

*2005  
Master Plan  
For  
Future Land Use*

Mayfield Township  
Lapeer County, Michigan

John Ambrose & Company, Inc.  
*"A-Community Planning Development Firm"*



*2005*  
*MAYFIELD*  
*TOWNSHIP*  
*MASTER PLAN*

*Prepared For:*

Mayfield Township Planning Commission  
Mayfield Township  
Lapeer County, Michigan

*Prepared By:*

John Ambrose & Company, Inc.  
"A Community Planning & Development Firm"  
3247 Alexander, Howell, Michigan 48855  
Phone: 517-548-5865  
Fax: 517-548-5833  
E-mail: [jacoinc@ameritech.net](mailto:jacoinc@ameritech.net)  
Web Site: [www.johnambroseandcompany.com](http://www.johnambroseandcompany.com)

*Date:*

January 2005

## **ACKNOWLEDGEMENTS**

This Master Plan has been developed by John Ambrose & Company, Inc., a community planning and development firm, with CAD mapping provided by Boss Engineering of Howell, Michigan, and with the cooperation and assistance of the Mayfield Township Planning Commission and Township staff. The development of this plan is consistent with Michigan Township Planning Act, P.A. 168 of 1959, as amended, and the Michigan Township Zoning Act, P.A. 184 of 1943, as amended.

### **Mayfield Township Planning Commission**

Gerald Anderson, Chairman  
Chuck Hiner, Secretary  
Michael Elliott  
Michael Hemmingsen  
Beth Potter Knowlton  
JoCarol Pariseau  
Gary Shindorf

#### **Past Commissioner**

Harry Luzi

### **Mayfield Township Board**

Ron Dillon, Supervisor  
Kendra Davis, Clerk  
Dana M. Miller, Treasurer  
Beth Potter Knowlton, Trustee  
Richard Scrimger, Trustee

#### **Past Board Members**

Barbara Potter, Treasurer  
Harry Luzi, Trustee

### **Mayfield Township Attorney**

Gary Howell  
Taylor, Butterfield, Riseman, Clark, Howell & Churchill, PC

### **Township Planning Consultant**

John E. Ambrose, President  
John Ambrose & Company, Inc.  
*"A Community Planning and Development Firm"*

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	1
<b>MAYFIELD TOWNSHIP HISTORY</b>	2
<b>PURPOSE OF THE PLAN</b>	4
<b>EXISTING CONDITIONS</b>	6
EXISTING LAND USE	6
Methodology	6
Existing Land Use Analysis	8
Land Use Problems	10
NATURAL FEATURES	13
Topography-Soils	13
Drainage	14
Woodlands-Farmlands	14
<b>POPULATION AND HOUSING</b>	18
POPULATIONS TRENDS	18
Past and Present Growth Trends	18
Population Projections	20
Age Composition	23
Education Attainment	26
SOCIOECONOMIC TRENDS	26
Income	26
Employment Trends	28
HOUSING ANALYSIS	29
Housing Structural Type	29
Housing Occupancy	30
Age of Structure	30
Housing Value	31
Recent Residential Construction Activity	32
<b>REGIONAL ANALYSIS</b>	34
INTRODUCTION	34
Deerfield Township	34
Arcadia Township	35
Lapeer Township	35
City of Lapeer	35
Oregon Township	36
Mayfield Township	37

## TABLE OF CONTENTS CON'T.

<b>GOALS AND OBJECTIVES</b>	38
MAYFIELD TOWNSHIP COMPREHENSIVE SURVEY	38
COMMON SURVEY THEMES	42
GOALS AND OBJECTIVES	43
General Development	43
Rural, Forest and Open Space	44
Residential Areas	44
Community Facilities	45
Commercial Areas	45
Industrial Areas	46
<b>RESIDENTIAL AREAS PLAN</b>	47
PLAN SUMMARY	48
PUBLIC SCHOOLS	54
Elementary Schools	55
Junior (Middle) Schools	55
High Schools	56
<b>COMMUNITY FACILITIES PLAN</b>	57
GOVERNMENTAL FACILITIES	57
Facility Concepts	57
Township Hall	58
PUBLIC SERVICES / FACILITIES	59
Police Services	59
Emergency Medical Service	59
Fire Service	60
Airport Facilities	61
Cemetery Facilities	62
PUBLIC UTILITIES (Sewer and Water)	62
RECREATIONAL FACILITIES	63
PUBLIC SCHOOL FACILITIES	67
FIRE STATION LOCATION PLAN	69

## TABLE OF CONTENTS CON'T

<b>COMMERCIAL AREAS PLAN</b>	72
SHOPPING CENTER COMMERCIAL	72
Classification of Centers	73
Trade Area	73
NON-CENTER COMMERCIAL	73
LAND USE RELATIONSHIPS	74
COMMERCIAL LAND USE NEED	75
OFFICE LAND USE NEED	76
<b>INDUSTRIAL AREAS PLAN</b>	77
INDUSTRIAL DEVELOPMENT CONCEPTS	77
INDUSTRIAL LAND NEEDS	78
INDUSTRIAL DEVELOPMENT FACTORS	80
PLAN SUMMARY	82
INDUSTRIAL DEVELOPMENT STANDARDS	82
Lot Area and Width	82
Building Height	82
Yard Setbacks	82
Road Improvement Standards	83
Transitional Details	83
<b>TRANSPORTATION ANALYSIS</b>	84
ROAD HIERARCHY	84
Local (minor) Roads/Streets	84
County Primary Roads	84
State Highways	85
Existing Road and Traffic Conditions	85
Future Traffic Volumes	87
ACCESS MANAGEMENT	87
TRANSPORTATION PLAN	88
<b>FUTURE LAND USE PLAN</b>	93
CONCEPTS OF THE FUTURE LAND USE PLAN	93

## TABLE OF CONTENTS CON'T

FUTURE LAND USE CATEGORIES	94
PLAN IMPLEMENTATION	99
Public Support of the Long-Range Plan	99
Land Development Codes	100
Zoning Ordinance	100
Subdivision Regulations	101
Capital Improvement Programs	101
Governmental Assistance	102
Continued Public Education Efforts	102
Interface between the Comprehensive Plan and Zoning Ordinance	103

## TABLES

1. EXISTING LAND USE	9
2. POPULATION TRENDS	19
3. POPULATION PROJECTION RANGE	23
4. AGE COMPOSITION	25
5. EDUCATIONAL ATTAINMENT	26
6. HOUSEHOLD AND PER CAPITA INCOME	27
7. COMPARATIVE HOUSEHOLD INCOME	27
8. EMPLOYMENT BY OCCUPATION	28
9. UNITS IN STRUCTURE	29
10. 2000 OCCUPANCY CHARACTERISTICS	30
11. AGE OF RESIDENTIAL STRUCTURE	31
12. 2000 COMPARATIVE HOUSING VALUES	32
13. RESIDENTIAL CONSTRUCTION ACTIVITY	33
14. RESIDENTIAL AREAS PLAN	49
15. SCHOOL STANDARDS	55
16. FIRE STATION SERVICE AREAS	60
17. RECREATION CONCEPTS AND STANDARDS	66
18. RECOMMENDED RECREATION ACRES	67
19. SHOPPING CENTER STANDARDS	73
20. EXISTING COMMERCIAL LAND USE	75
21. RECOMMENDED OFFICE OR SERVICE USE STANDARDS	76
22. POPULATION RATIOS FOR ESTIMATING INDUSTRIAL LAND USE FOR THE YEAR 2010	79
23. LAND USE RATIO FOR ESTIMATING INDUSTRIAL LAND USE	79
24. TRAFFIC GENERATOR CHARACTERISTICS	87
25. MAYFIELD TOWNSHIP FIVE YEAR LOCAL ROAD PAVING PLAN	89
26. LAPEER COUNTY ROAD COMMISSION PRIMARY ROAD CONSTRUCTION – HEAVY MAINTENANCE PROGRAM MAYFIELD TOWNSHIP 2004- 2008	90
27. MAXIMUM HEIGHT LIMITATIONS-AIR SPACE SAFETY ZONES	98

## TABLE OF CONTENTS CON'T.

### TABLES (Con't.)

28. FUTURE LAND USE-CURRENT ZONING DESIGNATIONS	104
---	-----

### MAPS

1. EXISTING LAND USE	13a
2. WETLANDS & FLOOD PRONE AEAS	16
3. FARMLANDS AND WOODLANDS	17
4. RESIDENTIAL AREAS	55a
5. MAYFIELD TOWNSHIP PUBLIC UTILITIES MAP	64
6. MAYFIELD TOWNSHIP ROAD-HIGHWAY MAP	86
7. 2003 DAILY TRAFFIC COUNTS	91
8. PAVEMENT MANAGEMENT-PAVED ROAD SURFACE RATINGS	92
9. FUTURE LAND USE PLAN	98a

## INTRODUCTION

In the last few years the Planning Commission, with the assistance of a planning consultant, developed a series of technical studies, which through a process of review and analysis became a document that contains specific comprehensive land use proposals and recommendations for future growth and development. These land use proposals and recommendations were then compiled into a document that is known as the Mayfield Township Master Plan.

The following briefly identifies the various technical studies completed for the Township's Master Plan:

- Base Map
- Existing Land Use Analysis
- Regional Analysis
- Population and Housing Analysis
- Goals and Objectives
- Residential Areas Plan
- Community Facilities Plan
- Assessment of Commercial and Industrial Areas
- Transportation Analysis
- Future Land Use Proposals

During this process, public input was achieved early on through the development of a citizen survey, which was mailed to 800 Township citizens including residents and businesses throughout the community. The responses to these surveys were instrumental in developing the goals and objectives for the Mayfield Township Master Plan, which will have a significant impact on the future growth and development of the Township. Additional citizen input was achieved through a public hearing process with the final input coming from surrounding communities as part of the required review process for a new Master Plan as mandated in the Township Planning Act of 1959, as amended.

The Master Plan is a comprehensive, living document that is officially adopted by the Planning Commission as its guide for future land use development. Even though the Master Plan is a comprehensive document, which reflects the Planning Commission's views for growth and development over a long period of time, it is also imperative that this document be periodically reviewed in order to incorporate subsequent changes in land use polices and/or development patterns that were not originally anticipated. Thus, it is highly recommended that a major review of this document occur at least once every five years.

## MAYFIELD TOWNSHIP HISTORY

Mayfield Township was first organized in 1843 when John B. Evans and John Ryan and Martin Stiles gave notice to the township's inhabitants that a town meeting would be held on April 17 at the school near Stiles' home. Thirty-four freeholders met that day, elected the township's officers, and voted to raise \$125 to pay for necessary expenses and establish a burial ground. The cemetery was later named after Stiles, who was named a member of the cemetery committee.

Six years after it was organized, Mayfield Township was attached to Lapeer Township in a move by the state legislature. This arrangement continued until March 13, 1869, when the township was reorganized.

In the years following, the lumber industry grew and by 1874, there were ten saw mills operating in Mayfield Township. The success of the lumber industry resulted in three thriving villages within the Township: Fish Lake, Five Lakes and Millville. As land was cleared of its trees, it was sold to individuals for homesteads and farms. By 1884, the village of Fish Lake was abandoned. The census of that year reported no saw, shingle, or lathe mills still operating.

Much of the formerly prime lumbering lands in the township were bought by the Michigan Department of Conservation in 1944. The Michigan State Game Areas comprises much of the land once owned by Mayfield Township's early settlers.

Besides the mills at Millville, the township's longest running business may have been the Callis brick making plant. William Callis moved to Mayfield in the mid 1850's. The plant on the family homestead was built about that time, and it operated for many years. The home Callis built for his son, William Elmer, at the corner of Callis and Davis Lake Road still stands.

Mayfield Township has also been home to two of the most successful manufacturing businesses in Lapeer County's history. In 1962, Vesely's Apache camping trailer was named Michigan's consumer Product of the Year. At one time, the plant was the world's largest camping trailer factory, producing up to 2,000 campers per month. The plant is now home to Durakon Industries, which manufactures pickup truck bed liners.

Two historical sites in the township recognized with special markers from the Lapeer County Historical Society are the former villages of Millville and Fish Lake.

Built by Frank Williamson and Harold Upper at the end of World War II, the DuPont-Lapeer Airport is a community landmark. The facility was the Lapeer areas only airport long before the G.B. DuPont Company purchased it in 1956. The land on which the airport is located was once used for homes and small farms, including the home of John B. Evans, who was one of Mayfield Township's founding fathers.

On August 1, 1996, Mayfield Township became the new owner of the DuPont-Lapeer Airport, with the assistance of the Michigan Bureau of Aeronautics. The acquisition was part of the bureau's state-wide airport preservation program, which is designed

to ensure that private airports serving commercial and industrial growth areas do not close due to rising values or pressure from real estate development.

Ninety percent of the \$2.2 million purchase was obtained from the Federal Aviation Trust Fund, 5 percent from Michigan taxes on aircraft fuel and registration and 5 percent from the township. The township's portion was paid via a donation from the DuPont Family. Their donation included an additional \$60,000 to establish an airport operation fund for the township.

Since township acquisition, the airport has been self-supporting and has not required any taxpayer funding.

## PURPOSE OF THE PLAN

The purpose of the Master Plan is to provide a guide for the development of land in Mayfield Township. This is accomplished by:

- Suggesting sites for future public use:
- Providing a guide for zoning decisions which channels private development.
- Illustrating a framework within which single-family developments can contain proper amenities assured through the use of zoning and subdivision regulations.
- Posting sound planning standards and concepts, which serve to guide the Planning Commission and Township Board in their decisions.

The essential characteristics of the Master Plan can be defined as:

- A comprehensive and general guide for the development of the community.
- A map of future land use and supporting documentation describing the details.
- The result of an orderly process of survey and study of the following basic elements:

Population  
Existing Land Use  
Residential Areas  
Recreation  
Community Facilities  
Commercial Areas  
Industrial Areas  
Thoroughfares (Transportation)

To maintain these characteristics, the Master Plan must be held in its correct perspective. It must be:

- **REPRESENTATIVE** in terms of what people want.
- **IMAGINATIVE** in projecting what the community might be.
- **REALISTIC** in recognizing what is possible.

The Master Plan **IS NOT**:

- The Township Zoning Ordinance.
- Any other ordinance that regulates the land use.

- An ultimate goal of planning.
- A rigid, unchanging plan.
- The final answer to the problems of the future.

The Master Plan **IS**:

- A plan based upon present knowledge and goals.
- Flexible so that it can be changed when the Planning Commission and Township Board see need for such change.
- A guide for decisions as to how land will be used – ***it does not represent final decisions.***

## EXISTING CONDITIONS

Mayfield Township is located north of the City of Lapeer, the county seat of Lapeer County. The approximate 34.6 square mile township is located in the west-central portion of the county within the north-south M-24 transportation corridor that runs through the central portion of the township. The old M-21 east-west corridor lies a short distance south of township. A few miles to the south of township lies the I-69 transportation corridor that runs in an east-west direction and also connects the Port Huron area to the City of Flint and points west, i.e., Lansing, Marshall-Battle Creek area and Indianapolis, Indiana.

Lapeer County is considered the gateway to the “Thumb” region of the state of Michigan. Lapeer can be reached within 40 minutes from Pontiac to the south via M-24, from Flint to the west and from Port Huron to the east via I-69. Mayfield Township is also about one hour north of Detroit and south of Saginaw. The township’s location is an ideal place for residents who wish to commute to Flint, Port Huron or Pontiac. The township is a blend of urban/suburban development near the City of Lapeer and rural development in the northern portion of the community.

### EXISTING LAND USE

One of the first, most basic and essential studies made for any planning program in the existing land use inventory. It provides the key to understanding the existing conditions and relationships between land uses and reveals predominant uses as well as desirable and undesirable conditions. The land use study provides the basic data upon which decisions will be made concerning proposals for residential, commercial, industrial and public use. The accompanying existing land use map may also serve as a ready reference for the Planning Commission when they consider such everyday problems as zoning, special land use approvals and public land acquisition or sale.

In addition to being an essential planning precept, knowledge of land use also has legal significance. When exercising its planning and zoning powers, the township must, as the township enabling acts (planning and zoning) state, give reasonable consideration to the character of each district and its peculiar suitability for particular uses.

### Methodology

The basic procedure employed in the compilation of the land use data presented herein was as follows:

- Each parcel of land in the township was inspected in the field and the use of each parcel was recorded on a lot line section maps.
- The use of each parcel was, in turn, categorized in accordance with a predetermined land use classification system, and then mapped on a lot line base map at a scale of 1” = 1,000’.

- The existing land use map was then measured for the purpose of computing land use acreages. Acreage calculations for each land use category were obtained by computer-aided drafting (CAD) measurements of the existing land use map. The property line base map used in the preparation of the existing land use map was prepared by using digital map files from the Lapeer County Equalization Department, which were transferred to their present form by Boss Engineering's CAD staff of Howell, Michigan.

The land use classification system used, and referred to above, consists of the following categories:

1. **Single-Family Residential:** Each structure which housed at least one (1) family.
2. **Multiple-Family Residential:** Includes the land area occupied by structures containing two (2) or more dwelling units.
3. **Mobile Home Park:** Includes the land area occupied by manufactured (mobile) homes.
4. **Office:** Includes the land occupied by all types of individual office facilities and related off-street parking areas. Typical uses found in this category include real estate offices, banks, medical buildings, etc.
5. **Convenience Commercial:** Includes the land area occupied by retail and service facilities, including related off-street parking) which accommodates day to day shopping and service needs. Included in this category are food and drug stores, personal services such as barber and beauty shops, dry cleaners, Laundromats, etc.
6. **Comparison Commercial:** Includes the land area occupied by retail uses and related off-street parking, which offer commodities that are normally purchased at infrequent intervals. Individual uses in this category include apparel stores, furniture and appliance stores, general merchandise outlets, etc.
7. **General Commercial:** Includes the land area occupied by those types of retail and service facilities, and related off-street parking, which normally do not require a shopping center location, and do not cater primarily to the convenience needs of adjacent residential areas. Included in this category are such uses as automotive sales and service, trailer sales and rental, commercial lodging, drive-in restaurants, building material sales, service stations, automotive parts sales and service facilities, etc.
8. **Industrial:** Includes land area occupied by industrial uses, including off-street parking and storage areas, that primarily accommodate wholesale activities, warehouse and industrial operations whose external physical effects are somewhat restricted to the area and in no manner affect in a detrimental way any of the surrounding area such as uses typically found in the M-1, Light Industrial zoning district. Industrial uses may also include large scale or specialized operations whose external physical effects will be

felt to some degree to surrounding areas such as those use allowed in the M-2, General Industrial zoning district.

9. **Public – Semi Public:** Public uses include all land devoted to public purposes such as government buildings (township and county) and their related off-street parking such as the road commission facilities, county facilities located along Suncrest Drive, the township hall, cemetery, airport facilities and public school facilities. Semi-public uses include facilities that are generally open to the public such as churches, VFW halls, fraternal organizations and other comparable uses.
10. **MDNR LAND:** Land owned by the state of Michigan’s Department of Natural Resources, which open to the public for outdoor activities, i.e., hunting, hiking, etc.
11. **Water:** Includes all bodies of water including lakes (five acres or larger), rivers, streams, and drains.
12. **Right-of Way:** Includes all land devoted to public and private roads.
13. **Vacant / Agriculture:** Includes all vacant land and land that is devoted to agriculture crop, grazing and/or pasture use.

### **Existing Land Use Analysis**

Mayfield Township contains a gross land area of 22,176 acres, which translates into 34.65 square miles. Of this total area, approximately 9,577 acres is developed land, which represents 43 percent of the total area. The undeveloped land includes land classified as MDNR Land, Water and Vacant-Agriculture.

TABLE 1 indicates land use in the township by category. The map at the end of this section depicts the existing pattern of land use within the township.

#### Residential

Total residential land use, which includes single-family, multiple-family and mobile home park uses, consists of 4,870 acres of land and represents nearly 22 percent of the total land use in the township. Single-family, being the largest use in this category covers 4,630 acres of land and represents nearly 21 percent of the land use in the township. Mobile home park use is the second largest residential category at 0.60 percent and multiple-family use is the smallest residential land use category at 0.50 percent of the township’s total area.

The township housing supply represent a very narrow selection in terms of types of housing, i.e., single-family vs. multiple-family. However, the existing housing supply represents a fairly wide selection in terms of size, age, and cost. The latter is beneficial to any community in attracting new residents. Recent residential growth has been scattered in nature; however, recent mobile home park development has been limited to one particular development. Multiple-family development has not occurred in some time in the township and is very limited to its geographic location within the township.

<b>Table 1</b>		
<b>EXISTING LAND USE</b>		
<b>Land Use</b>	<b>Acres</b>	<b>Percent of Total</b>
Single-Family	4,630	20.80
Multiple-Family	116	0.50
Mobile Home Park	124	0.60
Office	20	0.09
Convenience Commercial	23	0.10
Comparison Commercial	81	0.50
General Commercial	112	0.54
Industrial	119	0.54
Public-Semi Public	813	3.66
MDNR Land	3,992	18.44
Water	203	0.92
Right-of-Way	3,536	15.96
Vacant-Agriculture	8,404	37.89
<b>TOTAL LAND USE</b>	<b>22,176 Ac.</b>	<b>100.00 %</b>
<p>Source: John Ambrose &amp; Co., Inc. Field Survey, July 2002</p>		

Commercial

There are 236 acres of commercial land use in the township. Commercial use categories include office, convenience commercial, comparison commercial and general commercial uses, which represent 1.23 percent of the total land area in the township.

Office and commercial uses are primarily found along the M-24 corridor. One large commercial operation, the drag strip located on Roods Lake Road south of Vernor Road in the one significant exception to where commercial uses are generally found in the township. The M-24 corridor commercial development exists as “strip” development. Extensive strip commercial development should be discouraged because it creates congestion, tends to increase turning movements which tend to increase the potential for auto accident rates, encourages a deteriorating effect on many of uses located within or adjacent to this strip development, and can be inconvenient to the shopper since several “park and stop” trips are necessary in such an elongated commercial development. However, because of present development patterns along the M-24 strip commercial areas, it is rather evident that commercial uses will continue to remain. A more detailed analysis of this issue is found in the Commercial Areas Plan along with recommendations to help minimize the negative effects of strip development.

## Industrial

Industrial land use occupies 119 acres of land which represents .054 percent of the total township area. Although the Mayfield Township Airport is planned and zoned industrial, it has not been categorized as an industrial use. The airport was classified as a public use. With regard to industrial uses, existing industrial facilities primarily consist of the Durakon and Kamax GB DuPont LP corporations. Generally, these corporations have located with access to major highways and/or airport facilities. Durakon is located on M-24 and Kamax GB DuPont LP is located on Roods Lake Road adjacent to the township's airport. Although somewhat concentrated, industrial uses locations may tend to cause problems of incompatibility among land uses, especially with residential uses and industrial traffic in residential areas. Planned industrial districts alleviate many of these problems and encourage additional industry to locate in the area. The Industrial Areas Plan analyzes the problems with existing industry and future potential for industrial development.

## Right-of Way

Road and street right-of-way (public and private) is the fourth largest land use category in the township with 3,536 acres of land representing nearly 16 percent of the total land use in the township. Interesting enough, this figure is fairly consistent in not only Mayfield Township, but in many rural townships across the state. It is also fairly consistent with the amount of land that is devoted to rights-of-way in subdivisions and residential site condominium developments not only found in the township, but as a general rule in many such developments.

## Vacant

By far the largest amount in of land in the township is classified as vacant which consist of land owned by the state of Michigan's Department of Natural Resources (3,992 acres representing 18.44 percent of the total township area) and privately owned land that is either vacant and/or land used for agricultural purposes. The latter consists of 8,404 acres of land, which represents nearly 38 percent of the township's total area. Together, both state owned and privately owned vacant land accounts for 12,396 acres of land representing over one half the township's total area (56.33 percent).

## **Land Use Problems**

One of the basic reasons for undertaking an inventory of Mayfield Township land use is to gain insight as to the types of land development problems present in the township. From the standpoint of physical development problems, the area is typical of most townships that historically developed without a strong emphasis on planning and zoning. Also, a major problem confronting urbanizing communities is incompatible land use relationship. Incompatible land uses occur when neighboring land uses, either by the nature of the activity or by the scale of the development, negatively effect the normal enjoyment or operation of one or more adjacent properties. A preponderance of nonconforming uses (land uses not permitted within the zoning district in which they are located) may result in incompatible land use associations and may also have deteriorating physical impacts on the surrounding area. The accompanying text briefly describes the most common land development

problems that exist in the township today. The types of problems which will be discussed include:

- Gridiron Platting
- Long Lot Platting-Poor Parceling and Land Fragmentation
- Poor Transition Between Land Use
- Strip Commercial

### Gridiron Platting

This type of subdivision layout is typical of older urban communities, and it is found in one area of the township. This area is the Westbrook Subdivision located north of Oregon Road in Section 31 of the township. The pattern produced by this type of layout forms a basic "grid" system of rectangular blocks, usually of similar dimensions. Several undesirable conditions, which customarily result from gridiron platting and/or site condominium layout, include:



- An excessively large amount of land area is devoted to streets and right-of-way, thus increasing maintenance costs while at the same time removing land from the tax rolls.
- A generally monotonous and uninteresting residential neighborhood usually is developed.
- This street pattern may induce nonresidential through traffic movements to penetrate local residential neighborhoods.

### Long Lot Platting-Poor Parceling and Land Fragmentation

Long lot platting and poor parceling practices (land fragmentation) are scattered throughout the township. The actual land use activity on such lots and/or parcels is usually confined to the frontage area with the remainder of the parcel unused.

The major concern regarding this type of lot/parcel pattern is the ultimate use of the vacant "landlocked" rear areas. The problem with this pattern is the diversity of ownership, which makes assembling the parcel difficult. Also, the means in which



access is provide to the rear of these types of parcels becomes problematic when landowners request lot splits and sell the rear portions for development purposes.

### Poor Transition Between Land Uses

An example of poor transition between various land uses would be an intensive commercial use adjacent to residential areas. The commercial use will tend to create negative adverse effects on the residential area through noise, odor, traffic, etc. Instead of such a situation occurring, it is better if non-nuisance types of commercial and/or industry are adjacent to residential areas, providing they are adequately buffered from the residential uses. Certain design standards can be incorporated to help eliminate unsightly appearances and other nuisance elements such as screening walls, landscaped greenbelts and berms or the use of transitional land uses that can act as a “buffer” between nonresidential uses and residential areas.



### Strip Commercial

Strip commercial developments usually create adverse effects on abutting land uses; resulting in large numbers of vehicular turning movements and parking movements. Pedestrians cannot usually easily move from one area to another due to the spread-out character of land uses, and off-street parking is often inadequate. In most instances this type of development occurs along major thoroughfares like M-24 (Lapeer Road). Typically, each use in a strip developed area provides its own access to its parking areas, which in turn creates frequent turning movements onto commercial properties resulting in slowing down traffic and creating numerous turning movements and potential traffic hazards. The effect of this is making a major thoroughfare function as a local street when such a roadway is designed to carry through traffic in a fast and efficient manner. It is better to have access to parking areas at selected points for efficiency and safety by creating internal access drives connecting abutting properties.



## NATURAL FEATURES

The natural environment forms the basis of a community's development, so it is important to include within the master plan an element that details the natural features found within a community and how those features interact with each other in the ecosystem. This will allow a community to grow while maintaining the important natural features that attract people to the community in the first place. Development within the Township should be directed to areas that could best sustain the physical changes to the landscape without negatively impacting the community's natural features. Conversely, those areas of the Township that are deemed to be valuable environmental features should be master planned for less dense development.

