	6,602	+81	1%
City of Frankenmuth	3,753	4,408	4,838	+430	10%
Frankenmuth Township	2,389	2,122	2,049	-73	-3%
Taymouth Township	4,581	4,524	5,746*	+1,222	27%
GENESEE COUNTY					
City of Clio	2,669	2,629	2,483	-146	-6%
Montrose Township	7,870	6,236	6,336	+100	2%
Thetford Township	8,499	8,333	8,277	-56	-1%
Vienna Township	12,914	13,210	13,108	-102	-1%
TUSCOLA COUNTY					
Arbela Township	3,192	3,182	3,219	+37	1%
Tuscola Township	2,255	2,144	2,152	+8	.3%

Source: US Census 1980, 1990 and 2000

* indicates a weighted average is used that includes factoring in the CDPs located in these townships

MAP 2 - POPULATION GROWTH

HOUSEHOLD SIZE

Household size decreased in the Township, as well as in all adjacent municipalities, since 1980. Between 1980 and 1990, the number of persons per household declined from 3.06 to 2.95 in Birch Run Township, as shown in Table 2. Household size continued to decrease between 1990 and 2000 with a drop to 2.65 persons per household. This follows a nation wide trend that has seen a consistent drop in average household size since the turn of the century with smaller families, childless couple families, and more single parent households. The number of persons per household is an indicator of the size and composition of families. The figures indicate that there are likely more single parent families and empty nester families in the Village than in the Township.

TABLE 2 PERSONS PER HOUSEHOLD 1980 – 2000 BIRCH RUN AND SURROUNDING COMMUNITIES			
Community	1980	1990	2000
Saginaw County		2.61	2.54
Birch Run Township	3.06	2.95	2.65
Village of Birch Run	2.98	2.38	2.35
Bridgeport Township	2.98	2.51	2.56*
Buena Vista Township	2.53	2.37	2.62*
Carrollton Township	2.78	2.42	2.58
City of Frankenmuth	2.32	2.01	2.16
Frankenmuth Township	3.29	2.70	2.79
Taymouth Township	3.39	2.98	2.89*
Source: US Census 1980, 1990 and 2000 * indicates a weighted average is used that includes factoring in the CDPs located in these townships			

NUMBER OF HOUSEHOLDS

One result of a decreasing household size is that municipalities may decrease or remain relatively constant in total population and still experience an increase in the number of households in the community (see Table 3). For example, from 1990 to 2000 the population of Birch Run

Township increased by 846 or 57.1%. The trend of decreasing persons per household continued between 1990 and 2000, while the total population increased. These changes indicate a continuing need for new housing.

<p style="text-align: center;">TABLE 3 HOUSEHOLDS 1980 – 2000</p>					
Community	1980	1990	2000	Total Change 1990-2000	Percent Change 1990-2000
SAGINAW COUNTY					
Birch Run Township	1,077	1,481	2,327	846	57.1%
Village of Birch Run	402	416	699	283	68.0%
Bridgeport Township	3,208	4,514	7,510*	-26	1.0%
Buena Vista Township	2,219	4,039	7,283*	3244	80.3%

Carrollton Township	1,816	2,404	2,559	155	6.4%
City of Frankenmuth	920	1,838	2,123	285	15.5%
Frankenmuth Township	641	711	728	17	2.4%
Taymouth Township	1,170	1,461	1,977*	122	8.4%
<p>Source: US Census 1980, 1990 and 2000 * indicates that CDPs are located within the town</p>					

HOUSEHOLD COMPOSITION

The term “household composition” is used to describe the general structure of households. The U.S. Bureau of the Census divides households into several categories:

- P Married Couple Families composed of both spouses, with or without children.
- P Single Head of Household, Families composed of one parent, with children or other relative.
- P One-person Household, 65+ years of age.
- P One-person Household under 65 years of age.
- P Other Non-Family Households composed of unmarried couples and people sharing housing.

Table 4 shows that a significantly large proportion (64%) of households in Birch Run Township consisted of married couple families. By contrast, the Village of Birch Run had a smaller share

of its households (46%) made up of married couple families in 2000. The remaining 54% of the households in the Village consisted of single parent, single person, or non-family households. One of the reasons for this difference was a relatively large number of low cost dwellings such as apartments or mobile homes in the Village, which were suitable for households with one income or a fixed income. These high density residential developments are often inappropriate for rural areas without municipal services. Most of the housing in rural areas, such as Birch Run Township, is composed of single family homes on large lots. They are often inappropriate or too expensive for single person or single parent households.

TABLE 4 COMPOSITION OF HOUSEHOLDS FOR 2000				
	Birch Run Township	%	Village of Birch Run	%
Married Couple Families	1,479	64	323	46
Male Householder	81	3	27	4
Female Householder	220	9	109	16
Non-Family Household	547	24	240	34
Number of Households	2,327	100	699	100
Source: US Census 2000				

This trend is nationwide, and will likely continue into the future. One of the potential results of this trend could be a shift in the types of housing being constructed. Due to a shrinking household size, a significant proportion of housing characterized by a smaller floor area and 2 or fewer bedrooms could be constructed in the future.

AGE DISTRIBUTION

The age distribution of the community suggests maturing families with children and a relatively moderate number of persons 65 years and over as shown in Table 5. This is reflective of national trend in age distribution, which result from the “baby boom” of the late 1940s to late 1950s. The population segment born during this period has impacted American society dramatically as they have aged, affecting demands for products, housing and jobs. Recent migration into the Township and Village has the potential of altering the age distribution of the community somewhat, but the current 40–55 year age cohort can be expected to continue to dominate the

age demographics of the Village and Township.

TABLE 5								
AGE ! 2000								
	Birch Run Twp.		Village of Birch Run		Saginaw County		State of Michigan	
Age Groups	#	%	#	%	#	%	#	%
Under 5 Years	421	7	125	8	14,201	7	672,005	7
5-19 Years	1,403	20	355	21	47,810	23	2,212,060	22
20-24 Years	311	9	117	7	12,858	6	643,839	7
25-44 Years	1,896	33	570	34	58,019	28	2,960,544	30
45-64 Years	1,454	23	294	18	48,820	23	2,230,978	22
65 + over	706	8	192	12	28,331	13	1,219,018	12
Median Age	36.4	—	32.5	—	36.3	—	35.5	—

Source: US Census 2000.

The median age of the community closely parallels the County and State figures. The 1990 median age in the Township was 36.4 years and the Village was 32.5 years. The County and State figures were 36.3 and 35.5 years, respectively.

HOUSING

The 2000 census shows 1,911 dwelling units in Birch Run Township. Table 6 shows the characteristics of the dwelling units in the Township. Both owner occupied and renter occupied units increased significantly. Between 1990 and 2000, owner occupied unit in the Township increased by 44% and renter occupied units increased by 170%.

TABLE 6			
HOUSING TENURE			
1990 and 2000			
Birch Run Township			
	1990	2000	% CHANGE

TABLE 6 HOUSING TENURE 1990 and 2000			
Birch Run Township			
Owner Occupied	1,327	1,911	44%
Renter Occupied	154	416	170%
Source: US Census 1990 and 2000.			

At the time the 1990 Census data was collected, Table 7 shows that the bulk of the housing ranged from \$30,000 to \$99,000 in value. With Proposal A coming in to play within the last decade, it can be assumed that there will be a marked increase in value of homes.

TABLE 7 HOUSING VALUE 1990				
	Birch Run Township		Birch Run Village	
	#	%	#	%
<\$15,000	12	1.2	5	2.2
\$15,000 – \$29,999	22	2.2	23	10.3
\$30,000 – \$59,999	450	44.2	129	57.8
\$60,000 – \$99,999	479	47.1	64	28.7
\$100,000+	54	5.3	2	1.0
Total	1017	100%	223	100%
Source: US Census 1990.				

Table 8, based on the 1990 US Census, indicates that the majority of the dwelling types in both the Village and Township consist of detached single-family residential. One notable difference in Table 8 is that over 22% of 10-19 unit dwelling types are found in the Village, while the Township did not have any 10-19 unit dwellings.

TABLE 8 DWELLING TYPE 1990				
	Birch Run Township		Birch Run Village	
	#	%	#	%
Single Family – Detached	1,365	89.4	260	55.3
Single Family – Attached	8	0.5	3	0.6
Duplex	8	0.5	18	3.8
3–4 Units	14	0.9	22	4.7
5–9 Units	41	2.7	56	11.9
10–19 Units	0	0	104	22.1
Mobile Homes	75	4.9	2	0.4
Other	16	1	5	1.1
Total	1,527	100	470	100
Source: US Census 1990.				

Tables 9 and 10 present recent building permit activity in both jurisdictions. Most new development in each jurisdiction has been single family homes prior to 1998. In 1998 a large increase in commercial building permits in the Village is apparent from Table 10, which can be attributed to the outlet mall area located west of I-75 and south of Birch Run Road. In 1999, the Township did not have any building permits granted. However, in 2000 the township granted 4 single family and 2 commercial building permits. Between 1993 and 1998, both the Village and Township experienced increases in residential development. In addition, the Township granted an additional 32 residential building permits from 1991 through 1992.

TABLE 9 BIRCH RUN TOWNSHIP BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
	SF	MF		
1987	11	0	0	—

TABLE 9 BIRCH RUN TOWNSHIP BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
	SF	MF		
1988	17	0	1	—
1989	15	0	2	—
1990	—	—	—	—
1991	12	0	0	—
1992	18	0	1	—
1993	24	0	0	—
1994	24	0	1	—
1995	26	0	1	—
1996 ^a	26	0	2	—
1997	23	0	0	—
1998	—	—	—	—
1999	0	0	0	—
2000	4	0	2	0
through June 2001	0	0	0	0

— indicates data not available.
 Note: Single-family (SF) residential includes duplex or two-family residential; Multi-family (MF) residential includes 3-unit structures and larger.
^a indicates data only available from 01/96 through 08/96.
 Source: Saginaw County Metropolitan Planning Commission

TABLE 10 VILLAGE OF BIRCH RUN BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
	SF	MF		
1987	0	0	2	—
1988	2	17	1	—
1989	3	72	0	—
1990	—	—	—	—

TABLE 10 VILLAGE OF BIRCH RUN BUILDING ACTIVITY 1987 – PRESENT				
Year	Residential		Commercial	Industrial
1991	0	0	1	—
1992	0	0	5	—
1993	25	2	6	—
1994	42	0	19	—
1995	—	—	—	—
1996	—	—	—	—
1997	—	—	—	—
1998	24	0	47	—
1999	3	0	3	—
2000	15	0	0	0
through June 2001	0	0	0	0
— indicates data not available. Note: Single-family (SF) residential includes duplex or two-family residential; Multi-family (MF) residential includes 3-unit structures and larger. Source: Saginaw County Metropolitan Planning Commission				

INCOME AND OCCUPATION

Table 11 shows that the median household income in the Village of Birch Run in 1989 was \$24,722. This was significantly lower than Birch Run Township (\$33,004), Saginaw County (\$27,980), as well as the State as a whole (\$31,020). Further investigation of other indicators of household income may help to explain this disparity. Unfortunately, the 2000 data has not yet been released for Median Household Income.

TABLE 11 MEDIAN HOUSEHOLD INCOME IN 1990 (DOLLARS)			
Village of Birch Run	Birch Run Twp	Saginaw County	State of Michigan
\$24, 722	\$33,004	\$27,980	\$31,020
Source: US Census 1990			

Table 12 shows levels of income for households in the Birch Run community. About 50% of

Village households made less than \$25,000 in 1989. This is higher than Birch Run Township (33%) and Saginaw County as a whole (45%). The table also illustrates that only 35% of the Village households made \$35,000 per year or more in 1989. This figure was significantly lower than Birch Run Township (52%).

TABLE 12 INCOME IN 1989								
	Birch Run Township		Village of Birch Run		Saginaw County		State of Michigan	
	#	%	#	%	#	%	#	%
Total Households	1,469	100	426	100	78,254	100	3,424,122	100.0
Less than \$5,000	118	8	16	4	6,610	8	203,692	5.9
\$5000 – \$9,999	116	8	54	13	8,772	11	329,871	9.6
\$10,000 – \$14,999	71	5	40	9	7,204	9	293,659	8.6
\$15,000 – \$24,999	178	12	104	24	13,271	17	562,017	16.4
\$25,000 – \$34,999	232	16	68	16	11,350	15	525,350	15.4
\$35,000 – \$49,999	352	24	69	16	14,358	18	638,963	18.7
\$50,000 – \$74,999	337	23	65	16	11,850	15	556,760	16.3
\$75,000 – \$99,999	57	4	7	2	3,270	4	185,137	5.4
\$100,000 or more	6	1	3	1	1,570	2	128,673	3.7
Source U.S. Census 1990.								

