

Leroy Township

Master Plan 2021

A Comprehensive Land Use Plan



*Approved by the Leroy Township Planning
Commission on July 14, 2021*

Picture of Graham Lake as taken by Nicole Hardish

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LEROY TOWNSHIP MAPS

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TOWNSHIP OFFICIALS

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Travis Arbogast, Vice-Chair

Kevin Smith, Secretary

**Mark Christoff, Township Board
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Doug Chapman, Board Member

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TOWNSHIP OFFICIALS

Leroy Township Board Members

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Mark Christoff, Treasurer

Nicole Hardish, Clerk

Jon Bolton, Trustee

Mike VanHouten, Trustee

Introduction

What Is A Master Plan?

The Leroy Township Master Plan is a vision for how the Township will grow and develop over the next ten to fifteen years. Its underlying purpose is to guide the intensity and the arrangement of development and allocation of funds in ways that will benefit the overall community.

Random and ill planned use of land resources creates conflicts, consumption of valuable rural and environmentally sensitive lands, additional public utility costs and can affect environmental quality. The Township's land resources must be managed to protect the health, safety, and general quality of life for both present and future Township residents.

The Master Plan is a resource for residents, business owners and developers who seek information when making investment decisions. The Plan provides them a reasonable expectation of what will happen in the future. In essence, it represents a balance between the sometimes-competing interests of the environment, individual land owners, businesses and the community overall.

Our Township

Leroy Township is a rural, lightly populated community located directly south of the City of Battle Creek in western Calhoun County (**see Page 4**). The Township is typified by open spaces, wood lots, and wetlands with scattered rural residences. More intensive residential development is found adjacent to Sonoma Lake and Graham Lake in the northeast portion of the township.

Our Vision Statement

This community vision was formulated by the Township and summarizes the overall mission and aspirations of its residents. While the definition of quality of life is subjective, for the purposes of this project it is defined through the following vision statement:

The community of Leroy Township values its rural environment. Therefore, it is the intent of this Plan to retain its inherent rural character, with an emphasis on preserving both natural features and agricultural activities. Furthermore, the Township will strive to provide a quality living environment for all of its residents, supporting fair and equitable housing development while not impeding upon the rural attributes from which Leroy Township benefits. The community's transportation system will meet the safety and quality needs of motorized vehicles, pedestrians and bicycles. The preservation of farmland, wetlands and open space will be the underlying community issues upon which future development and community planning decisions will be based, therefore ensuring a continued rural quality of life for Leroy residents into the future.

Leroy Township officials committed to the environmental character, land use arrangements and housing conditions in the Township as the population base continues to increase. A number of properties have been split for residential development. Significant areas of the Township are worthy of preservation because of important environmental features they bring to the community.

As such, there are three major goals of this Master Plan. First, it will encourage a more organized and efficient growth and development strategy and will provide a documented rationale for future zoning decisions. Second, it will encourage a safe and attractive residential environment and housing stock to ensure that the township remains a suitable place to live. Third, it will guide development to occur at locations and in a manner that will protect and preserve the natural resources and environment of the community.

To implement these goals, future high-density development (i.e., industrial, commercial, and high-density residential) will be encouraged in select areas to reduce land use conflicts, to minimize environmental degradation and to maximize the use of future public services. The remainder of the Township will be reserved for rural and lower-density residential development that will maintain the character of the community and will meet the residential land use needs of a growing population.

Issues of particular concern in this plan are:

- **Preserving and protecting important agricultural lands**
- **Ensuring that residential growth is directed to areas that are intended to have adequate public facilities**
- **Providing for well-located and varied commercial and service activities**
- **Limiting the extent and type of industrial development**
- **Preserving natural features, open space and environmental quality**
- **Providing adequate roads and public services**
- **Providing future recreational opportunities**

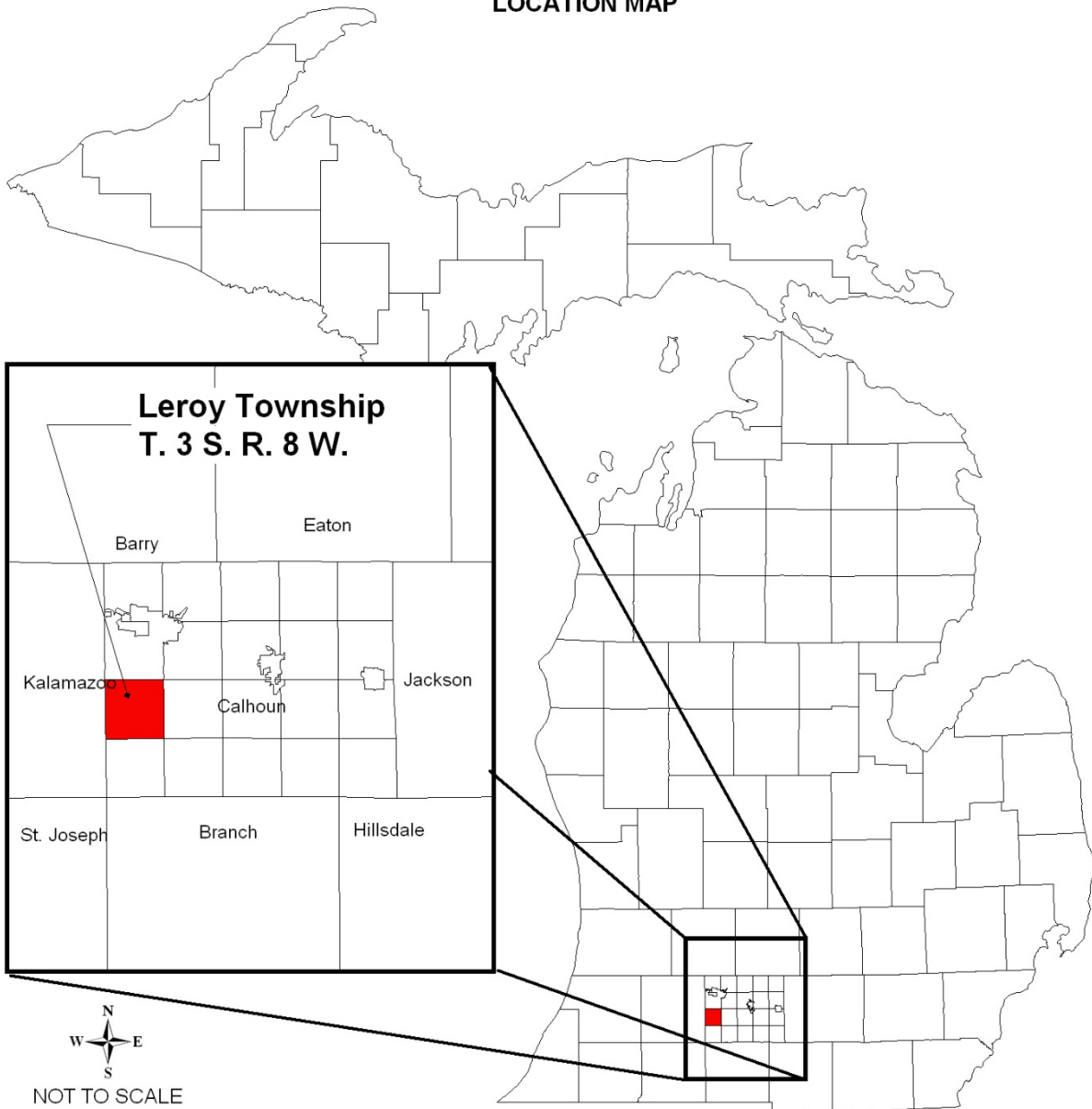
This Master Plan represents a formal presentation of the goals and policies for future development in the Township. It should serve to guide the Township Planning Commission and the Township Board in making rational decisions regarding proposed land uses for the next five to ten years. The rate, and the type of growth will undoubtedly require some form of modification in the near future.

