

Lodi Township Master Plan

District

~~Map 16 — Municipal Service~~
~~service, it is therefore the intent of this Master Plan that future municipal water and/or sewer~~
~~service only be provided in the designated~~ The Municipal Service District planned for such
service within the SE ¼ of Section 26 and the NE ¼ and E ½ of the SE ¼ of Section 35 of the
Township, as depicted on Map 16.

The Township's involvement and/or management of any future municipal sanitary sewer system
will be to serve the public health, safety, and welfare of the Township and its residents, and to
protect the Township's environment; and will be based upon the following policies:

- A. **Sanitary Sewerage System Services.** Sanitary sewer service ~~should~~shall be limited
to the designated Municipal Service District.

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- Extension of sanitary sewer service beyond the designated Municipal Service District should not be permitted unless required to address a documented public health emergency~~other than to the designated Municipal Service District shall be prohibited.~~
- Development and extensions of the sewer system should be constructed with developer financing, user fees, or through a special assessment district, but shall not be constructed with ad valorem taxes.
- Properties within the Municipal Service District that are developed with temporary on-site systems should be required to connect to public water and sewer when such services become available, consistent with applicable law ~~Any property permitted to develop with on-site services in the designated Municipal Service District shall be required to connect with public water and sanitary sewer lines, as provided by law, when these become available.~~
- Individual private community sanitary sewer systems shall not be permitted to protect groundwater and surface water~~Individual private community sanitary sewer systems shall not be allowed.~~

B. Municipal Water. Any municipal water service within the designated Municipal Service District should coincide with the sanitary service area.

- A municipal water service system should be constructed with developer financing, user fees, or through a special assessment district, but shall not be constructed with ad valorem taxes.
- Transmission and distribution lines should be looped to ensure adequate pressure and continuity of service.
- New development within the designated Municipal Service District should connect to the municipal water system when available, consistent with Township regulations~~All new development in the designated Municipal Service District shall be required to connect to a municipal water system.~~
- Private community water systems should generally be avoided in order to maintain system reliability and water quality protection ~~Private community water systems shall not be allowed.~~

Based upon SEMCOG population and land use projections, the designated Municipal Service District designated on Map 16 is considered to be more than adequate for municipal land uses through the year 2040.

Section One Special Study Area for Municipal Services

Section One of the Township was identified in the Township's **previous** master plan documents as an area intended to be served by a municipal sanitary sewerage system. Investigation regarding the best method to provide service to this delineated area was initiated by Township officials. This process included evaluation of opportunities for collaboration with the adjoining communities of Scio Township to the north, Pittsfield Township to the east, the City of Ann Arbor to the northeast, and the City of Saline to the southeast that already provide such municipal services. Options for extending Ypsilanti Community Utilities Authority (YCUA) sanitary sewer infrastructure to serve the site were also explored.

Based on the results of this investigation and evaluation process, the Township determined that extension of municipal services to Section One would not be economically feasible for the Township, and that continuation of the previously planned municipal service district designation for this area would not be consistent with sound planning principles and practices.

Accordingly, Section One is not located within the planned "Municipal Service District" defined by this Master Plan. Future development in this area is intended to be of a scale and intensity appropriate for service by private well and septic systems.

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12.3 COMMUNICATIONS

Since the 1980s, cellular telephones have progressed from a luxury item to a ubiquitous communications tool. During that same period, broadband Internet access also expanded from a service available primarily to research universities into an important, if not essential, component of business success and personal communication. The availability of communications infrastructure (whether cellular, fiber optic, cable, wireless or a combination of services) with robust capacity has become a significant economic development and quality of life issue, especially for more rural communities like Lodi Township.

This has also become a future planning issue for the Township with the 2014 decision of the state legislature to adopt what is now Public Act 52 of 2014 (Michigan Telecommunications Act amendments), which permits discontinuation of traditional landline service under certain conditions, which makes it somewhat easier for phone companies in Michigan to discontinue traditional landline telephone service where cellular, cable or VOIP (Voice Over Internet Protocol) telephone service options are available, beginning in 2017.

This new public act, combined with continuing demand from Township residents for more robust communications infrastructure capacity in all areas of the community, will require consideration of the need for additional communications towers and expansion of other communications-related infrastructure in the Township during the planning period of this Master Plan.