The abundance of natural features within Mayfield Township is one reason that many people have moved to the Township. Natural features are important to these people and natural feature preservation will serve to increase the quality of life by providing a variety of aesthetic and recreation functions as well as protecting the rural character of the community. The Township will face development pressures over the next several decades and the pristine lands which are highly suitable for recreational and other open space uses will be in danger of being swallowed up by development if an

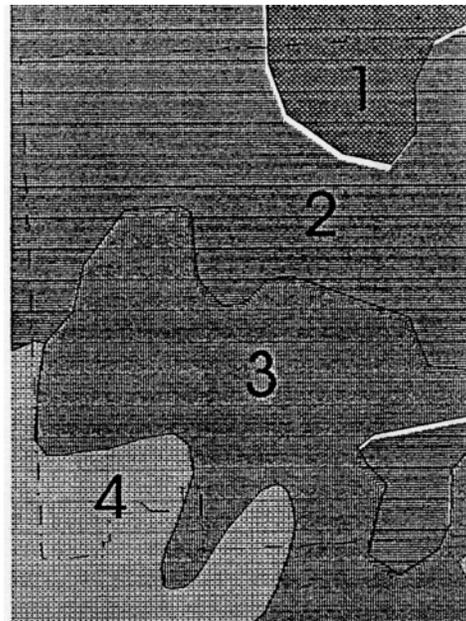
effort is not made now to preserve these feature. Preservation of natural features can be encouraged through the use of innovative zoning regulations such as single-family cluster options and planned unit development projects.

### Topography-Soils

Topography and soils are primary factors that influence growth and development within community. In Mayfield Township, topography can be characterized as being level to gently rolling, and soils can be categorized into four (4) general soil types throughout Mayfield Township.

The four (4) soil types include the following<sup>1</sup>:

1. *McBride-Marlette*: Areas having these soils are characterized by gently sloping to strongly sloping topography; well drained and moderately well drained soils that have a sandy loam to clay loam subsoil; which are typically found on till plains and moraines. These soils are generally found the northeastern corner of the Township.
2. *Boyer-Montcalm-McBride*: Areas with these soils are characterized by gently sloping to very step topography that is dominantly well-drained soils that have



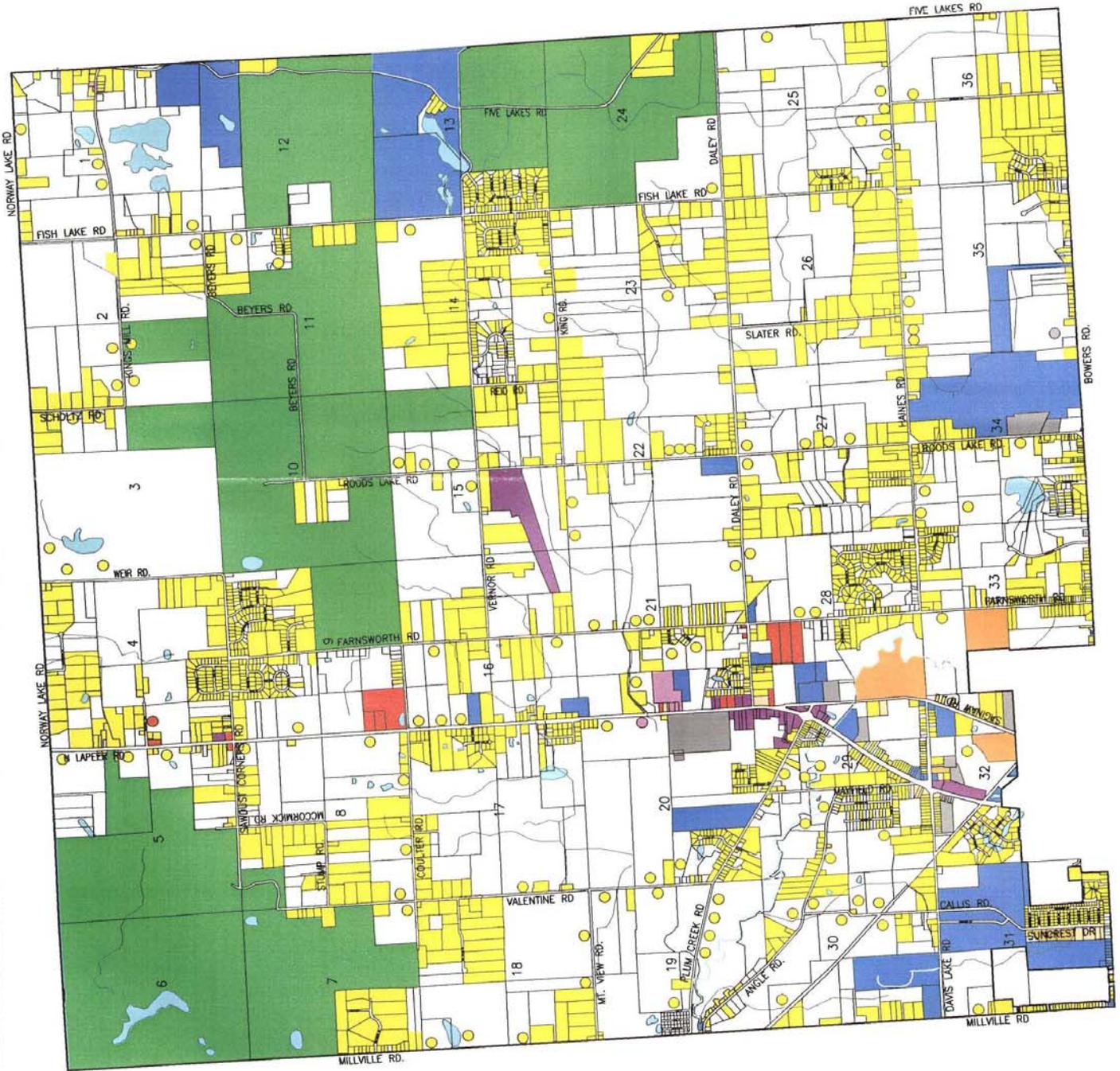
<sup>1</sup> Source: Thumb Area Municipal Services, Geonomic, Inc.

# MAYFIELD TOWNSHIP Lapeer County

## Existing Land Use

### Legend

- Single-Family Residential
- Multiple-Family Residential
- Mobile Home Park
- Office
- Convenience Commercial
- Comparison Commercial
- General Commercial
- Industrial
- Public - Semi Public
- MDNR Land
- Water
- Right-of-Way
- Vacant / Agriculture



MAP MADE BY:  
Lapeer County Planning Department  
MAP PREPARED BY:  
John Ambrose & Company, Inc.  
Lapeer, Michigan  
July 2002

sand to sandy clay loam subsoil, which is found on outwash plains, till plains and moraines. These soil types are generally located in upper one-third to upper one-half of the Township and run on a northwest to southeast diagonal across the Township starting from the northwest corner of the Township to approximately Section 24.

3. *Fabius-Wasepi-Mussey-Gifford*: Areas characterized by these soil types have level to gently sloping topography that are somewhat poorly drained and poorly drained soils that have a sandy loam to gravely clay loam subsoil. These soil types are typically found on out-wash plains and lake plains, and they are found in the central portion of the Township which then runs on a diagonal to the southeast corner of the Township in Section 36.
4. *Lapeer-Miami-Ceiling*: Areas having these soils are characterizes with gently sloping to strongly sloping topography. These soils are typically well drained to moderately well drained and have a dominantly loam to clay loam subsoil and are found on till plains and moraines. These soils are concentrated in the southwest corner of the Township.

### Drainage

The Flint River provides the natural drainage system for Mayfield Township, which drains approximately sixty-two (62) percent of Lapeer County. Most of the drains in the Township empty into the south branch of the Flint River. Topography and soil types are chief determinants of drainage conditions. During period of high precipitation, flooding is reduced due to rapid run-off caused by natural gradient of the land.

The problems associated with flooding generally occur in flood plains along river systems. Encroachments on these plains can result in flood damage by altering the length of time for run-off to reach the streams, thus changing a watershed's natural drainage capabilities.

Mayfield Township has kept and will need to continue to keep these flood prone areas free from major development in the future. Accepted uses within these areas would include agriculture and recreational activities, or maintained as open space and areas of natural habitat for wildlife.

The Lapeer County Drain Commissioner maintains approximately thirty (30) drains that serve Mayfield Township. These drains are suitable for agriculture use and with reasonable development practices. This practice is necessary in order to prevent flooding from becoming a significant problem in the Township, especially in those areas that tend to be flood prone, i.e., areas along the Flint River corridor.

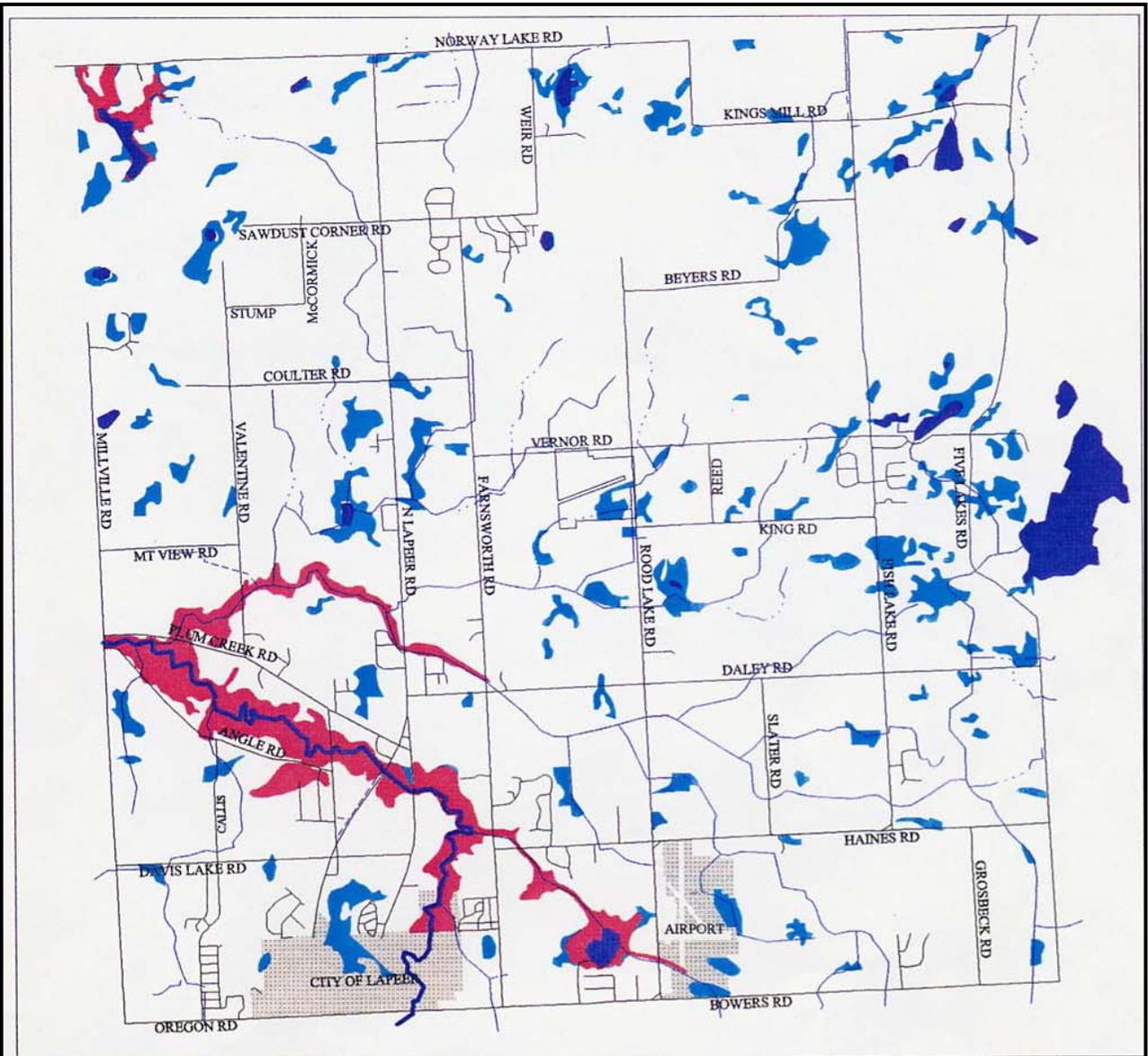
### Woodlands-Farmlands

Approximately sixteen (16) percent of the total land area in Lapeer County is classified as woodlands with the majority of these woodlands being found in State Game Areas. Thus, the preservation of these woodlands is dependant on the State of Michigan.

Woodlands can be of great value to a watershed area as they inhibit erosion by reducing the force of precipitation and by the strength of a fibrous root system. Woodlands also improve air quality, buffer wind and noise, and modify water run-off. Effective planning can provide natural feature guidelines for the protection, management, harvesting, replacement and removal of trees.

Woodland areas in Mayfield Township primarily occur in the northern half of the Township as shown on the following Farmlands and Woodlands Map.

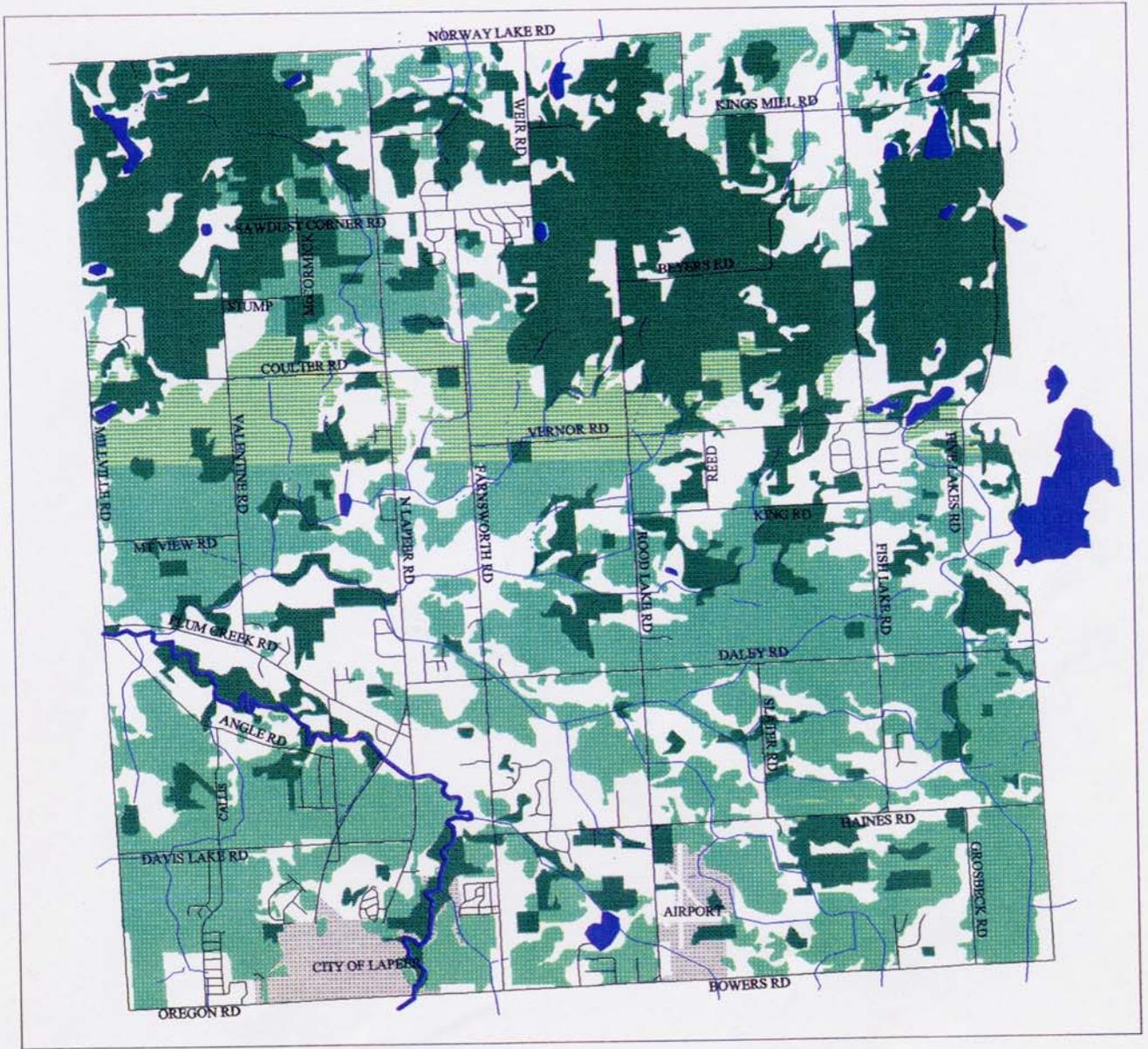
Within the past two decades, the amount of land dedicated to farming and agricultural practices has steadily been decreasing in Mayfield Township as well as the State of Michigan and the nation. Several factors contribute to this reduction including: higher production per acre of crop land, thus the need for less farmland; land speculation and small land divisions; conflicts between farmers and other residents who object to the sights, sounds, and smell of working farms; and farmers who retire from active farming and sell their land for their retirement.



SOURCE: Soil Conservation Services, MDNR

## WETLANDS & FLOOD PRONE AREAS





SOURCE: Michigan Department of Natural Resources

# FARMLAND AND WOODLANDS



## POPULATION AND HOUSING ANALYSIS

One of the initial studies undertaken when developing a plan for any geographical area consists of an analysis of population trends, which includes past populations levels, likely population levels in the future, and selected population characteristics. These factors, which are related to the Township's ultimate population holding capacity, will provide the basis for determining such public facility needs as schools, parks, playgrounds, libraries, public utility needs and Township facility needs, i.e., office needs, police and fire protection, etc.

Also, as part of this initial study, when undertaking the development of a plan, is an analysis of the Township's socioeconomic trends (income and employment data) and housing stock by structural type, occupancy, age, and value characteristics, as well as recent building permit activity.

### POPULATION TRENDS

The pace of population growth within Lapeer County continues at a significant pace. Three (3) major transportation corridors (M-53 and M-24 providing north-south routes into the county and Interstate 69 providing a major east-west route through the county) serve as a spine that supports the increasing amount of new development largely stemming from the Detroit and Flint urban and suburban centers. Also, these major transportation corridors provide ideal commuter routes for those employed in major job markets such as Detroit, Flint, Pontiac, Port Huron, etc., for those residing in the County.

### Past and Present Growth Trends

Table 2 shows population trends for Mayfield Township as well as those communities surrounding the Township along with the County and the State of Michigan as a whole between 1970 and 2000. The largest increase amongst surrounding townships was experienced by Oregon Township (145.7 percent) over the past three (3) decades (1970-2000). Mayfield Township ranked in the middle with a 110.1 percent increase during this time period. Mayfield Township saw its most significant population growth between 1970 and 1980 when it experienced a 94.7 percent increase. This growth increase during the 1970's can be partially attributed to the out migration of large numbers of population from the Detroit, Flint and Pontiac urban centers due to the civil disturbances that occurred in the late 1960's. The decade of the 1980 to 1990 saw a significant reduction in growth, which can be attributed to a major recession during the early 1980's and a sluggish economy throughout the decade. Growth during the decade of 1990 to 2000 was also rather low due to other counties (primarily Livingston and Macomb Counties) rapid development. These counties are located closer to major urban and suburban centers such as Wayne, Washtenaw and Oakland Counties where out migration of development has been felt first as opposed to Lapeer County, which is next in line to experience this affect.

Table 2

POPULATION TRENDS FOR  
SELECTED STATISTICAL AREAS

Area	1970	1980	1970-1980 Percent Change	1990	1980-1990 Percent Change	2000	1990-2000 Percent Change	Numerical Change 1970-2000	Percent Change 1970-2000
Michigan	8,881,826	9,262,078	4.3	9,295,297	0.4	9,938,444	6.9	1,056,618	11.9
Lapeer County	52,361	70,038	33.7	74,768	6.8	87,904	17.6	35,543	67.9
Lapeer, City of	6,270	6,314	0.7	7,759	22.8	9,072	16.9	2,802	44.7
Mayfield Township	3,645	7,098	94.7	7,133	0.5	7,659	7.4	4,014	110.1
Arcadia Township	1,666	2,347	28.9	2,448	4.3	3,197	30.6	1,531	91.9
Deerfield Township	2,713	5,844	115.4	6,207	6.2	5,736	-7.6	3,023	111.4
Lapeer Township	2,574	4,261	65.5	4,519	6.1	5,078	12.4	2,504	97.3
Oregon Township	2,510	5,652	125.2	5,913	4.6	6,166	4.3	3,656	145.7

SOURCE: 1970, 1980, 1990 and 2000 US Census; Selected Population and Housing Characteristics

In 2000, Mayfield Township contained a population of 7,659. In terms of population density, this figure translates into 221 persons per square mile, which is up from 198 persons per square mile as reported in the Township's 1995 Master Plan document. It should be noted that the 2000 figure is based on 34.65 square miles as opposed to the 1990 figure, which was based on 36 square miles. Based on a consistent area of 36 square miles, the 2000 density would translate into 213 persons per square mile. In either case, the population density in the Township has increased, as did the population and population densities in surrounding townships. However, it is interesting to note that Deerfield Township had a 7.6 percent loss in population between 1990 and 2000 while the State, County, City of Lapeer and neighboring townships experienced population increases.

Much of the Mayfield's population is concentrated along major roads throughout the Township. Also, population is concentrated in number of subdivisions scattered throughout the community in areas planned and zoned for Single-Family Residential and in the three (3) mobile home parks located in the Township. However, future population concentrations are expected to expand and grow in the southwestern portion of the Township due to the potential of having public utilities being available (sewer and water).

Since 1970, Lapeer County has grown nearly six (6) times the rate of the State of Michigan. The majority of this growth occurred during the decade of the 1970's, as did most growth for the selected communities including Mayfield Township. In 2000, Lapeer County held 87,904 persons, which represents nearly a 68 percent increase in population since 1970.

### **Population Projections**

The purpose of this section is to present population projections for Mayfield Township. These will be eventually related to the "*ultimate holding capacity*" of the Township, which will be determined in the Residential Areas Plan; a master plan study that analyzes existing and future concentrations of residential neighborhoods. The ultimate holding capacity and population projections will provide a basis for determining community needs. The projections indicate probable rate of growth, at ten (10) year intervals, from 2000 to the year 2030.

It must be kept in mind that the population projections are based on existing and past conditions, and represent the most reliable estimates of future population at the present time. The figures are, however, subject to change if land development in the Township should vary from assumptions made in the process of formulating the projections, i.e., an unforeseen major development that increases population. The population projections which follow are nonetheless reliable to give reasonable direction regarding future rate of growth and the consequent needs brought on by this growth.

The methods used in projecting the population for the Township are as follows:

- Constant County Share
- Arithmetic Method

- Geometric Method

Constant County Share

This methodology uses the estimated growth rate per year (2000 to 2020) for Lapeer County as reported by the Michigan Department of Management and Budget (MDMB), which is 1.34 percent or 13.4 percent per decade. Based on this approach, and assuming that Mayfield Township would yield the same rate of growth as the County, the Township’s population projections are as follows:

<u>2010</u>	<u>2020</u>	<u>2030</u>
8,685	9,849	11,168

Arithmetic Method

This method assumes that the population will increase from 2000 to 2010, 2010 to 2020 and 2020 to 2030 by the same numerical increases as it did between 1970 to 1980, 1980 to 1990 and 1990 to 2000. Using this technique, the following projections result:

<u>POPULATION</u>			
<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
3,645	7,098	7,135	7,659

<u>NUMERICAL INCREASE</u>			
<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>	<u>1970-2000</u>
3,453	37	524	4,014 (1,338*)

\* Average over three decades.

PROJECTIONS

	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
1970-1980 increase	7,659	11,304	14,949	18,594
1980-1990 increase	7,659	7,696	7,733	7,770
1990-2000 increase	7,659	8,183	8,707	9,231
1970-2000 increase	7,659	8,997	10,335	11,673

Geometric Method

It is assumed in this method that the rate of growth experienced in the Township the three (3) decades of 1970 to 1980, 1980 to 1990 and 1990 to 2000 will continue in the future. Future population estimates based on this technique is indicated below:

POPULATION

<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>
3,645	7,098	7,135	7,659

RATE OF GROWTH

<u>1970-1980</u>	<u>1980-1990</u>	<u>1990-2000</u>	<u>1970-2000</u>
94.7%	0.5%	7.3%	52.4% (17.5%*)

\* 17.5% average over three decades.

PROJECTIONS

	<u>2000</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
1970-1980 increase	7,659	14,912	29,033	56,528
1980-1990 increase	7,659	8,042	8,444	8,866
1990-2000 increase	7,659	8,218	8,818	9,462
1970-2000 increase	7,659	8,999	10,574	12,425

When reviewing the various projections, it is obviously apparent a range begins to show with the difference between high and low population projects. The projections prepared by the MDMB have been assumed to be the most reliable figures to refer to if a specific figure is desired. The following Table 3 depicts two (2) summary projection figures. Summary I depicts the 1970 to 2000 arithmetic and geometric projection methods plus the method used by the MDMB. The figures referred to as a “*working estimate*” is an average of the above techniques. Summary II depicts the low and high estimates of population based upon the techniques previously mentioned. The “*working estimates*” under this summary is an average of the low and high estimates, and it should prove to be within a reliable range.

<b>Table 3</b>			
<b>POPULATION PROJECTION RANGE</b>			
	2010	2020	2030
<b>Summary I</b>			
1970-2000 Arithmetic	8,997	10,336	11,673
1970-2000 Geometric	8,999	10,574	12,425
County Share	8,685	9,849	11,168
“Working Estimate”	8,894	10,253	11,755
<b>Summary II</b>			
Low Estimate	8,685	9,849	11,168
High Estimate	8,999	10,574	12,425
“Working Estimate”	8,842	10,212	11,797

**Age Composition**

To provide a meaningful understanding of the Township’s population, it is necessary to consider the factor of age composition. It is not sufficient to know only that the Township is increasing or decreasing in population, but an understanding of how the population change is affecting various age groups will, in the future, have a bearing

on decisions to emphasize community facilities, services for elderly citizens, school age persons and family groups.

The discussion and table that follows highlights age structure trends in the Township, County and State. Age group characteristics are discussed in terms of the following:

<b>AGE GROUP CHARACTERISTICS</b>	
Pre-School Age	All persons under five (5) years of age classified in this group.
Elementary/Secondary School Age	Includes all persons 5 to 19 years of age.
College Age	Includes all persons 20 to 24 years of age.
Labor Force	This category includes persons aged 25 to 64 and is further divided into the following categories: <ul style="list-style-type: none"> <li>• <u>Family Forming</u>: Includes persons aged 25 to 44.</li> <li>• <u>Mature Family</u>: Includes persons 45 to 64 and encompasses a community's experienced labor force.</li> </ul>
Retirement Age	The retirement age groups includes all persons aged 65 and over.

The following Table 4 depicts the above information in tabular form, and it compares Mayfield Township's age group composition with those for the City of Lapeer and the State of Michigan. It is interesting to note as to how close these governmental agencies compare with regard to age composition. Of special interest is that the Township has a larger number of retired persons than does Lapeer County (11.8% vs. 9.9%).