The Township will monitor this growth and decide the levels of modification necessary during the 5-year review process as required by the Michigan Planning Enabling Act, Act 33 of 2008.

LEROY TOWNSHIP

CALHOUN COUNTY, MICHIGAN

LOCATION MAP



Community Profile

Population and Housing Counts

According to the United States Census Bureau, the estimated population of Leroy Township in 2019 was 3,790 (an increase of 78 individuals from 2010) with an estimated 1,685 housing units (an increase of 68 housing units since 2010). Occupied housing units also increased from 1,606 in 2010 to 1,677 in 2019. This represents an average of 2.26 persons per occupied housing unit, down from 2.49 persons in 2010 and down from 2.60 persons in 2000. The most heavily populated areas of the township continue to be in the area surrounding Sonoma and Graham Lakes, the areas of Pine Creek and East Leroy, and the northeast quadrant of the township.

Housing Characteristics

Of the 1,677 occupied housing units in the township, 1,589 (95 %) were owner-occupied. There were only 42 vacant housing units and only 13 housing units classified as seasonal, recreational, or occasional use. The housing density pattern for the township is very similar to the population density pattern. As shown in **Table 1**, a majority of housing units are single-unit, detached dwellings.

| Table 1 | | |
|---|--------------|--------------|
| Units in Structure | | |
| | 2019 | 2010 |
| Single Unit, Detached | 1,566 | 1,480 |
| Single Unit, Attached | 38 | 30 |
| 2 to 4 Units | 2 | 0 |
| 5 to 9 Units | 0 | 0 |
| 10 or more Units | 0 | 0 |
| Mobile Homes, Trailers | 65 | 107 |
| Total | 1,671 | 1,617 |
| Source: 2019 Estimated Census information | | |

Median Value/Occupied Units

The median value of owner-occupied units in 2010 was \$141,500.00. In 2019, that number increased to \$177,300.00. The median contract rent for renter-occupied units increased from \$553.00 in 2010 to \$963.00 in 2019.

Age Characteristics

The median age for Township residents in 2010 was (46.0). By 2019, that number decreased slightly to (45.3). As shown in **Table 2**, over 30% of the township’s residents were under 25 years of age; and just over 21 % were 65 years and older.

| Table 2 Age Distribution | | |
|--|--------------|----------------|
| | Total | Percent |
| 0 to 19 years | 901 | 23.77 |
| 20 to 24 years | 245 | 6.46 |
| 25 to 44 years | 771 | 20.34 |
| 45 to 64 years | 1,040 | 27.44 |
| 65 years and over | 833 | 21.97 |
| Total | 3,790 | 100 |
| Source: 2019 Estimated Census information | | |

As seen by the percentages, the **New Millennials** (0 to 24 years old) make up **30.23%** of the population; **Gen Y & Gen X’s** (25 to 44 years old) make up **20.34%** of the population; **Baby Boomers’** (45 to 64 years old) make up **27.44%** of the population, while the **Silent Generation** (65 years & older) make up **21.97%** of the population.

Social Characteristics

In 2019, the majority of households in the township in 2019 were classified as family households (69.2 %), up from (66.7%) in 2010.

Economic Characteristics

According to the 2019 Estimated Census information, Leroy Township is faring better than the remainder of the county in economic terms. As shown in **Table 3**, the Township’s median household income, median family income, and per capita income are consistently higher than the overall county average.

| Table 3 | | |
|--|-----------------------|-----------------------|
| Economic Characteristics | | |
| | Leroy Township | Calhoun County |
| Median Household Income | \$69,954 | \$46,213 |
| Median Family Income | \$76,168 | \$56,851 |
| Per Capita Income | \$35,694 | \$22,016 |
| Percent Unemployed | 4.5 | 8.90 |
| Percent Below Poverty Level (All Persons) | 6.1 | 14.1 |
| Source: 2019 Estimated Census information | | |

Median Household Income

The Median Household Income in Leroy Township increased (6.84%) from 2010 to 2019 (\$65,483.00 to \$69,954.00) while Calhoun County experienced an increase of (15.41%) from \$42,568.00 to \$49,055 during the same period. In 2019, twenty percent (20%) of households in Leroy Township earned more than \$100,000.00 per year (inflation-adjusted dollars) compared to twenty-four percent (24%) in 2010.

Educational Attainment

According to the 2019 Estimated Census Information, nineteen percent (19%) of its residents had a Bachelor’s Degree while ninety two percent (92%) of Township residents had at least a high school degree, or equivalency.

Employment Characteristics

The majority of the employed persons in the Township have management or professional related occupations (32.9%), followed by occupations in Sales and Office type positions (30.8%). As shown in **Table 4**, the Township shows a less emphasis on Manufacturing (production, transportation occupations) 12.7%, and a slightly greater emphasis on services (12.9%), than does the county as a whole.

| Table 4 | | | | |
|--|-----------------------|-------------|-----------------------|-------------|
| Employment by Occupation | | | | |
| | Leroy Township | | Calhoun County | |
| | 2010 | 2019 | 2010 | 2019 |
| Management, Professional Related | 615 | 559 | 15,124 | 18,089 |
| Service Occupations | 242 | 267 | 11,415 | 11,868 |
| Sales and Office | 577 | 478 | 13,587 | 11,657 |
| Construction, Mining, Maintenance | 35 | 186 | 4,208 | 4,715 |
| Production, Transportation | 238 | 156 | 11,437 | 13,703 |
| Total Population over age 16 Employed | 1,871 | | 62,956 | |
| Source: 2019 Estimated Census Information & 2010 Census Information | | | | |

Existing Land Use

The zoning of current parcels is reflected in the Leroy Township Zoning Map (see **Figure A**). The Township Zoning Map was last updated and approved by the Township Board in 2012. Since that time, there have been a small number of additional re-zonings that are included. The Township Zoning Map is representative of the different types of zoning, each with their own set of rules and regulations.

Agricultural

The major land use in the Township remains agricultural with approximately 11,500 acres (50 percent of the land area of the township). Agricultural land is fairly evenly spread throughout the township, with most concentration in the southern and western portions of the Township.

Residential

Residential areas are concentrated in the northeast portion of the Township adjacent to the two major lakes in the Township (Graham Lake and Sonoma Lake). Other residential areas are located in the unincorporated community of East Leroy, and along major section line roads. The vast majority of the housing units are traditional, single-family homes. However, a manufactured home community with the potential of 350 units is located in the northeast part of the Township. There are relatively few multiple-family dwellings and no multi-family units over nine in the Township. Currently, the Township has four different types of residential development:

Rural Residential

The purpose of this district is to provide areas for outlying residential development on parcels of sufficient size to accommodate the safe and healthful on-site water supply and liquid wastewater disposal, since the areas will likely remain unserved by public water/sewer services for an extended period of time. It is also the purpose of this district to protect and stabilize the essential rural character of these areas in order to promote and encourage suitable environments for rural residential dwellings until such time as it may be in the public interest to promote development of greater intensity requiring higher levels of public services and utilities.

Low Density Residential

The purpose of this district is to provide areas for outlying residential development on parcels of sufficient size to accommodate the safe and healthful on-site water supply and liquid waste water disposal, since the areas will likely remain unserved by public water- sewer services for an extended period of time. It is also the purpose of this district to protect and stabilize the essential characteristics of these areas, in order to promote and encourage suitable environments for low density family life until such time as it may be in the public interest to promote development of greater intensity requiring higher levels of public services and utilities.