This disparity can be explained by examining income types, in the respective jurisdictions, in 1989. Table 12 illustrates that only 78% of households in the Village of Birch Run received wage and salary income. This was lower than Birch Run Township (82%). About 25% of Village households received social security income and 6% received public assistance income in 1989. Taken together, these figures are higher than Birch Run Township (23% received social security income and 6% receive public assistance income).

<p align="center">TABLE 13 OCCUPATIONS, 1990</p>						
	Birch Run Township		Village of Birch Run		Saginaw County	
OCCUPATION	#	%	#	%	#	%
Managerial/Professional	448	18	95	20	18,422	21
Technical/Sales/Support	723	28	155	33	28,700	33
Service	364	14	66	14	11,744	13
Farming/Forestry/Fishing	52	2	4	1	1,186	1
Precision Production/Craft	350	14	56	12	10,855	12
Operators/Laborers	620	24	89	19	16,356	19

TABLE 13 OCCUPATIONS, 1990						
	Birch Run Township		Village of Birch Run		Saginaw County	
OCCUPATION	#	%	#	%	#	%
Total	2,557	100	465	100	87,273	100

Source: US Census, 1990.

PROJECTIONS

Village of Birch Run had a population of only 992 persons in 1990 (see Table 1). The Planning and Zoning Center’s Plan For Planning report estimated its 1995 population at 1,409 (see Table 14). Birch Run Township had a 1990 population of 4,362, up by 70 persons from 1980. By 1995, population had risen to 4,705, based on building permit records.

TABLE 14 POPULATION OF BIRCH RUN AND SURROUNDING COMMUNITIES, 1980–2020 PROPORTION OF 1996 COUNTY ESTIMATES								
Community	1980	1990	1995	2000	2010	2020	Total Change 1990 – 2020	Percent Change 1990 – 2020

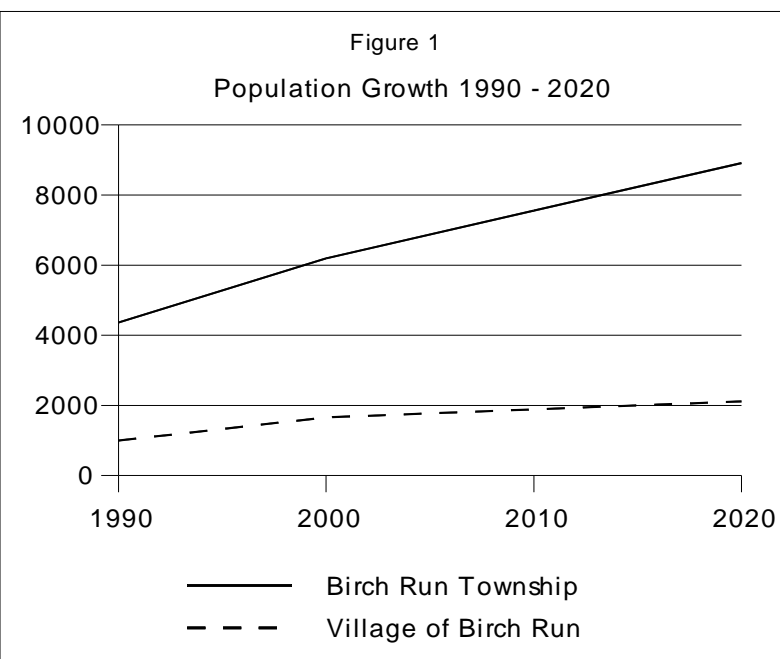
Saginaw County	228,059	211,946	212,500	213,800	212,600	209,300	-2,646	-1%
Village of Birch Run	1,196	992	995	1,001	995	980	-12	-1%
Birch Run Township	4,292	4,362	4,373	4,400	4,375	4,308	-54	-1%
Bridgeport Township	13,978	12,747	12,780	12,859	12,786	12,588	-159	-1%
Buena Vista Township	12,768	10,900	10,928	10,995	10,934	10,764	-136	-1%
Carrollton Township	7,482	6,521	6,538	6,578	6,541	6,440	-81	-1%
City of Frankenmuth	3,753	4,408	4,420	4,447	4,422	4,353	-55	-1%
Frankenmuth Township	2,389	2,122	2,128	2,141	2,129	2,096	-26	-1%
Taymouth Township	4,581	4,524	4,536	4,564	4,538	4,468	-56	-1%

TABLE 15 POPULATION PROJECTIONS OF VILLAGE OF BIRCH RUN AND TOWNSHIP PROPORTIONAL METHOD BASED ON 2000 CENSUS DATA 1980–2020							
Community	1980	1990	2000	2010	2020	Total Change 2000 – 2020	Percent Change 2000 – 2020
Birch Run Township	4,292	4,362	6,191	7,553	8,915	2,724	44%
Village of Birch Run	1,196	992	1,653	1,883	2,113	460	28%

Source: Michigan Data Center, Department of Management and Budget, 1996.

One recent projections of the Township’s and Village’s populations were performed in the Plan for Planning report. This projection was based on earlier projections, by the State Data Center, of the future population of Saginaw County, and assumed that the Township and Village would retain their current proportion of total county population. This projection is shown in Table 14 projects minor growth from 1995 until the year 2000, followed by a slight decline.

Another projection method used 2000 data (see Table 15). This method assumed that the growth experienced by both the Township and Village would continue proportional to the changes between 1980 and 2000. Based on these projections, it appears Between 2000 and 2020, the Township will experience a 44% increase or an increase of 2,724 persons. The Village will have a 28% increase or an increase of 460 persons.



The tenuous nature of population projections makes precise projections difficult. The two methods shown above give two different results, the first (see Table 14) shows slight decrease while the second (see Table 15) shows a large increase. For planning purposes, it is assumed

that the actual population change through 2020 will probably fall somewhere in between these two results.

Over the next decade, the segment of the population aged 65 years or older will tend to increase in both the Township and Village. (The increase in elderly population will be due to a slight increase in the overall population of the area, combined with a significant rate of growth in the elderly segment of the population.) That is, in 1990, about 23 % of the Village residents and 20 % of Township residents were between 45 and 64 years of age. By the year 2010, this entire segment of the population will be over the age of 65, while the segment aged between 45 and 64 years will have also increased. It should be noted that if the community continues to reflect state and national trends, more residents will tend to remain in the community upon retirement. Elderly tend to retire in more pedestrian-orientated, built-up areas, within walking distance, or short drive time of basic needs such as shopping, post office, entertainment service facilities, etc. This will impact the future land use needs of the community.

Household projections to 2020 based on census data for 1980 and 1990 and new building from 1990 to 1995 project a total of 434 new households in the Village and 1,009 in the Township (see Table 16). This is an increase of 51 % in the Village and 42 % in the Township from 1990. The total number of households in both communities in 2020, if current trends continue, would be 3,270. If true, and if population were to be about 3.0 persons per household, then future total population in 2020 could be as great as 9,810. However, current population per household figures in the Village are much lower than that (2.38 in 1990), thus the average future figure is likely to be less than 3.0 (more likely it will be about 2.7 which would result in a 2020 combined population of about 9,470 still much greater than the straight-line projection in Table 15).

<p align="center">TABLE 16 PROJECTED HOUSEHOLDS 1980 – 2020</p>							
Community	1980	1990	2000	2010	2020	Total Change 1990 – 2020	Percent Change 1990 – 2020
Village of Birch Run	402	416	660	755	850	434	51%
Birch Run Township	1,077	1,481	1,902	2,161	2,420	1,009	42%

LAND USE

EXISTING LAND USE

The existing land use in a community, and the distribution of that land use throughout the community, is the principal influence on future development. It is essential to understand the current pattern of land use in a community in order to identify how those land uses impact each other, the demand for municipal services created by those uses, and their impact on a community's natural resources.

To identify current land use, the Township staff used tax records to identify the predominant land use for each parcel in the Village and the Township. In instances where a residence was located on a large agricultural parcel, a one acre parcel was created to represent the farmstead, and the remaining acreage was classified as agricultural so as not to understate agricultural uses or overstate residential development. Parcels that were primarily woodlots were included in the "vacant" category.

In order to obtain a historical context for existing land use patterns in the Township, Rowe staff acquired 1"=2000' aerial photography of the area flown in 1978 and 1988 and by interpreting those photos they created land use maps for those two years. The data was then entered into a GIS system, and the area of each land use was calculated by year. The result of this work is shown in Table 15 in Map 3.

LAND USE CATEGORIES

The land use categories used in this inventory are:

Agricultural — Land used primarily for pasture or crop production

Commercial — Retail commercial activities

Cemetery — Includes cemeteries and accessory uses such as chapels, mausoleums, crematoriums

Communication Towers — Communication towers including cellular, radio, etc.

Industrial — Light and heavy industrial activities including warehousing, assembly, and fabrication activities

Institutional — Non-public institutional uses including fraternal organizations and meeting halls

Multi family — Structures or groups of structures each containing three or more residences

Office — Includes professional offices such as insurance, realty, medical accounting, and legal

Public — Public uses including township and village halls, DPW yards, fire stations, parks, etc.

Schools — School grounds including administration buildings and athletic fields

Single Family Residential — Single family detached structures on individual lots

Duplex — Two attached single family residences.

Utility — Utilities other than those owned by the Village or Township such as electric power or gas substations

Vacant — Land not currently used for any of the above uses, including vacant wood lots

EXISTING LAND USE

The existing land use in the Township is dominated by agriculture. Over 62% of the land in the inventory was classified as farmland. There is farmland in every section of the township, with concentrations in the northeast quarter and southern third of the Township.

Single family residential uses are the next largest category, covering 23% of the Township. This consists of four relatively small subdivisions with lots located on internal streets off the county roads and state highways. However, the majority of the development consists of lots fronting on the county roads and state highways. These lots vary in size from one acre or less to 20 acres. Generally speaking, most parcels over 20 acres in size appear to have at least a portion of the acreage in cultivation.

Vacant land is the next largest category of land use with 12% of the total land area. Much of this property consists of vacant woodlots that are scattered through out the Township with concentrations in the northwestern quadrant of the Township.

Commercial is the other significant land use in the Township. Commercial development is concentrated around the Dixie Highway/Birch Run Road intersection, and the Birch Run Road/Gera Road intersection, with some additional uses scattered along Dixie Highway, Birch Run Road, and Gera Road.

TABLE 17 BIRCH RUN TOWNSHIP EXISTING LAND USE (ACRES) 1978 – 1997			
	1978	1988	1997
Agricultural	12,844	12,683	12,617
Single Family Residential	4,056	4,522	4,800
Duplex	7	19	19
Multi Family	17	17	17
Commercial	231	257	358
Office	4	4	4
Industrial	3	10	10
Institutional	21	24	24
Churches	45	31	41
School	0	0	0
Public	142	142	65
Utility	23	23	23
Communication Towers	0	0	6
Vacant	3,178	2,807	2,518

MAP 3 - EXISTING LAND USE

CHANGES IN STATE EQUALIZED VALUE (SEV)

All land in the State of Michigan is classified by use in order to estimate its value for taxing purposes. The change in value of each class of land, in a community, can provide some insight into changes in land use and development of land.

When analyzing the SEV in the Township, residential uses comprise 59% of the real property tax base in 2001, representing a state equalized value (SEV) of \$86,531,566. Commercial uses make up 33% of the tax base with a SEV of \$47,724,815. Industrial SEV is \$93,232 (less than 1%) and agricultural SEV is \$12,169,937 (8%).

For the years 1999 and 1998, the SEVs include the Village equalized values. However, for the years 2000 through 2001 and 1997 and earlier the SEVs are the actual Township equalized values. This is the reason for the higher total SEVs for years 1998 and 1999.

<p style="text-align: center;">TABLE 18 BIRCH RUN TOWNSHIP STATE EQUALIZED VALUES, 1991-2001</p>						
	Agricultural	Residential	Commercial	Industrial	Timber	Total
2001**	13,668,150	93,166,300	11,724,900	32,400	eliminated*	118,591,750
2000**	12,349,432	84,177,330	12,670,800	32,400	143,500	109,373,462
1999**, ^a	12,632,900	93,149,380	51,690,000	227,100	143,500	157,842,880

1998**, ^a	12,484,900	86,964,100	49,210,100	227,100	143,500	149,029,700
1997	10,911,300	58,686,200	8,562,300	19,550	123,200	78,179,350
1996	10,512,500	56,677,200	4,271,700	20,800	112,400	71,459,100
1995	10,376,600	51,531,000	2,998,000	19,700	262,000	65,187,300
1994	9,879,600	44,849,600	2,669,500	18,900	257,200	57,682,900
1993	9,814,200	44,512,500	2,575,500	18,900	265,300	57,186,400
1992	9,067,300	39,643,500	2,226,450	14,300	243,900	41,195,450
1991	9,125,200	39,392,400	2,226,400	20,100	240,000	51,004,100

* according to Township Assessor, category has been eliminated.