**Table 4**  
**AGE COMPOSITION**  
**MAYFIELD TOWNSHIP AND SELECTED AREAS**  
**BY**  
**PERCENTAGE OF POPULATION**

<b>AGE GROUP</b>	<b>Mayfield Township 2000</b>	<b>Lapeer County 2000</b>	<b>State of Michigan 2000</b>
<u>Pre-School Age</u> (Under 5)	6.6	6.7	6.8
<u>School Age</u> (Elementary – 5-14)	15.8	16.3	15.0
(Secondary – 15-19)	7.6	7.6	7.2
(College 20-24)	4.7	4.9	6.5
<u>Total School Age</u> (5-24)	28.1	28.8	28.7
<u>Labor Force</u> (Family Forming 25-44)	29.1	31.0	29.8
(Mature Family 45-64)	24.4	23.9	22.5
<u>Total Labor Force</u> (25-64)	53.5	54.9	52.3
<u>Retirement Age</u> (65 & Over)	11.8	9.6	12.3
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

SOURCE: U. S. Bureau of Census, 2000

## Educational Attainment

Table 5 below examines the educational attainment of persons twenty-five (25) years of age or older in Mayfield Township. Of significant importance, Mayfield Township had a rather large element of this population (15.5 percent) that did not attain a high school diploma. In a period of time when education and technology is becoming such an important factor in finding successful employment and a sound quality of life, it is somewhat troublesome to see such a high number of persons without a high school education. On the other hand, 40.4 percent of this population did attain a high school diploma. Also, 41.1 percent of this population group had some college and/or obtained an associate's, bachelors or graduate degree.

<b>Table 5</b> <b>EDUCATIONAL ATTAINMENT</b> Population 25 Years and Over		
<b>Mayfield Township</b>	<b>Number</b>	<b>Percent</b>
<b>Population 25 years and over</b>	<b>4,964</b>	<b>100.0</b>
Less than 9 <sup>th</sup> grade	196	3.9
9 <sup>th</sup> to 12 <sup>th</sup> grade, no diploma	577	11.6
High school graduate (includes equivalency)	2,003	40.4
Some college, no degree	1,296	26.1
Associate degree	303	6.1
Bachelor's degree	457	9.2
Graduate or professional degree	133	2.7
SOURCE: U.S. Census; Selected Social Characteristics, 2000		

## SOCIOECONOMIC TRENDS

This section examines the economic and social characteristics of Mayfield Township's population. These characteristics include income and employment trends.

### Income

The year 2000 median household, family, and per capita income data for Mayfield Township, Lapeer County and the State of Michigan are presented below in Table 6. Mayfield Township reported income levels in all three categories that were lower than both the County's and the State's.

<b>Table 6</b> <b>HOUSEHOLD AND PER CAPITA INCOME</b> <b>Year 2000</b>			
Income Category	Mayfield Township	Lapeer County	State of Michigan
Median Household Income	\$50,822	\$51,717	\$44,667
Per Capita Income	\$20,399	\$21,462	\$22,168
Median Family Income	\$54,827	\$57,817	\$53,457
SOURCE: U. S. Census; Selected Economic Characteristics, 2000			

<b>Table 7</b> <b>COMPARATIVE HOUSEHOLD INCOME</b> <b>Year 2000</b>						
Income Ranges	Mayfield Township		Lapeer County		State of Michigan	
	Number	Percent	Number	Percent	Number	Percent
\$0 - \$25,000	468	17.4	5,862	19.0	1,002,138	26.4
\$25,000 - \$35,000	369	13.7	3,411	11.1	470,419	12.5
\$35,000 - \$50,000	474	17.6	5,381	17.5	624,326	16.5
\$50,000 - \$75,000	760	28.2	7,345	23.9	778,755	20.5
\$75,000 & over	622	23.1	8,780	28.5	913,142	24.1
<b>TOTAL</b>	2,693	100.0	30,779	100.0	3,788,780	100.0
Source: U. S. Census; Selected Economic Characteristics, 2000						

Table 7 above depicts comparative household income for Mayfield Township, Lapeer County and the State of Michigan. Mayfield Township had income levels that were

fairly consistent with that of the county and state. With one exception, the Township did have a significant higher percentage of persons in the income range of \$50,000 to \$75,000 than did the county or state. The State of Michigan, however, had a significant number of persons (26.6 percent) in the lowest income range than did the Township or the County, which suggests that the Township's poverty levels are lower than those typically found elsewhere in the State. Also, it suggests that the Township, as well as the County, has much smaller concentrations of low income households than does the State, which incorporates several large urban centers where such concentrations are typically found.

### Employment Trends

Table 8 examines employment by occupation for Mayfield Township residents as well as those in Lapeer County and the State of Michigan. The largest grouping in Mayfield Township, approximately one-quarter of the workforce, is employed in production, transportation and material moving occupations. Management and professional occupations along with sales and office occupations also ranked high with 23 percent plus each (approximately 47 percent) being employed in these occupations. Of special interest is the low number of persons occupied in farming (12 persons representing 0.3 percent of the work force, which is defined as employed civilian population 16 years of age and over. It is also interesting to note that management and professional occupations are lower in the Township and County than they are in the State. This correlates with the high number of persons employed in production and transportation occupations in the Township and County as opposed to the State.

<b>Table 8</b>						
<b>EMPLOYMENT BY OCCUPATION</b>						
<b>Year 2000</b>						
<b>Industry</b>	<b>Mayfield Township</b>		<b>Lapeer County</b>		<b>State of Michigan</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>Management, Professional</b>	870	23.7	11,043	26.9	1,459,767	31.5
<b>Services Occupations</b>	507	13.8	5,608	13.7	687,336	14.8
<b>Sales &amp; Office</b>	853	23.2	8,581	20.9	1,187,015	25.6
<b>Farming, Fishing</b>	12	0.3	165	0.4	21,120	0.5
<b>Construction, Extraction</b>	537	14.6	5,687	13.9	425,291	9.2
<b>Production, Transportation</b>	895	24.4	9,928	24.2	856,932	18.5
<b>TOTAL</b>	3,674	100.0	41,012	100.0	4,637,461	100.0
SOURCE: U. S. Census; Selected Economic Characteristics, 2000						

## HOUSING ANALYSIS

This section of the plan analyzes the characteristics of Mayfield Township’s housing stock by structural type, occupancy, age, and value characteristics, as well as recent building permit activity. Where appropriate, the data described in this section is benchmarked to county demographics. Within the study area, most residential properties are concentrated along main roads, in subdivisions / site condominium developments scattered throughout the Township, and in one of three mobile home parks located in the Township.

### Housing Structural Type

Data in Table 9 compares the type of structures that existed in the Township and County in 2000. Single-family residential structures comprise the vast majority of housing units in Mayfield Township (78.8 percent) as well as in Lapeer County (81.9 percent). Mobile home housing units make up 15.8 percent of the Township’s housing units, which are nearly twice the percentage of units than what is found in the County. The low number of housing with two or more units (two-family and multiple-family units) is not surprising as such structures are usually accompanied by densities that require the availability of public water and sanitary sewer systems. If higher density housing is intended, the likelihood of such development would be located in close proximity to the City of Lapeer where the potential extension of public utilities, under the City’s and Township’s sewer and water agreement, is more feasible.

In terms of mobile (manufactured) homes, Mayfield Township currently has three (3) mobile home parks located within the Township, which include River Ridge (215 unit sites), Crestview Manor (153 unit sites) and Lapeer Meadows (230 unit sites). There are a total of approximately 598 of mobile home sites in these parks, which represents twenty-one (21) percent to the Township’s total housing stock based the number of housing units reported by U. S. Census in the year 2000 for Mayfield Township, and this type of housing in the Township is significantly higher than in the County (15.8 % vs. 8.7 %).

<b>Table 9</b>				
<b>UNITS IN STRUCTURE</b>				
<b>Year 2000</b>				
<b>Units per Structure</b>	<b>Mayfield Township</b>		<b>Lapeer County</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<b>1-unit, Detached</b>	2,195	78.8	26,784	81.9
<b>2-units</b>	23	0.8	673	2.1
<b>3 or more units</b>	127	4.6	2,420	7.4
<b>Mobile Home</b>	440	15.8	2,833	8.7
<b>TOTAL</b>	2,785	100.0	32,732	100.0
SOURCE: U. S. Census; Selected Housing Characteristics, 2000				

## Housing Occupancy

Data in Table 10 details the 2000 occupancy characteristics for housing units located inside of Mayfield Township. Home ownership for occupied housing units registered at 90.2 percent, with the remaining 9.8 percent occupied by renters. Of the total housing units, 3.2 percent are reported as being vacant. The largest category of vacant housing (1.2 percent) is those classified as vacant units for sale. Generally, a vacancy rate as high as five (5) percent is considered desirable to permit residents moving into the area a choice of housing which is immediately available for occupancy.

<b>Table 10</b>		
<b>2000 OCCUPANCY CHARACTERISTICS</b>		
<b>Category</b>	<b>Number of Units</b>	<b>Percent of Total Units</b>
<b>Total occupied housing units</b>	<b>2,685</b>	<b>96.8</b>
<b>Owner-occupied</b>	2,421	87.3
<b>Renter-occupied</b>	264	9.5
<b>Vacant housing units</b>	<b>89</b>	<b>3.2</b>
<b>For rent</b>	6	0.2
<b>For sale</b>	32	1.2
<b>Rented/sold not occupied</b>	10	0.4
<b>For seasonal, recreational use</b>	19	0.7
<b>Other vacant*</b>	22	0.8
<b>TOTAL HOUSING UNITS</b>	<b>2,774</b>	<b>100.0</b>
* Includes non-housing used for residential: rail car, boats, trailers and campers.  SOURCE: U. S. Census: General Housing Characteristics, 2000		

## Age of Structures

Table 11 details the age of Township housing structures by year of construction. The 1970's saw the most significant recorded spike in housing construction to date. Over one-third (34.7 percent) of the Township's housing stock was built during this decade. However, the rate of growth during the 1980's nearly dropped to less than half (15.5 percent) of that experienced in the previous decade, which is due to a major recession and high, double digit interest rates (15 to 18 percent) that occurred during the 1980's. During the 1990's, the rate of growth for new housing increased to just over twenty (20) percent, which was substantially better than the rate of growth during the 1970's, but no where near the rate of growth that occurred during the 70's. As previously discussed in the population section of this study, the large spike in growth (population and housing) during the 1970's can be partially attributed to the significant

out migration from major urban metropolitan centers like Detroit, Pontiac and Flint due to the civil disturbances that occurred during the late 1960's in these population centers.

<b>Table 11</b>		
<b>AGE OF RESIDENTIAL STRUCTURE</b>		
<b>Year Built</b>	<b>Number</b>	<b>Percent</b>
<b>1990 to 2000</b>	561	20.1
<b>1980 to 1989</b>	433	15.5
<b>1970 to 1979</b>	967	34.7
<b>1960 to 1969</b>	357	12.8
<b>1940 to 1959</b>	274	9.8
<b>1939 or earlier</b>	139	6.9
<b>TOTAL</b>	<b>2,731</b>	<b>100.0</b>
SOURCE: U. S. Census; Selected Housing Characteristics, 2000		

### Housing Value

As detailed in Table 12, the majority (45.7 percent) of specified owner-occupied homes in Mayfield Township is valued between \$100,000 and \$149,000, and the grouping ranging in value between \$100,000 and \$199,999 represents nearly 71 percent of the total housing stock in the Township. The median value of specified owner-occupied housing units in the Township is \$137,800, which is slightly higher than that of the County median value of \$134,600.

New, suburban construction, such as is occurring in Mayfield Township, tends to reflect a higher average price than would be found in older communities with smaller tract homes or an inordinately high percentage of manufactured homes. Considering the trend toward, larger, site built homes in the area; it is likely that housing value will increase over the next several years.

Most renters in both the Township (63 percent) and County (69 percent) pay \$300 to \$749 in rent by contract (2000 figure). The median contract rent for specified renter-occupied housing units in 2000 for the Township was \$492, which is lower than that of the County (\$541).

Table 12

**2000 COMPARATIVE HOUSING VALUES**

Value Characteristics	Mayfield Township		Lapeer County	
	Number	Percent	Number	Percent
<b>Specified owner-occupied units</b>	1,772	100.0	17,514	100.0
Less than \$50,000	28	1.6	472	2.7
\$50,000 to \$99,999	274	15.5	3,797	21.7
\$100,000 to \$149,999	810	45.7	6,460	36.9
\$150,000 to \$199,999	443	25.0	3,829	21.9
\$200,000 to \$299,999	207	11.7	2,396	13.7
\$300,000 to \$499,999	10	0.6	504	2.9
\$500,000 to \$999,999	0	0.0	50	0.3
\$1,000,000 or more*	0	0.0	6	0.0
<b>Median</b>	137,800	(X)	134,600	100.0
<b>Specified renter-occupied units</b>	248	100.0	4,289	5.0
Less than \$200	43	17.3	215	4.1
\$200 to \$299	0	0.0	176	28.5
\$300 to \$499	77	31.0	1,224	40.6
\$500 to \$749	79	31.9	1,743	10.7
\$750 to \$999	15	6.0	457	2.7
\$1,000 to \$1,499	16	6.5	117	0.1
\$1,500 or more	0	0.0	4	8.2
<b>No cash rent</b>	18	7.3	353	(X)
<b>Median</b>	492	(X)	541	

\* The percentage of Lapeer County is 0.03.  
SOURCE: General Housing Characteristics, 2000

**Recent Residential Construction Activity**

Table 13 depicts the new home starts since the year 1990. Based on an average of 45 new single-family homes per year, it is estimated that the decade of 2000 to 2010 will yield approximately 450 new single-family units, which would bring the total single-family, detached units to approximately 2,645 units by the year 2010. This would represent an approximate twenty-one (21) percent increase in single-family, detached homes in the Township over a ten year period. However, these figures do not include the potential new homes that could be served by public sewers, which would cause these figures to be significantly higher by the year 2010.

**Table 13**

**RESIDENTIAL CONSTRUCTION ACTIVITY  
Mayfield Township**

<b>YEAR</b>	<b>NUMBER OF BUILDING PERMITS ISSUED</b>	<b>PERCENT OF TOTAL</b>
<b>2004</b>	52	8
<b>2003</b>	30	4
<b>2002</b>	29	4
<b>2001</b>	45	7
<b>2000</b>	47	7
<b>1999</b>	65	11
<b>1998</b>	57	8
<b>1997</b>	53	8
<b>1996</b>	54	8
<b>1995</b>	35	5
<b>1994</b>	42	6
<b>1993</b>	54	8
<b>1992</b>	45	7
<b>1901</b>	30	4
<b>1990</b>	35	5
<b>TOTAL</b>	<b>673</b>	<b>100 %</b>

Source: Mayfield Township Building Department  
Average of 44 permits per year.

## REGIONAL ANALYSIS

Pursuant to Section 7a (1) of the Township Planning Act as amended, neighboring communities to Mayfield Township are required to be notified that the Township is undertaking the development of a new Master Plan. In addition, the Township Planning Act requires Mayfield Township to take into consideration and coordinate the land use proposals found in neighboring communities to those being proposed for the Township. This analysis has evaluated the adopted Master Plans of four (4) neighboring townships (Deerfield Township, Arcadia Township, Lapeer Township and Oregon Township) as well as the City of Lapeer with regard to the land use proposals that are planned adjacent to Mayfield Township.

### Introduction

The adopted Master Plans of surrounding communities may directly impact the future development of Mayfield Township. Therefore, it is important to recognize such plans and to evaluate their importance in the development of the Township's Master Plan.

It becomes clear upon examination of existing planning documents that the M-24 corridor will continue to support a growing amount of intensive development (particularly commercial uses and some industrial uses) capitalizing on its regional setting and access to another major transportation corridor, Interstate 69. Thus, those communities that have a direct relationship to M-24 (Mayfield Township, Deerfield Township and the City of Lapeer) will most likely feel the impacts of growth before the other communities experience such growth.

The following is a description of the planning policies set for land outside the fringe of the Mayfield Township:

### Deerfield Township

Deerfield Township, which is located north of Mayfield Township, has a Master Plan dated 2002. This Plan depicts its southern border with Mayfield Township as being planned for two (2) land use categories.

The majority of this area is planned as Agriculture, which is designed to contain agricultural areas (farms) and low density, large lot residential uses. The second category is an area planned for Single-Family Residential, which is designed for subdivision developments providing that such developments are capable of being developed with on-site septic systems. However, if public sewers were available, this land use category is also designed to handle this of development. The Single-Family Residential land use category is planned along a narrow corridor on either side of M-24 (North Lapeer Road).

The planned use categories found in Deerfield Township are consistent with the existing and anticipated land uses in Mayfield Township, and thus, there are no adverse land use relationships between the two townships.

### Arcadia Township

Arcadia Township lies to the east of Mayfield Township, and its Master Plan is dated 1999. There are three (3) land use categories that have been planned along the border with Mayfield Township.

The first land use classification to be discussed is the Single-Family Residential category. This land use type is found in the northwest corner of Arcadia Township along Five Lakes Road between Norway Lake Road and Kings Mill Road. This land use is designed for low density, small parcel residential development, which includes subdivisions. This area of Arcadia Township is generally consistent with land use proposal found in Mayfield Township.

The second land use classification is the Agriculture-Rural Residential land use category, and it is found just south of the previously discussed Single-Family Residential area. This area extends south of Kings Mill Road for approximately one-half (1/2) mile. A second area for this land use category is found along the southern portion of Mayfield Township's Section 24 and extends to Bowers Road. This area is designed for farming and large lot (minimum of 2 acres) development. Again, this area does not present any adverse land use relationships between Arcadia and Mayfield Townships.

The third land use classification found along the border between Arcadia and Mayfield Townships is labeled as Recreation / Conservation and primarily consists of the Lapeer State Game Area. This area is consistent with the land use designations found in Mayfield Township, which includes public lands, i.e., the Lapeer State Game Area (MDNR land) and Eastern Michigan University's public lands. This area borders Mayfield Township's Sections 12, 13 and the northern portion of Section 24.

### Lapeer Township

Lapeer Township borders Mayfield Township along its northern border, and it extends east of the City of Lapeer, which is approximately one-quarter (1/4) of a mile west of Farnsworth Road to the eastern side of the township. The Lapeer Township Master Plan, which was adopted in January 1999, contains two (2) land use classifications along this border with Mayfield Township.

The first land use category is labeled as Low Density Residential and is found in the northeast corner of the township south of Mayfield Township's Section 36. This area is planned for one (1) dwelling unit per acre and is designed to accommodate property splits and public and private road residential development, including subdivision developments.

The second land use category is labeled Moderate Density Residential. This area is designed to be developed with a density of two (2) to three (3) dwelling units per acre and includes two-family developments. Also, this area is encouraged to be developed with subdivisions, especially cluster developments.

### City of Lapeer

The City of Lapeer is located south of Mayfield Township and west of Lapeer Township. Their Master Plan was prepared in 1974 and has not undergone any revisions since its

original adoption. The City has five (5) land use categories planned along the border of Mayfield Township.

The first land use category is classified as Public land use, and it generally located east of Saginaw Road to the eastern City limits. This Public land use is currently where the City's sewage treatment facilities are located.

The second land use category is designated as Park and Open Space and is found between Saginaw Road and M-24 south of Mayfield Township. This area contains a park and a rails to trails bicycle/pedestrian facility.

The third land use category is designated as Single-Family and Two Family Residential. This area is located west of and adjacent to M-24. The area is primarily developed with single-family subdivisions, and this area also contains the Lapeer Hospital facility.

The fourth land use category, which is located south of Oregon Road, is designated as Multiple-Family. The area is currently developed with apartment complexes.

The fifth land use category is Public, and includes the Lapeer West High School facility. Both the fourth and fifth land use categories are located south of Oregon Road and south of Mayfield Township's Section 31.

### Oregon Township

Oregon Township is located west of Mayfield Township, and its current Master Plan was adopted in 1990. The Master Plan depicts four (4) land use categories located along the border between the two townships.

The first category is Recreation, and it is found in Section 1 as well as in portions of Sections 12 and 13. This land use classification is consistent with the land use categories found in Mayfield Township.

The second land use category is Single-Family Residential, which is found in one small area of Oregon Township. The area covers approximately one-quarter (1/4) of a mile along Millville Road south of Angle Road. This area is planned for densities ranging from 1.5 to 2.0 dwelling units per acre. Much of the areas planned for Single-Family Residential is currently developed with subdivisions and lot sizes are generally expected to be smaller in these areas.

The third land use category is Agriculture-Residential, which is found in the remaining portions of Oregon Township with the exception of the Millville Road frontage along Section 36. The Agriculture-Residential areas are planned to have densities or minimum lot sizes of at least 2 ½ acres. Also, included within this area would be farm dwellings, farming, forested areas and flood plains. Furthermore, these areas are conducive to the preservation of agricultural lands and the discouragement subdivisions and the mass building of residential uses.

The fourth and final land use category is Moderate Density Residential, and it is found along the frontage of Millville Road in Section 36. This land use classification recognizes that some families have a need and desire for apartment living, town houses or mobile homes, and the Moderate Density Residential provides for this type of land use. It is

also designed to be served with public sewers in order to permit the type of moderate density uses found in this land use category.

### Mayfield Township

The Mayfield Township Planning Commission adopted its current Master Plan in November 1995. In general, the land use categories found along the borders of the Township, based on the above analysis, remain consistent with those found with its neighbors. Furthermore, it is not anticipated that future land use policies established by the Mayfield Township Planning Commission in these areas will have any different impact on these neighboring communities than does the current land use policies.

The Township's most intense growth areas have been typically along the M-24 corridor and in the southern portions of the Township, especially the southwest corner of the Township. This growth pattern is consistent with the land use policies established in the 1995 Master Plan.

Future growth along the M-24 corridor and in the southern portions of the Township will also be impacted the availability of public sewers and water, which recently became available to the Township through a mutual agreement between the Township and the City of Lapeer (425 Agreement). This impact will be more thoroughly analyzed in other chapters of this Master Plan document.

## GOALS AND OBJECTIVES

To help facilitate the development of goals and objectives for the Mayfield Township Master Plan, the Mayfield Township Planning Commission and John Ambrose & Company, Inc. conducted a township-wide citizen survey as part of their efforts to gather information for the preparation of the Master Plan as well as establishing the goals and objectives for the Plan.

The survey provided Mayfield Township residents, property owners and business owners with the opportunity to participate in this effort. It also provided an opportunity to identify and prioritize a variety of planning issues, which impact future growth and development in the Township.

### **Mayfield Township Comprehensive Survey**

On March 1, 2003, a Mayfield Township Comprehensive Master Plan Survey was mailed to 800 Mayfield Township taxpayers as a supplement to their assessment information. There were 146 surveys returned resulting in a respectable 18.25 percent return rate. The survey was broken down in two (2) parts; one entitled General Information, and the second entitled Planning and Development. The following text provides the responses to the survey, which can be found in its mailed out form in the Appendix at the end of this Master Plan document.

#### A. General Information

Question:

**Are you...** (number of respondents)

**A resident in Mayfield Township** (134)

**A property owner but NOT a resident in Mayfield Township** (5)

**A business owner in Mayfield Township** (3)

**A combination of the above** (5)

Question:

**How long have you lived, owned property or owned a business in Mayfield Township?** (number of respondents)

**0-5 years** (20)

**6-10 years** (24)

**11-15 years** (18)

**16-20 years** (15)

**Over 20 years** (70)

Question:

**In your opinion, what are the main reasons people move to Mayfield Township? Please pick three responses and rank them from 1 to 3, with 1 being the PRIMARY reason people move to Mayfield Township.**

ITEM	PRIMARY REASON	SECOND REASON	THIRD REASON
Rural character of the Township	50 (34%)	15 (10%)	15 (10%)
Country living	<b>51 (35%)</b>	30 (20%)	11 (8%)
Housing values	6 (4%)	15 (10%)	16 (11%)
Quality & reputation of schools	5 (3%)	10 (7%)	11 (8%)
Safe neighborhoods & low crime	14 (10%)	<b>31 (21%)</b>	<b>26 (18%)</b>
Reasonable taxes	4 (3%)	14 (9%)	22 (15%)
Recreation	1 (1%)	3 (2%)	2 (1%)
Accessibility to work	4 (3%)	14 (9%)	15 (10%)
Accessibility to shopping, etc.	7 (5%)	14 (9%)	22 (15%)
Other	1 (1%)	0 (0%)	2 (1%)

**B. Planning and Development**

Question:

***How should the following be prioritized in the Mayfield Township Master Plan?***

ITEM	NOT A PRIORITY	LOW PRIORITY	MODERATE PRIORITY	HIGH PRIORITY
Preservation of natural environment	2 (1%)	7 (5%)	45 (31%)	<b>92 (63%)</b>
Preservation of agriculture	9 (6%)	13 (9%)	54 (37%)	<b>68 (47%)</b>
Road system quality	1 (1%)	6 (4%)	58 (40%)	<b>80 (55%)</b>
Traffic management	5 (3%)	21 (14%)	53 (36%)	<b>66 (45%)</b>
Provide public sewer	<b>76 (52%)</b>	35 (24%)	20 (14%)	14 (10%)
Provide public water	<b>81 (55%)</b>	33 (23%)	20 (14%)	13 (9%)
Growth management	9 (6%)	10 (7%)	60 (41%)	<b>66 (45%)</b>
Preservation of open space	9 (6%)	10 (7%)	42 (29%)	<b>83 (57%)</b>
Recreation	20 (14%)	46 (32%)	<b>54 (37%)</b>	26 (18%)
Residential home sites	21 (14%)	33 (23%)	<b>63 (43%)</b>	27 (18%)
Commercial development	<b>53 (36%)</b>	48 (33%)	28 (19%)	16 (11%)
Industrial development	<b>74 (51%)</b>	39 (27%)	20 (14%)	12 (8%)

Question:

***Please indicate if you strongly agree, agree, disagree or are undecided with the following goal statements?***

ITEM	STRONGLY AGREE	AGREE	DISAGREE	UNDECIDED
Provide rural atmosphere	<b>94 (64%)</b>	45 (31%)	5 (3%)	2 (1%)
Provide a variety of housing alternatives	9 (6%)	55 (38%)	<b>64 (44%)</b>	14 (10%)
Plan housing in a manner which preserves the natural features of the environment	<b>88 (60%)</b>	46 (32%)	8 (5%)	3 (2%)
Preserve the natural features such as the open space, woodlands, and wetlands	<b>90 (62%)</b>	44 (30%)	15 (10%)	2 (1%)
Encourage development of commercial uses in appropriate locations	24 (16%)	<b>59 (40%)</b>	52 (36%)	9 (6%)
Encourage development of industrial uses in appropriate locations	14 (10%)	51 (35%)	<b>69 (47%)</b>	9 (6%)

ITEM (Continued)	STRONGLY AGREE	AGREE	DISAGREE	UNDECIDED
Expand public water and sewer provisions	15 (10%)	19 (13%)	<b>86 (59%)</b>	26 (18%)
Encourage higher density residential developments where public sewers are available	16 (11%)	45 (31%)	<b>62 (42%)</b>	22 (15%)
Preserve open space by protecting such areas from over development	<b>82 (56%)</b>	45 (31%)	11 (8%)	6 (4%)
Encourage quality development regardless of type	30 (21%)	42 (29%)	<b>56 (38%)</b>	16 (11%)

Question:

**Would you prefer to see more commercial development (tax base) in Mayfield Township?** (number of respondents)

**More** (29 / 19%)

**Same** (70 / 49%)

**Less** (46 / 32%)

Question:

**Rank the following types of commercial development according to your preference, with "1" being your first and highest preference and "4" being your last and least preferred type of commercial development?**

TYPE OF COMMERCIAL DEVELOPMENT	PREFERENCES			
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
<b>Commercial shopping centers</b>	22 (19%)	18 (15%)	31 (27%)	<b>45 (39%)</b>
<b>Commercial strip malls</b>	7 (6%)	14 (12%)	<b>66 (54%)</b>	34 (28%)
<b>Individual sited commercial establishments</b>	<b>43 (39%)</b>	42 (38%)	14 (13%)	12 (11%)
<b>Office complexes</b>	<b>44 (38%)</b>	34 (34%)	12 (10%)	25 (22%)

Question:

**How would you rate the following commercial development issues in Mayfield Township?**

ISSUE	NOT A PROBLEM	MINOR PROBLEM	MAJOR PROBLEM
<b>Parking</b>	98 (71%)	30 (22%)	9 (7%)
<b>Access</b>	92 (68%)	37 (27%)	6 (4%)
<b>Attractiveness of facility</b>	57 (42%)	51 (38%)	28 (20%)
<b>Lighting</b>	80 (60%)	39 (29%)	15 (11%)
<b>Signage</b>	74 (55%)	43 (32%)	18 (13%)
<b>Buffering from adjacent use</b>	66 (50%)	38 (29%)	28 (21%)

Question:

**Would you prefer to see more industrial development (tax base) in Mayfield Township?** (number of respondents)

**More** (20 / 15%)

**Same** (64 / 46%)

**Less** (53 / 39%)

Question:

**Rank the following types of industrial development according to your preference, with “1” being your first and highest preference and “3” being your last and least preferred type of industrial development?**

TYPES OF INDUSTRIAL DEVELOPMENT	PREFERENCES		
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
<b>Industrial Parks</b>	27 (25%)	31 (28%)	<b>51 (47%)</b>
<b>Individual sited industrial establishments</b>	12 (11%)	<b>54 (49%)</b>	44 (40%)
<b>Research/office development facilities</b>	<b>71 (64%)</b>	24 (22%)	14 (13%)

Question:

**How would you rate the following transportation issues in Mayfield Township?**

TRANSPORTATION ISSUES	NOT A PROBLEM	MINOR PROBLEM	MAJOR PROBLEM
<b>Unsafe roads</b>	59 (42%)	<b>66 (46%)</b>	17 (12%)
<b>Maintenance of roads</b>	46 (32%)	<b>69 (49%)</b>	27 (19%)
<b>Lack of paved roads</b>	<b>79 (56%)</b>	44 (31%)	19 (13%)
<b>Traffic speeds</b>	48 (34%)	<b>54 (39%)</b>	37 (27%)

Question:

**Which of following areas of public expenditure should have the highest priority for improvements in Mayfield Township?** (number of respondents)

**Streets and roads** (43 / 32%)

**Public sewer** (11 / 8%)

**Public water** (5 / 4%)

**Recreation facilities** (9 / 7%)

**Public safety –police & fire protections** (66 /49%)

## Common Survey Themes

Several common themes emerged through responses to the nine (9) planning questions asked in the Mayfield Township Comprehensive Master Plan Survey. The following is a synopsis of these themes.