Medium Density Residential

The purpose of this district is to provide a stable environment for medium density residential areas with suitable open space. This district shall be generally located on the fringe of urban-type development. The district allows flexibility of lot size dependent upon the availability of public sewer and water services.

High Density Residential

The purpose of this district is to provide for various types of multiple-family residential uses, dwellings and group developments of a high density, but under specific density control. The requirements of this district are intended to recognize that various forms of site developments are desirable in order to provide a wide range of choices of living environments, but at the same time to regulate such development in order to prevent congestion of the public streets, reduce hazards to life and property, provide desirable light and air, and to provide for adequate open spaces and basic amenities.

These districts will generally be located in areas of concentrated urban development, on or near major streets, urban facilities and services, and particularly fire protection systems. Provisions are made to accommodate multiple dwellings in areas of transitional development on larger lots than is required where public sewer facilities are not presently available. It would

be anticipated that these transitional areas would be provided with the public facilities in the near future. There is no intent to promote, by these regulations, a district of lower quality of desirability than any other residential district; although a greater variety of dwelling types are permitted herein.

Commercial/Industrial

There is limited commercial and industrial land uses in the Township. Commercial land uses are generally found along B Drive South, M-66 and in East Leroy:

Highway Commercial

This district is composed of those areas of the Township whose principal use is or ought to be retail and service business activities which serve or are meant to serve the motoring public. This district has been located at major regional highways or intersections of highways and expressways, to permit the development of these business activities, to protect adjacent agricultural, residential and industrial areas against the encroachment of incompatible uses, and to lessen congestion on and serve the persons traveling on major through highways. To these ends, certain uses which would function more effectively in other districts have been excluded.

Neighborhood Commercial

The purpose of this district is to provide for convenient retail and personal service establishments that cater to the day-to-day needs of families residing within immediately accessible neighborhoods. To this end, certain uses which would function more effectively in other districts and would interfere with the operation of these business activities and the purpose of this district, have been excluded. It is the basic intent of this district to encourage future commercial development within planned centers rather than in scattered locations throughout the residential areas, but also to provide for those necessary services which are most appropriately and conveniently located in close proximity to residential neighborhoods.

Industrial

This district is composed of those areas of the Township whose principal use is or ought to be manufacturing, other industrial, wholesale commercial and industrial storage facilities. This district has been located within the Township to permit the development of these industrial uses, to protect adjacent agricultural, residential and commercial areas against the encroachment of incompatible uses and to lessen congestion on public streets and highways. To these ends, certain uses that would function more effectively in other districts and would interfere with the operation of these industrial activities and the purpose of this district have been excluded.

Open Space Waterbody and Conservation

It is recognized by this article that the principal use of certain open areas within the Township should be the development, management and utilization of the natural resource base possessed by these areas. In order that this value may be maintained and this use encouraged, this article has established, based upon a well-considered plan, a zoning district designed to regulate the location of buildings and structures and the use of parcels and lots in order to protect the natural resources, natural habitats of wildlife, waterways and water bodies, agricultural capabilities, public and private recreation areas, and the public health, safety and welfare by reducing the hardships and burdens imposed upon the people of the Township by the wanton destruction of resources, the improper and wasteful use of open land, wooded areas and the periodic flooding and overflow of creeks and streams. In addition, this district will help protect human life, prevent or minimize material losses, and reduce the cost to the public of rescue and relief efforts occasioned by unwise occupancy or construction of buildings in areas subject to periodic inundation, such areas being shown as floodplain by soil types as compiled by the U.S. Soil Conservation Service.

Open Space Communities

The purpose of this section is to allow and encourage alternative subdivision designs which preserve the Township's character and environmentally sensitive elements, while providing housing communities that are desired by the community and the general public. Open space communities shall promote the following objectives:

- Maintain the rural character of the Township.
- Maintain an image of open space within the Township.
- Preserve open space within the Township.
- Preserve natural resources within the Township.
- Preserve agriculture and farming within the Township.
- Achieve a balance between farming, open space and residential growth within the Township.

FIGURE A
Leroy Township Zoning Map

Trends & Regional Growth

Population Trends

The total population for Leroy Township was estimated at 3,790 in 2019. This represents a **29.40%** growth rate since 1980. **Table 6** represents the population trends of Leroy Township, bordering townships, the City of Battle Creek, Kalamazoo County and Calhoun County (1980 to 2019).

| Table 6 | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| Population Trends | | | | | |
| | 1980 | 1990 | 2000 | 2010 | 2019 |
| Calhoun County | 141,579 | 135,982 | 137,985 | 136,146 | 134,159 |
| Athens Township | 2,294 | 2,515 | 2,571 | 2,554 | 2,513 |
| Battle Creek (City) * | 35,724 | 53,540 | 53,364 | 52,347 | 51,316 |
| Battle Creek Township | 20,615 | NA | NA | NA | NA |
| Burlington Township | 1,909 | 1,773 | 1,929 | 1,941 | 1,824 |
| Emmett Township | 11,155 | 10,764 | 11,979 | 11,770 | 11,637 |
| Leroy Township | 2,929 | 3,026 | 3,240 | 3,712 | 3,790 |
| Newton Township | 1,979 | 2,025 | 2,493 | 2,551 | 2,555 |
| Kalamazoo County | 212,378 | 223,411 | 238,603 | 250,331 | 265,066 |
| Charleston Township | 1,748 | 1,776 | 1,813 | 1,975 | 1,965 |
| Climax Township | 1,978 | 2,221 | 2,412 | 2,463 | 2,542 |
| Wakeshma Township | 1,375 | 1,378 | 1,414 | 1,301 | 1,264 |
| * Battle Creek Township and the City of Battle Creek Township merged in 1983 2010 Census information & 2019 Estimated Census information | | | | | |

Housing Development

A land use problem occurring throughout the county is the proliferation of small lot residential housing scattered throughout rural areas. This not only reduces the rural character and environmental quality of the county, but also increases the cost of providing community services. With Leroy Township's location adjacent to the City of Battle Creek, the demand for new housing will likely continue to increase.

Neighboring Land Use/Zoning

Land Use

Areas neighboring Leroy Township are generally open space, agricultural and very low-density residential. A mobile home park is located directly east of the township in Section 7 of Newton Township. Newton Township also contains the Binder Park Zoo, a regional recreational and entertainment draw. Land in the City of Battle Creek that directly borders Leroy Township is largely undeveloped. However, the southeast portions of the city are expanding rapidly. An area north of Section 1 in Leroy Township (approximately 1/2 mile north of the township limits bordered by M-66 and Capital Avenue) has developed into a high-density area comprised of commercial, office and medium-to high-density residential uses.

Proposed Land Use and Zoning

Surrounding zoning and proposed land uses are similar to the existing land use pattern. The majority of the surrounding areas are intended for agricultural and open space. The northwest portion of Newton Township is planned for low and medium density residential and is zoned for low-density residential. Areas of the City of Battle Creek that are adjacent to the township limits are zoned as follows: agricultural in the west (north of Sections 4, 5 and 6), single-family rural residential in the middle (north of Sections 2 and 3), and medium-density, multiple-family and commercial in the east (north of Section 1).