**provided by Township Assessor in November 2001.

^a indicates data includes Birch Run Village SEVs.

NATURAL FEATURES

Natural features are studied in the development of land use plans for two reasons: (1) they impose limitations on the development potential of some areas, because of the existence of such elements as flood plains, steep slopes, or wetlands; and (2) they enhance the community, development potential, and value of some areas due to the existence of such elements as river/lake access or views, mature woodlots, and easily “percing” soils. A major concern, in preparing the plan, is to protect the community’s environmental assets while allowing appropriate development.

In order to adequately address this concern, specific areas are analyzed:

- § Flood plains
- § Wetlands
- § Woodlands
- § Soils

FLOODPLAINS

Areas adjacent to creeks, streams, and rivers are susceptible to periodic flooding. Due to the property damage flooding causes, and the effect that construction has in certain parts of floodplains, regulation of development in floodplains is important to sound planning.

There has not been a FEMA Flood Insurance Rate Map (FIRM) prepared for the Township, indicating that the area does not have a history of flood damage to property. Township soils were analyzed based on their flooding characteristics. Less than 60 acres in the Township were soils characterized as prone to frequent or intermittent flooding.

Generally speaking, floodplains within the Township appear to be limited, and do not pose a significant barrier to development. Current state and federal regulations, in conjunction with local building code enforcement, represent adequate regulation of development within the Township.

WETLANDS

Wetlands include marshes, swamps, and the areas between dry land and open water. These are

areas typified by poor drainage and standing water. They are important community resources for several reasons. Wetlands provide a filter to keep inorganic materials out of the water supply, act as a sponge to retain water during dry periods, and to hold water during floods. One acre of marsh is capable of absorbing 300,000 gallons of water. Wetlands provide this holding capacity inexpensively. If destroyed they can be replaced only with expensive structural public improvements. Wetlands also function as critical wildlife habitats.

Because wetlands are a valuable natural resource, they are protected by the Wetlands Protection Act, a part of the Michigan Natural Resources and Environmental Protection Act (PA 451 of 1994 as amended). The Act requires that permits be acquired from the Michigan Department of Environmental Quality (DEQ) prior to altering or filling a regulated wetland. The Wetland Protection Act defines wetlands as:

“land characterized by the presence of water at a frequency and duration sufficient to support and that under normal circumstances does support wetland vegetation or aquatic life and is commonly referred to as a bog, swamp, or marsh and is contiguous to the Great Lakes, an inland lake or pond, or a river or stream.”

Regulated wetlands include all wetland areas greater than 5 acres or those of any size contiguous to waterways. Wetlands which are hydrologically connected (i.e., via groundwater) to waterways are also regulated. Activities exempted from the provisions of the Act include farming, grazing of animals, farm or stock ponds, lumbering, maintenance of existing non-conforming structures, maintenance or improvement of existing roads and streets within existing rights-of-way, maintenance or operation of pipelines less than six inches in diameter, and maintenance or operation of electric transmission and distribution power lines. Permits will not be issued if a feasible or prudent alternative to developing a wetland exists.

There are no official state wetland maps that will conclusively identify which areas are wetlands and those that are not. One of two types of maps that are commonly used as references in determining wetlands are the Michigan DEQ's Michigan Resource Inventory System's (MIRIS) Land Use/Land Cover Maps, which show wetlands mapped using 1978 infrared aerial photography. The program normally did not map land uses/cover under 5 acres in size, which means that small wetlands contiguous to a lake, stream, or pond, which are regulated, often don't show up. The other type of map is the U.S. Fish and Wildlife Service wetlands maps. Although these maps are not based on Michigan's definition of a wetland, they do identify small wetlands that do not show up on the MIRIS maps. A map of wetlands based on the DEQ's land use/cover

inventory is illustrated on Map

The Wetlands Map (Map 4) shows the wetlands identified by the U.S. Fish and Wildlife Service. Small wetlands are scattered throughout the Township with the majority of the wetland area in the northwest quadrant of the Township, particularly Sections 8, 9, and 18.

With the exception of Sections 8, 9, and 18, none of the wetland areas appear concentrated or large enough to pose anything more than local limitations on development. The extent of wetlands in these three sections may justify the use of tools such as cluster development, or a reduction of overall development to protect the wetland areas.

MAP 4 - WETLANDS MAP

WOODLANDS

The importance attached to woodlands is a function of their demonstrated ability to stabilize slopes, retard erosion, conserve water quality and quantity, maintain local micro-climates, filter the atmosphere, decrease noise levels, and provide wildlife habitats. Mature trees represent a valuable resource in maintaining the aesthetic character of a community. Future development should not occur at the expense of existing tree cover. Wooded areas should be managed to insure their long-term existence and to help preserve the rural character of the community.

The 1978 MIRIS land use/land cover map for the Township shows large tracts of Aspen, White Birch, and associated species in the northern two thirds of the Township. Comparison of this information with aerial photography and 1997 land use information indicates that significant residential development has occurred in these areas, but has normally taken the form of development within the wood lot, rather than clear cutting the wood lot for development.

SOILS

One of the natural characteristics of a community, affecting its development potential, is the suitability of the soils. Soils in a given area can vary widely in their capacity to handle various types of development. Some soils may be excellent for raising crops, but provide a poor foundation for roads. Other soils may provide good foundations for roads, but are inadequate for buildings with basements. Knowing the limitations of the community's soils for development should serve as a basis for future land use planning.

The *Soil Survey of Saginaw County, Michigan*, prepared by the United States Department of Agriculture's Soil Conservation Service (SCS) and published in 1994, maps the various soil types in the county and evaluates them according to their physical properties and soil suitability. Physical properties identified include the soils permeability, soil reaction, shrink-swell potential, slope, erosion factor, fertility, frequency of flooding, and average/seasonal height of the water table. Based on these characteristics, the soils are classified as to their suitability for various crops, recreational uses, as natural habitat for various types of wildlife, for building sites, for sanitary facilities, and as a source for construction materials such as sand and gravel.

Land Use and Soils

Each soil type has unique characteristics, which pose opportunities for some uses and limitations for others. The most important characteristics making the soil suitable or unsuitable for

development are limitations on dwellings with basements, limitations on septic tank absorption fields, and suitability for farming. The degree of soil limitations reflects the hardship and expense of developing the land. Soil limitations can be classified into four categories:

Slight:	Relatively free of limitations or limitations are easily overcome.
Moderate:	Limitations need to be considered, but can be overcome with good management and careful design.
Severe:	Limitations are severe enough to make use questionable.
Mixed:	Limitations vary within the soils group.

The soil types present in the Township are shown on the Soils Map (Map 5). Soil types found are essentially glacial deposits, acted upon by soil formation processes such as wind and water. As a result of glaciation, soil types vary widely from site to site. This, coupled with the fact that soil depths on USDA soil survey maps average 3–5 feet, make conclusive and accurate delineation of areas with severe limitations difficult. Site visits and inspections are necessary, in nearly all instances, to establish actual site conditions.

Limitations for Septic Systems

One of the soil characteristics important to consider in planning for future development is the suitability for use as septic tank absorption fields. In areas where public sewer systems are not available, septic systems with septic tanks and absorption fields are the most common method used to dispose of sewage from private residences. Absorption fields disperse the effluent from septic tanks through a series of subsurface tiles and perforated pipes. The liquid then percolates down into the ground, the soil and micro-organisms in the soil acting to filter and clean the effluent before it reaches the groundwater below it.

The soils in the Village and Township were categorized based on the SCS’s system for evaluating soils according to the limitations the soils pose to construction and operation of septic tank absorption fields. Table 19 shows the various soil types and their classification, while the soil suitability map shows the distribution of the various soil types (see Map 6).

MAP 5 - SOIL TYPES

MAP 6 - SOIL LIMITATIONS FOR SEPTIC TANK ABSORPTION FIELDS

TABLE 19 SOIL TYPES/SUITABILITY		
Soil Name and Map Symbol		Septic Tank Absorption Fields
5A	Sumava	Severe: wetness
10C	Grattan	Severe: poor filter
12	Corunna	Severe: ponding, percs slowly
13	Belleville	Severe: ponding, percs slowly, poor filter
14	Pella	Severe: ponding
15B	Wixom	Severe: wetness, percs slowly, poor filter
17B	Frankenmuth	Severe: wetness, percs slowly
18	Lenawee	Severe: ponding, percs slowly
19	Tappan	Severe: ponding, percs slowly
22B	Parkhill	Severe: ponding, percs slowly
15B	Wixom	Severe: wetness, percs slowly, poor filter
23A	Capac	Severe: wetness, percs slowly
24	Parkhill	Severe: ponding, percs slowly

TABLE 19 SOIL TYPES/SUITABILITY		
Soil Name and Map Symbol		Septic Tank Absorption Fields
26A	Pipestone	Severe: wetness, percs slowly, poor filter
31A	Pipestone	Severe: wetness, poor filter
33	Granby	Severe: ponding, poor filter
41A	Shiawassee	Severe: wetness, percs slowly
45A	Fabius	Severe: wetness, poor filter
46B	Cadmus	Severe: wetness, percs slowly
55B	Gagetown	Severe: wetness, percs slowly
57B	Pella	Severe: ponding
17B	Frankenmuth	Severe: wetness, percs slowly
58B	Covert	Severe: wetness, poor filter
60B	Arkona	Severe: wetness, percs slowly, poor filter
62A	Tappan	Severe: ponding, percs slowly
76A	Londo	Severe: wetness, percs slowly

TABLE 19 SOIL TYPES/SUITABILITY		
Soil Name and Map Symbol		Septic Tank Absorption Fields
64A	Sanilac	Severe: wetness, percs slowly
65A	Shiawassee	Severe: wetness, percs slowly
70	Udipsamments	Severe: poor filter
71	Udorthents	Variable
72	Aquents	Severe: ponding
75B2	Strawn	Severe: percs slowly
75C2	Strawn	Severe: percs slowly
76A	Londo	Severe: wetness, percs slowly
77	Chesaning	Severe: flooding, wetness, poor filter
77	Cohoctah	Severe: flooding, wetness, poor filter
82	Granby	Severe: ponding, percs slowly, poor filter
84A	Parkhill	Severe: ponding, percs slowly
98A	Poseyville	Severe: wetness, percs slowly

<p align="center">TABLE 19 SOIL TYPES/SUITABILITY</p>		
<p>Soil Name and Map Symbol</p>		<p>Septic Tank Absorption Fields</p>
88B	Boyer	Severe: poor filter
89	Roundhead	Severe: ponding, percs slowly
<p>Source: USDA, Soil Survey of Saginaw County, Michigan.</p>		

The map clearly identifies the fact that almost the entire Township is comprised of soils that pose severe limitations to septic tank absorption fields. This does not mean that the soils cannot be used for absorption fields (since they obviously currently are). It does mean that adequate land should be set aside with each new home in those areas, to ensure an area of land for a functioning septic system. Medium and high density development should be limited to areas where future sewer service is planned, or through use of other sewage disposal methods such as sewage lagoons or package plants serving a cluster of homes or businesses. These systems, however, raise long term maintenance and responsibility issues that need to be carefully considered before they are permitted.

Municipal sewer systems are necessary when residential densities exceed the inherent ability of soils to prevent wastes from reaching ground water supplies. For most soil types that means densities of approximately four dwelling units per acre. With less dense development and soils without extreme limitations for septic systems, sewage can generally be disposed of safely by individual private systems on lots with a minimum lot size of around 22,000 square feet.

Basement Limitations

Limitations for dwellings with basements are shown on Map 7. Some soils are rated by the Soil Conservation Service as having severe limitations on basements because of excessive wetness, low strength, excessive slope, or shrink–swell potential. The map shows that a slightly smaller area poses severe limitations to basements than to septic fields. This means that if basements are to be constructed, special measures will be needed to keep them dry.

Hydric Soils

Hydric soils present another limitation to development. They are very poorly drained, saturate easily, and retain large quantities of water. They are generally unsuitable for structures. The Soil Conservation Service defines hydric soils as:

“A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.”

Artificially drained, hydric soils can be suitable for farmland use. Map 8 shows where these hydric soils are located. Most of the hydric soils are found near water sources and correspond to present or former wetlands. Hydric soils represent 38.1% of the total land area. Residential, commercial, and industrial development in areas containing hydric soils should be discouraged.

MAP 7 - SOIL LIMITATIONS FOR CONSTRUCTION OF BASEMENTS

MAP 8 - SOIL RUNOFF POTENTIAL OR HYDRIC SOILS

TRANSPORTATION

ROAD NETWORK

The County road network is the principal transportation system in Birch Run Township (Map 9). The road system is divided into State trunk lines, local, and primary roads. The primary road system is designed to provide routes for movement within the County. Generally, road networks are designed so that people live within 1 to 1 ½ miles from a primary road. Local roads are any road other than a primary road, and principally provide access from property to primary roads.