First, however, it is interesting to note that of the respondents (134 or 91 percent) who lived in Mayfield Township, seventy (70) percent of these residents lived in the Township for over twenty (20) years. Furthermore, if you consider those who lived in the Township for over fifteen (15) years, this number increases to eighty-five (85) percent. This is reflective of the rather slow rate of growth that has occurred in Mayfield Township over the last two (2) decades.

Throughout the survey, responses reveal that the preservation of the natural environment is a major concern of residents. In addition, related issues also reveal that the preservation of agriculture and open space rank high amongst the residents. However, it should be noted, that agriculture has not only been on the decline in Mayfield Township, but it is also a state and national trend, and the preservation of such lands is dependent on factors that far out reaches the scope of a comprehensive master plan.

Growth management also ranked high with regard to the responses of the survey. Providing housing in a manner that preserves the natural features of the environment was strongly agreed upon by sixty (60) percents of the residents and ninety-four (94) of the responses to the survey were desirous of providing a rural atmosphere in the Township. The preservation of natural features such as open space, woodlands and wetlands also ranked very high amongst the residents with ninety (90) percent strongly agreeing to this goal. On the other hand with regard to growth management issues, the development of a variety of housing alternatives, commercial and industrial uses ranked very low.

Community facilities, such as the provision of public sewers and water ranked very low as a Master Plan priority. Approximately seventy-six (76) percent of the respondents considered public sewers as either a non priority or low priority, and the provision of public water also ranked low with seventy-eight (78) percent of the respondents indicating such service as a non priority or low priority. Recreational facilities, however, fared somewhat better with fifty-five (55) percent of the respondents indicating that this type of facility ranked as either a moderate or high priority with regard to the Master Plan.

The survey also revealed issues concerning transportation in Mayfield Township. Unsafe roads and road maintenance both represented either minor or major problem areas with regard to transportation issues. Traffic speeds were also singled out as a significant problem with six-five (65) percent of the respondents indicating that this issue was either a minor or major problem. However, the lack of paved roads was not a problem or issue with the respondents.

The survey also asked residents which public expenditures should have the highest priority for improvements in Mayfield Township. The improvements included streets and

roads, public sewer, public water, recreation facilities and public safety. The overwhelming response supported public safety (police and fire protection) with forty-nine (49) percent and at thirty-two (32) percent came streets and roads. Public sewer, public water and recreational facilities ranked very low (less than 10 percent supported these potential improvements).

Despite mentioning these common themes, it is often difficult for the Planning Commission and elected officials to decipher the contrary messages that are conveyed through these resident responses. For instance, fifty-five (55) percent of the respondents considered recreation as either a moderate or high priority while only seven (7) percent of the respondents would support public expenditures for such improvements. In addition, this Comprehensive Master Plan Survey is an opinion survey, not a scientific survey. The survey responses do not reflect the opinions of a balanced sampling of Mayfield Township residents. Therefore, intent of this survey is to offer guidance regarding the creation of the Mayfield Township Master Plan; however, ***the content of the comprehensive plan will also be driven by additional information sources.***

## **GOALS AND OBJECTIVES**

Before a community can actively plan for its future growth and development, it must first set certain goals and objectives that define the boundaries of its needs and aspirations and, thus, establish a basis for the Future Land Use Plan as depicted in the Master Plan. These goals and objectives must reflect the type of community desired and the kind of lifestyle its citizens wish to follow, given realistic economic and social constraints.

The foregoing Comprehensive Master Plan Survey will aid in this task of developing goals and objectives for the Master Plan and the future development of Mayfield Township. Also, upon examination of the goals and objectives in the Township's current Master Plan, one finds that these goals and objectives are still valid in terms of the responses gained in the foregoing survey.

Goals differ from objectives in that goals are generalized statements and objectives are specific targets to be achieved. Objectives are implemented by ordinances, administrative practices, plans, and public expenditures.

The intended functions of the planning process are to identify problems, which exists, to anticipate problems that may occur, and to devise solutions. Goals and objectives should be revised as changes occur within the Township, however, the Mayfield Township Planning Commission's previously developed goals and objectives continue to achieve those purposes, which were incorporated into the Township's previous Master Plan. These same goals and objectives remain valid today and have been incorporated into this Master Plan document, and they are as follows:

### General Development:

#### *Goal:*

- Implement the Master Plan in order to encourage a desirable community in which to live, work, and shop. Land use should be consistent with this long-range development plan.

*Objectives:*

- Concentrate development in areas where public facilities can economically be provided.
- Restrict development to areas served by roads, which are designed for the traffic volume generated, by the development.
- Preserve the natural features of the Township, including topography, wetlands, woodlands, and watercourses.
- Keep incompatible land uses separate.
- Discourage development, which creates unnecessary costs in providing public services or which makes the preservation of natural features more difficult.

Rural Areas, Forest and Open Space:

*Goal:*

- Preserve the rural areas, forest, and open space areas within the Township in order to maintain the economic, environmental, and social benefits of a suburban and rural community.

*Objectives:*

- Encourage compatible residential land uses in those areas of the Township, which have been designated as agricultural-residential land.
- Encourage business, industrial, and large-scale residential development to locate in the southern portion of the Township, away from rural and open space areas.
- Coordinate the development of additional rural residential zoning districts and the use of cluster housing options and planned unit development projects in order to preserve rural areas, forest and open space areas.

Residential Areas:

*Goal:*

- Provide for adequate residential land uses.

*Objectives:*

- Encourage the development of planned residential areas designed to provide a variety of residential use types.

- Provide a range of choices within the township of the various types of residential uses.
- Limit the development of housing to densities, which are appropriate to existing natural features.
- Avoid incompatible land uses in residential areas.
- Provide suitable buffers between residential uses and non-residential uses to maintain property values.
- Promote the physical attractiveness of residential uses.

#### Community Facilities:

##### *Goal:*

- Assure that adequate community facilities are provided to meet the needs of the present and future population.

##### *Objectives:*

- Maintain the Township Administration Building on Saginaw Road as the center of Township services.
- Continue to improve public safety and emergency services (ambulance, fire and police).
- Encourage the continued existence and improvement of the airport facility.
- Encourage the correction of existing road inadequacies and develop the road system in support of the Master Plan.
- Plan for land uses near the existing State owned land, Eastern Michigan University's Environmental Education Center and the Lions Camp, which are compatible with those natural areas.
- Encourage the formation of sewer districts to serve areas zoned for higher density residential, commercial and industrial uses.
- Encourage the construction of water lines in areas, which are accessible to the Detroit water line taps on the southern township and to those areas served with public sewers.

#### Commercial Areas:

##### *Goal:*

- Provide attractive opportunities for business at appropriate locations for a range of commercial needs.

*Objectives:*

- Encourage concentrations of commercial development.
- Encourage commercial facilities only where good road access and adequate parking can be assured.
- Encourage commercial facilities only where there is adequate customer access.
- Discourage spot commercial development, unless the commercial use is part of a planned unit development.
- Facilitate the establishment of an M-24 corridor committee with municipalities having a common interest.
- Encourage the development and use of access drives for commercial development along M-24.

Industrial Areas:

*Goal:*

- Provide Mayfield Township with an adequate tax base and employment opportunities by encouraging diversity of industrial development.
- Designate areas for industrial use, which can be served easily with transportation and essential public utilities.
- Locate industrial areas near other non-residential uses rather than near residential areas to assure adequate transitional zones.
- Develop industrial uses on existing Class A roads or on roads, which can be economically upgraded to Class A.
- Encourage light industrial uses to locate adjacent to the Mayfield Township Airport facility as long as such uses do not interfere with airport facilities and/or operations.

## RESIDENTIAL AREAS PLAN

Mayfield Township is primarily a residential community with supporting commercial and industrial uses generally concentrated along the central and southern portions of North Lapeer Road (M-24) corridor. With residential land use representing over twenty-two (22) percent of Mayfield Township and with a vast majority of the Township zoned in a residential category, the neighborhood unit might best be considered as the one of the basic planning elements found in a master plan. The residential area (unit) has as its purpose the goal of providing a pattern of residential areas that is pleasant, safe, and efficient areas to reside in.

The residential area should be a self-contained area whose boundaries are normally created by such physical barriers as major traffic arteries or other man-made or natural obstacles. Typically, the street system serving the interior of the residential area will provide only those vehicle movements having their origin and/or destination within the residential area. All through traffic movements will “skirt” the boundaries of the residential area. Land uses detrimental to the residential area are, in this way, eliminated from within the area.

However, in any community, which has been developing prior to the application of these planning principles (residential areas and/or units), it is virtually impossible to establish the Residential Areas concept to the community in its entirety.

The desirable approach to applying the Residential Areas concept to the Township is to conform as much as is possible to the concept and attempt to minimize conflicts with the “ideal” concept, i.e., portions of a residential area may cross a major traffic artery or natural boundary. When apply this concept to Mayfield Township, the following factors had a significant influence on the determination of the Residential Areas boundaries:

- The location of existing major traffic arteries.
- The location of non-residential land uses both existing and proposed.

Keeping the foregoing factors in mind, the necessary steps in developing the Residential Areas Plan are as follows:

- Based on physical barriers, logical residential area boundaries were superimposed on the existing development pattern. Each area was then analyzed in terms of land use characteristics and residential densities.
- Vacant acreage was totaled and assigned a net dwelling unit density based upon existing zoning districts. This provided an estimate of the potential dwelling units that could be realized from this land source.
- The number of existing single-family dwellings and the potential number of dwellings that could be realized from the Township’s vacant land were added together to derive the ultimate (buildout) dwelling capacity.
- The ultimate population was derived from dwelling unit figures by applying an average family size of 2.79 persons per household for single-family dwellings.

- Potential public school children (K-6 population) were derived by applying a K-6 generation factor of 0.5 students per single-family dwelling.

## PLAN SUMMARY

As pointed out in the Existing Land Use analysis, residential land use represents 21.9 percent of the Township's land use with single-family consisting of 20.8 percent; multiple-family 0.5 percent; and mobile home park, 0.6 percent. Furthermore, residential land use represents nearly 50 percent of the developed land in Mayfield Township while only representing 21.9 percent of the Township's total land area. Based on current development patterns, which has been averaging 44 new single-family homes per year in the Township, future single-family construction is predicted to be rather slow in areas without the potential of having public sewers made available. However, with public sewer availability, future single-family construction is predicted to be much higher. Case in point is that 131 single-family cluster units have been proposed to the Township within a month's time, which represents nearly three (3) years of single-family construction in areas without public sewers. Public sewer availability will have a dramatic effect on future residential development in the Township; however, sewer availability is limited in terms of areas to be potentially serviced and in terms of the number of sewer connections (taps) that are available.

Future multiple-family development will also be limited to areas that will have the potential to have public sewer availability. Based on this factor, multiple-family development was not considered as a land use category in determining the potential population and elementary school age generation from the Residential Areas. This is not to say that multiple-family development will not occur in the future, however, such development will be very limited as witnessed by the current amount of land devoted to this land use category (0.5 percent of the Township's total land use is classified as multiple-family).

Considering the extent of residential land use proposed for Mayfield Township, the population capacity, at buildout, is estimated at 11,832 with the K-6 school population estimated at 2,120 (see Table 14). ***These figures represent maximum numbers only and give no indication as to the rate of growth over the ensuing years.*** These population figures are based on a potential of 4,240 single-family dwellings (2,162 existing and 2,078 potential) at capacity development (buildout). The total of 4,240 dwelling units represents a 196 percent increase in single-family dwellings over the existing number of 2,162.

In determining the buildout figures for Mayfield Township, the current Township Zoning Ordinance density factors were used. However, certain assumptions were made in order to compensate for the unlikely hood of seeing a "true buildout" occur during the life of this master plan, let alone in our life times.

In the R-1, Residential-Agricultural District, it was assumed that only thirty (30) percent of the vacant land would develop in the foreseeable future. This is due, in part, to the decreasing number of large tracts of land suitable for development while still maintaining some on-going agricultural practices.

**Table 14  
RESIDENTIAL AREAS PLAN  
Estimated Capacity Development  
Single-Family Residential**

Residential Area	Existing Single-Family Dwelling Units	Vacant Acreage	Potential Single-Family Dwelling Units	Total Single-Family Dwelling Units	Potential Population	Potential K-6 Population
	(1)	(2)	(3)	(4)	(5)	(6)
1	123	323	24*	147	410	74
1a	27	117	9*	36	100	18
2	8	504	38*	46	137	23
3	50	794	60*	110	307	55
4	42	239	18*	60	167	30
5	63	334	25*	88	245	44
6	83	683	51*	134	374	67
7	91	111	8-*	99	276	50
8	40	872	65*	105	293	53
9	164	299	22*	186	519	93
9a	103	0	0*	103	287	52
10	66	569	290*	356	993	178
11	203	550	440**	643	1,793	321
12	277	142	114**	391	1,090	195
13	187	353	284**	471	1,314	235
14	57	504	39*	96	268	48
15	56	417	31*	87	243	44
15a	2	102	8*	10	28	5
15b	5	0	0*	5	13	2
16	107	783	58*	165	460	82
17	152	332	266**	418	1,166	209
18	12	39	120***	132	368	66
18a	31	44	136***	167	465	83
19	213	71	219***	432	1,205	216
<b>Total</b>	<b>2,162</b>	<b>8,179</b>	<b>2,078</b>	<b>4,240</b>	<b>11,832</b>	<b>2,120</b>

**COLUMN EXPLANATIONS:**

- (1) Number of dwelling units developed in the Residential Area.
- (2) Amount of vacant acreage in each Residential Area.
- (3) Potential new lots that could develop based on the following densities:
  - \*R-1 Residential-Agricultural District – 4.0 acre minimum lots - net density of 0.25 dwellings/acre (*assumes 30 percent of vacant acreage being developable*)
  - \*\*R-2 Single-Family Residential (without sewers) – 20,000 square foot minimum lots – net density of 1.60 dwellings/acre (*assumes 50 percent of vacant land being developable*)
  - \*\*\*R-2 Single-Family Residential (with sewers) – 9,600 square foot minimum lots - net density of 3.85 dwellings/acre (*assumes 80 percent of vacant land being developable*)
- (4) Total number of dwelling units at capacity development – column (1) + column (3)
- (5) Potential single-family population based on 2.79 persons per household.
- (6) Potential K-6 school aged population based on 0.5 students per household.

Source: John Ambrose & Company, Inc. (Based on Existing Land Use Analysis-July 2002)

In the R-2, Single-Family Residential District without the availability of public sewers, it was assumed that the only fifty (50) percent of the vacant land would have the potential of developing. The assumption of fifty percent of this area developing is due to the density allowed by the Township's Zoning Ordinance that allows for a more suburban development style typical of platted subdivisions and site condominium development projects that are found in the R-2 District. Again, due to the diminishing amount of large tracts of land capable of being developed with platted subdivisions and/or site condominium projects, it is assumed that approximately fifty (50) percent of the vacant land in this category will develop.

In R-2 District areas that are likely to have the availability of public sewers, it is assumed that eighty (80) percent of such areas could be developed in the near future. The availability of public sewers makes what would otherwise be considered un-developable land capable of being developed. Thus areas with poor soils for on-site septic systems will have little if no impact on future developments with public sewers being available.

Also, in the R-1 District, the net density of 1.7 units per acre was used and is based on fifteen (15) percent of the total land area being used for public right-of-way while in the R-2 District; twenty-five (25) percent of the total land area is assumed being used for right-of-way and/or open space areas.

The Residential Areas for Mayfield Township are discussed below:

#### Residential Area 1 and 1a

This Residential Area is located in the northern portion of the Township, which borders Deerfield Township. Residential Area 1 consists of land area contained in Section 4 and in a portion of Section 9 located south of Sawdust Corners Road. North Lapeer Road (M-24) divides residential Area 1a from the remaining portion of Area 1. Area 1 and 1a are both zoned in the R-1, Residential-Agricultural category with areas also being zoned in the R-2, Single-Family Residential District. The total buildout of areas zoned R-1 are based on thirty (30) percent of the vacant land being developed and upon assuming a net density of 0.25 dwelling units per acre, and areas zoned R-2 are based on fifty (50) percent of the vacant land being developed with a net density of 1.6 dwelling units per acre. These density factors will account for approximately 147 potential dwelling units (150 existing units plus 183 potential units). The resultant area population and K-6 population are 510 and 92 respectively.

#### Residential Area 2

Residential Area 2 takes in portions of Section 2 and 3. This area borders Deerfield Township on the north and State land on the south. Norway Lake Road, Scholtz Road and Kings Mill Road access this area. The entire residential area is zoned in the R-1 classification, and the resultant number of dwelling units is estimated at 38 with a potential population of 137 and a potential of 23 K-6 students.

#### Residential Area 3

This area lies in the northeast corner of the Township and occupies Section 1 and a portion of Section 12. Residential Area 3 borders Deerfield Township on the north and Arcadia Township on the east. To the south, this area borders public and semi-public

lands. Norway Lake Road, Kings Mill Road, Fish Lake Road and Five Lakes Road provide access to this area. Estimated population and K-6 population for this area is 307 and 55 respectively.

#### Residential Area 4

Residential Area 4 is located west North Lapeer Road (M-24) in Section 8. The area is bordered on the north by Sawdust Corners Road and State land on the east by M-24. On the west, the area is bordered by Valentine Road and on the south by Coulter Road. The area is primarily zoned R-1 with a small portion along Sawdust Corners Road being zoned R-2. The area contains 42 existing single-family dwelling units and has the potential for 18. The resultant population and K-6 population is 167 and 30 respectively.

#### Residential Area 5

Residential Area 5 is located on the western edge of the Township in a Section 18 and a portion of Section 7 to the north and a portion Section 19 to the south. Residential Area 5 borders Millville Road on the west, and to the north, the area borders State land. To the east, this area borders Valentine Road and to the south, it borders Plum Creek Road. The majority of this area is zoned R-1 with two small areas along Millville Road being zoned R-2. The total number of existing single-family dwellings in this area is 63 with a potential for 25 new dwellings, which would bring the total of single-family dwellings at buildout to 88. The potential population generated from this area is estimated to be 245 with the K-6 population estimated at 44.

#### Residential Area 6

Residential Area 6 is located in Sections 17 and 20. The area is bordered by Coulter Road on the north, North Lapeer Road (M-24) on the east, Plum Creek Road on the south and Valentine Road on the west. The area also borders industrial uses that are located in the southeastern corner of the area. In addition, this area has an elementary school, which is located off of Plum Creek Road. A majority of the area is zoned R-1 with R-2 zoning found along the northeaster side of the area along M-24 and a second, but smaller area found along Plum Creek Road west of and adjacent to the elementary school site. The potential buildout population is estimated at 374 with a K-6 population estimated at 67.

#### Residential Area 7

This area is located in western one-half of Sections 16 and 21, which borders Coulter Road on the north, Farnsworth Road on the east, Daley Road on the south and North Lapeer Road (M-24) on the west. This area has both R-1 and R-2 zoning districts with R-1 being the dominate district. Also, a significant portion of the M-24 frontage is zoned commercial and developed with a variety of commercial uses. The potential population for this area, based on a buildout figure of 99 dwelling units, is 276 with a K-6 population at estimated at 50.

#### Residential Area 8

Residential Area 8 is located in the eastern halves of Sections 16 and 21 and in the western halves of Sections 15 and 22. This area occupies two square miles of area and

is bounded by State land to the north, Roods Lake Road on the east, Daley Road on the south and Farnsworth Road on the west. This area is zoned R-1 with one small exception along Farnsworth Road where one finds a half-mile of road frontage zoned in the R-2 category. Residential Area 8 contains the second of two elementary schools located in Mayfield Township. The school is located at the northwest corner of Daley Road and Roods Lake Road. Also, this area is home to a drag strip operation, which is located south of Vernor Road and west of and adjacent to Roods Lake Road. This use, while it still operates in this area, will most likely have a negative impact on the estimated buildout population and K-6 figures for this area, which are 293 and 53 respectively.

#### Residential Area 9 and 9a

Residential Area 9 occupies the eastern portion of Section 15, Section 14 and portion of Section 13, with the latter being Residential Area 9a. This area is bounded by State land on the north, Fish Lake Road on the east, King Road on the south and Roods Lake Road on the west. Area 9a is located on the east side of Fish Lake Road and consists of a small, fully developed subdivision, which is zoned R-2. Area 9 is zoned both R-1 and R-2 with most of the R-2 land being developed. The buildout population and K-6 population for Area 9 is 519 and 93 respectively with Area 9a having a potential population of 287 and a K-6 population of 52.

#### Residential Area 10

Residential Area 10 occupies the eastern half of Section 22 and all of Section 23. This area is bounded by King Road on the north, Fish Lake Road on the east, Daley Road on the south and Roods Lake Road on the west. The area is zoned R-1 with the exception of a small area zoned R-2 located in the southwest corner of this residential area (the northeast corner of Daley Road and Roods Lake Road). This area has 569 acres of vacant land, which translates into a potential of 290 new single-family dwellings. With a potential 109 dwellings (66 existing and a potential of 43), the resultant population is estimated at 304 and the K-6 population is estimated at 55.

#### Residential Area 11

Residential Area 11 occupies Section 30 and portions of Sections 19 and 29 and is bounded on the north by Plum Creek Road, N. Lapeer Road (M-24) on the east, Davis Lake Road on the south and Millville Road on the west. This residential area lies entirely within an area zoned R-2, Single-Family Residential. The area contains 203 existing single-family dwelling units and has 550 acres of vacant land. There is potential for 440 new single-family dwellings, which would bring the total potential number of dwellings to 643. The resultant population from Residential Area 11 is estimated at 1,793 with an estimated K-6 population of 321.

#### Residential Area 12

This area is located in the western half of Section 28 and Section 33 with a small area located in the eastern portion of Section 32. The area is bounded by Daley Road on the north, Farnsworth Road on the east, Bowers Road and the City of Lapeer on the south, and Saginaw Road on the west. This is relatively confined and has two mobile home parks within its boundaries. The total potential number of single-family dwellings in this residential area is 391 with a potential population of 1,090 and a potential K-6

population of 195. The area is primarily zoned in the R-2 category, and it also has the long term potential of public sewers and water, which would dramatically impact future development patterns and population numbers.

### Residential Area 13

Residential Area 13 is bounded by Daley Road on the north, Roods Lake Road on the east, Haines Road on the south and Farnsworth Road on the west. This area occupies the eastern half of Section 28 and western half of Section 27. Approximately three quarters of the this area is zoned R-1, Residential-Agricultural with the southeast one-quarter of Section 28, which represents one-quarter of Residential Area 13, being zoned R-2, Single-Family Residential. This area has a total potential population of 1,314 and a K-6 population of 235.

### Residential Area 14

Residential Area 14 occupies all of Section 26 and the eastern portion Section 27. This area is bounded by Daley Road on the north, Fish Lake Road on the east, Haines Road on the south and Roods Lake Road on the west. Also, Slater Road, a north-south road, bisects this residential area. This area is zoned R-1 with one small exception, and that being approximately 30 acres of land located in the northwest corner of Residential Area 14 (southeast corner of Haines and Roods Lake Roads). The eastern boundary of this area (Fish Lake Road) will be impacted by through traffic movements should Fish Lake Road be connected, via Tindall Drive, to Wilder Road in Lapeer Township. The potential total population for this area is estimated at 268 with the K-6 at 48.

### Residential Area 15, 15a & 15b

Residential Area 15 is located in Section 25 and is bounded by Daley Road on the north, Five Lakes Road on the east, Haines Road on the south and Fish Lake Road on the west. Residential Area 15a is located in the southwest corner of Section 24 and Section 15b is also located in Section 24 with Five Lakes Road running through this area. All of these areas are zoned R-1, Residential-Agriculture. Residential Area 15 contains 56 existing single-family homes and has the potential for 31 new dwellings. The resultant population from this area is estimated at 243 with the K-6 population estimated at 44. Area 15a has a potential for 8 single-family dwellings, which will generate an estimated population of 28 and a K-6 population of 5. Area 15b has five existing single-family homes and no vacant acreage, and the resultant population is estimated at 13 with a K-6 population estimated at 2.

### Residential Area 16

Residential Area 16 is located in Section 36 and the eastern half of Section 35. Also, a small portion of Section 34 along the Haines Road frontage is located in this area. The area is bounded by Haines Road on the north, Five Lakes Road on the east, Bowers Road on the south and industrial zoning and the Township's airport property on the west. This area is about equally divided in terms of zoning, with both R-1 and R-2 classifications. This area, like Residential Areas 14 and 15 will be significantly impacted (future growth) by the extension of Tindall Drive to Fish Lake Road as proposed by the Lapeer County Road Commission. This road extension will also connect to Wilder Road in Lapeer Township and provide access to Interstate 69 (I-69 / Wilder Road

interchange). The total potential estimated population in this area is 460 with an estimated K-6 population of 82.