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12.4 ENERGY

Land use decisions directly influence energy demand, infrastructure requirements, and long-term sustainability outcomes. Decisions affecting land use directly affect energy use, and vice versa. The expanding use of computers and other power-hungry technology in homes and businesses also necessitates further modernization and expansion of the local and regional power grid. One of the paths toward greater energy independence is through distributed energy generation from renewable resources, such as wind, solar, and geo-thermal systems, which may enhance local energy resilience and reduce reliance on fossil fuels. ~~These small-scale power generation technologies located close to the user may:~~

- ~~➤ Increase the reliability of electrical power by serving as a supplement to the traditional electric power grid;~~
- ~~➤ Serve as an emergency power resource during blackout/brownout situations; and~~
- ~~➤ Decrease our reliance on energy production from fossil fuels.~~

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Accordingly, the availability of reliable energy resources for Township residents, farms, and other business operations will remain an important local, regional, and statewide issue to be addressed during the planning period of this Master Plan.

12.5 GOALS, OBJECTIVES, AND STRATEGIES

Goal A: Provide municipal utilities designed to serve the public health, safety, and welfare and that serve to protect the Township's environment.

Objective 1: Management of municipal sanitary sewer/water systems will direct development away from areas designated for agricultural and rural residential land uses.

Strategies

- a. Municipal sanitary sewer and water service ~~should~~shall be limited to the planned Municipal Service District specifically designated for Lodi Township. All new development within this area shall be required to connect to a municipal sanitary sewer system when available.
- b. All required infrastructure for the provision of municipal water and sewer services shall be according to adopted Township regulations and ordinances.
- c. Provisions of a municipal sewer and water system will be constructed with developer financing, user fees, or through a special assessment district, but shall not be constructed with ad valorem taxes.
- d. Incorporate the criteria and standards listed in this Section into the Zoning Ordinance through the site plan review process.
- e. ~~Develop and maintain a Capital Improvement Program (CIP) consistent with Section 65 of the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) Initiate a Capital Improvement Program as required. As provided for in Section 65 of the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended), any future capital improvements program for the Township should be subject to review and approval by the Planning Commission to confirm compliance with the policies of this Master Plan.~~

Goal B: Robust capacity and a variety of options for broadband Internet access and cellular telephone service should be available to Township residents and businesses.

Objective 1: Provision of high speed broadband Internet service to all areas of the Township.

Strategies

- a. Encourage Internet providers to extend high capacity cable and fiber optic lines and infrastructure through the Township.
- b. Encourage support for private initiatives to extend wireless Internet

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service to various parts of Washtenaw County, including Lodi Township.

Objective 2: **Provision of cellular telephone and data service to all areas of the Township.**

Strategies

- a. Continue to prioritize and encourage collocation of multiple antennae on existing towers~~require collocation of multiple antennae on existing cellular telephone towers, and encourage modernization and upgrading of such equipment as necessary.~~
- b. Revise the Zoning Ordinance to allow collocation of additional antennae on an existing tower, including minor modifications to the tower, subject to administrative approval for zoning compliance.
- c. Consider allowing construction of a limited number of additional towers consistent with Zoning Ordinance requirements where determined necessary through zoning review to ensure adequate and continuous coverage while minimizing visual impacts~~by the Planning Commission to provide adequate and continuous cellular telephone and/or wireless Internet coverage and a range of service providers to residents and businesses in all areas of the Township.~~

Goal C: Reliable, sustainable, and decentralized energy options for Township residents and businesses.

Objective 1: **A well-maintained and modernized electrical grid and network of natural gas distribution lines with capacity to serve the current and future energy needs of Township residents and businesses.**

Strategies

- a. Encourage proactive maintenance and modernization of electrical transmission lines and infrastructure, including a new substation if determined necessary for reliable electrical service in the Township.
- b. Encourage proactive maintenance and expansion of natural gas transmission lines and infrastructure to provide for adequate capacity to service all areas of the Township.
- b.c. Evaluate the need for standards addressing utility-scale solar energy systems, ensuring protection of agricultural land, rural character, and environmental resources.

Objective 2: **Accommodate private installations of renewable energy generation facilities and equipment in a manner consistent with the Township's rural character.**

Strategies

- a. Update the Zoning Ordinance's wind energy conversion system (wind turbine) standards as needed to address technological advancements.
- b. Consider revising the Zoning Ordinance to add provisions for small-scale

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photovoltaic solar power installations designed primarily to serve the power needs of a residence, farm or business operation.