Battle Creek Growth Area

The development of the commercial area in the Beckley Road/Capital Avenue area has occurred as the result of its accessibility to I-94 at the M-66 interchange. It is unlikely that the trend exhibited here in the past ten years will change. The rate and type of growth may change slightly, but the investment that has occurred in this area has created a permanent regional force. The future direction that this area may take will be medium to high-density residential; upscale office in various unique settings and environments and commercial, medical providers, recreation and entertainment particularly geared toward young, single, apartment dwellers.

Transportation Linkages

The I-94 interstate provides excellent regional transportation for Township residents and area business. It provides access to Detroit, Chicago, and other major urban and recreational areas. M-66 is the primary north-south corridor through Leroy Township. Because of its access and availability for frontage, M-66 may become increasingly important for commercial businesses requiring large land areas and visibility. This transportation linkage may also create a demand for residential development servicing employment centers from Battle Creek to the north and the Village of Athens to the south. This may be particularly true in the northern portions of the Township. The City of Battle Creek also contains an newly created executive airport and Amtrak rail passenger service. These transportation sources, along with easy access to I-94, may create increased development pressures in the Township.

Sewer and Water Services

The City of Battle Creek currently provides public sewer and water service to an area just beyond the township limits on Capital Avenue. The Township and the City have a longstanding Intergovernmental Water and Wastewater Service Agreement. The wastewater treatment agreement will expire in 2021 and the water contract in 2024. The wastewater treatment agreement provides the Township additional access for future development. However, it is unlikely that sewer and water will be extended south into the Township, as the

City and the Township have taken a slow-growth stance on sewer and water extensions for recent developments. If sewer and water services are needed, it is likely the Township will connect to or extend the City's services due to a decrease in water and sewer usage by local industry as a result of increased water consciousness and water saving measures. This reduction in water usage has resulted in an increase in untapped capacity.

Goals, Objectives & Strategies

The following set of goals, objectives and strategies provide the Master Plan a ‘philosophical guidance’ it needs to address the present issues and advance the needs of the community into the future.

Agricultural Development and Rural Character

Preserve and protect agricultural lands and rural heritage of the Township while allowing higher density development to occur in a planned and logical fashion, the following guidelines should apply:

- Identify the Township’s agricultural areas and encourage their preservation.
- Preserve the rural character of the Township by encouraging appropriate location and design of higher-density development.
- Adopt local regulations to protect agricultural land, woodlands, open areas, and the rural character of the Township.
- Discourage the development of water and sewer services in agricultural areas.

Residential Development

Direct residential growth to areas that are planned for necessary facilities, and encourage a safe and attractive residential housing stock, the following guidelines should apply:

- Limit higher-density housing to areas planned for future public utilities, such as water and sewer, and require the provision of these services where density warrants it.
- Discourage residential growth in important agricultural or environmentally sensitive areas.
- Encourage attractive housing compatible with the existing housing stock by adopting appropriate zoning and building regulations.
- Require adequate lot sizes and building standards to protect the

groundwater and rural character of the Township.

- Residential developments should incorporate low impact development techniques to protect the environmental integrity of the Township.
- Encourage new “walk-able” residential developments and promote the development of non-motorized transportation facilities within and between new and existing developments.

Commercial Development

Provide for a variety of commercial development and service activities appropriately located to serve the needs of the projected population, the following guidelines should apply:

- Determine the demand for commercial development, and encourage it to locate in areas identified as appropriate for commercial use.
- Limit neighborhood commercial and service activities to correspond with existing and planned residential development.
- Distinguish between various types of commercial activities (such as office, retail, service, and heavy commercial) and identify the most appropriate location for their use.
- Allow regulated, home occupancy activities, provided that they maintain the residential character of the neighborhood.
- Limit commercial and service activities that require large amounts of water usage to areas in which they can reasonably be expected to connect to public sewer lines.
- Provide reasonable performance standards to ensure that new commercial development is compatible with and buffered from adjacent residential areas.
- Commercial developments should incorporate low impact development techniques to protect the environmental integrity of the Township.
- Encourage new commercial developments to incorporate pedestrian friendly design and non-motorized transportation facilities within and between new and existing developments.

Industrial Development

Control the location of industrial development in the Township. If a demand for Industrial land use can be documented, the following guidelines should apply:

- Locate industrial development where existing land uses and service levels are most appropriate for industrial use.
- Identify restricted areas for limited development consistent with the current character and composition of the Township.
- Identify the types of industrial activities appropriate for the Township and distinguish between uses such as warehouse/distribution, light industrial, and manufacturing.
- Provide for development only in appropriate areas, such as along major transportation arteries, within planned service areas, and away from residential, agricultural, and environmentally sensitive areas.
- Prohibit industrial activities that will require large water usage, discharge of large volumes of sewage or effluent, and accelerate environmental degradation.
- Adopt strong performance standards to protect adjacent land uses and the air, land, surface water and groundwater.
- Industrial developments should incorporate low impact development techniques to protect the environmental integrity of the Township.

Open Space and Environment

Preserve and enhance the Township's natural features and quality of life, the following guidelines should apply:

- Preserve and protect the Township's water features such as wetlands, streams, lakes, and groundwater.
- Preserve and protect environmentally sensitive areas, such as floodplains, steep slopes, woodlands, wetlands, and natural flora and fauna.
- Discourage development in environmentally sensitive areas to protect natural habitats.

- Clean up unsightly and blighted areas that create noise, odor, and visual or environmental pollution, and prevent new nuisance areas from developing.

Public Services and Transportation

Provide for the development of necessary public services and roadway improvements to serve the growing needs of the Township, the following guidelines should apply:

- Identify future public sewer and water service areas and create a Capital Improvement Program (CIP).
- Develop a transportation plan in conjunction with the Calhoun County Road Department to identify needed roadway improvements and strongly encourage the implementation of such improvements.
- Identify needed recreation improvements and develop a state-approved recreation plan to enable the Township to apply for state and federal recreation grants.
- Identify other public service improvements such as Police and Fire protection, cemeteries, solid waste management and develop programs to implement those improvements.
- Pursue the development of non-motorized transportation facilities that provide a safe and alternative means of transportation.
- Pursue opportunities that would encourage the expansion of high-speed internet services throughout the Township.

Future Land Use Plan

The general strategy of the plan is to provide a low-density level of development in the majority of the township. The preservation of agricultural land and natural resources is a key element of the plan. A public service area is identified where public services should be provided and higher-density and intensity land uses are encouraged to locate. The recommendations of this plan should be implemented through the adoption of a zoning ordinance regulating the location, type, design, character and density of land uses permitted in the township.

Future Land Use Map

The *Future Land Use Map* (see **Figure B**) establishes the planned future land use pattern for the Township over the next five to ten years. The plan identifies various land use areas based on the existing characteristics and the future goals identified within the Master Plan.

Agricultural Areas

As documented previously, the Township has considerable areas containing productive agricultural land. They generally have prime agricultural soils, are relatively level, and have large lots under single ownership. Many of these areas are also enrolled in the Farmland and Open Space Preservation Act (Act 116 of 1974).

A number of agricultural preservation techniques are available to the community. First is educating the public about the importance of agricultural land and the problems associated with developing in Agricultural Areas. Second is the use of conservation easements such as the Farmland and Open Space Preservation Act. Third is through public facility planning; new roads, sewer and water facilities should not be developed in Agricultural Areas. Fourth, local zoning techniques can discourage development in Agricultural Areas and can separate agricultural activities from incompatible land uses.