The primary roads in Birch Run Township are:

- § Dixie Highway
- § Rathbun Road, from Reese to Gera Road
- § Busch Road, from M-83 to Elms Road
- § Elms Road from Willard to Birch Run Road
- § S. Beyer Road from the Village limit to East Burt Road
- § E. Burt Road from Beyer east to Dixie Highway.

HIGHWAYS

The Birch Run community is heavily impacted by I-75, a major north/south corridor between the Detroit Metropolitan area and northern Michigan. The State of Michigan produces an annual average 24-hour traffic count volumes for all state and federal expressways and roads. According to the 2000 publication, traffic volumes of 52,300 vehicles per day just south of the Birch Run Road exit were documented by MDOT. Just north of this exit a traffic volume of 58,600 has been documented. The interstate highway provides convenient access to the Flint and Saginaw Metropolitan areas. This combined with the fact that the I-75/Birch Run Road interchange is on the way to the City of Frankenmuth, one of the state's leading tourist destination, has made Birch Run the site of rapid commercial development over the past ten years. Paralleling I-75 is an older Saginaw/Flint connector, Dixie Highway, which is a county primary road. In addition, the construction of the Birch Run Outlet stores has added a significant amount of traffic to the Birch Run area. These shops draw visitors from Saginaw and surround areas north of the Birch Run area as well as those communities to the south. It is safe to assume that the addition of this commercial outlet is responsible for some of the high traffic volumes.

Coming north out of Genesee County is state highway 54. At the intersection with Birch Run Road it becomes state highway 83 and continues north, bisecting the Township and continuing into Frankenmuth Township and the City of Frankenmuth.

ALL WEATHER ROADS

Most roads in Michigan are designed to accommodate heavy loads for most of the year except during spring when the frost in the ground begins to melt. During this period, which averages about six weeks, the base of most roads is susceptible to damage from heavy trucks. As a result, road commissions have adopted “frost laws” which restrict heavy vehicle movement on these roads during the spring thaw. Some roads have been built up to permit heavy truck traffic during this period. Generally, communities linked to all weather roads are the preferred location for industrial and commercial development since they can be used throughout the entire year.

The Saginaw County Road Commission maintains a complete list of All Season Special Roadways in Saginaw County. The all-weather roads in Birch Run Township are Dixie Highway, M-83, and Birch Run Road between M-83 and I-75.

BRIDGES

Bridges can restrict development by forming “choke points” where weight limitations restrict heavy vehicles and prevent trucks from being able to move conveniently from place to place. There are a number of bridges and box culverts in Birch Run Township. Only two bridges have weight restrictions. One is located on Townline, between Block Road and M-83, with a weight restriction of 42,700 pounds. The other bridge is on Birch Run Road, between Block Road and M-83, with a restriction of 23,600 pounds.

MAP 9 - ROAD CLASSIFICATION & TRAFFIC COUNT MAP

ROAD CAPACITY

A road's capacity and current volume of traffic can affect the suitability of land for various uses. The road capacity is measured by delay, such as how close actual speed is to posted speed, length of wait at traffic signals and intersections, and frequency of adequate gaps in traffic to allow turns. A road with a relatively low capacity should not be used to access uses with high traffic generation rates such as commercial or high density residential uses. The same is true for a road with relatively high capacity and relatively high traffic volumes.

Map 9 shows the most recent 24-hour traffic counts for the primary roads in the Township. They vary from 7,049 vpd (vehicles per day) to 210 vpd. A standard 26' wide paved county road is estimated to have an average daily traffic capacity of 10,400 vpd. Generally speaking, the primary roads in the Township appear capable of handling existing traffic without major widening or other improvements.

TRAFFIC ACCIDENTS

Studying the location and type of traffic accidents, over a period of time, is a useful tool for determining transportation system problem areas. A significant pattern of accidents at one particular location could identify a design problem.

Traffic accident reports for Birch Run Township from 1996 to 1997 were studied. Of the accidents reported, there was no established pattern of type of accidents. It is assumed that driver error rather than roadway design was a contributing factor in most accidents.

TRAFFIC CIRCULATION AND VEHICULAR PARKING STUDY

The State, Saginaw County, Village of Birch Run, and the Horizon Group, have spent more than \$3.5 million on improvements to Birch Run Road and the I-75 interchange. They have revamped Beyer Road (twice), widened lanes and bridges, improved entrance and exit ramps, and installed traffic signalization devices in an attempt to reduce traffic congestion.

Still, there is more traffic than the present roadway network can handle. The Michigan Department of Transportation has considered construction of a new freeway interchange at Burt Road. This would alleviate congestion at Birch Run Road, but the amount of dollars needed does not make this project feasible in the near future.

DOWNTOWN ANALYSIS

The “Downtown” in the Birch Run Community can be identified as the commercial uses centered in the vicinity of Church and Main Streets and the commercial uses centered in the vicinity of the I-75 interchange and the Dixie Highway intersection.

The major changes in the Downtown area, over the last 15 years, are due to a dramatic increase in commercial development near the eastern edge of the Village area adjacent to I-75 and areas annexed into the Village at the time of development. These new commercial uses have been intensive in nature, with the addition of a large outlet mall, new restaurants, hotels/motels, golf course, and the expansion of several local service establishments. The nature of the original Downtown area has not changed because of the expansion of commercial development east along, and adjacent to Birch Run Road.

The area has maintained its integrity and still provides a broad base that supports the vitality of the Village businesses, with high vehicle accessibility provided by Birch Run Road (east–west); along with continued smaller business development, the original Downtown continues to attract residents and visitors for convenience products and related business type services.

The expansion of new commercial development east of Church, along Main, has created an evolution in the orientation of the Downtown area from a small town, convenience shopping center, to a major retail, entertainment, and specialty center. With a large population market size and physical regional economic characteristics, the Birch Run Community exhibits a dominant location with continued potential for future growth.

By recognizing that the downtown area of Birch Run is no longer identified as a “traditional downtown area”, the community can begin answering the questions, “Where are we headed?” and “What do we want to be?”

TOWNSHIP DOWNTOWN DEVELOPMENT AUTHORITY PLAN

Birch Run Township created a Downtown Development Authority (DDA) in April, 1989. The plan was amended in September of 1996. The district is comprised of land lying east of I-75. Dixie Highway is the major road running south–north through the district. The south boundary is just south of Birch Run Road, and the north boundary is Canada Road (see Map 9).

This area is evolving into a major commercial center for the Township. Being adjacent to the developments west of I-75 has allowed this area to capture many spin-off projects. The Authority is planning to undertake various infrastructure improvements to enhance the competitive edge and economic vitality of the area.

Projects fall under the following categories:

- Develop 5 – 10 year Development Plan for DDA District, including Long Range/Short Range Plans
- Sanitary Sewer Improvements
- Water System Improvements
- Road Improvements
- Street Lighting Improvements

The construction time table for the projects is dependent, to a large extent, on tax increment Revenues which in turn are dependent primarily on new construction in the development area. A supplemental or amended Development Plan and Tax Increment Financing Plan will be submitted for approval, if necessary, prior to the commencement of any future projects.

MAP 10 - DOWNTOWN DEVELOPMENT AUTHORITY MAP

TODAY'S COMMERCIAL AND DOWNTOWN TRENDS

The commercial vitality of the Birch Run area as a whole is stronger today than ever. This strength can be attributed to a change in new commercial development, strategy, and location.

Throughout the eighties and nineties a shift in commercial strategy and development surfaced across the United States. It involved the general consolidation of convenience, comparison, and specialty commercial markets into large scale, multi-use, developments. The trend also occurred locally, as new commercial developments, such as the Outlet Mall, was built on the perimeter of the Village. The driving reasons for locations of these types of developments are the availability of freeway access and larger tracts of land, to allow for the expansive building foot print and area required for off-street parking areas.

Comparison shopping for the local and regional market of the Birch Run area was enhanced with these big retail centers, offering more product variety, lower cost, and increased ease and efficiency to purchase goods. Other commercial comparison and service industry followed this trend such as fast food restaurants and convenience stores, hotels/motels, all of which opted for Village perimeter development, encouraged by local zoning requirements and the ease and efficient access of vehicle and consumer traffic.

The appearance of these commercial centers in Birch Run is positive, from the stand point that the investment by these businesses, into the community and region, strongly confirms the existence of the large market that Birch Run provides. However, with the intensive level of commercial development on the outer limits of the Village, within the last 10 years, transitions have occurred in local shopping preference. Regionally, large convenience shopping districts have evolved in the Saginaw and Flint areas, which have added to the nearby shopping opportunities available to Township residents.

AGRICULTURAL RESOURCES

A major component of the 1984 Township Land Use Plan was the preservation of agricultural land. It is recognized that the trend to fragment prime agricultural land with residential development interspersed among it, poses a danger to the long-term viability of the agricultural land uses.

Parcels of 10 to 20 acres are uneconomical to farm. Conflicts between agricultural practices and residential land use adds to the strain of farming. The demand for extension of municipal services imposes costs on the farmer that he can often pay for only by selling his property for non-agricultural land uses.

THE STATUS OF AGRICULTURE IN THE STATE AND SAGINAW COUNTY

A 1995 report prepared by the Michigan Society of Planning Officials, entitled “Trend Future Project,” outlined the importance of farming to the State’s economy. It noted that agriculture is the second largest industry in Michigan. It contributes \$37 billion to the state economy and employs one in every eight people.

All of this is despite the fact that from 1982 to 1992 Michigan lost 854,000 acres of farmland. This represents an average loss of 133 square miles per year. Today, Michigan has one-half of the number of farms that existed in 1964, and less than 25% of the number in 1940.

Table 20 shows the major trends in farming over the period 1982–1997. Total number of farms decreased over this period while average farm size rose and total farm acreage decreased. The total value of products sold increased between 1982 and 1997.

TABLE 20				
AGRICULTURE IN MICHIGAN				
	1982	1987	1992	1997
Number of Farms	58,661	51, 172	46,562	46,027
Total Farm Acreage	10,942,172	10,316,861	10,088.170	9,872,812
Average Farm Size (acres)	187	202	217	215

Total Value of Products Sold in (1,000's)	\$2,588,317	\$2,545,078	\$3,028,547	\$3,567,825
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Source: Michigan Agricultural Census

Generally, Saginaw County is associated with the manufacturing industry. Saginaw County farms produced \$84 million in products sold in 1997.

TABLE 21 AGRICULTURE IN SAGINAW COUNTY				
	1982	1987	1992	1997
Number of Farms	1,702	1,424	1,294	1,163
Total Farm Acreage	323,000	308,269	318,125	297,842
Average Farm Size	190	216	248	256
Total Value of Products Sold	\$68 million	\$63 million	\$74 million	\$84 million
Source: Michigan Agricultural Census.				

Table 21 shows that the total farm acreage in Saginaw County decreased slightly from 1982 to 1987. In 1992, total farm acreage shows a gain of 10,000 acres over 1987. However, in 1997 the trend reversed and total farm acreage decreased by over 20,000 acres. These gains and losses correlate to the steady decrease in number of farms. At the same time, the County’s average farm size has increased by 66 acres since 1982.

BIRCH RUN TOWNSHIP AGRICULTURAL BASE

Unfortunately, agricultural census information is not available on a Township by Township basis. The information for the County does not provide insight into the part agriculture plays in the Birch Run economy.

Prime Farmland

“Prime farmland” soil types have been identified by the Soil Conservation Service as those best suited for food production. They require minimal soil enhancement measures such as irrigation and fertilizer. Some soils are considered prime farmland only if they are drained. “Unique farmlands” are based on certain soil types as well as other factors, such as landscape position

(proximity to water supply, orientation to sunlight, slope, etc.), moisture supply, and present management practices. “Prime farmland” soils are shown on Map 11. Prime farmland soils comprise approximately 72% of the area.

MAP 11- PRIME FARMLANDS MAP

Value of Agriculture in the County

The assessed value of agricultural land has risen modestly in the last six years. In 1991, the assessed value of agricultural property was \$9,125,200. In 2001, the value has risen to \$12,169,937. Since 1991, values have increased by 33% (see Table 18).

Farmland Fragmentation

The fragmentation of farmland, into large rural residential lots, is a major cause of the loss of prime agricultural land. In the past, this fragmentation could be blamed, in part, by requirements in the Subdivision Control Act of 1967. Under the act, subdivision of a parcel of land over a ten-year period, into five or more lots of 10 acres or less, required that the subdivision go through the plat approval process, which can be costly and time consuming. This provided land owners with an incentive to divide parcels into lots of 10.1 acres in size to prevent triggering the Act's requirements. Recent amendments to the Act, now called the Land Division Act, have eliminated some of the incentive to create large lots inherent in the previous Act, but allows even more parcels to be created without plat review after 10 years has elapsed.