12.6 IMPLEMENTATION

Implementation of the Infrastructure Plan shall occur through:

- A. Zoning ordinance amendments
- B. Site plan review standards
- C. Capital improvement planning
- D. Intergovernmental agreements
- E. Utility provider coordination
- F. Special assessment districts where appropriate

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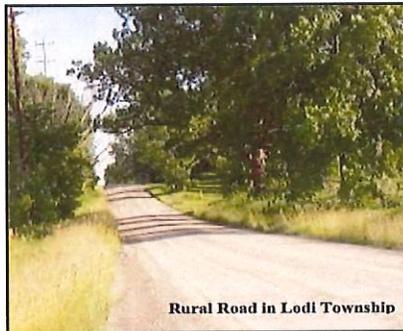
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PART 11 TRANSPORTATION

11.1 INTRODUCTION

Transportation is a core element of the Master Plan, ensuring land uses function cohesively. An integral part of the Master Plan is the Township's internal transportation network, and the degree to which land uses interact effectively is dependent upon this concept. The goal/primary objective is to maintain a safe, efficient, and context-sensitive transportation network that accommodates multiple modes of travel consistent with the Township's rural character—a roadway network that provides safe, convenient and efficient vehicular circulation. The implementation of a functional transportation network depends upon a close cooperation between private developers, Township, county and state officials, and a strict adherence to sound planning principles and standards. Any realignments, roadway improvements, and new roadways must be of adequate right-of-way but of a character that does not diminish the integrity of the Township.

Lodi Township contains a variety of roadways that range from rural gravel roads serving agricultural areas to regional primary roads that connect Lodi Township to other communities and regions; including Parker, Zeeb, Pleasant Lake, Scio Church, Wagner, Maple, and Ann Arbor-Saline roads. It is understood that certain roadways may need improvement or new roadways may need to be constructed. Any improvements to roadways shall be done with minimal negative impacts on existing land uses and physical resources and according to the character, scale, and land use concepts contained within this Master Plan.



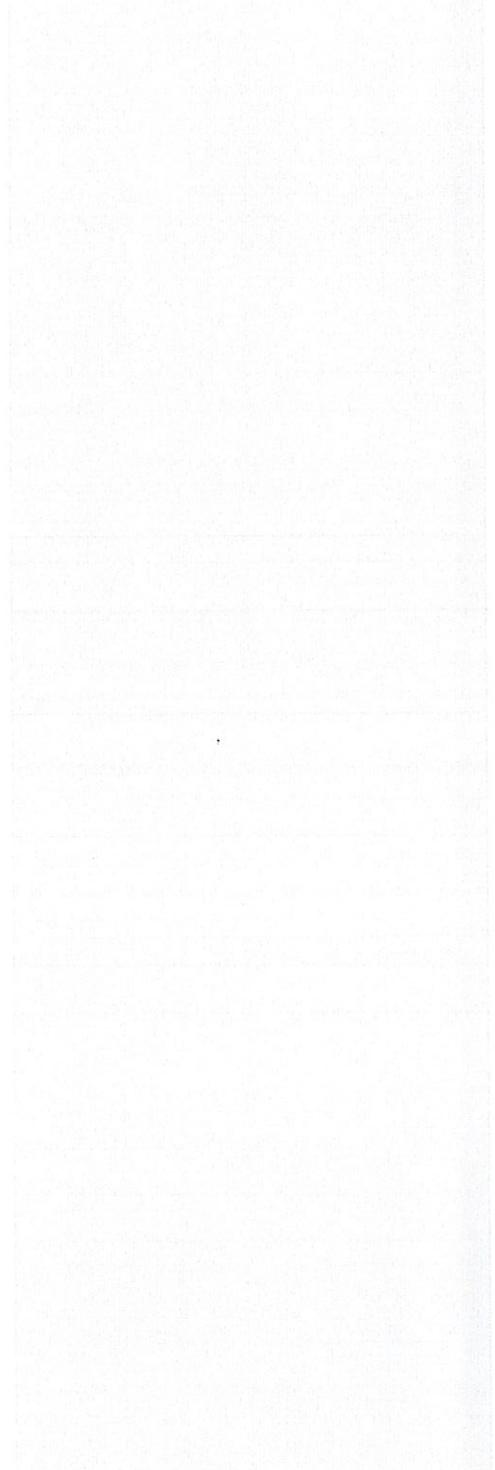
It is recognized that even though these roadways serve as transportation systems, it does not mean that they are corridors for development. In many cases these roadways pass through rural and agricultural areas. Road classification alone shall not be used to justify development intensity inconsistent with the Future Land Use Plan. In no case should the road dictate development when it is not suitable, practical or designated to do so as depicted within this Master Plan. Speculation of future land uses should not take place based upon only a road network classification.