#### Residential Area 17

Residential Area 17 is primarily located in the western half of Section 34 and the eastern half of Section 33. The area is bounded by Haines Road on the north, Roods Lake Road the east with one small exception, that being land located at the southeast corner of Haines and Roods Lake Roads. This area is also bounded by Bowers Road to the south and by Farnsworth Road to the east. The entire area is zoned R-2, Single-Family Residential and has a potential estimated population of 1,166 and a K-6 population of 209.

#### Residential Area 18 & 18a

These areas are relatively small residential areas bordered by Plum Creek Road to the north, Saginaw Road to the east, the City of Lapeer to the south and North Lapeer Road (M-24) to the west. Residential Area 18a is that portion of this area located north of Davis Lake Road. The area is zoned R-2, Single-Family Residential and represents a prime area to be potentially serviced with public sewers and water. With public sewers and water, this area will see significant development potential for both residential and non-residential uses. Based on such development, this area has the potential to generate an estimated population of 833 and an estimated K-6 population of 149.

#### Residential Area 19

Residential Area 19 lies in Section 31 and the western portion of Section 32. The area is bounded by Davis Lake Road on the north, North Lapeer Road (M-24) on the east, Oregon Road and the City of Lapeer on the south and Millville Road on the west. Like Residential Area 18 and 18a, this area is also entirely zoned R-2 and has the potential to be serviced with public sewer and water. In fact, a recent single-family cluster development proposal located on Callis / Suncrest Roads is planned to be serviced with public sewers and water. The total estimated population generated from is area is 1,205 with a K-6 population of 216.

The summary Table (Table 14) included in this section presents data for each residential area. The Residential Area Map at the end of this section diagrammatically sets forth the recommended boundaries for each residential area, which are based on the criteria outlined at the beginning of this section. The Plan map depicts conditions that influence the logical location of residential areas, which include physical barriers, major roads and major concentrations of nonresidential uses, both existing and proposed.

Public schools are discussed in the following section of this report. This will complete the analysis of the planning elements necessary for the Residential Areas Plan.

### **PUBLIC SCHOOLS**

One of the most important and expensive facilities, which must be provided in any community, is the public school facility. Elementary, junior (middle) and senior high schools must be adequate to handle future school age populations. Typical planning standards have recommended school size for the efficient and economical operations of

such facilities. The Table below presents standards for public schools which National and State authorities recommend. It should be emphasized that these standards are recommended by National and State agencies should be considered as guides only, and usually must be altered somewhat to meet the specific needs of a particular community.

<b>Table 15 SCHOOL STANDARDS</b>			
	<b>Elementary School</b>	<b>Junior (Middle) High</b>	<b>Senior High</b>
<b>Optimum School Enrollment (pupils)</b>	400-600	700-1,500	1,000-2,000
<b>Optimum Site Size (acres)</b>	10 acres + 1 acre per 100 pupils	25	45

The Lapeer School District serves an area considerably larger than that for which the Mayfield Township Master Pan is being developed. For this reason, data regarding school needs will not embrace the entire school district, but will refer only to the needs of the Township at capacity (buildout) development.

Elementary Schools

Elementary school enrollment for Mayfield Township at capacity development has been estimated at 3,570 pupils. This figure was derived by applying the average number public school children per dwelling unit (0.5) to existing and potential dwelling units within the Township. Based on the optimum elementary school enrollment of 400 to 600 pupils per elementary school, there would be a potential need for six (6) to nine (9) elementary school facilities in the Township. Presently, the Township is served by three (3) elementary schools.

Junior (Middle) High

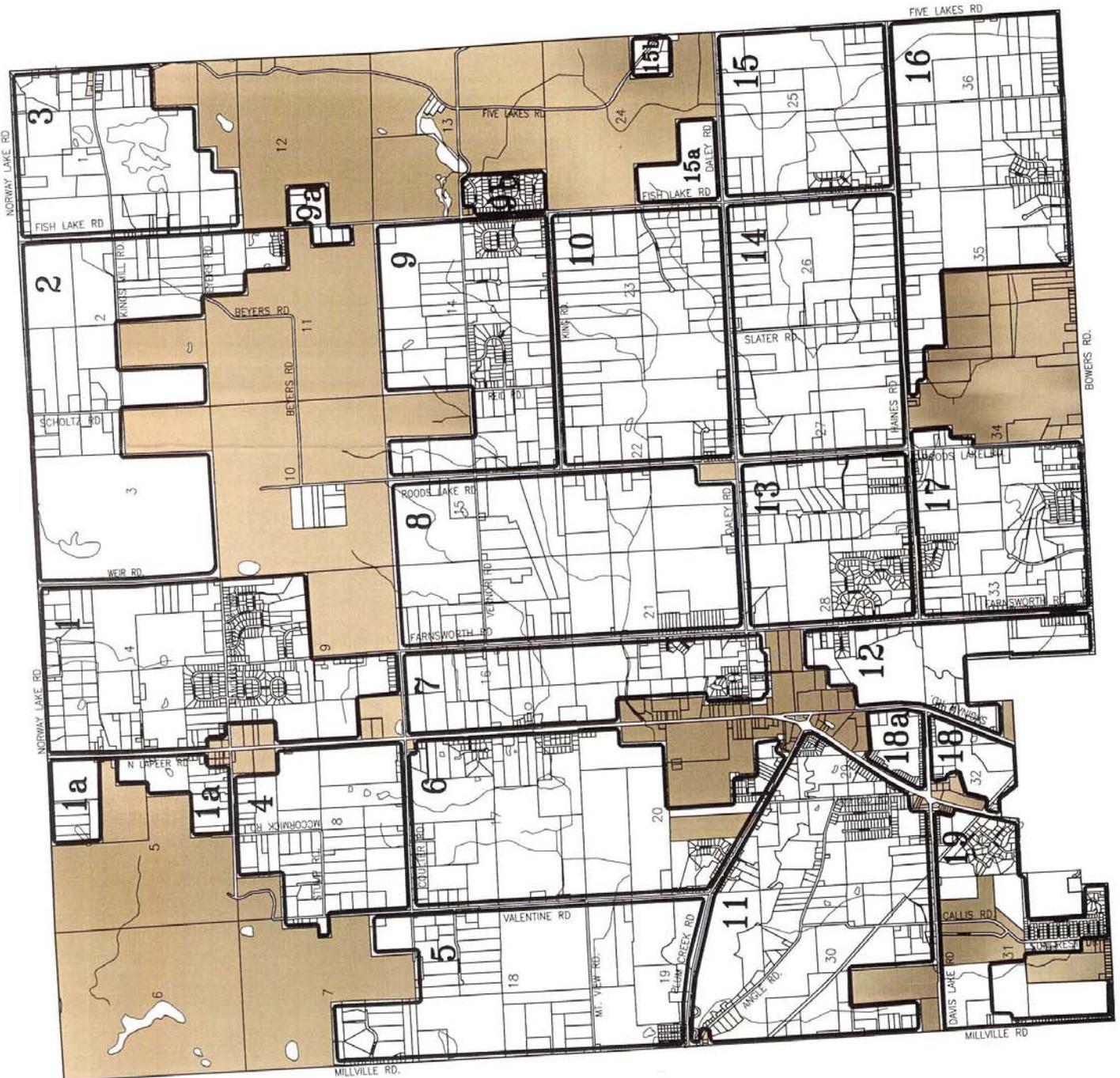
Single-family homes typically generate 0.2 students per dwelling. Based on a potential 7,140 single-family dwelling units in Mayfield Township a capacity development, it is estimated that there would be 1,428 junior high (middle school) pupils being generated. This number of pupils is large enough to support one (1) junior high (middle) school facility, requiring a school site size of 25 acres, which may or may not be located within the Township.

MAYFIELD TOWNSHIP  
Lapeer County

RESIDENTIAL AREAS

Legend

- Residential Area
- Non-Residential area



BASE MAP SOURCE:  
Lapeer County Legislation Department  
MAP PREPARED BY:  
John Ambrose & Company, Inc.  
February 2005

### High School

Like middle schools, single-family dwellings typically generate 0.2 students per dwelling. Again, based on 7,140 single-family dwelling units, it is estimated that 1,428 high school pupils would be generated from Mayfield Township at capacity development. This figure is approaching the need for a new high school facility with a site size of forty-five (45) acres. Said site may or may not be located in the Township.

## COMMUNITY FACILITIES PLAN

The effective operation of any community involves the provision of certain services and facilities. For the purpose of inventory and analysis, these community facilities will be discussed under the general subjects of *Governmental Facilities, Public Services, Public Utilities, Recreational Facilities and Public School Facilities.*

### Governmental Facilities

Governmental services in Mayfield Township are located in the Township Hall located at 1900 North Saginaw Road in Section 28. The Township Hall site also includes the Stiles Cemetery; a Township owned and operated facility. The total site area for the Township Hall and Stiles Cemetery is approximately 26.8 acres of land. The Township Hall site contains approximately 6.9 acres of land with the cemetery occupying approximately 19.4 acres of land.

### Facility Concepts

The concept a municipal governmental facility, in the case of a township, a township hall facility, implies complex for governmental and civic activities. The key advantage of a governmental facility is the grouping of compatible public activities and uses in a single recognizable area. Economies are thus realized through the development of jointly used facilities, i.e., parking areas and drives, etc., and the close proximity afforded interdependent agencies. Not the least advantage, however, is that of providing an esthetic focal point for the municipality, which reflects local pride and progress in the community. Some of the basic concepts and principles used in planning for such facilities are as follows:

- *Location:* The governmental facility should be situated near the center of, and be readily accessible to, the population ultimately intended to be served. In addition, such a facility should provide accessibility via a major thoroughfare.
- *Site Size:* The land area occupied a governmental development can vary considerably depending on the number of governmental functions to ultimately included in the complex and the space needs of these functions. Communities have developed adequate governmental facilities on sites of five (5) acres and larger in size. The critical point in this respect is to provide sufficient land area for the location of buildings, off-street parking, landscaping, and a reserve for expansion. Beyond this requirement, space needs will be contingent upon the individual design solution for the site, i.e., vertical or horizontal construction, the availability of land and the facilities to be provided.
- *Types of Activities:* Some of the more important types of activities that may logically be included in a governmental facility (township hall site) are:
  1. Municipal offices
  2. Branch office of county, state, and federal government
  3. Police station
  4. Fire station
  5. Public meeting and conference rooms

6. Cultural facilities, such as museums
7. Community park facilities

### Township Hall

The current Mayfield Township Hall was built in 1982 and was extensively remodeled in 1999. In addition to housing the Township's administrative offices, the Township Hall is also the site used for elections, which include all Township voting precincts for national, state, county, local and school elections. The Township Hall is favorably located with respect to serving the Township's population and future growth areas, and its central location within Lapeer County, approximately two miles north of City of Lapeer's central business district, makes the Mayfield Township Hall a perfect site for community activities and events. Such activities and events can be held in the 1,500 square foot community room complete with kitchen facilities, which is available to the general public through a rental process.

The Mayfield Township Hall facility currently houses the following township offices, departments and facilities:

- Supervisors Office
- Township Clerk's and Deputy Clerk's Office
- Treasurers Office
- Assessors Office
- Office Manager and Clerical Office Area
- Building Department
- Planning and Zoning Department
- Lapeer County Sheriff's Branch Office (Township's Contracted Deputies Office)
- Community Room and/or Board Meeting Room
- Conference Room / Board Meeting Room
- Kitchen Facility (Accessory to the Community Room)

The existing Township Hall, which had an extensive expansion in 1999, is at its limits with regard to office space. Areas of concern involve adequate storage space for the Clerk and the Building/Planning Departments, adequate and properly located office space for the Building, Planning and Zoning Departments, and adequate space and facilities for the sheriff's deputies. Also, there is a need to expand the community room as it also functions as voting precincts for the Township during elections, and the current facility is beyond its limits with regard to this function.

The need to expand the Township's Municipal Building is a current reality, and as the Township grows, especially with public sewers and water being available, the need for such expansion will only increase. Obviously, the planning for such expansions should be undertaken as soon as possible in order to mitigate the negative impacts that growth will bring to the Township's municipal facilities. With 6.9 acres of land being available, there is adequate land area to handle any future expansion requirements for the Township Hall facility.

## **Public Services / Facilities**

The public services and/or facilities in Mayfield Township include police services, emergency medical services, fire services, airport facilities, cemetery facilities and school facilities.

### Police Services

In 1988, Mayfield Township and the Lapeer County Sheriff's Department contracted for a full-time police officer to patrol the Township. Today, Mayfield Township has five (5) contracted deputies, providing the Township's residents with 24-hour police protection. These deputies are full-time patrol officers, with one deputy being dedicated to traffic enforcement duties.

Mayfield Township provides the deputies with township-owned patrol vehicles, which include an unmarked patrol car, a four-wheel drive patrol vehicle and a motorcycle. Also, the Township provides office space that includes a computer system that is directly linked to the Sheriff's Department. This permits the deputies to report directly to and file reports from the Township Hall, thus increasing their time spent on patrol in the Township. Deputies are dispatched from the Lapeer County Central Dispatch Center.

Currently, the deputies share an office in the Township Hall, which also functions as their changing room, storage room and meeting room when the public needs to meet with an officer. Public access to this office area is only available during normal township office hours.

Future expansion for the deputies would dictate, from a practical point-of-view, that their office be located towards the front of the Township Hall, which would have its own separate public access designed to be separate from the rest of the Township Hall facility. This way, the deputies would be available to the public during non-regular office hours, and their facility could be so designed to incorporate a counter area, office-work station area, small locker room and storage facility, and possibly, a sally port or secure garage area with a temporary holding facility.

### Emergency Medical Service

Mayfield Township, as a founding member of the Lapeer Area Ambulance Service, commonly known as the Lapeer County EMS, provides Mayfield Township with quality, professional and reliable emergency medical services. The Lapeer County EMS is based in the City of Lapeer, just south of the Mayfield Township border. In addition, the township's neighbor to the north, Deerfield Township, is home to an ambulance service. Also, the Village of North Branch has a satellite station of the Lapeer County EMS, which provides additional coverage for the northern portions of Mayfield Township.

Based on the future growth anticipated for Mayfield Township during the next ten to twenty years, there does not appear to be a need to further expand these services into the Township.

Fire Service

Mayfield Township provides fire protection services via contract with the City of Lapeer. As a neighbor to the city, the Township has great opportunity to provide residents with urban-type services without the burden of additional taxes or the cost to operate its own fire department.

The city-township agreement provides around-the-clock, on-call protection to every Township property owner in the event of an emergency or fire. However, it's extremely important that the developed portions of a community be adequately protected from extensive fire damage, and as the township continues to develop, this becomes an even more important issue to take into the consideration. Such consideration may include the provision of a city-satellite fire station located in the Township. When evaluating the fire station needs and/or fire protection needs of a community, criteria established by the nation's American Insurance Association are used. This organization, supported by the nation's fire insurance companies, sets forth standards for evaluating fire protection services. These standards are then reflected in the fire insurance rates as determined by the State Inspection Bureaus.

A number of factors are involved in the ratings mentioned above and include travel time for fire equipment, the amount of residential and nonresidential structures, the availability of water supply, fire fighting equipment, and fire fighting personnel.

One of the most important of the above factors taken into consideration when rating a community is the travel time for fire equipment in relation to the type of development serviced. The American Insurance Association has set the following standards relative to the size of fire station service areas that would be applicable to Mayfield Township.

<b>Table 16</b>	
<b>FIRE STATION SERVICE AREAS</b>	
<b>TYPE OF DISTRICT</b>	<b>SERVICE RADIUS</b>
High Value ( <i>commercial, industrial, institutional</i> )	1 Mile ( <i>Driving Distance</i> )
Residential ( <i>subdivisions, site condo developments, multiple-family</i> )	2 Miles ( <i>Driving Distance</i> )
Scattered Development ( <i>20 percent or less built up</i> )	5 Miles ( <i>Driving Distance</i> )

When planning the limits of service areas, the prime consideration is the travel time for existing fire equipment over existing roads. Consequently, the service radius indicated above could vary depending on the nature of the community's road pattern.

### Airport Facilities

Mayfield Township owns and operates a general utility airport facility, which is located on the east side of Roods Lake Road between Haines Road and Bowers Road. The airport contains two (2) runways, one paved north-south facility (18-36) and one sod east-west facility (09-27), which currently accommodates private aircraft. The airport also includes a terminal building, a repair facility, hangar space, and a refueling facility.

The airport was originally built by Frank Williamson and Harold Upper at the end of World War II. The facility was the area's only airport long before it was purchased by the G.B. DuPont Company in 1956. On August 1, 1996, Mayfield Township purchased the facility, which was made possible with the assistance of the Michigan Bureau of Aeronautics. The acquisition was part of the Bureau's state-wide airport preservation program, which is designed to ensure that private airports serving commercial and industrial growth areas do not close due to rising land values or pressure from real estate development.

The airport's five year development plan (2003 to 2007) called for the construction of a new runway to replace the existing 18/36 runway. This existing runway was 3,605 feet long and 50 feet wide, and it was replaced in the summer of 2003 due to the fact that it did not meet the federal criteria for required setbacks and clearances and also due to the very poor condition of the existing runway, which had significant settlement problems and numerous transverse cracks. The new runway is 3,800 feet long and 75 feet wide and was developed east of the existing runway. The old runway, after reconstruction of the new runway, became the taxiway for the 18/36 runway. Additional development items in the five year plan call for the rehabilitation of existing taxi streets and apron as both of these items are in poor condition. In addition, the development of new taxi streets is also planned in order to provide access to new hangar space as the demand for new hangar space is expected to continue to increase.

Currently, the airport can only refuel aircraft with standard aviation fuel (gasoline). Jet fuel is not available, which means that small private jet or turbo prop aircraft that uses the airport cannot refuel at this facility. The closest airports where such refueling can be accommodated are Bishop International Airport in Flint, Michigan or the Caro, Tuscola Area Airport in Caro, Michigan. The addition of a fuel farm that would provide both types of aviation fuels is highly recommended for future consideration so as to encourage all types of small, private aircraft to use the Township's airport and to support the regions commercial and industrial developments, both existing and future.

Also, to better facilitate those using the airport (pilots/flight crews, staff, etc.), a restaurant facility would be a logical future consideration to be developed on-site in conjunction with the terminal facility.

As previously stated, the funds (90 percent from the state) used by the Township to purchase the airport were made available in order to help preserve private airports serving commercial and industrial uses. The Township's airport, from a transportation point-of-view, is an extremely important facility for the existing and future economic base

of Mayfield Township and to the City of Lapeer. To sustain this economic base, proper planning and zoning practices will be required to ensure that this airport remains a viable facility now and in the future.

### Cemetery Facilities

Mayfield Township was organized on April 17, 1843 at a meeting held at a school near the home of Martin Stiles. One of the first decisions made that day was to establish a “burial ground”. Such a facility was established, and it was named after Stiles.

Today, Stiles Cemetery is located adjacent to the Mayfield Township Hall and occupies approximately 19.4 acres of land with approximately 10 acres of land available for future cemetery expansion. The cemetery continues to be owned by the residents of Mayfield Township and operated by the Township Board. The Board established charges for services and adopts cemetery rules and regulations.

The cemetery includes a Veterans Memorial Garden and Civil War cannon in honor of the nation’s veterans. The cemetery is the resting place of many veterans, many of whom served in conflicts dating back to the Civil War.

With approximately 10 acres of land available for future expansion, Stiles Cemetery will meet the needs for a Township owned and operated “burial ground” for many decades.

### **Public Utilities**

The public utilities category includes public water and sewer facilities. Historically, Mayfield Township considered the development of its own sewage treatment plant in order to take care of the Westbrook Subdivision and land in the southwest corner of the Township. In early 2000, the Township was close in developing and entering into an agreement with the Lapeer County Drain Commission to construct a sewage treatment plant on land located north of Callis and Angle Roads. Subsequently, this process brought the City of Lapeer into the picture. Prior to this process, the relationship between the city and township concerning utilities and the issue of taxes (the payment in Lieu of Tax for Westbrook Subdivision residents) were at best described as being strained. However, with the City of Lapeer and Mayfield Township negotiating together, a plan to provide the Township with public and water and sewer was eventually hammered out through a transfer of land (425 Agreement) between the City and the Township. This City obtained approximately 168 acres of land from the Township in return for four hundred (400) sewer taps over a ten (10) year period. Also, the City agreed to provide water service to Durakon Industries with the cost of the water service (water main) being apportioned to those benefiting from such service.

To date, hardly any sewer taps have been used, however; it has become clearer as to what a sewer service district should look like. Originally, a sewer service district generally encompassed land south of the Flint River and the Roods Lake-Evans Drain, which represents a long-range look as to what a sewer service should look like in Mayfield Township. However, this service district has evolved into a short-term service district that would generally follow the M-24 and Saginaw Road corridors north from the City limits to a point approximately one-half (1/2) mile north of Daley Road. Such a service district would provide sewer and water service to the Township’s major commercial core as well as to potential and existing residential developments on either

side of the these corridors. Also, this service district would provide sewer service to those existing residential developments that have a high potential to experience septic field failures.

The proposed short-term sewer and water service district will also encourage the possible upgrading and/or redevelopment of the M-24 corridor with uses that have typically not been able to develop in the Township due to the lack of adequate sewage disposal and water availability where as the long-term service district will encourage a significant amount of new residential development.

Sewage from the Township sewers, once developed, will be treated at the City of Lapeer's sewage treatment plant. Also, the City will own and maintain sewer lines that are developed in the Township, however, the Township will be the authorizing agency for sewer taps (connections).

Water serving the City of Lapeer and Mayfield Township is pumped from Lake Huron and is distributed and treated for the City and Township by the City of Detroit's Water Department. The City of Lapeer, however, develops and maintains local water mains as well as sells Detroit's water to local users. The Township has two points of access to this water with meter pits (taps) located Bowers and Roods Lake Road and at Millville and Oregon Roads.

### **Recreational Facilities**

The availability of recreation facilities is one of the more important needs of a present-day community, which can also be substantiated by the fact that only fourteen (14) percent of the respondents to the Township's Master Plan Survey indicated that recreation was not some sort of a priority for the Township's Master Plan. Increased demand for recreation facilities has grown out of several factors which include shorter work weeks, longer vacations; improved mobility and the growth of youth sport leagues, i.e., tee ball, little league baseball and football, soccer, etc. These factors are permitting the average family to take more and longer vacations than were possible in years past, and to spend more time using local recreational facilities, especially when their children are in involved with many different youth sport activities. Evidence of this trend is borne out in the ever increasing variety of commercial recreation facilities and the demand for more and newer sports fields for community-wide organized activities (baseball, softball, soccer, etc). Expenditures for leisure time equipment have also experienced gains, and of even greater importance is the fact that attendance at public recreation areas continues to rise. Therefore, public and private recreation facilities tend to complement one another, each playing an essential role in meeting the total demand for recreational opportunities today.

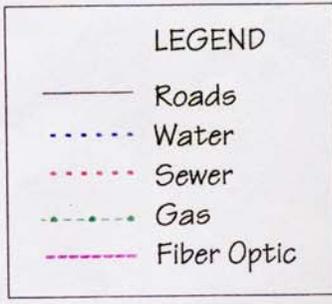
In terms of recreational facilities, the Master Plan is primarily concerned with the arrangement of adequate sites throughout the Township so as to satisfy the varying levels of recreation need for each citizen group.

Recreation areas provide two basic types of recreation need; active and passive. Active recreation areas are those which are developed with apparatus and playfields/sport activity fields. Passive areas are those which are primarily for restfully activity, walking, sitting or scenic areas which might also include picnic areas.



SOURCE: Thumb Area Municipal Services

# MAYFIELD TOWNSHIP PUBLIC UTILITIES MAP



Recreation facilities need to be provided at different levels for different areas and different activities. The following are basic planning concepts for various levels of recreation facilities. In each instance the application of these concepts will be predicated on the proposed density and arrangement of Residential Areas throughout the Township as previously discussed.

- *Home Yard* – While the home yard is not a public facility, it is probably the most satisfactory place for fulfilling active recreation needs of preschool aged children and certain passive needs of adults. The amount of recreation area available at this level will be directly proportional to the density of residential development.
- *Neighborhood Facilities* – Recreational facilities at the neighborhood level are designed to serve those needs which should be satisfied within a safe, convenient walking distance of the home. However, in semi-rural township like Mayfield, the development of neighborhood recreational facilities is usually not practical or economically feasible. Although, for those who live in areas close to an elementary school site, the playground facilities typically found at such sites can provide the immediate area with the facilities generally found in a neighborhood park setting.
- *Community Facilities* – Community recreation facilities are intended to serve primarily the needs of persons in the secondary school age groups (7<sup>th</sup> to 12<sup>th</sup> grade). The best location for this type facility is adjacent to the secondary school facility or near the center of several residential areas with a population density capable of support such a facility. Facility requirements for this type of recreation space include: active play areas such as ball diamonds, tennis courts, etc.; areas for major organized sports including bleachers and parking facilities; shelter areas including rest rooms; and landscaped areas to provide passive recreation needs while also creating a desirable open space setting.
- *Township-Wide Facilities* – This level of recreation should provide for a cross section of facilities to serve the entire municipal population. The types of recreation facilities that should be available include: recreation centers which provide athletic fields for major organized sports; spectator sports; space of indoor recreation; parking areas; park areas for both active and passive recreation; special use facilities for swimming, golfing, picnicking, etc.
- *Regional Facilities* – Regional park facilities are normally provide by regional (county) or state agencies and, hence, are not the responsibility of the local government unit, in this case, Mayfield Township. In view of their importance in providing recreational activities, however, the regional park must be considered as part of the overall recreation system. Regional park facilities should generally be larger than other types of recreation areas and developed in such a manner as to provide the park user with recreational experiences beyond that which could be obtained at other recreational levels. In view of their function, regional parks will usually be more resource-oriented than user-oriented. Mayfield Township has 3,992 acres of state land, which functions as a regional facility, and noted previously, it is more resource-oriented than user-oriented. User-oriented activities are primarily limited to hunting and nature oriented activities, i.e., hiking, bird watching, nature photography, etc. This fact, together with the

extensive land area requirements, usually dictates that a regional facility is located outside of intensively developed urban areas. The types of recreational activities provided in a regional park may include: hiking and riding trails; water areas for swimming and boating; picnic areas, camping facilities; hunting areas; scenic drives; unusual scenic features and areas to be kept in a natural state; and special use areas such as golf courses, game preserves, etc.

In the development of the Mayfield Township Master Plan, primary emphasis is given to the provision of Township-Wide recreation facilities.