The second factor is the extension of water lines into rural areas. These extensions encourage development along the line because of the access it provides to relatively "good" water for household use, as well as, for fire fighting purposes.

Tools In Place to Protect Farmland

The 1984 Township Land Use Plan identified the establishment of urban uses in areas of prime farmland as a significant problem, and established two policies to prevent it. The first policy states that "public water and sanitary sewer lines should not be extended to areas designated as prime agricultural lands." Comparison of the 1984 Plan's Agricultural Plan, showing areas to be preserved for agricultural purposes, with the current water system map shows that this policy was not followed.

The second policy encourages farm owners' participation in the Farmland and Open Space Preservation Act, also known as PA 116 of 1978. This Act provides the landowner with certain tax benefits and in return the landowner gives up non-agricultural development rights in the property for a set period established under a contract entered into between the State of Michigan and the landowner. The minimum period is 7 years, the maximum is 99. This program has the potential of preserving prime farmland, but since it is voluntary, there is nothing to insure that all

of the property owners in a community's prime agricultural area will enroll. Recent changes in school financing in the State of Michigan have reduced the tax burden on agricultural property and reduced the incentive to participate in the program. Because of this change in conditions, the State of Michigan provided a one year "window of opportunity" for participants to withdraw from the program. Although it was anticipated that many of the current participants would withdraw, it is obvious from Map 12 that a significant number of farmers in Birch Run Township chose to stay in the program.

MAP 12 - PA 116 MAP

PUBLIC FACILITIES AND SERVICES

WATER SYSTEM

The Village of Birch Run constructed a public water system in 1964. Water was supplied to the system from two wells. Much of the watermain in the Village was constructed at that time. Most of the watermains in the Village are six-inch diameter. There are some eight-inch diameter lines, and some are only four inch. In recent years, the Village has expanded the distribution system to serve the commercial development in the eastern part of the Village and to the Silver Creek apartments.

In 1976, the water transmission line to Birch Run Township, from the City of Saginaw, was completed. A booster pump station was built at the north Township limits on Dixie Highway and a transmission line was constructed along Dixie Highway to the Village of Birch Run. Since that time, the City of Saginaw has supplied water to both the Village and the Township.

All watermains in the Township have been constructed since 1976. Most of the watermains are extensions of dead end lines off of the transmission main. Most of these watermains are eight-inch diameter lines.

Water Use

Water usage can be classified into the following three general categories:

- Residential
- Commercial/Institutional
- Unaccounted for

Residential customers are houses, apartments, and mobile home parks. Commercial/Institutional users include such uses as a car wash, laundromat, retail stores, offices, restaurants, schools, churches, and various businesses. Water usage by each customer is metered. Meters are read by Village/Township personnel quarterly and customers are billed for the quantity of water used.

Water that is pumped into the system but is not sold to customers is termed “unaccounted for”. It may be used to fight fires, lost through leakage, or consumed in other manners.

The rate at which water is used constantly changes. It varies hour to hour, day to day, and season to season. For example, water use will be greater on hot, dry summer days than during a cold, wet autumn. Also, water use during the day, will generally be greater than late at night.

To properly meet the needs of its customers, the water system must be able to supply water at a sufficient rate to meet the customers' peak demands.

Water System Considerations

The water system is generally able to meet the demands of existing customers. The system is somewhat limited in its ability to provide the higher flow rates needed to fight fires and also in its ability to meet maximum day usage with one of the two booster pumps out of service.

One of the primary deficiencies of the water system is the layout of the distribution piping. The Township and Village are divided by the I-75 expressway, the CSX railroad tracks, and several large county drains. Construction of a watermain across such obstacles can be quite expensive. The development of the existing watermain network has minimized the number of crossings of these obstacles, apparently at least somewhat for economical considerations. This has in part contributed to the construction of the large number of dead end lines. Much of the watermain in the Township is dead end extensions off of the main transmission main. The watermain system, in the west part of the Village, is fed from the central part of the system by a single line crossing the railroad tracks. Pressure losses are greater in dead end lines than in interconnected systems. As a result, when large demands are imposed on dead end lines such as a fire flow, the friction losses significantly reduce the pressure and the quantity of water available.

As future development occurs in the area, it is recommended that more effort be put toward the interconnecting or "looping" of watermains. Interconnecting the existing piping system will improve the capacities and residual pressures in the outlying portions of the system. This can help improve capacity where existing problems exist, and will help prevent future deficiencies from developing.

Another deficiency of the water system is the MDEQ's requirement that maximum day demand be met with one of the two available booster pumps out of service. The booster pumps at the north Birch Run Township Limits need to be upgraded to meet the increased maximum day demands.

ROWE Incorporated completed an analysis of the water system for the Village and Township in

1999. This report contains detailed information and recommendations on the condition, use, and needs of the water system.

The 1999 water reliability study identified various deficiencies with the system. The need to upgrade the booster pumps, and loop dead ends is mentioned above. Birch Run is using more water than its contract with the City of Saginaw allows. The contract for water usage was for 70 million gallons per year. In 1997, usage for Birch Run was 165 million gallons surpassing the contracted amount of water. Future growth could be affected unless Birch Run can negotiate a higher volume of water from Saginaw. Also, as indicated in the 1999 water study, the existing system can not provide the levels of fire protection recommended by the Insurance Service Organization (ISO). This is mostly a problem where fire flow demands are high, and in isolated areas. Lastly, increase water storage may be needed to meet future anticipated domestic demands in the southern portion of the village in the area where Church Street intersects the City boundary. It is suggested that an additional 100,000 gallon storage is necessary to meet the need of the community.

SANITARY SEWER SYSTEM

The Birch Run sewer system has two components. The Village-maintained lagoon in the southwest quadrant of the Village was built in 1972 and is connected to the Genesee County Sanitary Sewer system. Most sewer built from 1972-1986 consisted of asbestos cement pipe. Pipe placed from 1986-present has been mainly PVC (polyvinyl chloride).

Approximately 160,000 g.p.d. (gallons per day) flow to the lagoon system which has a capacity of 240,000 g.p.d. The lagoon services the entire Village, west of and including Ulmer Street, with a system that combines approximately 7.9 miles of gravity flow sanitary sewer, 1,100 linear feet of force main sewer and three lift stations to carry the flows to a point approximately 900 feet west of Country Run Road on Main Street. From that point, another lift station pumps the flows through 1,850 linear feet of 12-inch force main to the lagoon. The depth of the sewer near the lift stations ranges from 17 to 22 feet.

The remainder of the system was rerouted, in 1994, to connect to the Genesee County Sanitary Sewer System. The Village of Birch Run, in conjunction with Birch Run Township, purchased capacity from Genesee County. Of the possible 1,000,000 g.p.d. allowable, they currently utilize approximately 200,000 g.p.d. The system, connecting to Genesee County, carries all flows east of Ulmer Street with approximately 3.2 miles gravity sewer and 4,350 linear feet of force main and four lift stations. The previous system was rerouted at Ulmer Street with the placement of a lift station and an eight-inch force main which carries flows south to the railroad tracks, then follows the tracks south to East Burt Road. The Township recently completed a ten and twelve-

inch force main, which combines with the Village force main, at the railroad crossing on East Burt Road, and then continues as a twelve-inch force main flowing west along East Burt Road and then south on Maple Road to Genesee County.

The current system handles all flows without major problems. There is capacity to handle additional flows in both systems. Currently, undeveloped areas could be serviced with systems that combine gravity sewer, lift stations, and possibly some force main.

Should problems arise in the future with the lagoon, a connection from the force main at the lagoon to the existing force main flowing to Genesee County could be made by placing under one mile of sanitary sewer force main along the Briggs Drain, which is the shortest route between the two systems.

POLICE PROTECTION

The Township uses the Saginaw County Sheriff's Department and the Michigan State Police Department for its protective services. This provides 24 hour, 7 days a week coverage for the Township.

FIRE PROTECTION

Birch Run Township provides fire service to both the Village and Township. The department is staffed by an on-call fire and rescue team. The department operates out of the fire station located at Main Street and Silver Creek Drive. Currently, the fire department is supported by 23–30 on call volunteers, utilizing 4 fire trucks, two rescue vans, and necessary equipment. Overall, fire fighting capability is good, however, it is necessary to closely monitor future needs and capabilities.

PUBLIC LAND AND BUILDINGS

Governmental Facilities

The Township Hall/Complex is located on Birch Run Road adjacent to Silver Creek Drive. The complex consists of a new 6,000 square feet library, the Birch Run Community Fire Station, and administrative office space for the Township.

Cemeteries

The Township maintains two cemeteries. The Hammond Cemetery is located on Busch Road, between Block and Gera Roads. A second Township Cemetery is located off Dixie Highway and Beyer Road. These two cemeteries should accommodate future needs. When expansion is required, the Township should acquire land adjacent to the cemeteries to reduce expansion costs.

Educational Facilities

The Birch Run School District facilities are located within the Village of Birch Run. School facilities consist of the Birch Run High School, Marshall Greene Middle School, North Elementary, and the School District's administrative offices.

Park and Recreational Facilities

Recreational facilities include a park in the Township at Burt and Maple Roads, a Village Park at Church and Main, and facilities at the public schools in the Village.

The Birch Run Township Park contains the following facilities:

Active:

- 2 – Regulation Baseball Diamond
- 2 – Hard Surfaced Tennis Courts
- 1 – Concrete Basketball Court
- \$ Playground Equipment

Passive:

- 1 – Picnic
- 2 – Pavilion
- 3 – Outdoor Grills

Support Facilities:

- 1 – Hard Surfaced Parking Lot
- 2 – Restrooms

The facilities at the schools include:

• ***Birch Run High School***

Active:

- 1 – Regulation Baseball Diamond
- 1 – Regulation Softball Diamond
- 2 – Children Softball Diamonds

- *1 – Regulation Outdoor Football Field
- *1 – Outdoor ¼ Mile Oval, All Weather Track
- 1 – Outdoor Basketball Court

* Not available for public use.

Passive:

- B Grass Field
- B Classrooms

• ***Marshall Greene Middle School***

Active:

- 2 – Swing Sets w/10 seats
- 1 – Large Activity Center
- 8 – Basketball Nets
- 2 – Non-regulation Softball Diamonds (grass infields)

Passive:

- B Grass Field
- B Classrooms

• ***North Elementary School***

Active:

- Playground Equipment
- 6 – Basketball Nets
- 2 – Climbing Centers
- 1 – 6' x 15' Concrete Wall for Dodge ball and Tennis
- 1 – 3 Level Balance Beams
- 1 – Wooden Activity Center
- 3 – Softball Diamonds for Children Only
- B Walking in Halls – Allowed for Public Citizens Before Classes Being in the Morning.

Passive:

- B Grass Field
- B Classrooms

In addition to the public and semi-public facilities, there are a few private recreation facilities located within the Township, they are as follows:

1. Evergreen Subdivision

There is a small playground located within the Evergreen Subdivision (section 2) which is utilized only by the residents of this subdivision.

The residents of the Township also travel to the Clio/Montrose area and Bridgeport area to utilize indoor swimming facilities. Currently there are no swimming facilities located within Birch Run Township.

The Township makes contribution to City of Frankenmuth Park's and Recreation Department each year for the Township residents residing within the Frankenmuth School District.

GOALS AND POLICIES

DRAFT GOALS AND OBJECTIVES

Introduction

Goals and objectives play a fundamental role in the Birch Run Township Master Plan. The goals and objectives chart the Plan's direction and form. Policies, a later step in development of a Plan, present key implementation strategies to assure the Plan's direction is followed. The relationship between goals, objectives and policies is as follows:

A **GOAL** is a destination, a final condition which a community seeks to attain. A goal is the most general level of policy and, by itself, is often not very helpful to decision makers. It needs further refinement to assist decision makers to reach their selected destination. At the individual level, a goal is like saying, "I want to take a vacation once each year."

An **OBJECTIVE** is a benchmark which specifies in general terms the way (route) by which the goal (destination) can be reached. An objective indicates the kinds of actions that should be used to achieve the goal. It is like deciding to set aside "\$X" by "Y date" to travel to "Z."

A **POLICY** is a course of action which, if followed, will achieve an objective. A policy is more detailed than an objective and can be readily translated into specific action recommendations or design proposals. It is like saving \$100 extra dollars a month by reducing spending on non-essentials and entertainment in order to afford the vacation.

LAND USE

Goal: Manage growth to prevent sprawl beyond the edge of developed areas, to promote new development at urban densities adjacent to the Village and to encourage reinvestment in older areas of the community.

Objectives:

- § Encourage compact development that uses land and infrastructure efficiently.
- § Protect environmentally sensitive areas and agricultural land.
- § Promote distinctly different development patterns/densities to maintain a clear boundary of urban and rural areas within the Township.
- § Encourage highest densities around key activity centers and along major transportation

routes.