11.2 COLLABORATION FOR ROAD IMPROVEMENTS

Since the Township does not manage public roads directly, proactive communication with the Washtenaw County Road Commission and MDOT ensures that improvements align with the community's long-term vision. Because Lodi Township does not have direct control over public roads within its boundaries, it is important that outside agencies with jurisdiction, including the Washtenaw County Road Commission, be kept aware of the Township's policy preferences and plans.

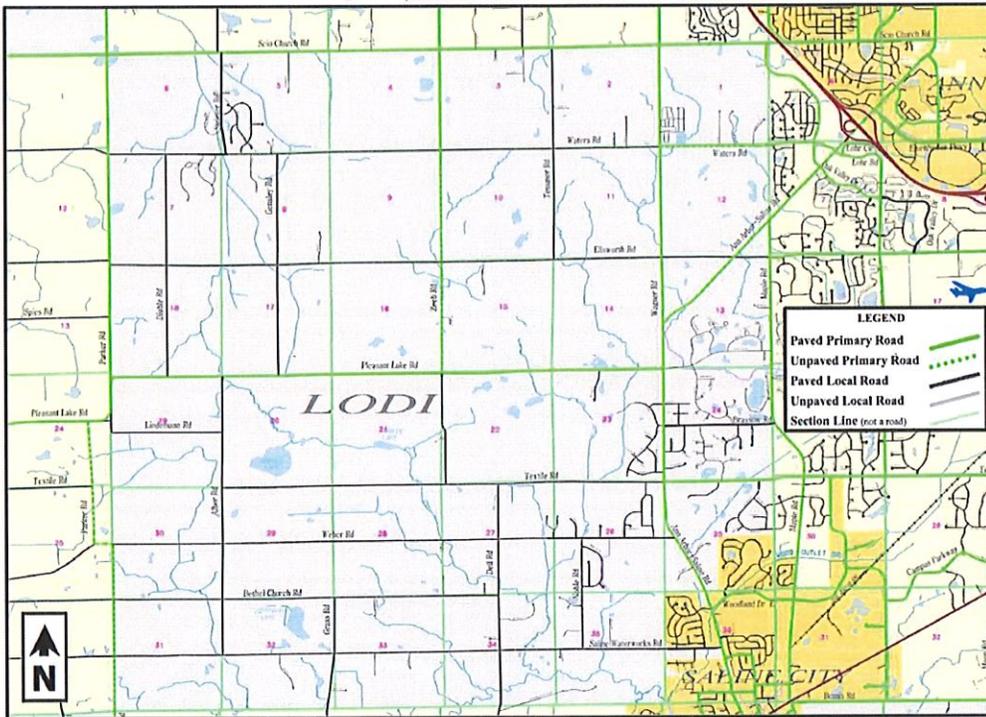
11.3 COUNTY ROAD CLASSIFICATIONS

Road classifications guide decisions on maintenance, capacity, and development compatibility, supporting a structured hierarchy within the Township's road system. The following map identifies the Washtenaw County Road Commission's classifications for existing public roads in Lodi Township:



Map 4 — County Road Classifications

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11.4 COMPLETE STREETS IN THE TOWNSHIP

Public Acts 134 and 135 of 2010 amended Act 51 of 1951 to require county road commissions and the Michigan Department of Transportation (MDOT) to incorporate give new project planning and coordination responsibilities to county and state transportation agencies across Michigan related to implementation of the new “Complete Streets” principles into transportation planning and project implementation. policy established by the package of laws.

Complete Streets is a comprehensive approach to transportation design that considers all users of the public right-of-way, including motorists, pedestrians, bicyclists, transit users, emergency vehicles, and agricultural traffic.

Amendments to the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) further require coordination between local planning agencies and road authorities to ensure that transportation improvements are consistent with adopted master plans.

This Transportation Plan establishes the Township’s priorities for roadway design and improvement and shall serve as the policy framework for coordination with the Washtenaw County Road Commission and MDOT.

The Washtenaw County Road Commission and Michigan Department of Transportation (MDOT) are required through amendments to the Act 51 program, which governs the funding and prioritization of road projects across the state, to

Why should the Township be concerned with “complete streets” laws when the county and state are responsible for the road network?

These public acts provide the Township with a more powerful mechanism to influence decision-making within county and state road authority bureaucracies, which is this transportation plan.