**Table 17**

**RECREATION CONCEPTS AND STANDARDS**

	<b>Neighborhood Facilities</b>		<b>Community Facilities</b>	<b>Twp.- Wide Facilities</b>	<b>Regional Facilities</b>
	<b>Playground</b>	<b>Park</b>			
<b>Age Group</b>	Elementary	Adult	Secondary School	Family	Family
<b>Type of Use</b>	Active	Passive	Active	All Types	All Types
<b>Distance from Home</b>	Easy walking distance	Easy walking distance	Walking distance	Short driving time	15-30 minutes driving time
<b>Location</b>	Center of neighborhood	Center of neighborhood	Center of community	Center of township	Depends on available resources
<b>Size Standard</b>	5 ac. + 1 ac. Per 100 pupils	1 ac./1,000 population	20-30 ac. + 1 ac./ 100 pupils	1 ac./100 population	1 ac./100 population
<b>Approximate Size</b>	10 acres	3 acres	25-30 acres	Varies	Varies
<b>Minimum Size</b>	2 ac. for play-ground	2 acres	10 ac. for playground	20 acres	500-1,000 ac. or more

The recreation needs for Mayfield Township recognizes three basic levels of recreation need. First, neighborhood playgrounds and parks will be encouraged to be included and developed by private developers when developing subdivisions/site condominium projects. Also, to encourage the use of planned unit development projects and/or clustering projects that would incorporate the development of neighborhood playgrounds and parks within the projects, bonus density incentives could be provided. Second, community facilities located at the secondary schools will help fulfill the active recreational needs for secondary school age group along with some adults. The third level of need is for Township-wide parks, which will provide recreational facilities for the entire family. Also, it is this level which will be emphasized in the Mayfield Township Master Plan; however, the following table portrays the recommended recreation needs in acres of land for the Township for the three previously discussed levels of recreation.

Table 18 RECOMMENDED RECREATION ACRES MAYFIELD TOWNSHIP		
	Existing	Additional Proposed
<b>Neighborhood Playgrounds</b>	None	26.2
<b>Neighborhood Parks</b>	None	11.8
<b>Community Facilities</b>	None	46.2
<b>Township-Wide Parks</b>	None	118.3
<b>TOTAL</b>	<b>0</b>	<b>202.5</b>

The above figures for additional proposed recreation acreage are based on the estimated capacity development figures derived from Table 14 of the Residential Areas Plan. As previously mentioned, the Master Plan is only placing emphasis on the need for Township-wide recreation facilities. The remaining recreation needs (neighborhood and community facilities), due to the present rural character of the Township, will be satisfied by either local, private development projects and/or by public school facilities that serve the Township.

The future need for Township-wide parks is estimated at 118 acres. It is proposed that the Township consider the development of a centrally located park facility that would provide both active and passive recreation facilities. Such a site could possibly be located at or adjacent to the Township Hall site. Such a site would have a short driving distance for Township residents, and it would compliment the Township Hall facility and make use of existing parking and land area. Such a site would represent a first phase in developing a Township-wide park system. As the Township grows, other sites will be necessary to develop and incorporate into the system in order to meet the recreational needs of the community.

### **Public School Facilities**

Mayfield Township lies totally within the Lapeer Community School District which covers approximately 225 square miles and has a population of 36,000 and a total enrollment of 7,452 students. The school district includes all of the City of Lapeer, Lapeer and Mayfield Townships and large portions of Attica, Elba, Hadley, Metamora and Oregon Townships. Lapeer Community School District operates two (2) high schools, one (1) junior high school, and eight (8) elementary schools. Mayfield Township is home to a junior high school (Zemmer Junior High School) and three (3) elementary schools (Schickler Elementary; Lynch Elementary; and Mayfield Elementary).

#### Zemmer Middle (Junior High) School

Zemmer Middle (Junior High) School is located at 1920 Oregon Road and was originally constructed in 1966 with renovations/additions being done in 1975. The building contains 68,585 square of floor area and is situated on a forty (40) acre site which is shared with the Schickler Elementary. Zemmer is the only junior high school within the Lapeer School District. This facility currently houses grade 7 and has a current enrollment of 667 students. The building contains twenty (20) classrooms, an office

area, media center, cafeteria, full gymnasium, band room, art room, a small auditorium and science labs. Current problems with this facility include several cracked walls in the north end of the boy's locker room exterior wall. Sinking fund action for this facility include technology improvements, parking lot/driveway resurfacing, additions, boiler replacement, electrical and lighting improvements, ceiling replacement and phone system improvements.

#### Schickler Campus of Irwin/Schickler Elementary

Schickler Elementary, located at 2020 Oregon Road, is one of the three newest elementary schools within the Lapeer School District. This building contains 32,005 square feet of floor area, and it was built in 1975 on a forty (40) acre site shared with Zemmer Middle School. The Schickler building contains seventeen (17) classrooms, an office area, media center and a kitchen/multi-purpose room. This facility currently houses grades 4-6 and has a current enrollment of 321 students. Current issues with this building included several wall cracks on the south end of the multi-purpose room exterior wall along with two (2) classrooms located at the southeast corner of the building. Sinking fund actions for this building include technology improvements, parking lot/separate bus and car loop drop off improvements for safety, electrical and lighting improvements, ceiling replacement, and phone system improvements.

#### Lynch Elementary

Lynch Elementary, located at 2035 Roods Lake Road, was originally built in 1968 with a large addition being added in 1974. The building contains fourteen (14) classrooms, multi-purpose room/kitchen, office area and a small media center, and it contains 26,680 square feet of floor area. This facility houses grades 1-6 and has a current population of 290 students. The multi-purpose room is used as a dining room, gym, band and art room. The ceilings, however, are only eleven (11) feet high and are not conducive for indoor gym activities. Proposed sinking fund actions for this facility include technology improvements, multi-purpose room improvements, electrical and lighting improvements, ceiling replacement, phone system improvements, roof replacement, parking lot/driveway resurfacing and boiler replacement.

#### Mayfield Elementary

Mayfield Elementary, located at 302 Plum Creek Road, was originally built in 1956 with additions completed in 1964 and 1973. This building is Lapeer's largest full grade primary school which provides grades E5-6 and is a school of choice. The school has a current enrollment of 504 students. The building contains 42,396 square feet of floor area and contains twenty (20) classrooms, a gym, a small cafeteria with kitchen, small office area and a media center. A major issue with Mayfield Elementary involves site circulation, which due to the many students being dropped off or picked up by their parents, causes significant traffic and parking congestion at this facility. Also, the 1956 portion of the building contains a spray-on ceiling system that limits possible lighting upgrades. Abatement of this ceiling with corridor/classroom wall reconstruction has been suggested. The sinking fund action for this building include technology improvements, parking lot/driveway resurfacing, additions, ceiling and lighting renovation (asbestos abatement), roof replacement, electrical and phone system improvements.

## FIRE STATION LOCATION PLAN

Service areas should be planned to serve the ultimate needs of a community. Hence, the fire station location plan for Mayfield Township is based on serving the ultimate population holding capacity and expected pattern of development in terms of residential, commercial, industrial and institutional areas.

The service areas in the fire station location plan are based on the service areas depicted in Table 16. It is important that consideration be given to this kind of service area and that stations are provided when needed so as to “fit” into the overall future location scheme. In this manner, an adequate system of fire protection at an economical cost can be assured in the future.

It must be kept in mind, however, that insurance rates are affected by factors such as type of construction material in structures, availability of water, topography and other critical factors, which might affect fire-fighting efficiency. Furthermore, when developing the fire station location plan, the service areas of the proposed station(s) should overlap so that when equipment from one station is on call, other stations can protect its service area.

When evaluating potential fire station sites, factors, which affect the dispatch of fire fighting equipment, must be considered. Such factors include:

- Locations within residential neighborhood areas should be avoided. The most appropriate location for a fire station in a residential area would be along the boundaries of the neighborhood area with access to a major thoroughfare.
- Sites fronting on one-way streets should be avoided.
- Sites fronting on divided highways should be avoided unless there is a crossover island break provided immediately opposite the site.

In addition to the above elements, which affect fire station placement, site size is also a major consideration. Some of the more important factors, which influence the size of fire station sites, include:

- Most stations house two (2) or more fire fighting and/or emergency vehicles. These should be side by side rather than one in front of the other. If the station has doors at either end, as most new stations are designed, the importance of this requirement is reduced.
- In addition to space for trucks, all stations will require a hose drying tower or cabinet. Stations typically have office areas, meeting and/or training rooms, and kitchen and/or food preparation areas. Also, one-story stations are the preferred design.
- The Michigan Inspection Bureau recommends that a station be setback at least forty (40) feet from the front property line.

- Off-street parking facilities for personal vehicles of firemen and occasional visitors should be provided on the site. Parking areas need to be designed so as not to interfere with egressing or ingressing emergency vehicles. Also, parking areas for firemen, who will be volunteers, needs to be kept separate from visitor parking areas.
- The average fire station site will usually approach one-half acre in size with a minimum depth of 140 feet. Lot widths will vary depending on the number of vehicles to be housed. An acceptable standard for site width is 150 feet for a two (2) vehicle (side by side) station. Fire stations, which will be manned by volunteers, will require larger sites in order to handle off-street parking requirements, which are designed to not interfere with emergency vehicles egressing or ingressing the site.
- Stations, which are planned to accommodate additional activities such as repair facilities, training facilities, meeting rooms available to the public or other services, i.e., ambulance service and police service, will require larger sites.

With regard to existing fire service facilities, Mayfield Township's fire protection is contracted from the City of Lapeer, which has one (1) fire station. The City's fire station is located on the north side of Genesee Road (old M-21) between Village West Drive and Charbridge Street. With regard to Mayfield Township, the major drawback of this station is its location as it relates to the fire service areas in the Township, which were discussed above (see Table 16).

Virtually none of the Township lies within one (1) mile driving distance from the Lapeer Fire Station, which is the ideal driving distance from a fire station to protect high value (commercial, industrial and institutional) land uses. In fact, the vast majority of high value land uses in Mayfield Township lie between two (2) and five (5) miles driving distance from the City's fire station. Furthermore, more than one-half (1/2) of the Township lies outside of the five (5) mile service area or driving distance radius from the City's fire station, which is not a suitable situation in terms of providing adequate fire protection. This is especially true for those more suburban residential areas located in the general vicinity of Sawdust Corners Road and Farnsworth Road and the area generally located near Fish Lake Road between Vernor and King Roads.

Mayfield Township has three (3) significant concentrations of high value properties. The first area is the commercial development located along the M-24 corridor from just north of the City – Township limits (intersection of Davis Lake Road and M-24). The second concentration is also located along the M-24 corridor from just south of the Plum Creek Road – M-24 intersection to approximately one half (1/2) mile north of Daley Road. The third concentration is located at the Township's airport facility, which not only includes the airport but also includes existing and potential industrial developments. In addition, there are three (3) elementary schools located in the Township (Plum Creek Road, Oregon Street and Daley Road) as well as a junior high school on Oregon Street that would fall into the category of high value property. The Lapeer County facilities located along Callis Road south of Davis Lake Road would also fall into the category of high value property.

Ideally, high value properties should not be located more than one (1) mile driving distance from a fire station; however, maintaining ideal conditions with regard to fire

station locations is not always economically feasible or possible. None the less, the placement of a fire station should at least come as close as possible to meeting the guide lines for fire station locations as they relate to high value properties, residential (urban developments) properties and scattered (rural) residential development.

### Plan Summary

The recommended fire station location plan for Mayfield Township has been prepared based on the preceding standards. It is highly recommended that one (1) City of Lapeer satellite fire station be located in Mayfield Township to adequately serve the Township presently and in the future. Such a station would ideally be located in an area that would best serve all high value properties and residential properties in the Township, and such a location would appear to be an area located along Daley Road between M-24 to the mid point between Farnsworth Road and Roods Lake Road. A station at this location would be within one (1) to two (2) miles driving distance to most of the Township's high value properties. Also, such a location would have quick access to M-24, which provides north-south access throughout the entire Township as well as to east-west connecting roads, especially those roads serving the western portion of the Township. In addition, such a location would also provide quick access to the east and/or west along Daley Road to those north-south roads serving the eastern portion of the Township.

## COMMERCIAL AREAS PLAN

Commercial development is an important aspect of a community. Commercial land uses provide local services to residents as well as increased tax base and increased employment opportunities. The extent of a community's commercial base is linked to the size of its potential market area and the regional location of the community itself. Local commercial uses serve a relatively small, local market, and depend almost exclusively upon population residing within the community. Regional commercial uses, such as planned shopping centers, demand a larger market which may extend well beyond the municipality's borders.

The increased mobility of today's shoppers has brought about radical changes in the design and location of shopping facilities. Most evident in this respect are the changes which have taken place in the design of commercial areas. Other changes, although less discernible, concern the methods used in commercial market analysis.

In the preparation of the Master Plan, both of these subject areas are of prime importance with the latter serving as a basis for determining the proper amount and location of commercial development.

From the standpoint of land use planning, there are two basic forms of commercial development.

- **Shopping Center Commercial** – consisting of comparison and convenience outlets and personal service activities primarily oriented towards the pedestrian shopper. Included in this category would be the “*planned*” shopping center, which is designed as a single site; and the “*unplanned*” shopping center such as a municipality's central business district, i.e., the City of Lapeer's downtown shopping area. Compatibility between business types is a primary requisite in locating a commercial use in a shopping center.
- **Non-center Commercial** – includes most other retail activities, special retail outlets and general service uses. These types of commercial uses are generally developed in “*strip*” commercial patterns along a major thoroughfare. Usually the types of business activities located in such a general business area need not be compatible to strengthen customer drawing power. The uses are also characterized by their need for large land areas, their serving passer-by traffic and by having a higher nuisance level than commercial uses typically found in a shopping center commercial category.

The concepts and principles which have been developed to assist in planning for these basic forms of commercial development are discussed below:

### SHOPPING CENTER COMMERCIAL

Shopping centers may be categorized under two general headings: Comparison Centers and Convenience Centers. Within these general categories, several other classifications may be made based on the detailed characteristics of the individual center. Following is a general discussion of the characteristics and trade areas associated with each:

- **Classification of Centers** – The Convenience Center serves to provide for the day-to-day shopping needs of local citizens (e.g., groceries, meats, drugs, and services such as dry cleaning establishments, beauty salons and barber shops) and is usually dominated by supermarket.

The Comparison Center contains a cross section of retail and service used, offering those items purchased less frequently (e.g., apparel, household furnishings, appliances, etc.). The comparison center thus affords the customer an opportunity to “shop around” and compare items prior to making a purchase. A comparison center may be further defined as a minor, intermediate or major center, based primarily on factors of gross floor area, site size, principal tenant and supporting population.

- **Trade Area** – Shopping center developers and market analysts are not in complete accord regarding the classification of types of centers and their respective supporting population or trade area. A broad classification has, however, been developed as a guide to relate the above center characteristics to their respective trade areas. This is summarized in the following table.

Table 19				
SHOPPING CENTER STANDARDS				
CENTER TYPE	SITE SIZE	SHOPPING CENTER COMPOSITION	POPULATION BASE	SERVICE AREAS
Neighborhood Center	3-5 acres	Supermarket as the principal tenant with other goods or personal services. Typical gross lease-able area of 30,000 to 100,000 square feet.	Trade area population of 2,500 to 40,000 people.	Neighborhood, 6-minute drive time to 1 to 1 ½ mile radius.
Community Center	10 acres	Junior department store or variety store as the major tenant, in addition to the supermarket and several merchandise stores.	Trade area population of 40,000 to 150,000 people.	3-6 mile radius
Regional Center	30-50 acres	Built around a full-line department store with minimum gross lease-able area of 100,000 square feet. Typical center gross lease-able floor area of 300,000 to 1,000,000 square feet.	150,000 or more people	10-15 mile radius
SOURCE: Urban Land Institute, <i>Shopping Center Development Handbook</i> , (Washington, D.C.), 1977.				

### NON-CENTER COMMERCIAL

In addition to shopping center uses, there are numerous other businesses that are considered to be non-center commercial in character. Included in this group are various

automotive sales outlets, drive-in establishments, boat and trailer sales, open air sale uses and the like. While abutting business uses in this group do not require the degree of compatibility that is basic to shopping center uses, such general commercial areas will, nonetheless, require special considerations as to off-street parking and loading together with effective screening from any abutting residential area.

## LAND USE RELATIONSHIPS

In terms of physical design and land use relationships, there are a number of guiding principles that are generally applicable in planning for commercial areas. Some of the more important of these include:

- Parking should be off the street, removed from points of pedestrian congestion, and conveniently close to stores.
- Off-street parking may be either to the front or rear of stores, and there should be customer entrances directly from the parking area, which are separated from truck loading and delivery areas.
- All vehicular entrances should be located at as great a distance as possible from major intersections in order to disperse through and parking traffic.
- Adjacent property, especially residential development, should be screened from unsightly adjuncts of commercial property, (e.g., service and storage areas, parking areas, etc.).

In addition to the above general statements there are certain concepts specifically applicable to the design of shopping center type commercial areas. The more important of these are:

- It is desirable to have a high concentration of visual interest for the shopper with a minimum of “*blank*” frontages. An attractive atmosphere, created through the use of good design, landscaping, malls, etc., can be one of the greatest appeals of a modern center.
- There should not be extraneous elements within the store groupings to distract the interest of the shopper. For example, a gas station in the center of a cluster of stores would create a break in the pedestrian way, confuse the traffic pattern and, psychologically, reduce the shoppers desire to walk on to additional stores.
- In areas of “*strip commercial*” development, interconnecting service drives between adjacent commercial properties and their off-street parking areas is highly desirable. This not only makes for more efficient traffic flows and patterns while increasing the convenience of shoppers, it will also potentially reduce the number of access points to a major thoroughfare, thus making for a more efficient and safer roadway.

## COMMERCIAL LAND USE NEED

Currently, there are 236 acres of commercial land uses in Mayfield Township. These uses can be broken down as follows:

Table 20 EXISTING COMMERCIAL LAND USE		
Land Use	Acres	Percent of Total
Office	20	0.09
Convenience Commercial	23	0.10
Comparison Commercial	81	0.50
General Commercial	112	0.54
<b>TOTAL LAND USE</b>	<b>236</b>	<b>1.23*</b>
* Percent of total refers to the Township's total existing land use as depicted in Table 1, Existing Land Use.		
SOURCE: John Ambrose & Company, Inc. Field Survey, July 2002		

These commercial uses are, for the most part, concentrated along the M-24 corridor (N. Lapeer Road) between the southern boundary of the Township to an area approximately one-half (1/2) mile north of Daily Road. Most of these uses are considered roadway or highway-oriented, non-center commercial businesses, since much of their trade results from exposure and accessibility to passing motorists. Typically, non-center commercial uses are found in the Township's C-2, General Commercial zoning district. The planning standard for estimating non-center commercial land uses is ten (10) acres per 1,000 in population. Based on that standard, Mayfield Township would only need seventy-seven (77) acres of non-center commercial land. The Township has 112 acres of non-center commercial land use, which exceeds the planning standard for such uses by 35 plus acres of land. In fact, based on this standard, the Township has enough non-commercial land use to fulfill its needs beyond the year 2020 where the population is estimated to be over 10,250.

Not all commercial uses are non-center oriented. There are convenience and comparison commercial uses. Convenience commercial facilities, generally small party and grocery stores, are located in scattered locations throughout the Township, (e.g., Millville Road at Angle Road; Kings Mill Road west of Five Lakes Road; Fish Lake Road at King Road). With regard to comparison commercial, the Township has very limited activity in this land use category. Most of the areas comparison shopping is found in the City of Lapeer's central business district as well as in the many *Community Shopping Centers* located within the City. Regional shopping has a typical gross lease-able floor area ranging from 300,000 square feet to 1,000,000 plus square feet, and such facilities can be found in the Flint area (Genesee Mall).

This quantitative analysis does take into consideration such factors as the existence of shopping centers in the City of Lapeer; however, it does not consider the qualitative factors of the shopping preferences of Township residents. In any case, however, the long term commercial needs for Mayfield Township would most likely not include significant comparison shopping facility. General commercial uses, (e.g., automotive related, service related, etc.) which rely on major transportation corridors for their

business will tend to do well in Mayfield Township. Eating and drinking establishments will also do well; however, before these types of uses flourish in the Township, sewer and water will be a prerequisite for their development.

**OFFICE LAND USE NEED**

Office use is often considered as a form of commercial land use. Thus, a brief analysis of office land use will be included in the Commercial Areas Plan. Many types of office needs are intended to serve a local population. These are uses to which the population may turn in case of emergency or illness. These businesses strengthen the community’s sense of place and help maintain a small town feel. Among these uses are doctors, dentists, realtors and insurance sales offices.

Office uses also have certain requirements for population necessary for their viability. The following table documents the population base necessary to support different types of office development (doctors, real estate, accounting, travel agencies, legal offices, and banks). To provide for future office development, three (3) acres per 1,000 people is the recommended guide. Thus, the current Township’s population could ideally support twenty-three (23) acres of office development and by the year 2010, the Township could support approximately thirty (30) acres of office development. As of July 2002, the Mayfield Township had 20 acres of office land use. However, the recommended guide for office use is just that, a guide, as it does not take into consideration the overall regional need for office use or other factors including land availability, accessibility, or market demand.

Table 21 RECOMMENDED OFFICE OR SERVICE USE STANDARDS				
Office or Service Use	Population Base	Market Penetration	Rental Revenue Potential	Typical Building Size (sq. ft.)
Real-Estate Offices	n/a	high	high	1,000
Branch Banks	4,500	low	high	4,000
Accounting Offices	n/a	n/a	n/a	n/a
Travel Agencies	varies	high	high	800
Doctors Office	1,000	low	high	1,000
Legal Office	6,000	low	high	800
Brokerage Office	15,000	low	high	800

**NOTE:** Population base refers to the number of actual customers each office or service requires for its support. Market penetration is each one’s relative ability to withstand competition; a office with low penetration needs a greater number of residents in the area than one with the same population base and high penetration. Assume a 3:1 site to building size ratio to determine total land area need.

**SOURCE:** Darley/Gobar Associates, Economic, Real Estate, and Marketing Consultants, as published in *House and Home Magazine*, 1973.

## INDUSTRIAL AREAS PLAN

In most instances a community will require industrial development, in addition to residential and commercial uses, in order to maintain a balanced economic base. The amount of industrial land which should be provided, however, will vary significantly from area to area depending on such factors as:

- The industrial potential of a given community.
- The potential cost-revenue relationships of various land uses.
- Local objectives and desires.

### INDUSTRIAL DEVELOPMENT CONCEPTS

In addition to the amount of industrial land that should be provided, careful consideration must be given to the physical relationship between industrial development and other land use activities.

Non-nuisance types of industrial uses can be adjacent to neighborhoods if they have a pleasing appearance and are designed so that truck and employee's vehicles do not adversely impact local residential areas. Nuisance-type industries (those producing noise, smoke, dust, etc.) should have greater insulation from residences, and this often can be accomplished by a transitional band of non-nuisance industry. In addition, nuisance type industries should not be allowed to locate in industrial zoned areas near the Township's airport facility.

Industrial areas should be protected from intrusion by non-industrial land uses. Commercial uses and residential uses should be excluded from industrial districts, inasmuch as such uses can easily jeopardize the attractiveness and appeal of an industrial district for a discriminating prospective industrialist. In other words, industry needs to receive exclusive zoning, as do residential and commercial zones.

Industrial land should be relatively flat and well drained. The availability of utilities (public sewer and water) should be considered as a significant factor in locating industrial districts.

In addition to the basic goal of achieving exclusive industrial districts, there are design concepts for an industrial district itself. Not all design principles will be adaptable to small districts containing only one or two industrial facilities, however, the following points should be considered:

1. Buffering or insulation between industry and non-industrial uses can be achieved by:
  - Greenbelt and/or obscuring walls developed along the property line.
  - Major thoroughfares, with residential lots backing up to the thoroughfare.

- Buffer zones of transitional uses (i.e., parks, office uses, high density residential uses such as multiple-family housing and mobile home districts, off-street parking areas, etc.).
2. To keep congestion to a minimum, industrial districts should be adjacent to major surface transportation arteries, or to special routes giving ready access to the area-wide highway network.
  3. In addition to manufacturing plants and/or industrial buildings, an industrial district should have adequate space for:
    - Employee parking
    - Truck loading/unloading areas, storage and warehousing
    - Future expansion space
    - Landscaping
  4. The facilities should be arranged in the most efficient manner possible. In a large district (industrial park) a sound development approach is to have streets designed for large trucks and cars that meet, at a minimum, Class “A” road design standards.

In locating and planning industrial developments, care should be taken to insure that the space is adequate and usable. Also, the availability of public water and sewer should be considered as an important factor in locating industrial uses.

## **INDUSTRIAL LAND NEEDS**

For land use planning purposes, it is necessary to estimate the amount of land that can reasonably be expected to be developed for industrial uses to ensure that an ample supply of land is available to support local employment opportunities as well as to enhance the economic base of the Township. The following summarizes two methodologies commonly used in calculating industrial land area needs.

Industrial land area needs can be estimated using land or population ratios. Population ratios determine acreage requirements as a proportion of the total population. Data in Table 22 indicates that 12 acres of industrial land are required for every 1,000 people. The 2010 projected Township population of approximately 8,900 people would, therefore, require 107 acres of industrial land. Currently, the Township has 119 acres of existing industrial land use, which, based on the above requirement, satisfies the Township’s industrial land use needs until the year 2010.

Estimating industrial land use can also be accomplished by employing land use ratios. By surveying the amount of land devoted to industrial uses in other communities, an average can be calculated and used as a standard for planning purposes. Based on its population and current developed acreage, seven (7) percent of the Township’s “developed” land area is expected to be utilized for industrial development. As shown in

Table 23, this equates to approximately 628 acres, which is 509 acres more than what currently exists in the Township as of July 2002 (see Table 1, Existing Land Use).

<b>Table 22 POPULATION RATIOS FOR ESTIMATING INDUSTRIAL LAND USE FOR THE YEAR 2010</b>		
<b>CATEGORY</b>	<b>RATIO</b>	<b>REQUIREMENT</b>
Land requirements-light industry	2 acres per 1,000 population	18 acres
Land requirements-heavy industry	10 acres per 1,000 population	89 acres
Total gross land requirement	12 acres per 1,000 population	107 acres
SOURCE: Joseph DeChiara and Lee Koppleman, <i>Planning Design Criteria</i> , 1969		

<b>Table 23 LAND USE RATIO FOR ESTIMATING INDUSTRIAL LAND USE</b>		
<b>COMMUNITY SIZE</b>	<b>INDUSTRIAL LAND</b>	<b>ESTIMATED ACRES</b>
Small Cities & Towns (under 42,000 people)	7 percent	628 acres*
Large Cities (over 200,000 people)	10 percent	N/A
* Based on a developed acreage, excluding public/semi public uses and vacant and agricultural uses. SOURCE: American Planning Association, <i>PAS Memo: Land Use Ratios</i> , August 1992		

The quantity of developed industrial land a community will need in the future is dependent upon its current employment base, utility development, local political philosophy, as well as a myriad of other factors industry consider when choosing a location for a new facility. A major factor in Mayfield Township is the close proximity to the City of Lapeer's industrial base. Also, having a state trunk line running through the community (M-24/N. Lapeer Road) as well as having an airport and lower tax rates are other important factors why industry may choose to locate in Mayfield Township.

Based on existing zoned and planned land for industrial use, it is unlikely that Mayfield Township will experience a high demand for industrial land development due to the

Township's environmental characteristics and the availability of prime industrial land in other communities, i.e., the City of Lapeer.

## INDUSTRIAL DEVELOPMENT FACTORS

When planning for the future, most of the space needs for a community are based on expected future population, as noted previously in this segment. However, as is the case of industrial land use, this is not wholly true because of the following:

- The number of workers per acre, and therefore, the number of jobs an acre of industry can create varies considerably with various types of industrial uses.
- Some communities encourage industry and are well suited to accommodate industry, while others either chooses not to have a balance of industry or do not have characteristics that are attractive to industry.
- Even though a community may require a certain amount of industrial space to serve its ultimate population, this space may not all be located within the community's boundaries.

Consequently, it is impossible to derive one such standard for determining the amount of industrial land a community needs. The standards noted above can only be used as a general guide. The procedure in this Plan will be to emphasize the trends in industrial development and to analyze the factors industry looks for when selecting industrial sites.