The location of the Agricultural Area, in the southern and western portion of the Township, identified on the Future Land Use Map meets one or more of the following five criteria:

- Existing agricultural land
- Prime farmland soils
- Act 116 farmland
- Lot size
- Existing and planned land uses

This area should serve as the major agricultural production area and should be preserved for future agricultural needs. Large-scale residential development or commercial/industrial activities should be prohibited in agricultural areas, as they would consume valuable agricultural land, create intense land use conflicts, and require public facilities that are not intended in this area. However, limited residential development may be permitted in cluster developments that utilize low impact development techniques, and open space Planned Unit Developments (PUDs), on non-productive agricultural land, such as woodlands, steep slopes, and fallow agricultural soils.

Large lots (e.g., one unit per three acres) should remain in place to protect ground and surface waters from on-site septic system effluent, to provide room for replacement of on-site septic systems, to buffer homes from adjacent agricultural uses, and to reduce the likelihood of requiring public sewer and water in unplanned areas.

Lot size and lot dimension standards in the zoning ordinance should be designed to minimize the conversion of agricultural land to residential uses. For example, excessive lot depth should not be allowed, as this type of development pattern creates large areas of land that are not suitable for agricultural production.

In addition to lot size and dimensional standards in the Township's zoning ordinance, the Township can consider other zoning concepts as possible methods to conserve agricultural lands. The following is a partial list of alternative zoning concepts:

Sliding scale zoning- whereby the number of allowable non-farm residences increases as the size of the parent parcel increases. However, the larger the parent parcel the fewer dwellings are allowed. For example, one dwelling may be allowed for the first 10 acres, another for the next 20 acres, a third for the next 30 acres, a fourth for the next 40 acres, etc.

Point/numerical zoning- which requires a proposed lot to meet objective standards for approval; such standards are defined on a point system and the proposed lot must accumulate a minimum number of points. Standards may consist of variables such as distance from a county road, availability of public utilities, fire protection, existing density of development, etc.

Agricultural buffer zone- an agricultural/residential zone is created between higher density residential development and large tracts of agricultural land. This buffer, or transition zone allows for a rural residential lifestyle while protecting farming operations from the problems associated with residential development.

While these zoning concepts are options available to the Township, this plan is not recommending any of the concepts without further study of the benefits or constraints that may result from their implementation.

It is also a goal of this plan to discourage development along road frontage of the Township's section line roads. This type of development pattern unnecessarily consumes valuable agricultural land, destroys rural character, and will eventually create large areas of land with no access to public roads.

This plan supports residential development in clusters or PUDs that are well designed and safe roads serving back-lot areas, where the homes may be clustered in existing woodlots or other non-agricultural areas.

Often differences may arise between rural residents and farmers and/or large farm operations. Leroy Township supports the recommendations in the most recent "Generally Accepted Agricultural and Management Practices for

Manure Management and Utilization" adopted by the state agriculture commission, and in accordance with generally accepted agricultural and management practices (GAAMPS) for site selection and odor control for new and expanding livestock production facilities and in accordance with such additional rules, regulations and guidelines as may from time to time be established by the state agriculture commission or other appropriate state agency in accordance with Michigan Right to Farm Act, Public Act No. 93 of 1981 (MCL 286.471 et seq.).

Residential Areas

Residential land uses within a community can take many forms and can occur at varying densities. The dominate residential land use in the Township is single-family residential. These single-family homes are located throughout the Township at varying densities, with densities gradually declining as one moves from the northeastern to the southwestern portion of the Township. This plan has established four residential development areas, each serving as transition zones between different land uses and land use intensities. As growth and development occurs in these areas, it is important to eliminate/minimize conflicts between higher and lower density areas. The following describes the four residential areas within the Township:

Rural Residential

Rural Residential areas are designed for rural residential and agricultural activities. They are generally located in areas that are not identified as being important agricultural land and that are not intended for public services. These areas are intended to serve as buffers between Agricultural Areas and higher-intensity uses such as commercial, industrial, and high-density housing. The intent of this area is to allow rural character residential development at densities that would protect ground and surface waters from on-site septic systems, and would preserve the rural atmosphere, community character, and environment of the Township. The minimum lot size should be at least one acre per unit to protect ground and surface waters, to provide room for the replacement of on-site septic systems, to buffer homes from adjacent agricultural uses, and to reduce the likelihood of the need for public sewer and water.

Large portions of the Rural Residential Area contain sensitive environmental features. **Chapter 7** contains design guidelines and considerations for sensitive environmental areas that may be incorporated into the regulations for this area.

Low Density Residential

Low-Density Residential areas are intended for single and two-family residential dwellings and related uses, such as schools, parks and churches. This area is located within the proposed public service area in the northeast portion of the Township.

The permitted density in this area is dependent on whether or not public sewer is provided. If public sewer is not provided, lot sizes should be appropriate in size to ensure the protection of ground and surface waters. If public sewer is provided, density should be based on considerations such as public service capacities, environmental factors, adjacent land use, and overall design.

Low Density Residential area should be maintained in the western half of Section 2, eastern half of Section 3 in addition to areas east of Sonoma Lake. These areas will serve as transition buffers between higher intensity land uses to the east and lower density land uses to the west. Furthermore, these areas have the potential to be served by public sewer in the future. Public sewer is currently located on Capital Avenue and extends just south of the Battle Creek City limits, approximately 325 feet.

Agricultural activities are not considered appropriate in these areas, as residential and agricultural uses are generally incompatible. However, existing agricultural activities should be allowed to continue

Medium Density Residential

Medium Density Residential areas are intended to accommodate a variety of residential land uses at the highest permitted density in the Township. Planned residential uses include single-family, two-family, and multiple-family developments. Related land uses, such as schools, parks, and churches are also appropriate.

Densities and the types of the residential development in this area are largely dependent on whether or not public sewer is provided. If public sewer is not provided, multiple-family development should not be permitted. However greater densities for single- and two-family residential should be allowed with appropriate site plan approval by the Township, to ensure the protection of surface and ground water.

If sewer is provided, multiple family development and or higher density single family development is permitted in this area with site plan approval by the Township. Higher density developments are encouraged to implement low impact development techniques to reduce high volumes of storm water runoff which are typically associated with higher density developments.

These areas are located in the northeast section of the Township adjacent of the City of Battle Creek and Graham Lake, with excellent access to M-66 and Capital Avenue, and are located within the planned public service area.

High Density Residential

Two-Family (duplex) dwellings, multiple-family apartments and manufactured home communities are the primary forms of residential development proposed for this area. These developments shall be served by public sewer and water, and should include adequate open space and, when possible, recreational facilities within the developments. High-density residential developments should be considerate of surrounding land uses incorporating vegetative buffers in addition to adequate ingress and egress to reduce traffic congestion and conflicts. This plan encourages non-motorized transportation within high-density developments through the use of sidewalks or pathways, with the goal of linking high-density areas or other regional non-motorized pathways.

This plan has identified an area suitable for high-density development in section one of the Township adjacent to M-66.

Commercial Areas

Leroy Township has established two commercial areas: Neighborhood Commercial and Highway Service Commercial. Future commercial development in these areas could be structured with a relatively higher density mix of retail stores and offices. New developments utilizing neo-traditional design concepts that mimic the historic character of a traditional downtown is encouraged. These developments should promote pedestrian-friendly architectural elements as well as retail and commercial areas that are appropriate in scale for a rural community. The following outlines each of these commercial areas in more detail:

Neighborhood Commercial

Neighborhood Commercial are those areas of the Township planned for a mix of higher density uses, such as office, retail, service, and public land uses. They are designed to accommodate a large portion of the Township's expected growth. The basic intent of these areas is to encourage development to locate in select areas of the Township in order to minimize urban sprawl and strip development; to reduce land use conflicts; to preserve agricultural land, open space, and environmentally sensitive areas and to reduce the cost of providing public services.