In the absence of written and adopted road policies, the default county or state standard would apply to any future road improvements, with little regard as to whether a particular road width or design is best for Township residents or the intended character of the community as expressed in this Master Plan.

Complete Streets.

A comprehensive approach to transportation networks, which integrates all facilities in the road right-of-way (travel lanes, shoulders, sidewalks and non-motorized pathways, driveway access, etc.) to abutting buildings and land uses.

The intent of the “complete streets” approach to transportation planning is to ensure that all users (motorists, pedestrians, bicyclists, etc.) are safely accommodated as part of transportation projects.

consider all users of the road right-of-way as part of the planning of future road projects.

For the Township, these public acts also included amendments to the Michigan Planning Enabling Act (Public Act 33 of 2008, as amended) intended to ensure that

county and state road agencies better coordinate road improvements with the Township, and will cooperate with the Township to implement transportation elements included in this Master Plan.

This transportation plan is intended to conform to the requirements of the Michigan Planning Enabling Act, and to establish Township priorities for future road improvements.

11.5 NON-MOTORIZED TRANSPORTATION

As bicycling and walking become more common, road projects should include facilities that safely support non-motorized travel, such as shoulders, bike lanes, and pathways. An increasing number of bicyclists and others are using Township roads for non-motorized transportation. The needs of all potential users of the Township's transportation network should be adequately addressed as road improvement projects are planned and implemented.

11.6 LODI CENTRAL TRANSPORTATION-RELATED PRIORITIES

Transportation policies for the Lodi Central area emphasize coordinated improvements, connectivity, and support for planned land uses, including encouragement of pedestrian and bicycle linkages. See part 9 (Lodi Central) for additional transportation-related policies and recommendations associated with the Lodi Central area.

11.7 ACCESS MANAGEMENT

The access management techniques described below primarily apply to more intensive, non-residential land uses. Access management is usually implemented through the site plan review process, and these techniques are suggested as guidelines in that process. Each case will require an individual analysis to determine the appropriate action given the characteristics of the site and use.

- A. **Restricting the Number and Spacing of Access Points.** Limiting the number of driveways permitted for each land use can help preserve the traffic movement function of a roadway. Proposed and existing land uses should provide the minimum number of driveways needed to provide access to a development site.
- If multiple driveways are proposed for access to a single development, appropriate spacing between driveways should be maintained consistent with Washtenaw County Road Commission (WCRC) spacing standards.
 - Even if only one (1) access point is proposed, the most appropriate location should be selected to preserve the function of the roadway and maximize public safety. Driveways located too close together are safety hazards and can negatively impact road capacity.
 - Commercial and other non-residential driveway access to parcels on opposite sides of a public road should be arranged consistent with WCRC standards.
- B. **Encouraging Shared Access.** Providing shared access to a site reduces the number of access points, preserves the capacity of the road, and can even help to maintain the character of the community. Shared access can be achieved through a variety of techniques including frontage roads, service roads and internal connections between sites. Such shared access alternatives to multiple individual driveways and “curb cuts” into the public road right-of-way can preserve roadway capacity and views from the road, and provide a buffer area for residences along county primary roads.

11.8 GOALS, OBJECTIVES, AND STRATEGIES

Goal A: Promote a transportation network that facilitates safe and efficient movement of people from place-to-place within and through the Township, while preserving the rural character of the Township.

Objective 1: **Promote the modification of the road network to improve circulation, alleviate potential traffic hazards, and reduce congestion on primary roads.**

Strategies

- a. Inventory and assess potential traffic hazard locations throughout the Township, with special attention to paved primary road intersections.
- b. Require developer financing of road extensions planned to service new development.

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- c. Provide/accommodate adequate right-of-way in appropriate planned areas for road additions, extensions, and bridge improvements during the site plan review and approval process.
- d. Coordinate with the Washtenaw County Road Commission to assure adequate provision of necessary right-of-way to accommodate planned road extensions and appropriate road design features, based upon Lodi Township's planned character and scale as expressed in this Plan.
- e. Future intersection improvements along Scio Church Road and Ann Arbor-Saline Road should prioritize context-sensitive design solutions, including roundabouts or other proven safety treatments, where supported by traffic engineering analysis and consistent with Township character.~~Future intersection improvements along Scio Church and Ann Arbor-Saline Roads should incorporate non-signalized intersection design elements that have been shown in other local or regional applications to improve traffic safety and reduce the frequency and severity of vehicle crashes. Such improvements should be consistent with the Township's rural character. The intent of such improvements would be to help reduce speeding along this corridor, and to better define these important intersections from a wayfinding perspective.~~