The conditions which industries will be looking for when locating their operations can be generally summarized. The following checklist is not intended to be all inclusive, but covers the more important factors industry considers when seeking site locations.

1. Availability of Adequate Sites – The trend is to have one-story buildings with adequate space for parking, loading/unloading, a reserve for expansion, and where industrial abuts residential areas, a landscaped buffer zone. In spite of these increases in space requirements, many industries can still satisfactorily locate on ten acres or less. The availability of adequate sites implies more than adequately sized parcels. Also desirable would be low land cost, and a zoning ordinance based on an overall plan for the future development of the community. There should be adequate protection both for industry and for residential areas. Commercial and industrial activities being sought by communities today are becoming increasingly inquisitive about planning and zoning of communities seeking them. One of the major points on the checklist of many commercial and industrial developers today is; *“Does this community have a plan, and do they know where they are going?”*
2. Reasonable Tax Rates – One of the frequently stated reasons for an industrial move is the lack of a reasonable tax rate. This does not mean tax favors or concessions to be made to attract industry into an area. Obviously, a township has a more desirable rate than does a city. Also, in order to offer an enticement to prospective industries to locate new facilities in this state or to maintain the retention of existing industries, Act 198, which is the Plant Rehabilitation and Industrial Development Act, was developed to permit industries who qualify, to

- enjoy up to a 50 percent reduction in ad-valorem, real and personal property taxes for up to twelve (12) years.
3. Power – Electric power in significant amounts is most often required today, and there should be no local problems for the provision of this power source in the Township.
  4. Water and Sewer – Large quantities of water are required by many industries in their manufacturing process, i.e., Durakon; either as a coolant, and element of the manufacturing process, or as a vehicle for waste disposal. Mayfield Township has access to Detroit City Water via a major transmission line that runs along the Township's southern border. Also, many industries require public sewers for their manufacturing process, and Mayfield Township has access to a limited amount of sewage capacity from the City of Lapeer. Also, it is a zoning requirement in the Township that "*industrial park*" developments be serviced with both public water and sewer.
  5. Transportation Facilities – Most industries today rely on the highway system for the movement of products and supplies. The nearby interstate system (I-69), a state trunk line (M-24), a county road network, rail facilities (found in the City of Lapeer), and the Township's airport serve to provide Mayfield Township with a good transportation system.
  6. Compatible Laws and Living Conditions – Progressive industrial thinking recognizes the desirability of sound zoning laws, building codes, and other necessary regulations as well as suitable living conditions. Mayfield Township has contemporary zoning and building regulations as well as providing a high quality of life with regard to a place to live and raise a family. Industries, as well as commercial activities, seeking sites on which to locate desire good housing, education, recreation, shopping, adequate transportation, libraries, professional services, etc. Also, they seek compatible zoning laws, building codes, planning and public attitudes towards their activities along with a reasonable certainty of a satisfactory community life.
  7. Site Characteristics – Features such as topography, soil types, drainage conditions, abutting land uses, availability of public utilities, and other physical features play an important role in determining industrial district locations and site layouts. Other site characteristics include load bearing characteristics of the soils on site, amount of grading required, availability of adjoining land, sewage and waste disposal services, local land uses, police and fire protection, and proximity to their markets.
  8. Labor Force – Availability of a skilled labor force is a prime consideration in attracting many industries to an area. Southeast Michigan, which has a substantial industrial base with the automobile industry and its suppliers, has a large pool of skilled laborers to choose from as the many industries have been down sizing their operations over the past several years, thus leaving a number of laborers without jobs. Also, the availability of skilled labor force has been historically a prime consideration in attracting many industries to an area. However, this probably will be less of a determining factor since labor contracts, workmen's compensation regulations, unionization and automation throughout

the state is becoming more and more important to industry as it relates to criteria for locational considerations.

## **PLAN SUMMARY**

The Industrial Areas Plan was developed by looking at industrial development concepts, industrial land needs and factors used in industrial development. Based on these planning elements, it would appear that the Township's major existing industrial areas (the Durakon site and land zoned and developed for industrial use adjacent to Mayfield Township's DuPont-Lapeer Airport) will satisfy the Township's long-term needs for industrial land. Both of these areas have the potential to be serviced with public water and sewer, which is a prerequisite for the success of these sites for industrial uses.

## **INDUSTRIAL DEVELOPMENT STANDARDS**

The Plan recommendations contained in this report have been primarily concerned with the locational arrangement of future industrial areas as well as the amount of industrial land in order to support the needs of the Township in the future. The Township's Zoning Ordinance currently provides for contemporary development standard for industrial uses, including industrial park developments.

### Lot Area and Width

Due to the diverse site needs of industry, no minimum standards are required for these land use features. From a planning standpoint, these should be contingent on such factors as minimum floor area needs (including future expansion), required off-street parking and loading/unloading space, and requirements for landscaping/greenbelt buffers and yard setbacks.

### Building Height

It is suggested that maximum building height standards of forty (40) feet and sixty (60) feet respectively be established for "light" and "heavy" industrial districts. The Mayfield Township Zoning Ordinance has incorporated these height regulations.

### Yard Setbacks

For "light" industrial uses, the following setbacks are recommended and provided for in the Township's Zoning Ordinance:

- Front Yard – 40 feet
- Side Yard – 20 feet each
- Rear Yard – No building shall be located closer than 50 feet or the height of the building, whichever is the greater to the outer perimeter (property line) of such district when said property line abuts any residential district.

For "heavy" industrial uses, the following setbacks are recommended and provide for in the Township's Zoning Ordinance:

- Front Yard – 60 feet

- Side Yard – 30 feet each
- Rear Yard – Same as “light” industrial

Off-street loading/unloading and employee parking facilities are suggested for a side or rear yard location. Parking for visitors can be allowed in the front yard area providing a greenbelt of twenty (20) feet is provided between the parking area and the front property line.

### Road Improvement Standards

The typical cross-section standard for an industrial road (industrial park development) requires a minimum right-of-way width of sixty (60) feet. The road paving width would be forty (40) feet measured from curb to curb. This suggested paving width would be necessary to accommodate large radius turning movements to individual sites by semi- and full trail vehicles. Where cul-de-sacs are provided in combination with a minor industrial road, a minimum radius should be used to accommodate the turning movements of large vehicles. A minimum radius of sixty-five (65) feet and seventy-five (75) feet are suggested to back-of-curb and right-of-way lines respectively.

### Transitional Details

The development of adequate physical transition between industrial and residential uses represents a prime concern in maintaining the stability of residential areas which abut industrial districts.

It should be noted, from a physical planning or site design standpoint, transitional areas should be designed to accomplish two basic objectives, which are as follows:

1. To visually “screen” industrial operations as storage areas, loading docks, parking areas, etc., from nearby residential uses and/or districts.
2. To curtail noise, glare, etc., which may emanate from industrial uses and adversely effect adjacent residential uses.

The former objective may be accomplished by development of a landscaped “screen” or planted “greenbelt” adjacent to the use area to be obscured. To obtain maximum effectiveness from such a landscaped screen, a planted area with a minimum width of twenty (20) feet is recommended. Further, the initial plant materials should be of sufficient size and density to create a year-round horizontal screening when viewed from adjacent properties.

Also, solid screening walls may be required to adequately screen the objectionable functions of an industrial use. It should also be noted that the planting of a dense, fine grain materials, such as evergreens, which extended above the height of the solid screening wall will tend to further reduce any noise levels generated by an industrial use.

## TRANSPORTATION ANALYSIS

The transportation of people and goods is one of the most important considerations of a planning program. In order to handle traffic, the thoroughfares must be adequate in capacity, both from a volume and safety standpoint. Efficient movement of traffic can be obtained only by relating the thoroughfare plan to existing and proposed land use, and designing the thoroughfares so that they will efficiently handle future traffic volumes.

This chapter examines the existing transportation system within Mayfield Township according to function and flow and provides recommendations for improving circulation and accommodating future development. Ideally, the extension and improvement of public roads should precede the demands incurred by increased development; however, rarely does this occur in real life. At best, a synchronous relationship should develop between transportation improvements and changes in land use; again, this too rarely occurs in real life situations. Road improvements typically come well after significant changes in land use have occurred that result in heavier demands on the existing roadways.

### ROAD HIERARCHY

Road within Mayfield Township can be classified according to a three level functional hierarchy of service. The hierarchy is described as follows:

#### Local (minor) Roads/Streets:

Local roads are designed to provide vehicular access to abutting properties and to discourage through traffic movements. Local roads may be paved or unpaved, seasonal or year-round.

Local roads are typically one of two types: residential or business. Examples of local residential roads are subdivision roads/streets and the rural segments of section line roads. An example of a business road is an industrial park road. Part of the street width is usually allocated to vehicle parking without restrictions, although special snow emergency prohibitions may be necessary. Typically, each occupied abutting property will have a driveway connection to the road/street.

#### County Primary Roads

County primary roads are paved roads which collect and distribute traffic between residential, employment and shopping destinations, both within the Township and out. Most county primary roads in Mayfield Township are heavily traveled.

The major north-south county roads include Millville Road, Farnsworth Road, Roods Lake Road and Fish Lake Road. The major east-west county roads include Sawdust Corners Road, Vernor Road, Daley Road, Plum Creek Road, Haines Road, Davis Lake Road and Bowers Road.

All of the Township's county roads are fronted by residential developments that have direct access to the roadway via a driveway. The multiple curb cuts that result from this type development create safety hazards and decrease the efficiency of the road.

Further, this type of development pattern limits the ability for interior lands to be utilized efficiently. In addition, this type of development pattern negatively impacts the rural character of the area.

The Township has no legal obligation to maintain or repair county roads. The McNitt Act of 1931 and PA of 1051 removed Township authority over community roads and required Michigan county road commissions to take over all Township public roads/streets outside the limits of incorporated cities and villages as either county primary or local roads.

Under the McNitt Act and PA 51, county road commissions are required to maintain primary and local roads as *“reasonably safe and convenient for travel”*. This obligation has been construed to include dust control to prevent traffic hazards, alleviating flooding conditions causing traffic problems and correcting potholes deep enough to cause loss of control or damage to a vehicle. The Michigan Court of Appeals has furthered ruled that lack of funds cannot be used by the county road commission to defend its failure to maintain roads reasonably safe and convenient for travel.

Despite this, Mayfield Township has recognized that it is important to work with the road commission to ensure that the local road system is the best it can be. Mayfield Township and the Lapeer County Road Commission have established a partnership for maintaining and improving local roads. During the past ten years, the Township has invested millions of dollars in local roads throughout Mayfield Township. To date, the Township has not levied a property tax or special assessment for road improvements.

### State Highways

Lapeer Road (M-24) is a State Highway that forms the Township’s major north-south transportation corridor, which extends from the northern Township line to the City of Lapeer boundary to the south. The M-24 transportation corridor connects to southern counties where it becomes US-24 (Monroe, Wayne and Oakland Counties) to the northern counties of Lapeer and Tuscola. This highway is of significant importance as it moves people and goods from southern communities in the state to northern communities while having convenient access to larger employment destinations to the south (Oakland County, i.e., General Motors operations in Orion Township and the City of Pontiac).

### Existing Road and Traffic Conditions

The Lapeer County Road Commission has provided information concerning daily traffic counts and paved road surface ratings. Based on this information, Mayfield Township’s road system is made up of 22.3 miles of primary roads and 58.2 miles of local roads, which represents 6.2 percent and 6.1 percent respectively of the total primary and local roads in Lapeer County. The maps at the end of this chapter, which were prepared by Lapeer County Road Commission, depict 2003 daily traffic counts and surface ratings for paved roads. In terms of traffic volumes, Mayfield Township has very few roads that exceed 5,000 daily trips per day. Roads that fall into this category include M-24, Saginaw Road, and portions of Bowers Road, Davis Lake Road, Millville Road and Oregon Road. With regard to paved road surface ratings, very few roads are rated good to excellent. Roads in Mayfield Township that are considered to have good to excellent road surfaces include King Road, Reed Road, Vernor Road, and Plum Creek



SOURCE: Lapeer County Road Commission

# MAYFIELD TOWNSHIP ROAD - HIGHWAY MAP



Road. Also portions of Fish Lake Road, Saw Dust Corners Road, Coulter Road and Haines Road are classified as having good to excellent road surfaces.

Future Traffic Volumes

Future traffic volumes will be dependent upon the amount, type and intensity of development. However, future traffic generation can be estimated by referencing the accompanying table. Different land uses have been show to generate different amounts of traffic. By looking at the land uses on the table the peak hour trips and the average daily trip totals can be discerned.

Table 24 TRAFFIC GENERATOR CHARACTERISTICS		
Type of Land Use	Peak Hour Trips*	Average Daily Trips*
<b>Residential (Per Unit)</b>		
Single-Family Home	0.74	9.55
Apartment	0.51	6.47
Condominium (attached)	0.44	5.86
Mobile Home	0.40	4.81
<b>Commercial (Per Unit)</b>		
Small Retail Strip	4.80	91.65
Moderate Retail Strip	6.56	70.67
Large Retail Strip	3.66	38.65
Quality Sit-Down Restaurant	7.63	96.51
Fast Food Restaurant (drive-thru)	36.53	632.12
Service Station (per pump)	16.30	Not Available
Convenience Store	52.74	737.99
Drive-in Bank	51.23	265.21
<b>Industrial (per 1,000 sq. ft. of floor area)</b>		
Light Industrial	1.08	6.97
Heavy Industrial	0.68	1.5
Industrial Park	0.86	6.97
Manufacturing	0.75	3.85
Warehousing	0.60	4.88
* <u>NOTE:</u> A trip is defined as a one-way movement, i.e. 10 trips = 5 in and 5 out.		
SOURCE: Institute of Traffic Engineers (ITE) Generation Manual, 6 <sup>th</sup> Edition		

**ACCESS MANAGEMENT**

Access management is defined as *“a process that provides or manages access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed”*.<sup>1</sup> The goal of access management is to achieve a safe and efficient flow of traffic along a roadway, while preserving reasonable access to abutting properties.

<sup>1</sup> Michigan Department of Transportation, Improving Driveway & Access Management in Michigan

Six basic principles are outlined in the *Improving Driveway & Access Management in Michigan* handbook, prepared for the Michigan Department of Transportation, to achieve the benefits of access management. They are as follows:

1. *Limit the number of conflict points:* When the number of potential conflict points between turning vehicles increases, so do the opportunities for traffic crashes. Intersections typically have the most points of potential conflict.
2. *Separate conflict points:* Traffic conflicts can be reduced by separating conflict points. Effective ways include establishing minimum distances between intersections and driveways and establishing corner clearance standards that separate driveways from critical approach areas of intersections. The Mayfield Township Zoning Ordinance has incorporated standards that provide for corner clearance and minimum distances that driveways may be located from intersections.
3. *Separating turning movements from through movements:* Vehicles typically slow before turning. When turning vehicles are removed from the main flow of traffic (turning lanes), traffic speed is better maintained. In addition to maintaining speed, roadway capacity is preserved and accident potential is reduced. Separate right and left turn lanes and frontage roads are access management design tools that serve this purpose. The concept of frontage roads is especially important along major roads where strip commercial development has taken place.
4. *Locate traffic signals to facilitate traffic movement:* When a major road has poorly spaced and uncoordinated signals, traffic safety, road capacity and traffic speed can be severely hampered. Distances on one-half mile or more between signals are desirable.
5. *Maintain a hierarchy of roadways by function:* Access management standards consistent with roadway function protect investments in existing roads, businesses and residential areas. When a road combines high traffic volumes with too many conflict points, roadway function and quality decline, along with the ability to safely access abutting properties.
6. *Limit direct access on higher speed roads:* Access on higher speed roads should be limited to only signalized intersections or other public streets (frontage roads) along the road – rather than at each abutting property – to preserve the public investment in the road. Consequently, fewer road widening projects will be needed. This concept applies to the commercial properties along M-24.

The above access management principles should be incorporated in the development review (site plan review) of major projects that impact major roadways throughout Mayfield Township.

## **TRANSPORTATION PLAN**

The goal in planning for improvements to the Township transportation system is to foster continuity in the existing road pattern while retaining the rural character of the Township. This can be accomplished by limiting the direct driveway access to major county roads

by housing by encouraging the development of internal roadway systems to serve residential developments.

Traffic impact studies should be an essential part of the development review process to assist developers and public agencies in making land use decisions, such as subdivision or site condominium developments, rezoning petitions, special land use requests, and other development reviews where the proposal may have a significant negative impact on traffic and transportation operations.

As previously discussed, Mayfield Township has a partnership with the Lapeer County Road Commission for road maintenance and improvements. The following Table depicts a long-range local paving plan, which is design to assist the Township in establishing an annual budget that impacts local road projects.

<b>Table 25</b> <b>MAYFIELD TOWNSHIP</b> <b>FIVE YEAR</b> <b>LOCAL ROAD PAVING PLAN</b>	
Year	Road Paving Projects
2004	Farnsworth Road (Bowers to Haines) Callis (Suncrest to Davis Lake) Callis (Davis Lake to Angle) Lou-Ann Drive ( North off Oregon) Suncrest (Oregon to Davis Lake) Westbrooke Sub (East off Suncrest)
2005	Roods Lake (Haines to Daley) Slater (Haines to Daley)
2006	Grosbeck (Bowers to Haines) Haines (Fish Lake to Five Lakes) TinDal (North of Bowers) Jostock (East of Fish Lake)
2007	Angle (Millville to Mayfield) Davis Lake (M-24 to Saginaw) Mayfield (Angle to Plum Creek)f Mayfield (M-24 to Angle) Mayfield Gardens Sub (West of Mayfield) Ru-Lane Sub (North of City of Lapeer)
2008	Millville (Angle to Valentine) Mt. View (Millville to Valentine) King Ranch Sub (East of Millville)
SOURCE: Mayfield Township, Office of the Supervisor	

The cost of each project is paid entirely by Mayfield Township without additional property taxes, special assessments, and without financial assistance from the Lapeer County Road Commission or gas tax revenue. The five year paving plan is subject to changed based on annual financial factors and the road commission's recommendations.

In another significant road improvement project, the Lapeer County Road Commission is planning the extension of Fish Lake Road to the south via Tindall Drive, a residential street, in order to connect to Wilder Road and the interchange at Interstate 69 to the

south. This route provides another north-south roadway connecting North Branch to the north to the I-69 corridor to the south, which is serviced by a full interchange with Wilder Road. Also, the budget for the Lapeer County Road Commission's Primary Road Construction and Heavy Maintenance Program for 2004 to 2008 is depicted in the following Table for Mayfield Township:

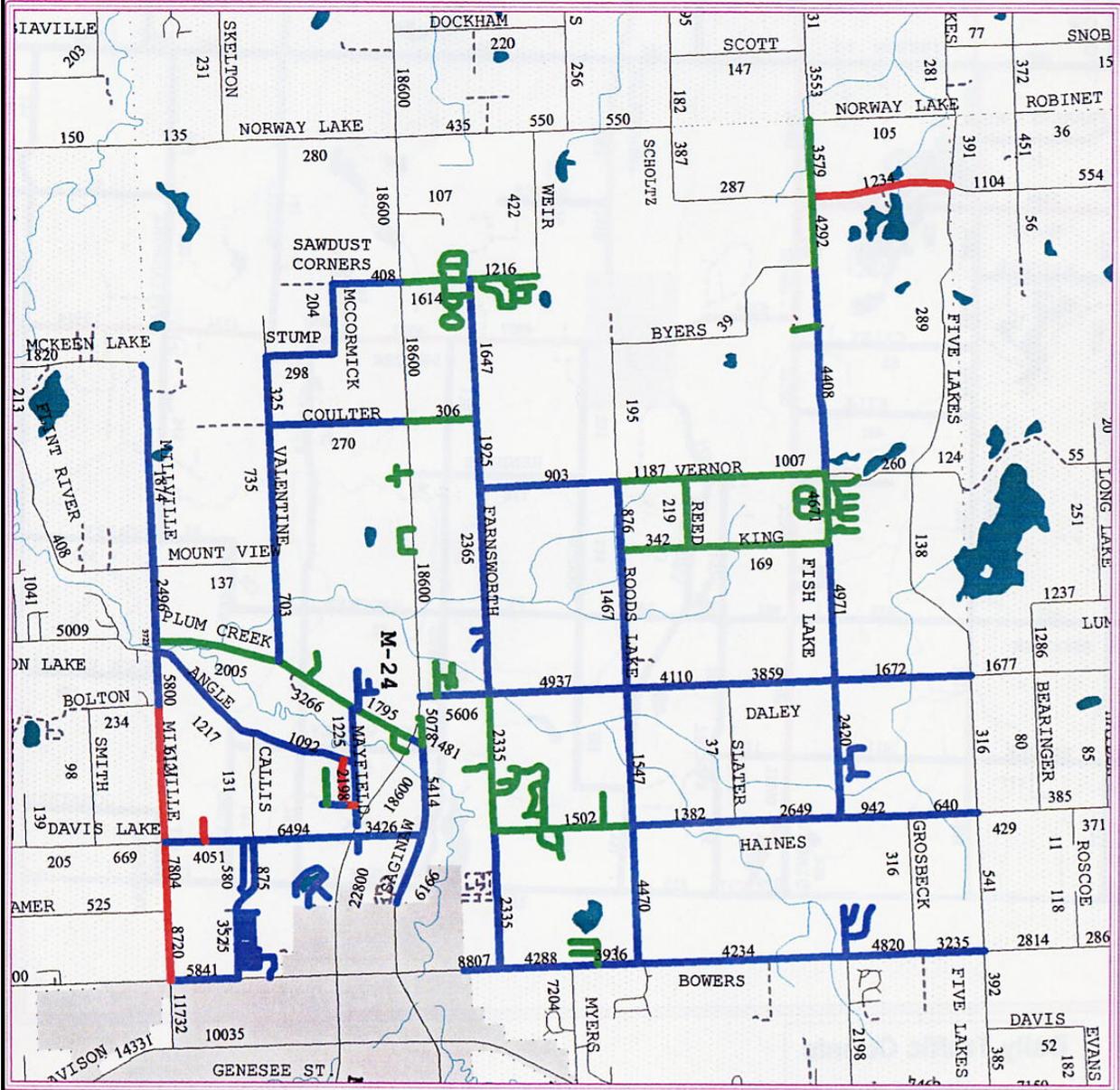
<b>Table 26</b>			
<b>LAPEER COUNTY ROAD COMMISSION PRIMARY ROAD CONSTRUCTION-HEAVY MAINTENANCE PROGRAM MAYFIELD TOWNSHIP 2004 - 2008</b>			
<b>Year</b>	<b>Federal Aid</b>	<b>Crush-Shape-Pave</b>	<b>Asphalt Overlay</b>
2004	Daley-Roods to Fish Lake Road (\$555,000)		
2005	Millville-Oregon to Davis Lake (\$310,000)		
2006	No Projects in Mayfield Township		
2007	Daley-M-24 to Roods Lake Road (\$417,000)		Bowers-City to Lake Pleasant (\$337,500)
2008	Fish Lake-King to Kings Mill (\$500,000)	Fish Lake-Haines to King (\$400,000)	
SOURCE: 2004 Annual Township / Lapeer County Road Commission Meeting Report			



# Mayfield Township Pavement Management

## Paved Roads

### Surface Ratings and Traffic Counts



Surface Rating	
<span style="color: green;">—</span>	8 to 10 Good/Excellent (Routine Maintenance)
<span style="color: blue;">—</span>	5 to 7 Fair (Capital Preventative Maintenance)
<span style="color: red;">—</span>	1 to 4 Poor (Structural Improvement)

Lapeer County Road Commission

January 2004

## FUTURE LAND USE PLAN

The Future Land Use Plan provides a comprehensive overview of the community's desired future development. The Township Zoning Act (Act 184 of 1943 as amended) states that a "zoning ordinance shall be based upon a plan designed to promote the public health, safety, and general welfare;...". A zoning ordinance must also "meet the needs of the state's residents for food, fiber, and other natural resources, places of residence, recreation, industry, trade, service, and other land uses;...". Therefore, because a zoning ordinance must be based upon a plan, it is crucial that in the future land use planning process, all reasonable land uses are provided to residents.

*The Comprehensive Plan portrays a community's desired future. The Plan provides future land use categories and recommended Guidelines for development in each category. This is called the Future Land Use Plan.*

**Comprehensive Plan = Policy Guidelines**

*The Future Land Use Plan Map of the Mayfield Township Comprehensive Plan is implemented through the legally binding regulations of the Mayfield Township Zoning Ordinance which establishes zoning categories for each type of land use.*

**Zoning Ordinance = Legally binding zoning regulations**

To provide a consistent, long-term basis for decision-making, the Future Land Use Plan is comprehensive in its consideration of the relationships between land uses and natural features in the area and Mayfield Township's relationship to surrounding communities. The Plan was created based on studies of existing conditions, demographic trends, the community's own goals and objectives, proposed land uses and transportation projects, as discussed in the previous chapters.

The land use recommendations, as presented on the Future Land Use Map, are not necessarily related to specific property lines. Specific site analysis should occur at the time a rezoning or site development request is made. Further, the Future Land Use Plan is a flexible document. The implementation of the Plan will reflect economic, social, and political trends which are occurring in the Township, region, state and nation. Periodic review and revision of the Plan is necessary for the Plan to reflect current community development goals and needs. The planning standard for this review process is at least once every five (5) years.

Major considerations driving future land use decisions in Mayfield Township include: 1) the presence of the M-24 transportation corridor; 2) the recognition of the City of Lapeer as the central place of commerce for Township residents; 3) the community's desire to conserve the rural character and landscape of the Township; and 4) the community's proximity to the major employment and service centers of southeast Michigan.

### CONCEPTS OF THE FUTURE LAND USE PLAN

The Future Land Use Plan is based on the concept of limiting urban growth to areas where municipal services can best be provided. This area is generally found along the M-24 and Saginaw Road corridors between the southern boundaries of the Township to an area approximately three-quarters of a mile north of Dailey Road. By concentrating urban types of development in these areas, it will be more feasible to coordinate public

services (sewer and water) for future projects and redeveloped parcels of land. Locating urban types of development near the M-24 corridor will improve circulation for such developments and cause less congestion elsewhere in the Township. Also, consolidated development makes more efficient and economical use of fire protection, transportation, recreation and school facilities.

In addition, concentrating development can help preserve the rural areas of the Township and other natural resources. By planning for variety of land uses in a logical pattern of development, the Township will become a more balanced and desirable place in which to live, work and enjoy recreational opportunities.

## **FUTURE LAND USE CATEGORIES**

The following is a brief description of the future land use categories shown on the Future Land Use Plan map:

*Agriculture-Residential:* The intent of this land use category is to preserve land areas suitable for large lot residential and agricultural use, and to protect the rural character of the Township. Much of this land area is currently developed farmed or it contains single-family residences on large lots (4 acres or larger) that are served by on-site septic sewage disposal systems. This land use classification encompasses large areas of the central and northern portions of Township. Agriculture and large parcel, very low density residential areas are proposed for this classification. These areas would be the last areas within the Township to be served by utilities or other community facilities. Included in this category would be farms, open space, and residential development on larger parcels of land. The proposed residential density in this land use category would be one dwelling unit per four acres of land or greater. For subdivision or site condominium residential developments being proposed in this area, the use of the cluster housing option should be encouraged as it is designed to aid in the preservation of open space, which also will help in the preservation of the rural character of the Township.