They are also intended to provide necessary services (e.g., schools, public services, and shopping) adjacent to existing and planned residential homes to reduce dependence on the automobile and to provide a more efficient use of the land.

Careful site planning should be conducted in these areas to protect residential homes from nonresidential uses. Design standards in the zoning ordinance should provide for appropriate setbacks, screening, and buffering between various land uses.

Commercial uses permitted in this area should be limited to those areas that can be made compatible with adjacent residential and school facilities. Suggested commercial uses include convenience stores, restaurants, small retail shops, personal service establishments, banks, child-care centers, dental and medical clinics, offices, video rentals and similar uses.

Heavy commercial uses should not be permitted. Industrial development is also not appropriate, as it would be incompatible with existing school sites and planned residential growth.

The plan has identified two Neighborhood Centers. These areas are East Leroy and the Capital Avenue/B Drive South Corridor. Both of these areas include public school facilities and, therefore, encourage residential development in close proximity to existing school sites.

East Leroy

East Leroy is located directly west of M-66 along K Drive South. Existing land uses include homes, businesses, the United States Post Office and a grade school. The intent of this plan is to encourage this historic mixture of land uses, while providing for growth if market demands warrant it. This area is also intended to serve as a retail/service center for the southern portion of the township. It is located directly adjacent to M-66 and has the potential to draw customers from neighboring communities as well.

Capital Avenue/M-66 Corridor

This area also has an existing mix of land uses, including residential, commercial business and local grade school. This is expected to be a large growth area for the Township, as it is in close proximity to the City of Battle Creek and is adjacent to two of the major traffic arteries in the Township. It is located within the planned public service area. If public sewer is provided, multiple-family development may also be appropriate in this area.

Highway Service Commercial

Commercial businesses provide necessary services to Township residents and the motoring public. However, they may create land use conflicts, increased demand for public services, and traffic congestion problems. They also have the potential of creating inefficient and unattractive commercial strip development, especially along major roadways, such as Capital Avenue and M-66.

To minimize traffic conflicts, the Township will encourage new development to follow MDOT Access Management Standards to ensure safe traffic movement. Activities intended for this area include indoor commercial uses, such as general retail sales, personal service establishments, restaurants, offices, filling stations, and other auto-related businesses. Outdoor sales and service uses have the potential to create greater land use conflicts and can become unsightly. Therefore, outdoor commercial uses should only be permitted under special circumstances and approval.

Industrial Area

Leroy Township has limited industrial development. Future industrial development should consist primarily of light manufacturing and other light industrial uses that will not compete with other larger industrial areas in Battle Creek or the surrounding communities. Within Leroy Township, industrial development should be limited to an area located in Section 1 along M-66. Future industrial development in this area should include appropriate site planning that regulates building design, setback, landscaping, signage, parking and environmental impacts.

Open Space Conservation Areas

The Township is aware of the importance of its natural resources, particularly Severence and Pine Creeks and Graham and Sonoma Lakes. This Plan promotes the preservation of as much natural resources, open space and wetlands as possible, along with the retention of agricultural land within the framework of residential growth that is expected to occur. To preserve these natural resources

and ultimately the water quality, the Township promotes the establishment of open space conservation areas along these bodies of water and other wetland areas. The boundaries established for the open space conservation area generally coincide with the FEMA floodplain boundary. The construction of buildings or other structure within these areas should be limited to protect the natural resources, wildlife habitats, and public health and safety.

Land Use Design

As the Township grows there will be an increasing conflict between development and quality of life issues. The intent of this plan is to allow development to occur, provided the growth does not destroy the quality of life that encouraged people to locate in the Township. This section discusses some of these issues and presents recommendations for proper site planning and design.

Signage

Commercial and industrial development in the Township will mean an increase in the amount of signage. However, an abundance of signs can create an unsightly appearance and can detract from the residential and rural character of the Township. Too many signs can also, in the long run, create an unattractive business environment that would discourage quality businesses from locating in the township. Therefore, Township regulations should control the size, height, type, and location of signage. The regulations should be flexible enough to allow businesses to attract customers but not allow the signage to destroy the character of the community.

Billboards

Billboards are signs that advertise businesses, products or messages not related to the site on which they are located. Billboards are typically much larger than on-site signage and can also have a negative impact on the overall appearance and aesthetics of the community. Billboards should be limited to select areas of the Township and should be regulated with respect to location, size, spacing, and height.

Parking Areas

Adequate off-street parking should be provided to serve local businesses and to keep parked vehicles off roadways. Parking areas, however, should be properly designed to protect neighboring properties and the environment. Adequate screening should be provided for parking lots adjacent to residential areas and adequate setbacks should be provided from road rights-of-way. Storm drainage control should also be implemented through the site plan review process to minimize environmental degradation. Large parking areas should not be allowed entirely in the front yard, as this creates the appearance of a “sea of asphalt.” Rather, parking areas should be placed in side or rear yards where they can be partially hidden by the building they serve. Furthermore, parking areas should include landscaping within the interior of the parking areas (e.g., traffic islands) should be required to provide aesthetic appeal and shade.

Setbacks

Proper setbacks from property lines and the road right-of-way should be provided for all uses in the Township. Setbacks are necessary to provide emergency access; to provide for adequate light, ventilation, and air; and to create a more aesthetically pleasing environment. Setbacks in Commercial and Industrial areas should be wider than normal when adjacent to Residential areas.

Screening/Buffering

Higher-intensity uses, especially those with outdoor sales or storage, should be screened and buffered from the view of motorists and adjacent residential homes. Screening refers to screening devices such as walls, fences, berms and compact planting of vegetation. Buffering refers to separating land uses, either through the use of setbacks or through transitional zoning (e.g., where commercial and single-family homes are buffered by apartment buildings).

Landscaping

In order to ensure that the built environment is as attractive as possible, landscaping requirements should be included in the ordinance and site plan review process. Required landscaping could take the form of grass cover and/or shrubs and trees. Parking areas exceeding a certain size should contain some landscaping. Parking lot landscaping, usually in the form of islands, can also be used to improve the internal circulation of the lot, and providing shade and aesthetic appeal. Front, side and rear yards should also be landscaped with at least grass cover to improve appearance of High-Density Residential, Commercial and Industrial Areas. Maintaining a portion of the lot in green space will reduce the amount of impervious surface, also reduce the rate of flow of stormwater and improve its quality on the site.

Home Occupations

Home occupations are accessory business uses conducted in a home usually by the residents of the home itself. There are a number of home occupations throughout the Township. The intent of this plan is to allow these uses to continue, provided that the character of the home and the residential neighborhood is maintained. Regulations regarding signage, outdoor storage, off-street parking, and permitted size of the home occupation should be included in the zoning ordinance.

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Environmental Considerations

Leroy Township has considerable areas classified as environmentally sensitive land, such as wetlands, floodplains, lake shorelines, steep slopes and forested areas. These areas are important natural features that should be preserved or left largely undeveloped. An important goal of this plan is to protect and preserve these areas. They add to the beauty of the Township and play an important ecological role by providing wildlife habitat, detaining stormwater runoff, reducing soil erosion and sedimentation, acting as recharge areas for groundwater aquifers, and providing fish spawning areas.

The Township's zoning ordinance should always provide strong regulations to protect these natural features. Overlay zones, environmental regulations, and low impact development standards can all be incorporated into the zoning ordinance. In addition, the Township could adopt separate non-zoning, municipal regulations.