- § Provide a linked system of planned open space that connects newly developing and existing neighborhoods.
- § Promote relationships between jobs, housing and transportation that are convenient, efficient, healthy and mutually supportive.
- § Separate new businesses from residential areas by landscaping, fencing, and other methods which minimize noise, lights, dust, ground vibration and other nuisances.

INDUSTRIAL DEVELOPMENT

Goal: Birch Run Township has an ample supply of competitively located and appropriately sized industrial sites.

Objectives:

- § Encourage high density development of one or two Industrial Parks; target this area as the primary focus for new and expanding job development.
- § Identify and reserve land for future industrial growth in planned business park settings with access to major roads and appropriate buffering from residential uses.
- § Ensure that development occurs in such a way that undue environmental harm does not result.

COMMERCIAL DEVELOPMENT

Goal 1: Birch Run Township has clearly defined nodes of commercial activity, appropriately distributed and scaled to serve state/regional, community and neighborhood needs.

Objectives:

- § Discourage strip commercial development.
- § Encourage commercial development in compact clusters/planned centers.
- § Develop strict zoning regulations and design guidelines that permit when appropriate, neighborhood-scaled commercial uses adjacent to residential areas.
- § Ensure new commercial development is designed to give the same consideration to the needs of pedestrians, bicyclists and bus riders as to the needs of motorists and trucks.
- § Expand local retail business and services in locations that primarily serve local residents.
- § Focus economic development efforts on retaining existing businesses.

RESIDENTIAL DEVELOPMENT/NEIGHBORHOODS

Goal 1: Birch Run Township provides a range of housing choices in safe and attractive environments.

Objectives:

- § Encourage a variety of housing choices in neighborhoods through a balance of preservation, rehabilitation and new construction of both affordable, middle income and upper end housing.
- § Strengthen the livability of existing neighborhoods through improved safety, upkeep, reinvestment and community involvement.
- § Preserve historic structures and neighborhoods where feasible.

Goal 2: Birch Run Township’s newly developed neighborhoods expand the range of lifestyle choices within the Township.

Objectives:

- § Encourage new residential development in cohesive neighborhood units with a mix of housing types compatible with adjacent uses of land.
- § Zone land to offer a variety of density and housing types to optimize dwelling choices.
- § Ensure the design of new neighborhoods has a street system that is fully integrated with the existing public street system.

Goal 3: New housing in agricultural areas is designed to minimize impacts on farmland and on public service costs.

Objectives:

- § Permit residential development in agricultural areas on small lots or parcels and clustered to minimize infrastructure costs and impacts on farmland with at least fifty percent open space.
- § Modify zoning regulations to encourage use of conservation zoning and/or similar cluster zoning options.

OPEN SPACE, PARKS AND RECREATION

Goal 1: Birch Run Township offers a wide variety of indoor and outdoor recreation opportunities for families and persons of all ages.

Objectives:

- § Encourage neighborhood open space areas within new residential neighborhoods as they are developed.
- § Work in cooperation with the schools to meet community recreation and cultural needs.
- § Base recreational planning/programming decisions on regularly updated parks and recreation plan.
- § Encourage additional private sector involvement in providing open space and recreation opportunities to the residents of Birch Run Township.

INFRASTRUCTURE

Capital Improvements

Goal: Establish an annually updated capital improvement program (CIP).

Objectives:

- § The Township would annually prepare, coordinate and adopt as a part of the budget cycle, a schedule of proposed capital improvements for the next six years and a capital budget for the next year.
- § Prepare, adopt and periodically update an official map of future public facility improvements in the Township.

Transportation

Goal 1: Birch Run Township continually maintains and upgrades its roadway infrastructure serving the community to provide safe, convenient access and to complement balanced, orderly growth.

Objectives:

- § Balance the preservation of neighborhood quality with community-wide access needs.
- § Promote the creation of at least one grade separated crossing of the railroad.

Goal 2: Birch Run Township provides local travel alternatives to automobile use, including bikes, walking, and bus.

Objectives:

- § Encourage an efficient and pleasant bicycle and pedestrian system that safely connects residential areas with most desired destinations.

Utilities

Goal: Local storm sewer, sanitary sewer and water systems are upgraded and extended to support balanced, orderly growth.

Objectives:

- § Closely monitor the condition of all infrastructure to ensure early detection and correction of problems.
- § Improve storm water systems to solve existing problems and meet growing needs. Correct spot drainage problems first.
- § Maintain the quality of water supply wells.
- § Expand sewer and water lines in planned increments that are consistent with this Plan.
- § Coordinate utility construction with road construction.
- § Encourage developers to bury all overhead utility wires.

PUBLIC SERVICES

Goal 1: Birch Run Township provides high quality, rapid response and cost effective public safety services.

Objectives:

- § Provide comprehensive and cost effective police protection, fire protection and emergency medical response service to all parts of the Township.
- § Cooperate regionally in the provision of public safety facilities and programs.
- § Explore the feasibility of a joint Village/Township Police Department.
- § Explore the feasibility of a Fire Department with round-the-clock personnel and a full-time fire chief/fire marshal/inspector.
- § Encourage the creation of an urgent care clinic.

VISUAL CHARACTER

Goal 1: Birch Run Township is a beautiful and well maintained community.

Objectives:

- § Promote a high standard of building, landscape and other property maintenance across the entire Township.
- § Maintain a consistent enforcement program for building, housing and property maintenance codes.
- § Ensure that all publicly-financed infrastructure repairs are of high quality.
- § Incorporate open spaces, landmark and historic structures, natural land forms and stream courses as part of the design of new development. This will help ensure a high quality visual environment that is compatible with these important elements of the existing community.
- § Integrate new development with design guidelines prepared for the area, and with the scale, architecture and design of nearby quality buildings and landscaping to ensure compatibility and harmony in appearance.
- § Encourage property owners and businesses to make improvements consistent with adopted design guidelines. Key guidelines should be incorporated into regulations to ensure conformance.
- § Adopt uniform sign regulations that restrict the size, number and placement of new signs and billboards in the Township.

CITIZEN ATTITUDES/OPPORTUNITY

Goal: Birch Run Township benefits from the cooperation and contributions of all groups within the community.

Objectives:

- § Civic and special interest groups, the Village and Township and School District all cooperate in community projects such as the 4th of July parade.
- § A Civic Events Council is created to manage community wide events, to encourage civic participation and to liaison between the needs of residents and local government.
- § Birch Run Township should assist in fostering civic activities and promoting public relations.
- § Encourage active participation of all citizens.

LAND USE CLASSIFICATIONS AND LOCATIONAL CRITERIA

The future land use map for Birch Run Township provides for open space / agriculture, dispersed residential, low density single family residential, medium density single family residential, high density residential, mobile home park, community commercial, highway services commercial, and industrial areas. These land use classifications, their purpose and locational criteria are outlined below.

OPEN SPACE / AGRICULTURAL A-1

The purpose of this classification is to protect farmland and rural character by controlling residential and other non-farm development in primarily agricultural and open space areas. It is the intent that agricultural areas will be maintained. Single family dwellings and accessory uses will be permitted by right in this district, while a limited number of non-farm uses will be permitted by special use permit. Cluster or open space development, in which residences are grouped together and a large portion of the original site is kept as open space, will be encouraged through zoning incentives. Other non-farm uses shall be excluded or restricted. Existing commercial uses approved through special use permits issued by the township are recognized, and it is not the intention of this district to encourage their elimination

The locational criteria for agricultural areas include:

- § Areas where large parcels (40+ acres) are common.
- § Areas not proposed for water or sewer services.
- § Areas with predominantly prime agricultural lands, comprised of prime soils and reasonable slopes, as delineated in the Soil Survey for Saginaw County.
- § Areas used primarily for agriculture.
- § Areas adjacent to residential areas of similar density.
- § Areas properly buffered from existing or proposed commercial or industrial areas.

LOW DENSITY FAMILY RESIDENTIAL R-1

The purpose of the low density residential classification is to provide for residential development in areas where single family residential uses is the principle use. Complementary uses such as schools, churches and parks will be permitted, while incompatible uses will be excluded or regulated. Development in these areas should be consistent with the surrounding neighborhood in terms of use, scale and design.

The locational criteria for medium density residential areas include:

- § Areas presently developed as subdivisions or residential neighborhoods of similar density.
- § Areas adjacent to residential areas of similar density.
- § Areas properly buffered from existing or proposed commercial or industrial areas.
- § Areas with or proposed to have water and sewer services.
- § Areas no longer economically viable for agriculture.

MEDIUM DENSITY FAMILY RESIDENTIAL R-2

The purpose of the medium density single family residential areas is to provide for a variety in housing style, design and cost. Single family and two-family development are the principal uses and other incompatible uses will be excluded or regulated. Single family and two-family residential areas should be developed at a density similar to the existing surrounding residential pattern.

The locational criteria for medium density residential areas include:

- § Areas presently developed as medium density residential neighborhoods, or at an average density of approximately 2 or more units per acre.
- § Areas adjacent to low density residential areas.
- § Areas properly buffered from existing or proposed commercial or industrial areas.
- § Areas with or proposed to have water and sewer services.

HIGH DENSITY RESIDENTIAL R-3

The purpose of the high density residential classification is to provide for alternative residential development at a higher density than single family and two-family residential neighborhoods. This includes apartment buildings and townhouses. Multi-family development in established single family residential neighborhoods is not appropriate. These developments will provide a wider range of housing opportunities to township residents, including single income households or households living on fixed incomes. Construction of new multi family units should occur in the multi family residential area delineated on the Future Land Use map.

The locational criteria for high density residential areas include:

- § Areas adjacent to high density residential areas such as apartment complexes and mobile home parks.
- § Areas adequately buffered from single family residential neighborhoods.
- § Areas located with direct access to major streets.
- § Areas adequately serviced with water and sewer services.
- § Areas adequately buffered from low density and medium density single family residential neighborhoods.

MULTIPLE FAMILY DISTRICT R-MF

It is the purpose of the R-MF (Multiple Family Residential) District to provide alternative high-density housing opportunities than those of the R-3 District in the form of multiple family development. In light of the development densities associated with multiple family developments authorized by this District, this District is to be established only where public sewer is or likely to become available.

MANUFACTURED HOUSING COMMUNITY DISTRICT R-MHC

The purpose of the mobile home park classification is to provide for mobile home park developments. The Future Land Use Map identifies two sites, one an existing development on Dixie Highway north east of the Village of Birch Run. The second site is adjacent to the existing development and is currently zoned for mobile home development. These two sites are expected to provide for the mobile home park needs of the township over the planning period. If both of these sites are fully developed, and a demonstrated need for additional sites in the township is documented, the locational criteria for additional mobile home park areas would be:

- § Areas adjacent to high density residential areas such as apartment complexes or other mobile home parks.
- § Areas adequately buffered from single family residential neighborhoods.
- § Areas located with direct access to major streets.
- § Areas adequately serviced with water and sewer services.
- § Areas adequately buffered from low density and medium density single family residential neighborhoods.

GENERAL COMMERCIAL DISTRICT C-1

The purpose of the community commercial classification is to provide for general retail shopping

and merchandising activities together with light wholesale uses, business, and personal services. The clustering of commercial and light industrial uses is encouraged to avoid traffic congestion, reduce traffic conflicts, and reduce sprawl. The infill of vacant lots will be encouraged to reduce commercial sprawl rather than increasing the total length of commercial linear development in the township. High density residential development may be permitted adjacent to community commercial areas providing there is adequate buffering between the two uses and further provided the impacts of the commercial uses are minimal.

The locational criteria for community commercial areas include:

- § Areas within the established Birch Run Township DDA boundaries.
- § Areas adjacent to established commercial or service uses.
- § Areas adequately served by water and sewer services.
- § Areas separated from incompatible land uses such as single family residential.

The area along Birch Run Road from the current DDA boundaries to M-83 would be suitable for rezoning for commercial development when adequate utilities can be provided to the area.

HIGHWAY COMMERCIAL DISTRICT C-2

The purpose of the highway services commercial classification is to provide locations for uses which either generate significant automobile traffic or require parking, storage or building space not otherwise available in the community commercial area.

The intent of the district is to ensure adequate buffering of adjacent residential uses and to ensure adequate roadway access that promotes shared driveways and other techniques useful in reducing traffic access conflicts. It is also intended that highway services commercial development will occur as infill between established commercial uses rather than increasing the total length of commercial linear development in the township. The locational criteria for general commercial areas include:

- § Areas fronting on or with direct access to Dixie Highway or Birch Run Road.
- § Areas adjacent to established highway services commercial uses.
- § Areas adequately buffered from incompatible uses such as single family residential.
- § Areas with access to water and sewer services.