*Single-Family Residential:* The intent of this land use category is to accommodate single-family residential development that is located within close proximity of the long term sewer district boundaries for Mayfield Township and is currently served by on-site septic sewage disposal systems. Single-Family Residential uses are planned primarily in the southern portion of the Township as well as along the M-24 corridor. Residential growth is encouraged to grow in a logical progression from presently urbanized areas. It is anticipated that increased residential development will continue to occur in these areas of the Township, especially if community facilities (public sewer and water) are made available to portions of this area. Densities, depending on whether or not sewer and water is available, will range between lot areas of 9,600 square feet to a minimum of 20,000 square feet or greater.

*Multiple-Family Residential:* The intent of the multiple-family land use category is to provide a different type of housing for residents of Mayfield Township as well as providing a land use type that can be used a transitional or buffer land use between non-residential use such as commercial and industrial uses and single-family developments. Existing multiple-family residential areas are located in the southwestern portion of the Township. These higher density residential areas would include apartment developments, townhouse developments, etc., and would require public sewer and

water facilities. Future locations for this land use category would be logical along major road ways, i.e., M-24 and adjacent to large concentrations of non-residential land uses. Densities in this category could range between 5 and 10 units per acre.

*Mobile Home Park:* The Township has three (3) mobile home parks located in southern portion of the Township. These existing parks provide approximately 650 mobile home sites in the Township, which represents approximately twenty-four (24) percent of the Township's total occupied housing stock. Based on the high percentage of mobile home sites in the Township, no additional locations are planned for in the near future. Development densities within Mobile Home Parks are subject to the Mobile Home Commission Act, Act 96 of Public Acts of 1987, as amended, and the rules of the Mobile Home Commission.

*Mixed-Use:* The mixed-use category is designed to accommodate higher density residential developments, office and commercial uses, in combination with one another. The mixed-use category will be dependent upon the availability of public sewer and water. Also, the mixed-use category is designed and intended to provide the Township with an identifiable core village-like area that can be oriented towards pedestrian activities, giving such an area a sense of being “*downtown*” where land uses are geared toward pedestrian movements as opposed to vehicular movements.

*Office:* Office uses are primarily planned for the southwestern portion of the Township as well as in the mixed-use category as discussed above. Office uses, like multiple-family use, can be used as a transitional land use between single-family areas and more intense commercial or industrial areas such as those areas along the M-24 corridor where one finds both existing and planned commercial and industrial uses.

*Commercial:* the intent of the commercial land use category is to concentrate future commercial uses within areas of the Township that are potentially capable of being served by public sanitary sewers and water systems. Also, these locations are planned to have easy access to major transportation corridors as well as being capable of serving a customer from a regional basis. Commercial land uses are primarily planned for along the M-24 corridor in four (4) locations which include the following areas: 1) the M-24 / Davis Lake Road intersection area; 2) the M-24 corridor between Plum Creek Road to an area approximately three-quarters of a mile north of Dailey Road; 3) M-24 and the intersection of Coulter Road; and 4) M-24 and the intersection of Sawdust Corners Road. These commercial areas represent areas where one would expect to find more intensive commercial developments that are typical to the uses found in the Township's C-2, General Commercial District. Providing public sewers and water are made available some time in the future, it is expected that much of the area along the M-24 corridor will go through a redevelopment process, which will upgrade the current commercial core of the Township.

Smaller commercial nodes are also planned for in more remote areas of the Township, and these areas are designed to serve the convenience shopping needs of nearby residents. These areas are found at Millville and Angle Roads, Vernor and Fish Lake Roads and at Kings Mill and Five Lakes Roads.

*Industrial:* The intent of this land use category is to provide land areas that are accessible to adequate roads and other means of transportation, i.e., the Township airport facility. Also, the availability of public sewer and water is a significant prerequisite

for future industrial development, especially industrial park developments. Industrial land uses are planned for three (3) areas throughout the Township. The first area is represented by the Durakon site. The second area is located between M-24 and Saginaw Road long the Flint River. The third area is located adjacent to Mayfield Township's Dupont-Lapeer Airport, which includes the Kmax facility.

Public: This land use category includes Township properties (municipal building, cemetery, and airport), public school sites (3), county properties including the road commission facilities, and Eastern Michigan University's property located in Section 13. Also, semi-private facilities are in this category and include the Lions property in Sections 1 and 12.

State Land: The state land category consists of 3,992 acres of land that is regulated by the Michigan Department of Natural Resources (MDNR) and is known as the Lapeer State Game Area, which is open to the public for outdoor and recreational activities.

Transitional Land Use: The intent of this land use category is provide a "buffer" land use type between non-residential and uses and existing and future single-family residential areas. Typical land use types that function as transitional land uses include the following:

- Multiple-family uses
- Two-family uses (duplexes)
- Professional office uses
- Special off-street parking districts (no structures are allowed)

Airport and Airport Safety Zones: The airport facility includes all property, structures and uses that are normally associated with an airport including, but not necessarily limited to concessions, including eating and drinking establishments, fixed base operator(s), aeronautical repair and sale services, hangers, off-street parking areas, and accessory buildings/structures such as but not limited to fueling facilities, aviation tank farm, etc.

The Township's airport is an extremely important facility for the existing and future economic base of Mayfield Township. To sustain this economic base, proper planning practices will be required to ensure that this airport remains a viable facility now and in the future. In order to accomplish this task, four (4) Air Space Safety Zones are hereby established to set land use polices that regulates the height of structures and natural growth as well as the types of uses allowed in the Air Space Safety Zones. The four (4) Zones are as follows:

**Zone 1:** All land which lies directly under an imaginary surface longitudinally centered on a runway and:

- Extending 1,700 feet in length from the end of Runway 18-36 (north-south runway) and 1,000 feet in length from the end of Runway 09-27 (east-west runway).
- Extending 250 feet in width from the nearest point to Runway 18-36 to a width of 1,000 feet from the furthest point from Runway 18-36; and

extending 150 feet in width from the nearest point to Runway 09-27 to a width of 450 feet from the furthest point from Runway 09-27.

**Zone 2:** All land which lies directly under an imaginary surface longitudinally centered on a runway and:

- Extending 2,800 feet in length beyond the end of Zone 1 for Runway 18-36 and 1,500 feet in length beyond the end of Zone 1 for Runway 09-27.
- Extending 1,000 feet in width for Runway 18-36 and 450 feet for Runway 09-27.

**Zone 3:** All land which lies directly under an imaginary surface longitudinally centered on a runway and:

- A conical shaped zone having a radius extending 4,500 feet from the nearest end of Zone 1 to Runway 18-36 and a radius of 2,500 feet from the nearest end of Zone 1 to Runway 09-27.
- A conical shaped zone having legs that extends to a maximum width of 4,500 feet where they intersect the arch with a radius of 4,500 feet.

**Zone 4:** All land which lies directly under an imaginary surface longitudinally centered on a runway and:

- Extending 3,000 feet in length beyond the end of Zone 2 for Runway 18-36 and 2,500 feet in length beyond the end of Zone 2 for Runway 09-27.
- Extending 1,000 feet in width for Runway 18-36 and 450 feet for Runway 09-27.

In order to carry out the land use polices for the Air Safety Zones as set forth above, the Comprehensive Development Plan (Master Plan) recognizes those uses which may be hazardous to the operational safety of aircraft operating to and from the Mayfield Township DuPont-Lapeer Airport, and thus establishes the following height and land use polices:

**Height Limitations:** No building, structure or tree shall have a height that extends into an area covered by a slope of 34 to 1 for 10,000 feet measured from the end of a non-precision instrument approach runway and in any Air Safety Zone as described above in and as depicted in Table 27.

**Land Use Restrictions:** Land uses should be regulated according to the Air Safety Zone in which they are located and as follows:

- **Zone 1:** Residential uses (R-1, Residential-Agriculture District) with a minimum density of one dwelling per four (4) acres are permitted, providing they do create a concentration of people in excess of five (5) people per acre and further provided that they do not exceed the maximum height limitations for Air Space Safety Zones as noted in Table 27. In addition, all ponds are prohibited in this

Zone as well as other buildings that create a concentration of people in excess of five (5) people per acre. Overhead power or transmission lines and trees that exceed the maximum height limitations as noted as noted in Table 27 should also be prohibited from locating in this Zone.

Table 27 MAXIMUM HEIGHT LIMITATIONS AIR SPACE SAFETY ZONES		
Air Space Safety Zone	Distance From End of Runway	Maximum Height Permitted
1	500	14.7
1	1,000	29.4
1	1,700	50.0
2 & 3	2,000	58.8
2 & 3	2,500	73.5
2 & 3	2,800	82.4
2 & 3	4,500	132.4
4	5,000	147.0
4	6,000	176.5
4	7,500	220.6

- Zone 2:** Residential uses should be limited to those allowed in the R-1, Residential-Agriculture District with a minimum density of one dwelling per four (4) acres; and non-residential uses may be permitted providing they do create a concentration of people in excess of five (5) people per acre. Prohibited uses in Zone 2 should include, but may not be necessarily limited to the following: ponds or uses creating large bodies of water, schools, playfields and/or parks, churches, nursing and/or adult / child care facilities, storage of hazardous materials including flammable materials, or uses that generate smoke/steam, etc.
- Zone 3:** Residential development should be limited to the density allowed in the R-2, Single-Family Residential District along with non-residential uses that are limited to population concentrations of not more than twenty-five (25) people per acre. Uses prohibited from Zone 3 should include, but are not necessarily limited to the following: schools, playfields/parks, churches, nursing/adult/child care facilities, ponds or uses creating large bodies of water, storage of large quantities of hazardous or flammable materials, or uses that generate smoke/steam, etc.
- Zone 4:** Residential development should be limited to the density development standards of the under lying zoning district, and cluster housing projects would be the recommended means of developing housing in these areas. Population concentrations should be limited to not more that forty (40) people per acre in buildings or greater than 75 people per acre outside of buildings. Uses that should be prohibited from Zone 4 include, but are not necessarily limited to the following: schools, playfields/parks, churches, nursing/adult/child care facilities, ponds or uses creating large bodies of water, storage of large quantities of hazardous or flammable materials, or uses that generate smoke/steam, etc.

## PLAN IMPLEMENTATION

The completion of this Master Plan is but one part of the community planning process. Realization or implementation of the recommendations of the Plan can only be achieved over an extended period of time and only through the cooperative efforts of both public and private sectors. Implementation of the Plan may be realized by actively:

- Assuring community-wide knowledge, understanding, support, and approval of the Plan; and
- Regulating the use and manner of development of property through up-to-date and reasonable zoning standards, subdivision regulations, and building and housing codes; and
- Providing a program of capital improvements and adequate, economical public services by using available governmental financing techniques to encourage desired land development and redevelopment; and
- Developing design guidelines to implement attractive development within the Township.

### Public Support of the Long-Range Plan

Citizen participation and understanding of the general planning process and policies of the Plan are critical to the success of the Township's planning program. A well organized public relations program is needed to identify and marshal support. Lack of citizen understanding and support could have serious implications for the eventual implementation of planning proposals. Failure of the public to back needed bond issues and continuing dissatisfaction concerning taxation issues, special assessments, zoning decisions, and development proposals are some of the results of public misunderstanding and rejection of long-range plans.

In order to organize public support most effectively, the Township must emphasize the necessity of, and reasons for instituting the planning program. Accordingly, the Township Planning Act (Act 184 as amended) under Section 10 states that the Township Planning Commission "*shall promote public understanding of an interest in the plan and shall public and distribute copies of the plan and any report, and may employ such other means of publicity and education as it determines necessary*". The Township may wish to prepare a plan summary brochure for public distribution upon its adoption or at least, make mention of the Plan in a news letter that typical gets sent out with tax bills.

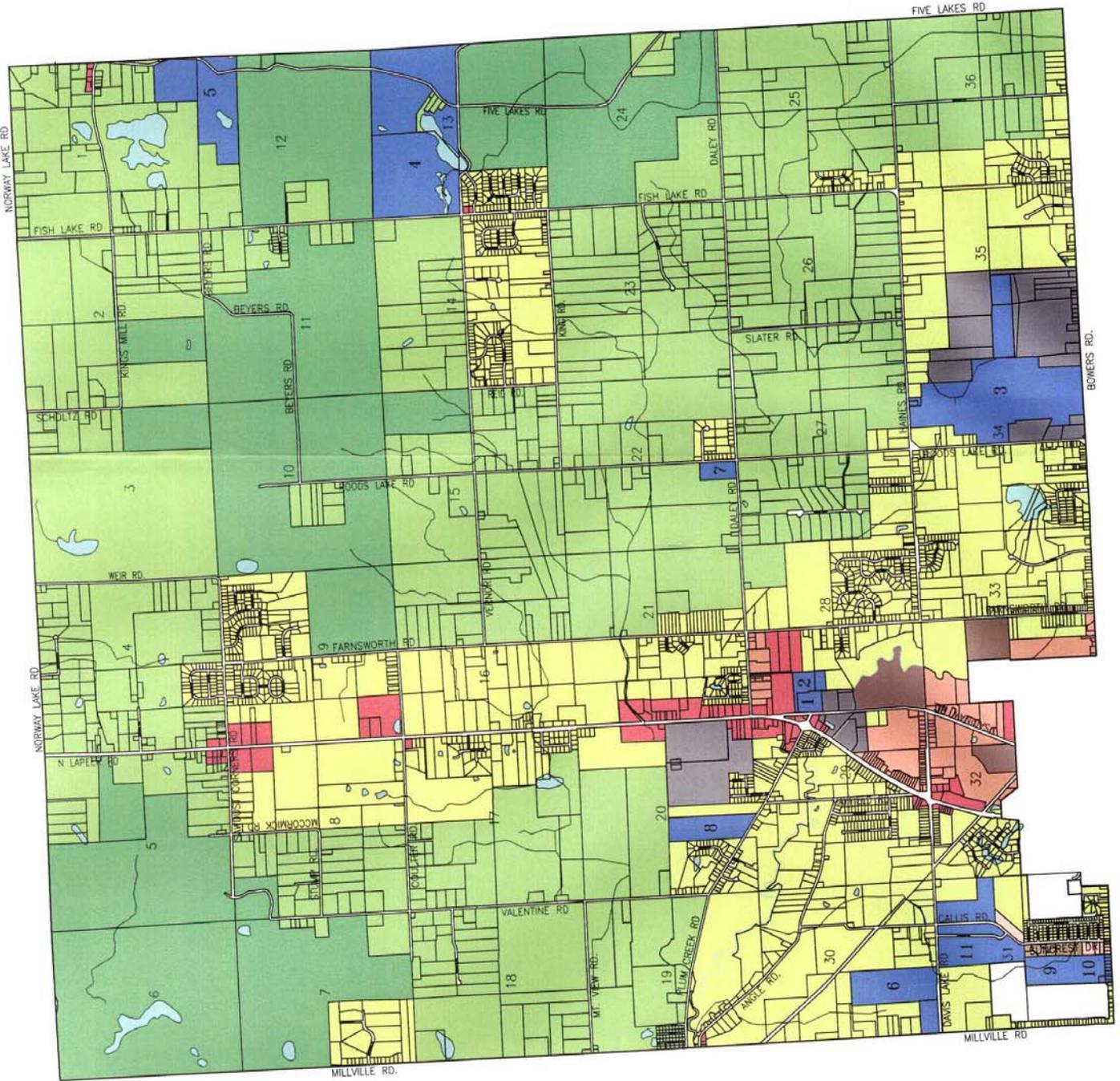
The validity of the Plan, as well as the right Planning Commission to review various development proposals to assure their compatibility with the Township's expressed policies, requires that the Plan be officially adopted by the Commission. It is also desirable that the Township Board of Trustees adopt a resolution stating their concurrence with the goals and policies stated in the Plan.

# MAYFIELD TOWNSHIP Lapeer County

## FUTURE LAND USE PLAN

### Legend

- Agricultural-Residential
- Single-Family Residential
- Multiple-Family Residential
- Mobile Home Park
- Mixed Use
- Office
- Commercial
- Industrial
- Public
- 1. Township Hall
- 2. Township Cemetery
- 3. Township Airport
- 4. Eastern Michigan University
- 5. Lions Camp
- 6. Road Commission Office
- 7. Lynch Elementary School
- 8. Mayfield Elementary School
- 9. Schickler Elementary School
- 10. Zemmer Middle School
- 11. Lapeer County Facilities
- State Land (MDNR)
- Water



DATE: 1/15/2008  
 DRAWN BY: J. AMBROSE  
 Lapeer County Planning and Development  
 MAP APPROVED BY:  
 Board of Supervisors  
 February 2008

## Land Development Codes

### *Zoning Ordinance:*

Zoning regulations are adopted under the local police power granted by the State for the purpose of promoting community health, safety, and general welfare. Such regulations have been strongly supported by the Michigan courts, as well as by the U.S. Supreme Court. Zoning consists of dividing the community into districts, for the purpose of establishing density of population and regulating the use of land and buildings, their height and bulk, and proportion of a lot that may be occupied by them. Regulations in different kinds of districts may be different. However, regulations within the same district must be consistent throughout the community.

The intent of zoning is to assure the orderly development of the community. Zoning is also employed as a means of protecting property values and other public and private investments. Because of the impact which zoning can have on the use of land and related services, it should be based on a comprehensive long-range community plan.

Zoning is an effective tool not only for the implementation of the Plan, but also benefits individual property owners. It protects homes and investments against the potential harmful intrusion of business and industry into residential neighborhoods; requires the spacing of buildings far enough apart to assure adequate light and air; prevents the overcrowding of land; facilitates the economical provision of essential public facilities; and aids in conservation of essential natural resources.

A stable, knowledgeable Planning Commission is critical to the success of the zoning process. The Commission's responsibilities include long-range plan formulation and the drafting of appropriate, reasonable zoning standard regulations designed to implement Plan goals and objectives. Adoption of the zoning ordinance by the legislative body (upon the acceptance of their legal counsel's review) then provides the legal basis for enforcement of zoning ordinance provisions. The ultimate effectiveness of the various ordinance requirements, however, is dependent upon the overall quality of ordinance administration and enforcement. If administrative procedures are lax, or if enforcement of regulations is handled in an inconsistent, sporadic manner, the result will be unsatisfactory at best.

There are a variety of zoning approaches and techniques which may be employed to help assure that Mayfield Township remains an attractive community in which to live and conduct business. These techniques acknowledge the critical role of both Township officials and staff in enforcing the provisions of the local zoning ordinance. Two key tools available to Township officials seeking to assure quality development are special approval use procedures and performance guarantee provisions.

Some land uses are of such a nature that permission to locate them in a given district should not be granted outright but should only be approved after assurances that the use will meet certain specified conditions. These types of land uses are called special approval, conditional or special exception uses. The Township currently uses this flexible zoning process to permit uses of land by following special procedures, including a public hearing and site plan review, to ensure the compatibility of the use within the vicinity in which it is to be located. This technique is based upon discretionary review and approval of special land uses. The site development requirements and standards

upon which these decisions are made are specified in the Ordinance as required by state law. However, additional reasonable conditions may be attached in conjunction with the approval of a special land use including provisions to conserve natural resources and measures designed to promote the use of land in an environmentally, socially, and economically desirable manner.

To ensure compliance with a zoning ordinance and any conditions imposed under the ordinance, a community may require that a performance guarantee, cash deposit, certified check, irrevocable letter of credit, or surety bond, acceptable to the Township and covering the estimated costs of improvements on the parcel for which site plan approval is sought, be deposited with the Clerk. This performance guarantee protects the Township by assuring the faithful completion of the improvements. The community must establish procedures under which rebate of cash deposits will be made, in reasonable proportion to the ratio of work completed on the required improvement, as work progresses. Mayfield Township has such a procedure in place in its current Zoning Ordinance.

*Subdivision Regulations:*

When a developer proposes to subdivide land, he or she is, in effect, planning a portion of the Township. To assure that such development is in harmony with Plan objectives, the subdivision or re-subdivision of residential or nonresidential land must be guided by the Township in accordance with the Land Division Act (formerly the Michigan Subdivision Control Act, Act 288, P.A. 1967, as amended).

Several direct benefits accrue from the regulation of subdivisions by local unit of government. By requiring the developer of subdivision to install adequate utilities and improved streets, purchasers of lots are not later burdened with unexpected added expenses. A subdivision without adequate physical improvements is detrimental not only to itself, but it also reduces the opportunity for reasonable development of adjacent parcels. In addition, long-range economy in government can be realized only when adequate improvements are provided by the subdivider.

As part of its review of proposed subdivisions, the Planning Commission focuses on such features as the arrangement and width of streets, the grading and surfacing of streets; the width and depth of lots; the adequate provision of open space; and the location of easements for utility installations. The subdivision review process is one of the methods of implementing the goals and policies of the community's long-range Plan.

In Mayfield Township, the Zoning Ordinance also requires developers of single-family detached site condominium projects to follow the design layout standards of the Township's Subdivision Regulations (see Section 1601.9.b.).

*Capital Improvement Programs:*

The term "capital improvements" is generally intended to embrace large-scale projects of a fixed nature, the implementation of which results in new or expanded public facilities and services. Such items as public building construction, park development, sewer installation, public water improvements, airport expansion and/or improvements, land acquisition, and the acquisition of certain large-scale pieces of equipment such as patrol

vehicles for the Township's Sheriffs Deputies, are typically included in the Capital Improvement Budget.

Few communities are fortunate enough to have available at any given time sufficient revenues to satisfy all demands for new or improved public facilities and services. Consequently, most are faced with the necessity of determining the relative priority of specific projects and establishing a program schedule for their initiation and completion. The orderly programming of public improvements is to be accomplished in conjunction with the long-range Plan for development.

In essence, the Capital Improvement Program is simply a schedule for implementing public capital improvements, which acknowledges current and anticipated demands and which recognizes present and potential financial resources available to the community. The Capital Improvements Program is a major planning tool for assuring that they proceed to completion in an efficient manner. The Capital Improvements Program is not intended to encourage the spending of additional public monies but is simply a means by which an impartial evaluation of needs may be made. The program is a schedule established to expedite the implementation of authorized or contemplated projects.

Long-range programming of public improvements is base upon three fundamental considerations. First, the proposed projects must be selected on the basis of community need. Second, the program must be developed within the community's financial constraints and must be based upon a sound financial plan. Finally, program flexibility must be maintained through the annual review and approval of the capita budget. The strict observance of these conditions requires periodic analysis of various community development factors, as well as a through and continuing evaluation of all proposed improvements and related expenditures. It is essential that, in the process of preparing and developing the program, the Planning Commission be assigned a role in reviewing project proposals to assure conformity with the Mayfield Township Comprehensive Plan and to make recommendations regarding priority projects and appropriate methods of financing.

*Governmental Assistance:*

Many sources of governmental assistance are available to aid local officials and private interest in meeting desired land use objectives or improvement needs.

Local government must also be cognizant of enhancing the financial feasibility of private development projects through "co-development". Co-development is simply the joint public and private investment for a common purpose.

The participation can range from direct loans to private interests to reduce the capital needed to develop a project, selling publicly controlled land at less than fair market value to lower construction cost, or by issuing bonds to acquire land, construct buildings, or acquire equipment which the Township would sell or lease to private industry.

*Continue Public Education Efforts:*

Along with gaining public support for the planning process, providing a means to educate the residents on the intent of the Comprehensive Plan and involve them in carrying out the mission whenever possible, represents a basic and fundamental function of the

continuing education process. This can be accomplished by conducting seminars that are open to the public as well as to the Planning Commission, and by incorporating written planning and/or zoning articles in a Township news letter, which typically is published once or twice a year. Also, the Township's web site could be utilized for such articles.

*Interface between the Comprehensive Plan and Zoning Ordinance:*

Each of the future land use designations recommended in this Plan can be achieved through the current Mayfield Township Zoning Ordinance District categories as illustrated in the following Table. In addition, there are flexible development options that can achieve the recommended density for each residential area of the Township while preserving more open space, a characteristic that is highly desired by Mayfield Township residents as revealed in the Mayfield Township Comprehensive Plan Survey. Development with flexible standards can be achieved through the following methods:

<p style="text-align: center;"><b><u>The Implementation Strategies that are recommended for Mayfield Township, fall under the following broad categories:</u></b></p> <ul style="list-style-type: none"><li>• Use the Plan for Making Zoning and Land Use Decisions.</li><li>• Periodically Update the Plan and Associated Ordinances.</li><li>• Continue Public Education Efforts.</li></ul>
---

1. *Lot Size Averaging:* The Mayfield Township Ordinance provides this option that allows a developer to better relate lots to the topography, vegetation and other natural and man-made features. Lot averaging is the allowance for variation in lot area and width in a development, but with average lot area meeting the minimum area required for said lots in the particular district in which it is located.
2. *Single-Family Cluster Housing Option:* The Mayfield Township Zoning Ordinance provides the option to cluster new homes, either attached or detached, on smaller lots in order to provide residential patterns, which through design and innovation, will introduce flexibility so as to provide for a more appropriate development in situations where the normal subdivision approach would otherwise be restrictive owing to the presence of environmentally sensitive lands on the site, or the configuration of the site. In addition, this option requires the preservation of permanent open space, which is consistent with the Open Space Preservation Option Act, PA 177 of 2001. Through this development option, the density for the residential development remains the same as the number of units allowed by the underlying zoning, however, the homes may be clustered on lots smaller in size than the minimum lot size in the underlying zoning district, or said units may be attached providing that do not exceed more than four (4) units. In either case, units must be clustered in such a manner that thirty (30) percent of the land area (fifty percent based on the Open Space Preservation Act) incorporated into a development is perpetually protected in an underdeveloped state and set aside as open space.

3. *Residential Open Space Plan Option:* The intent of the Residential Open Space Plan Option is promote the following objectives:
- Provide a more desirable living environment by preserving the natural character of open fields, stands of trees, brooks, hills, and similar natural assets.
  - Encourage developers to use a more creative approach in the development of residential areas.
  - Encourage a more efficient, aesthetic and desirable use of open area while recognizing a reduction in development costs and by allowing the developer to bypass natural obstacles on the site.
  - Encourage the provision of open space within reasonable distance to all building sites, lot development and to further encourage the development of recreational facilities.

This option can be accomplished by allowing a reduction of building site size (up to 10 percent) along with the reduction of rear yard setbacks, providing that such reductions provide an equal amount of permanent open space in the development.

4. *Planned Unit Development Overlay District Option:* The Planned Unit Development Option provides the ultimate development criteria and is intended to allow flexibility in the design or residential neighborhoods that encourages the conservation of natural features (woodlots, slopes, meadows, floodplains, and wetlands) while achieving the economies of design related to vehicular and pedestrian circulation, infrastructure construction, and dwelling sighting. This option allows for a mix of housing types as well as compatible non-residential uses, and it also requires that thirty (30) percent of the planned unit development perpetually remains as common open space.

**Table 28**  
**Future Land Use - Current Zoning Designations**  
**Mayfield Township**

Future Land Use Designations	Corresponding Zoning Designations
Agriculture-Residential	R-1, Agricultural-Residential
Single-Family Residential	R-2, Single-Family Residential
Multiple-Family Residential	RM, Multiple-Family
Mobile Home Park	MHP, Mobile Home Park
Mixed-Use	R-2; RT Two-Family; RM; OS-1 Office; C-1 Local Commercial; C-2 General Commercial
Office	OS-1; C-1; C-2
Commercial	C-1; C-2
Industrial	M-1 Light Industrial; M-2 General Industrial
Public	Allowed in all zoning districts.
State Land	Allowed in all zoning districts.
Transitional Land Use	RT; RM; OS-1

Visit the Mayfield Township Web Site at

[www.mayfieldtownship.com](http://www.mayfieldtownship.com)

for more Planning & Zoning information.