Wetlands

Large areas of the Township are classified as wetlands, as shown in **Figure C**. Wetland areas, 5 acres or greater in size or those adjacent to inland lakes and streams, are currently regulated by the Michigan Department of Environment, Great Lakes and Energy (EGLE). The Township should always discourage development in wetlands and encourage enforcement of soil erosion and control permits issued by the Calhoun County Road Department. If any filling, dredging, or development does occur in wetlands, the Township should ensure that proper permits are secured. If desired, the Township could also regulate wetlands that are not covered by the state law through the enactment of a wetland ordinance.

Wetland areas should not be rezoned to higher-intensity uses, such a high-density residential, commercial, or industrial uses. The Township's site plan review process should also be used as an effective tool to prevent development in wetland areas.

Floodplain Areas

The Township has several streams and drains that have the potential to flood during major storm events. As shown in **Figure D**, those streams that have been identified as having a 100-year floodplain by the Federal Emergency Management Agency (FEMA). Development in these areas should be strongly discouraged in order to minimize property damage and the loss of life in the case of a flood event.

Lake Shorelines

Lake areas are highly sensitive areas that serve as magnets to residential and other development. These areas are prone to degradation through erosion, on-site septic system leaching, sedimentation, lawn care practices, and excess usage of the lakes by a variety of recreational uses.

Much of the lake area in the Township is already developed for residential purposes. However, the remaining lakeshore areas should not be overly developed in order to protect these important natural resources. Residential densities should be low and proper regulations (such as setbacks, clearing of vegetation, and maximum land coverage) and low impact development practices should be established. In addition, commercial and industrial land uses should be prohibited along the lakeshore, as surface water runoff from these uses includes many impurities harmful to the water quality of the lake.

Geology

The surface geology of Leroy Township was formed as a result of glaciation and consists of moraines, till plains, and outwash/glacial channels. This surface geology lies between 50 and 200 feet above the bedrock which has been identified as Marshall Sandstone and Coldwater Shale.

Topography/ Steep Slopes

The Township does not have a great deal of land characterized as steeply sloping as shown in **Figure E**. However, the areas that are steeply sloping are generally located along the creeks and drains within the Township and are, therefore, especially important in order to protect surface water resources. Development

on steeply sloping areas should be discouraged. High-intensity uses, such as high-density residential, commercial, and industrial uses, should be prohibited. The Township's site plan review process should be used to ensure that any development in steeply sloping areas is made as environmentally acceptable as possible. For example, low impact development techniques should be used to minimize the removal of vegetation and the amount of land area covered by impervious surfaces should be minimized.

Forested Areas

A considerable portion of the Township is covered in forestlands. Much of the rural character and beauty of the Township is a result of the presence of large, mature trees and wooded areas. Land uses that require the entire removal of forested areas, such as commercial or industrial uses, should be prohibited. Low Density Residential areas may be appropriate in forested areas, provided that low impact development techniques are implemented in their design to minimize the destruction of trees and maintains an overall forested appearance.

Groundwater

Since the majority of residents rely on individual wells, water quality needs to be protected. Development can threaten groundwater quality, the severity of which depends upon:

- The type of contaminants and hazardous materials used within the Township.
- The susceptibility of groundwater to contamination due to geologic features like soil permeability.
- The rate at which contaminations are introduced into the ecosystem.
- Hazard materials management practices.

Soils

The suitability and limitations associated with soils found in the Township are major factors influencing appropriate future land uses. Residential development, for example, generally should not be located where soils are unsuitable for on-site septic systems unless public sewers are available. Similarly,

land suited for agricultural production should be maintained for active cropland use. Three types of soils analyses were used to help determine future land use:

- Prime farmland soils.
- Wetlands soils.
- Soils not suitable for on-site septic systems.

Prime Farmland Soils

Prime farmland soils represent important and irreplaceable local and regional natural resources. They also provide an important economic base for Township and county residents.

Figure F shows that large portions of the Township consist of prime farmland soils. The most common prime farmland soils located in the Township are Kalamazoo loams and Oshtemo sandy loams. These soils are found throughout the Township, especially in the western, southern, and eastern portions. Some soils, such as Sebewa loam, are considered prime only if adequately drained. These soils are generally located in wooded areas, particularly in the northern and central portions of the township.

Soils Not Suitable for On-Site Septic Systems

Figure G shows areas that have severe limitations for on-site septic systems. Many of these soils have severe limitations due to ponding, wetness, flooding, or slow percolation. These soils consist of low-lying wetland and floodplain areas as well as upland loams, clays, and sandy loams. The limited percolation ability of these soils restricts the capability of conventional on-site septic systems used to provide adequate treatment of domestic wastewater.

Some soils are classified as severe limitations to on-site septic systems due to the limited filtering abilities of sandy-textured soils. These types of soils will likely receive local approval for on-site septic tanks, but research has indicated that they may contaminate the Township's groundwater supply.

Public Utility Services

As the Township continues to develop, there will be an increased demand for public facilities and services in order to serve the increased population and to protect the environment. This section discusses the public services and transportation needs of the Township in light of the Township's expanding needs, existing conditions and goals.

Public Utility Service Area

Figure H represents the public service area for the Township over the next five to ten years. This area is intended to provide the most complete public services in the Township.

The public service area is located in the northeast section of the Township, roughly bordered by the Township limits to the north and to the east, 3 Mile Road to the west, and 1/4 mile south of Sonoma and Graham Lakes to the south. Included in this area are the two major arteries extending from the City of Battle Creek (M-66 and Capital Avenue); a local grade school; the two largest lakes in the Township; the unincorporated area of Sonoma; and various residential, commercial, and industrial uses.

Much of this area includes soils with severe limitations to on-site septic systems. If significant development continues to occur in this area, then public sewers should be provided in order to protect ground and surface waters, as well as public health.

Most of the planned, higher-density growth in the Township has been located within this public service area. High-density and intensity uses outside of the service area should generally be discouraged.

Stormwater Control

As property is developed, the amount of stormwater runoff from the site increases as a result of site clearing and the construction of impervious surfaces (paving and structures). This increased run off changes natural drainage patterns, increases sediment loads to streams, increases stream temperatures and increases pollutants such as phosphorus, oil and grease which can destroy natural habitats. Furthermore, increased runoff can create flooding, bank erosion, fish kills and cause roadway washouts.

To prevent this from occurring, all residential, commercial, and industrial developments should be encouraged to implement low impact development techniques intended to limit the amount of runoff, temporarily store the water on the site, and to release it slowly into the natural system. This will help to reduce flooding and will improve the quality of water entering the Township's streams and lakes.

Roads and Road Improvements

The Township's roadway classification in **Figure I** reflects a state highway, primary roadways and local roadways (both hard surface and gravel). The Michigan Department of Transportation (MDOT) maintains responsibility for M-66 while the Calhoun County Road Department (CCRD) maintains responsibility for both primary and local roadways. Today, the Township has thirty (30) miles of primary roadways and forty-five (45) miles of local roadways.

Unfortunately, most of these roadways have a 'failed rating' according to the latest Pavement Surface Evaluation Rating (PASER). This 'failed rating' represents "*severe distress with extensive loss of surface integrity; needs total reconstruction.*"

Recognizing the need for safer and better roads, Township officials have on (2) separate occasions placed before the voters a bond/millage proposal that would have allowed the Township to borrow bond monies, which would have been matched by the CCRD, to reconstruct and repave some 40 miles of local roadways. On both occasions, the proposal was defeated by very small margin.

Without a financial commitment from the community at-large, road conditions in Leroy Township will continue to deteriorate, making them a challenge for all residents.