LIGHT INDUSTRIAL DISTRICT I-1

The purpose of the industrial classification is to provide locations for wholesale activities, warehouses and light industrial opportunities which have limited associated external effects, such as assembly and fabrication activities. The classification also permits commercial establishments including uses permitted in the community commercial and highway service classifications with adequate utilities. It is the intent that these uses will expand the economic base of the Birch Run area and the employment opportunities available to Birch Run Township residents. They will not have adverse effects on surrounding uses or detract from the township’s rural character

The locational criteria for light industrial areas include:

- § Areas separated from incompatible land uses such as single family residential development.
- § Areas with access to all-weather roads.
- § Areas with access to suitable water and sewer services.
- § Areas adjacent to industrial uses.

Map 13 - Future Land Use Map

IMPLEMENTATION PLAN

The purpose of an implementation plan is to ensure that the goals, objectives and plans of the Township Master Plan are implemented and that the plan is kept current and maintained. It does this by the use of tools provided the Township by State laws, through development of local support for the plan and by establishing procedures for use of the plan in reviewing zoning decisions and maintaining the plan.

Zoning

One of the pre-eminent tools used by communities to reach the goals of their land use plan is zoning. Zoning is a regulatory power given by the State to Townships through the Township Zoning Act. The act authorizes the local units to establish zoning ordinances controlling the use of property and the height, bulk, and location of buildings on that property. In order for an ordinance to be effective in implementing a land use plan, it must be tailored to that plan. It follows, that when a plan is updated, the local zoning ordinance should also be updated to take into account those changes. The Township is preparing to update their Zoning Ordinance. This section will review proposed changes from the Township's current Zoning Ordinance that could assist them in meeting it's stated objectives.

Zoning District Uses — Implementation of this plan would require revision to some of the existing zoning districts and their boundaries. The current ordinance generally line up with the Land Use Classifications in this plan. The major change would be the proposed new mobile home park district and any incentives provided for open space development in the rural residential areas. Any changes to the district boundaries would be based on the Future Land Use Map and the locational criteria included in the plan.

TABLE 22 ZONING DISTRICTS/LAND USE CLASSIFICATION COMPARISON	
FUTURE LAND USE CLASSIFICATION	ZONING DISTRICTS
OPEN SPACE/AGRICULTURE	A-1 PRIMARY AGRICULTURAL
LOW DENSITY RESIDENTIAL	R-1 RESIDENTIAL (LOW DENSITY)
MEDIUM DENSITY RESIDENTIAL	R-2 RESIDENTIAL (TWO-FAMILY, MEDIUM DENSITY)
HIGH DENSITY RESIDENTIAL	R-3 RESIDENTIAL (MULTI FAMILY, HIGH DENSITY)
MULTIPLE FAMILY DISTRICT	R-MF (RESIDENTIAL MULTI FAMILY)
MANUFACTURED HOUSING DISTRICT	R-MHC PROPOSED MOBILE HOME ZONING DISTRICT

TABLE 22 ZONING DISTRICTS/LAND USE CLASSIFICATION COMPARISON	
GENERAL COMMERCIAL DISTRICT	C-1 COMMERCIAL (COMMUNITY WIDE)
HIGHWAY COMMERCIAL DISTRICT	C-2 COMMERCIAL (HIGHWAY SERVICE)
LIGHT INDUSTRIAL DISTRICT	I-1 INDUSTRIAL C-1 COMMERCIAL (COMMUNITY WIDE) C-2 COMMERCIAL (HIGHWAY SERVICE)

Other Text Changes — In addition to the changes in the zoning map and zoning districts, additional changes to the Zoning Ordinance are needed to implement the plan. These include:

- § Modify zoning regulations to encourage use of conservation zoning and/or similar cluster zoning options.
- § Separate new businesses from residential areas by requiring them to provide landscaping, fencing, and other methods which minimize noise, lights, dust, ground vibration and other nuisances.
- § Develop strict zoning regulations and design guidelines that permit when appropriate, neighborhood-scaled commercial uses adjacent to residential areas.
- § Establish zoning standards to ensure new commercial development is designed to give the same consideration to the needs of pedestrians, bicyclists and bus riders as to the

needs of motorists and trucks.

- § Establish provisions in the ordinance to incorporate open spaces, landmark and historic structures, natural land forms and stream courses as part of the design of new development. This will help ensure a high quality visual environment that is compatible with these important elements of the existing community.
- § Integrate new development with zoning ordinance design guidelines prepared for the area, and with the scale, architecture and design of nearby quality buildings and landscaping to ensure compatibility and harmony in appearance.
- § Adopt uniform sign regulations that restrict the size, number and placement of new signs and billboards in the Township.

One of the most important changes to the Township Zoning Act made in general overhaul of all local zoning enabling legislation in 1979, was the confirmation of a community's right to issue "special use" or "conditional use" permits. The special use permit provides a zoning ordinance with the flexibility that it often needs to permit a needed high impact use at an appropriate location while protecting the community's residents. The revised Ordinance should make greater use of these two techniques to increase the flexibility planning commission has in reviewing developments

Other Ordinances

Besides the zoning ordinance, State law has provided local communities with authority to adopt other special ordinances that can be used to enforce the goals and objectives of a land use plan.

Subdivision Control/Land Division Ordinances — Although the State's Land Division Act requires the developer of a subdivision to submit a proposed plat before a township for review and approval, it also authorizes a township if it wishes, to prepare a subdivision control ordinance. This ordinance may include stricter standards for subdivision design. In addition to review of subdivisions, since 1996 the township has been responsible for reviewing land divisions that do not require submission of a subdivision or condominium plat. In order to properly regulate these subdivisions and land divisions, the township should adopt local land division and subdivision control ordinances identifying the procedures and standards for approval of a land division or subdivision plat. These ordinances should be regularly reviewed and updated.

Other Local Tools

Besides the tools granted by state law, local communities have other tools that can be used implement the plan.

Engineering Construction Standards — Update standards to promote street layout that discourages cul-de-sacs and promotes continuation of existing street pattern

Procedural Manual — Public frustration over zoning rules are understandable. Most residents are not familiar with zoning provisions and requirements. They may need to deal with them a couple of times in their lifetime. But when they do, the ordinances legalese and the interconnect requirements and procedures can be extremely confusing. One way of reducing that confusion is to provide material that explains the most common zoning procedures and issues in plain English with the use of checklists and flow charts to graphically display the concepts. The plan recommends the development of a zoning procedural manual for use by the staff in educating the public and new Planning Commission, ZBA and Township Board members.

Public Education and Promotion of the Plan

An important part of the Planning Commission's responsibilities is the promotion of the plan to the general public. Strategies to educate the public on the intent and recommendations of the plan include:

- § Develop a summary of the plan that is suitable for distribution to those with casual interest in the plan.
- § Make copies of the plan available for public review at the Township hall, public library and other public locations.
- § Encourage the use of the plan in civics classes at area schools.
- § Provide opportunities for Planning Commission members to speak at local service clubs and other civic groups concerning the plan.

Plan Maintenance and Update

A plan is not a static document. It must be continuously maintained and updated if it is to remain

a valid document. Under recent amendments to the Township Planning Act, Planning Commissions are required to review their plans for consideration of an update at least every five years. Below are key indicators the Township can monitor to determine the need for updating the plan.

Updating the Data Base — This plan is based on certain assumptions concerning the growth of the Township. These assumptions are contained primarily in the plan's data base. It is important for the Township to regularly monitor these assumptions to determine if they are still valid. If they become invalid, the Township must determine what the changes in circumstances mean for the plan goals and objectives.

1. *Population Growth* — The plan is based on the projection growth contained in the population section of the data base. As noted in the narrative following the projections, there is always a certain amount of guessing that goes into population projections, and they should be continuously monitored.
2. *Housing Growth and Mix* — The plan makes assumptions on the growth of housing in the Township over the planning period and the mix of single family and multifamily units. The Township should monitor housing growth and mix to determine if it is following the projections. Differences in the mix of housing types between what was projected and what is built may mean certain assumptions on market demand for various housing types was incorrect. This could impact the population projections and also the land use need estimates contained in the plan.
3. *Adjacent Planning and Zoning* — Changes in the land use plans or zoning maps of adjacent townships and the Village of Birch Run should be reviewed to consider their impact on the Township's plan, preferably before that community makes a decision regarding the matter.
4. *Transportation* — The Township should monitor changes and proposed changes in their streets in the Township, possibly with an annual street survey.
5. *Utilities* — In order to permit development, the plan anticipates the expansion and extension of utilities into areas not currently served. As these improvements occur, the effect on the development potential of the property should be considered.

Reviewing the Plan Goals and Policies — After reviewing the updated information on the data base, the Township should review the goals and objectives. Specifically, the Township is looking for goals or objectives that are no longer relevant due to changes in conditions or objectives that have proven ineffective in addressing goals. Those items that are identified should be deleted or modified in light of the new information. The plan should be officially amended to incorporate the changes in the goals or objectives and the basis for the changes should be reflected in a public hearing record.

Incorporating Plan Review into Rezoning Request Review — Although an annual review is necessary for a comprehensive examination of the plan, many problems with a land use plan will become obvious during consideration of a rezoning or special land use permit request. It is important to incorporate review and amendment of the land use plan as part of the Township's consideration of such requests. This is covered in more detail in the subsection on using the land use plan for zoning reviews.

Using the Land Use Plan for Zoning Review

As noted earlier, the primary method of enforcing a land use plan is the zoning ordinance. In order for that to be done effectively, the community's rezoning and special land use permit request and site plan review procedure should be structured so land use goals and objectives are considered.

Rezoning Requests — In considering a rezoning request, the primary question to ask is: "Does this request conform to our land use plan?" Three subsidiary questions follow that; "Was there an error in the plan?", "Have there been relevant changes in conditions since the plan was approved?", and "Have there been changes in the goals and objectives of the Plan?". Answering these questions should answer the question whether or not a rezoning request is appropriate and that should frame the reason within the context of the plan.

This method of analyzing a request rests on the assumption that a request that complies with a valid plan should be approved and that one that does not comply with a valid plan should not be approved. Further, it assumes that the three circumstances that would invalidate a plan are a mistake in the plan, a change in condition that invalidates the assumptions that the plan was built on or a change in the goals and priorities that the community set for itself.

In considering whether or not a rezoning complies with the plan requires more detailed study than simply looking at how a piece of land is designated on the Future Land Use Map. The plans goals and objectives and the intent and locational criteria of the various land use classifications should also be considered. The Future Land Use map is simply one arrangement of land use within the Township and is not intended to be an unalterable blueprint for the future zoning map. In some cases, a particular area may be appropriate for more than one land use type. For example, a use may be equally suitable for local commercial or multi-family development. The map may designate it for local commercial, but that does not mean it should be excluded from consideration for multi-family as well. By considering the goals, objectives and land use classifications in the plan in addition to the map, the Planning Commission is more accurately weighing the conformance of a request to the intent of the plan.

Mistake — A mistake in a plan can be an assumption made based on incorrect data, an area on the land use map that is incorrectly labeled, or other factors that is known at the time of the plan adoption would have been corrected.

Changes in Conditions — A plan is based on the assumption that certain conditions will exist during the planning period. If those conditions change then goals, objectives and land use decisions that made sense when the plan was adopted may no longer be valid, and a rezoning that was not appropriate before is appropriate now.

Change in Policy — In the end, a plan is based on the future vision of the community held by the Planning Commission/Township Board. When that vision changes, the plan should change. When a zoning issue results in a change in vision, a decision can be made that is contrary to the current plan, as long as that changed vision is explicitly incorporated into the plan.

Two points should be made. First of all, the three factors for consideration (mistake, change in conditions, change in goals or objectives) can work in reverse, making a proposal that otherwise seems appropriate, inappropriate. Secondly, these factors should not be used to create excuses for justifying a decision to violate the land use plan, or to change it so often that it loses its meaning.

ATTITUDE SURVEY

In September 1997, a 30-question attitude survey was mailed out to approximately 2,100 households. In addition, approximately 250 additional surveys were hand delivered to residents of the Village and Township mobile home parks and apartment complexes. The survey questions were based on comments from the leadership survey, conducted as part of the Village and Township Plan for Planning and reviewed by the Joint Planning Committee. The survey was formatted to allow up to two adult responses per household. A total of 564 surveys were returned, with a total of 916 responses. This represents approximately 24 % response rate on the survey. A copy of the survey form is attached as Appendix B.

Four of the questions were open ended and the responses were collated and a copy provided to the Township and Village. The remaining questions were multiple choice, numerical, or yes/no. The numeric answers included many questions where the respondent was asked to respond to a statement, with one equal to “strongly agree” and 5 equal to “strongly disagree”. All answers other than the open-ended ones were summarized in the table on the following pages.

The questions covered ten general areas:

1. Traffic
1. Land Use
3. Housing
4. Agricultural Protection
5. Public Services
6. Interjurisdictional Cooperation
7. Community Character
8. Pace of Change
9. Economics/Jobs
10. Characteristics of the Responder

The responses were calculated for the community as a whole, for just Village residents, and just for Township residents outside the Village. Responses were also calculated for four sub areas in the Township and eight sub areas in the Village. (There were actually nine sub areas in the Village but one had no responses). Four areas; T4, V3, V4, and V9 had total responses that equaled 2% or less of the total responses. Because of the relatively low number, larger than expected variations from the average response can be expected. Approximately 20% (**183**) of the respondents did not indicate in which area they lived.

TRAFFIC

In answering the questions regarding traffic Township residents strongly agreed that new development should be reviewed to determine its impact on traffic before approval (**1.4**) and should be designed to reduce impacts upon traffic congestion (**1.4**). There was no real variation in the response from different areas. There was general agreement that east-west roads in the Village were a good idea, but it was not as strong (**2.0**) and there was less uniformity of agreement with residents in area V-4 scoring this concept a 3.1. This may, in part, be due to the fear of residents that a cross connector would link the Outlet Mall with Church Street.

LAND USE

In answering the survey, residents of the Village and Township agreed that there is currently an imbalance between commercial development and other types of land uses, although residents in area V-2 and V-3 were less likely to agree. When asked what type of future land use should be encouraged, the largest group of respondents (**44%**) felt that residential development was appropriate, followed by agriculture (**30%**), industrial (**15%**), and commercial (**11%**). The numbers varied substantially between the Township were residential (**37%**) and agricultural land uses (**35%**) were almost even, followed by industrial (**17%**) and commercial (**11%**). In the Village, residential development was the predominant choice (**63%**), followed by a tie between industrial and agricultural (**15%** each), with commercial last (**7%**). In projecting the location of future commercial development, over half the respondents (**54%**) felt that Dixie Highway was the appropriate location. The next most popular location was along Birch Run Road from I-75 to Gera Road (**24%**), and just around the I-75/Birch Run Road interchange (**21%**)

HOUSING

The ranking of appropriate land uses was predictable, with single family residential scoring **1.4** (meaning it was highest priority for most respondents), followed by duplexes (**2.8**), apartments (**3.1**) and mobile homes (**3.6**). There was general agreement that the quality of housing in the Village and Township was good (**2.3**)

AGRICULTURAL PROTECTION

The survey respondents agreed that farmland should be protected from non-agricultural development in general (**2.1**) and urban style residential land uses in particular (**2.2**). They also agreed that the zoning ordinance should limit the number of non-farm residences built in agricultural areas (**2.1**) and that agriculture should remain the primary land use in the Township (**2.3**). Agreement with these policies was .6 or .7 points stronger in the Township than in the

Village.

PUBLIC SERVICES

Residents were generally undecided on expansion of the sewer system into the Township (**2.9**), particularly Township residents (**3.0**). The greatest support in the township for this policy was in area T3, which surrounds the Village and much of it already has sewer service. There was general agreement that landowners and developers who benefit should pay the cost of sewer expansion. Less than one third of the respondents (**30%**) indicated that drainage was a problem in their area, although (**45%**) of Village residents indicated that it was a problem.

INTERJURISDICTIONAL COOPERATION

There was strong agreement (**1.5**) that the Township and Village should work cooperatively together and that they should jointly plan for the development of the area. There was strong approval for the Township and Village providing joint services in the area of police (**82%**) and fire/rescue (**76%**). Over half the respondents thought that the two jurisdictions should work cooperatively to provide library services (**53%**) and parks and recreation services (**52%**). The idea of the Township and the Village unifying into one government received a response (**2.6**) that was between agree and undecided, with Township residents closer to undecided (**2.8**) than Village residents (**2.6**).

COMMUNITY CHARACTER

There was strong agreement (**1.4**) that the Village and Township should manage future growth so that the quality of life in the community is retained and/or improved. Residents were undecided that whether recent development has improved the character of the community (**2.9**), although Village residents are more likely to agree with that statement (**2.4**). There is agreement that the rural character of the township is an asset worthy of protection (**1.8**).

PACE OF CHANGE

There was general agreement (**1.9**) that the Community's responsiveness in providing infrastructure required by the pace of the new development has been a problem.

ECONOMICS/JOBS

The responses were almost evenly split concerning the economic vision of the community, with **52%** envisioning a bedroom community, and **48%** anticipating a community with increased industrial development.

CHARACTERISTICS OF THE RESPONDER

The average responder to the survey had lived in the community **23** years, and was between **45 and 65** years of age. When asked to characterize their attitude towards development, **60%** described themselves as “pro development but support municipal controls to manage growth,” **20%** indicated that they “opposed new development,” **11%** said they were “pro development and supported minimal land use regulations,” **3%** characterized themselves as “not very concerned about new development or land use regulations,” and **7%** were undecided.

Village of Birch Run/Birch Run Township Attitude Survey Results

2. Streets running from east to west through the Village should be developed so that local traffic does not need to use Birch Run Road during peak traffic periods.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.0	2.0	2.0	2.1	1.9	1.8	2.7	2.1	1.5	1.4	3.1	2.0	2.3	2.0	1.3
3. New development should be reviewed to determine its impact on traffic before approval.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.3	1.4	1.4	1.3	2.4	1.5	1.2	1.3	1.2	1.4	1.2	1.3	1.4
4. New development should be designed to reduce impacts on traffic congestion.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.3	1.4	1.3	1.3	2.4	1.5	1.1	1.3	1.1	1.5	1.4	1.3	1.4
5. There is an imbalance between commercial development and residential/industrial/agricultural land uses in the Village and Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.4	2.3	1.3	1.6	2.0	1.6	2.0
6. Which land use type should be encouraged the most in the future?														
(A) Residential														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
376	190	105	91	43	51	4	12	21	9	9	15	13	18	7
(B) Industrial														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9

6. Which land use type should be encouraged the most in the future?														
132	87	24	42	28	15	1	2	4	0	2	3	8	4	1
(C) Commercial														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V8
92	60	12	21	15	22	0	0	1	1	0	2	5	1	1

(D) Agricultural

Township

Village

T1

T2

T3

T4

V1

V2

V3

V4

V5

V6

V7

V8

257

183

25

85

52

40

2

6

4

3

1

1

4

6

0

7. Select one or more of the following which you agree with:														
(A) All future commercial development should locate along Birch Run road between I-75 and Gera Road.														
All	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
219	126	59	51	27	43	5	2	16	2	5	3	10	17	3
(B) All future commercial development should locate along Dixie Highway.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
495	309	102	136	86	76	4	16	18	10	8	8	15	21	5
(C) All future commercial development should locate around the Birch Run Road/I-75 Interchange.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
182	123	26	62	39	19	3	2	5	7	0	2	5	5	0
(D) All future commercial development should locate in downtown Birch Run.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
138	93	24	40	35	18	0	2	1	4	2	4	5	3	3
(E) All future commercial development should locate around the intersection of Birch Run Road and Gera Road.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9

30

19

22

0

0

4

2

1

4

4

7

2

(F) All future commercial development should locate along Gera Road from Birch Run Road north to Frankenmuth.

ALL

Township

Village

T1

T2

T3

T4

V1

V2

V3

V4

V5

V6

V7

V9

122

71

25

38

11

21
0
1
2
2
1
3
8
6
0

9. The quality of housing is good in our community.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.3	2.4	2.2	2.3	2.5	2.4	2.4	2.3	2.2	2.3	2.6	2.3	1.9	2.5	1.9
10. Farmland should be protected from non-agricultural development such as non-farm residences, commercial, and industrial uses.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.1	1.9	2.5	1.9	1.7	2.3	1.1	2.5	2.3	2.6	2.2	2.8	2.3	3.1	2.8

12. The zoning ordinance should limit the number of non-farm residences that can be built in an agricultural area.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.1	2.0	2.6	2.0	1.8	2.2	1.0	2.7	2.7	2.7	2.7	2.9	2.1	3.1	2.8
13. Agriculture should remain the primary land use in most of the Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.3	2.1	2.7	2.0	1.9	2.4	1.6	2.5	2.6	3.3	2.4	2.8	2.5	3.0	2.6
14. The sewer system should be expanded in the Township.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.9	3.0	2.4	3.2	3.0	2.7	3.0	2.8	2.2	2.7	3.1	2.0	2.3	2.2	2.1
15. The Landowners/developers who benefit should pay all the costs of expansion of the sewer system.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.8	1.8	1.8	1.7	1.9	2.0	1.4	1.5	1.9	2.0	1.8	2.5	1.3	1.8	1.6
16. Is storm drainage a problem in our area?														
True														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
277	161	81	68	42	48	0	11	2	7	4	14	20	20	1

16. Is storm drainage a problem in our area?														
False														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
639	394	97	188	102	92	7	11	28	8	8	10	15	9	8
17. The Township and Village should work cooperatively together.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.5	1.4	1.4	1.4	1.5	1.3	2.1	1.5	1.4	1.3	1.3	1.3	1.6	1.4	1.3
18. The Township and Village should jointly plan for the development of the Birch Run area.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.5	1.5	1.4	1.5	1.7	1.3	3.0	1.7	1.4	1.1	1.5	1.3	1.6	1.3	1.1
19. The Township and Village should jointly provide one or more of the following services.														
Police														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
754	467	154	217	116	121	7	22	27	15	9	16	29	27	8
Dept. of Public Works														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9

19. The Township and Village should jointly provide one or more of the following services.														
447	281	107	108	83	81	3	11	21	10	3	11	24	20	6

Fire/Rescue														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
697	442	148	206	118	110	4	20	25	15	11	13	33	22	8
Parks														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
478	287	107	140	63	77	5	11	18	12	7	9	23	22	5
Library														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
484	297	118	134	71	85	3	15	19	10	9	9	26	21	7
Cemetery														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
374	218	95	107	39	67	3	12	12	10	5	12	21	17	6
20. The Village and Township should unify under one governmental unit.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.6	2.8	2.3	2.7	3.1	2.5	2.6	2.5	1.8	2.5	2.3	2.1	2.5	2.6	1.6
21. The Village and Township should manage future growth so that quality of life is retained and/or improved.														

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.4	1.4	1.4	1.4	1.4	1.4	2.6	1.5	1.4	1.3	1.0	1.4	1.4	1.5	1.0

22. Recent development has improved the character of Birch Run.

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
2.9	3.0	2.4	3.4	2.6	2.9	2.7	3.0	2.3	2.7	2.1	2.2	2.4	2.4	1.8

23. The rural character of Birch Run Township outside of the developed land surrounding the Village of Birch Run is attractive and worthy of protection.

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.8	1.7	2.3	1.5	1.7	1.8	1.9	2.3	1.9	2.4	1.8	2.5	2.3	2.6	2.1

25. The community’s responsiveness in providing infrastructure required by the pace of new development is a problem.

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
1.9	1.9	1.8	1.9	1.9	1.8	2.7	2.0	2.1	1.1	1.3	1.8	2.0	1.7	2.0

26. Which of the following best represents your vision of the Village and Township in the future.

(A) A bedroom community with industrial jobs provided primarily outside of the Village and Township.

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
432	255	84	126	65	57	2	10	14	6	8	4	17	19	4

(B) A community in which an establishment of new industrial jobs is encouraged available within the Village and Township.

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
373	229	84	85	72	68	3	11	13	7	4	20	15	9	5

27. How many years have you lived in the Village of Birch Run/Birch Run Township?

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
23	24	21	22	23	28	14	35	5	36	29	8	29	17	25

28. What area in the Community do you live in?

ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
916	555	178	256	144	140	7	22	30	15	12	24	35	29	9

29. What is your age?														
(A) 18 – 30														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
82	43	27	22	6	10	4	0	10	0	4	0	3	9	0
(B) 31– 45														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
268	187	51	88	57	40	1	8	6	5	2	5	12	9	3
(C) 46–65														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
364	231	54	112	57	55	2	10	7	6	1	8	10	8	4
(D) 65 +														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
175	84	45	29	22	32	0	4	6	4	5	11	10	3	2
30. Would you characterize yourself as someone who is:														
(A) Pro development and supports minimal land use regulations.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9

30. Would you characterize yourself as someone who is:														
98	63	15	28	19	14	1	4	0	1	0	0	2	6	2
(B) Pro development but supports municipal controls to manage growth.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
523	389	125	121	94	81	6	10	22	12	8	18	26	20	7

(C) Not very concerned about ne development or land use regulations.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
27	15	3	8	2	5	0	2	1	0	0	0	0	0	0
(D) Opposed to new development.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
171	119	14	0	19	25	0	4	0	0	3	1	4	2	0
(E) Undecided.														
ALL	Township	Village	T1	T2	T3	T4	V1	V2	V3	V4	V5	V6	V7	V9
57	28	14	17	4	7	0	1	6	0	1	5	0	1	0