Recreation

As the population continues to increase, and as natural open space is consumed by growth, there comes a greater demand for outdoor recreation and natural areas. The best time to prepare for this need is while there is ample land available for public purchase at a relatively low cost. These lands could be developed for recreational use or preserved as permanent open space areas for future residents.

Accepted planning standards recommend 10 acres of community parkland for every 1,000 residents. At a minimum, the Township should obtain a 30- to 40-acre parcel of land for future park needs.

There are several state and federal programs available to provide financing for park and recreation acquisition and development. The most active of these programs requires a 5-year parks and recreation plan adopted by the Township Board and approved by the Michigan Department of Natural Resources.

Leroy Township has now committed itself to such a plan. The plan would identify areas where parkland should be acquired and the types of amenities (if any), should be developed in the new parks. Furthermore, the Township would identify areas where linear/non-motorized trails could be located. Specific focus should be placed on trails that will connect to existing or proposed trails outside the Township, to areas of existing or proposed high density residential development or scenic value.

Internet Services

Today, large portions of the Township are without reliable high-speed internet services. This issue has become even more glaring to with onset of the COVID-19 virus. Things such as ‘working from home’ and virtual classrooms’ have become the new normal for many residents. Without adequate internet services, individuals and families are forced to seek out alternatives such as “internet hot spots” or “wireless internet services.” Alternatives that normally lead to slower internet speeds and higher user charges.

According to *BroadbandNow.com*, the average download speed in East Leroy is 10.67 Mbps. This is 86.7% slower than the average in Michigan. Today:

- There are 16 internet providers in East Leroy with 8 of those offering residential service.
- East Leroy is the 463rd most connected city in Michigan ahead of Athens and Union City, but behind Battle Creek, Climax and Scotts.
- Michigan is the 31st most connected state in the U.S.
- 31% of residents in Calhoun County have access to fixed wireless internet service.
- 90.0% of Michiganders have access to 100mbps or faster broadband.
- Approximately 8,000 people in Calhoun County don't have access to any wired internet.
- Fiber optic internet is available to just 9% of Calhoun County residents.

Current residential internet providers include:

- **CTS Telecom (Fiber)** - 78.4% availability - speeds up to 1,000 Mbps
- **CTS Telecom (DSL)** - 11.5% availability- speeds up to 1.5 Mbps
- **DMCI Broadband Internet** - 41.1% availability- speeds up to 100 Mbps
- **AT&T Broadband Internet** - 33.9% availability - speeds up to 100 Mbps
- **Xfinity/Comcast Cable** - 26.4% availability - speeds up to 1,000 Mbps
- **JAS** - 3.9% availability - speeds up to 10 Mbps
- **Viasat** - 100.0% availability - speeds up to 35 Mbps
- **HughesNet** - 100.0% availability - speeds up to 25 Mbps

Note: JAS is a DSL provider of internet services, Hughes and Viasat (formerly Exede) are satellite providers of internet services.

Associated high-speed differences when downloading 1GB of information:

- | | | |
|--------------|------------|-------------------------|
| • CTS Telcom | 1,000 mbps | 8 seconds |
| • Xfinity | 1,000 mbps | 8 seconds |
| • AT & T | 100 mbps | 1 minute & 21 seconds |
| • Viasat | 35 mbps | 3 minutes & 54 seconds |
| • Hughes | 25 mbps | 5 minutes & 27 seconds |
| • JAS | 10 mbps | 13 minutes & 39 seconds |

The US Department of Agricultural (USDA) has now pledged more than \$700 million annually for modern broadband e-Connectivity in rural communities. The Township remains committed to working with internet service providers such as Comcast/Xfinity on ways to expand the infrastructure needed to provide both reliable and affordable high-speed internet access.

Natural Gas

Natural gas availability has a very limited footprint in the Township. According to a report provided by the American Council for an Energy Efficient Economy (ACEEE), ***“people living in rural areas spend a disproportionately high share of their income on energy bills. Rural households have a median energy burden of 4.4%, compared to the national burden of 3.3%. Rural low-income households are even worse off, shouldering a median energy burden almost three times greater than the burden faced by their higher-income counterparts.”***

For most residents, propane remains the only viable option when it comes to their heating needs. Infrastructure costs associated with providing natural gas to rural areas of the Township continue to increase exponentially to the number of available homes.

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Plan Implementation & Maintenance

The adopted Master Plan should always serve as a guide when making future land use decisions within the Township. It provides for an orderly and rational process for growth, while seeking to preserve the agricultural and rural character, the environmental quality and the residential quality of the Township.

These goals and aspirations can be accomplished by separating higher-density land uses (i.e., residential, commercial or industrial activities) from lower-density residential and agricultural uses wherever possible and by providing adequate housing and environmental regulations as well as any board ordinances designed to regulate land use, including but not limited to storm water and drinking water quality. The *Future Land Use Map* sets aside adequate land for residential, commercial, and industrial land uses during the planning period. However, the clear majority of the township is reserved for agricultural, open space, and low-density residential uses.

Plan Implementation

The successful pursuit of plan goals requires aggressive implementation strategies that allow for a coordinated approach to land use and development and to promote the general health, safety, convenience, welfare, economy, and efficiency of the community.

Zoning

The primary means for implementing this land use plan is through the Township approved zoning ordinance. The ordinance itself should always incorporate the land use areas described in this plan and should establish building regulations within those districts that are in accordance with the policies set forth in this plan. The zoning ordinance may also include provisions to implement other policies of this plan, such as agricultural preservation, wetland protection, and housing conditions. The site plan review process by the Planning Commission

should be periodically reviewed and adjusted as necessary to help ensure quality development. The plan will then serve as a guide to the Planning Commission in making decisions regarding future rezoning requests.

Subdivision Control & Site Condominium Ordinances

A zoning ordinance establishes where various land uses can be located and regulates building requirements on individual parcels relating to size, setbacks, height, lot coverage, etc. Subdivision control and site condominium ordinances, on the other hand, require and set standards for improvements within given developments, such as width and type of roads, storm and sanitary sewer and water system improvements, street lighting, and similar public services and amenities. As the Township grows, the subdivision control and site condominium ordinances will serve as important tools in assuring that adequate public facilities are provided to serve the development.

Review Responsibilities

As an agency of the unit of government, the Planning Commission is given review responsibility for various activities that take place within the Township. In exercising these duties, the Planning Commission can assure that the basic intent of the land use plan is being followed. Two of the more important functions include review of all zoning requests and subdivisions/site condominiums proposed in the Township.

Intergovernmental Cooperation

The Township recognizes that development in adjacent communities has a great effect on the future of Leroy Township. Increased development in communities sharing boundaries with the Township (especially the City of Battle Creek) can affect growth pressures within the Township. The working relationship between Leroy Township and the City of Battle Creek is pivotal in maintaining compatible land uses along community boundaries.

Plan Maintenance

It is important that the plan be used in the daily decision-making process of the Township. In order to be a functional, decision-making tool, the land use plan must remain current. By recording certain land use activities on a regular basis, the land use plan can be continually updated to reflect current conditions.

This will also help identify development trends that are not in accordance with the objectives of the plan and may identify concepts that should be incorporated in the plan. In order to keep the plan current, the following information should be recorded every 12 months:

- Locations of new building (data to be supplied from building permits)
- Parcel splits
- Request for rezoning and zoning variances, with notation of action
- A description of any development that would be noteworthy in assessing the growth of the community

Annual reviews would also be beneficial to ensure any necessary modifications are made to the plan. At a minimum, the plan should be reviewed and revised and updated every five years as required by the Michigan Planning Enabling Act, act 33 of 2008, to ensure that it meets the changing needs and demands of the community.

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