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Objective 2: **Minimize the impact of development and the number of curb cuts on major roads throughout the Township.**

Strategies

- a. Coordinate the long-range planning process at the local level with future circulation plans and improvements considered at the county, state, and federal levels.
- b. Revise the Zoning Ordinance to require pre-application site plan meetings between developers, Township officials, and the Washtenaw County Road Commission.
- c. Work in conjunction with the Washtenaw County Road Commission to minimize the number of curb cuts permitted for individual developments through the use of combined drives and service drives.
- d. Develop corridor-specific area plans that establish specific performance and design standards, including context-sensitive road designs, appropriate pedestrian and other non-motorized transportation elements, and perimeter landscaping guidelines for proposed development projects.
- e. As new development and redevelopment is proposed, it should be examined with regard to minimizing **any**-impacts on the road network.
- f. Plans for new development should provide for extension of roadways into new development areas where such extension is determined by the Township to be necessary for the continuity of the local road system.
- g. Discourage residential development that is intended by the developer to be

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isolated from the rest of the community by gates, walls, and/or a system of private streets with no connections to adjacent parcels or developments.

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- h. New residential developments shall be served by at least two means of regular public ingress and egress, where feasible and consistent with public safety standards~~except where natural conditions prevent such access.~~
- i. To preserve road capacity, the number of new connections to the paved county primary roads should be limited to the minimum necessary to conform to Township ordinance requirements and be consistent with the policies of this Master Plan.
- j. Plans for new residential development should provide for new collector roads or extension of existing collector roads through the development and connecting into the Township's public road network.
- k. Private roads should generally be limited to planned unit development (PUD) projects where coordinated design and long-term maintenance mechanisms are clearly established.
- l. Private roads should not be approved unless a maintenance agreement conforming to Township ordinances has been approved, and a financing mechanism acceptable to the Township has been provided for long-term maintenance and improvement.

Objective 3: **Create a hierarchy of roadways within the Township based upon character and scale.**

Strategies

- a. Review the Washtenaw County Road Commission (WCRC) road classifications on Map 4, and consider whether there is a need to re-classify any existing primary or local roads in the Township based on usage, capacity or other factors.
- b. Review the WCRC road classifications on Map 4, and consider whether there is a need for any additional paved primary roads, road extensions or other road network improvements to adequately serve the transportation needs of Township residents and provide sufficient network capacity for through or regional traffic within the Township.
- c. Capacity improvements along the county's paved primary road corridors should be limited to acceleration/deceleration lanes and left hand turn lanes where determined necessary by the WCRC. Expansion beyond a two-lane cross-section should be carefully evaluated to ensure consistency with Township character, safety needs, and regional traffic demands~~Widening to a three, four or five lane configuration should generally be discouraged.~~
- d. Designate special corridors that have a recognized scenic or historic character, which should be protected; and other roadways, such as Township entrances, that require special treatment.
- e. Pursue designation of natural beauty road status for appropriate unpaved

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roads throughout the Township.

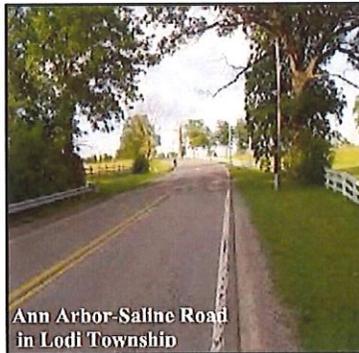
- f. Coordinate with the Washtenaw County Road Commission to provide designated rights-of-way for all roadway classifications.

Goal B: Maximize alternative transportation options for Township residents and visitors (carpool or vehicle sharing, bicycle lanes, pathways, sidewalks, etc.).

Objective 1: Accommodate alternative means of transportation that are interconnected with and/or a part of the public road network (public, bicycle, pedestrian).

Strategies

- a. Amend the Zoning Ordinance to consider bicycle and pedestrian circulation systems within new developments to connect adjacent residential areas, residential areas with Lodi Central, residential areas with regional open space systems, and all new development within the designated Municipal Service District.
- b. Encourage the development of an interconnected network of rural bikeway routes and pathways in appropriate locations throughout the Township with potential links to regional open space and municipal areas.
- c. Allow carpool or vehicle sharing facilities in appropriate areas within the Township.
- d. Collaborate with the Washtenaw County Road Commission to prioritize and seek funding for future road improvements that include striped on-street bicycle paths along the paved primary roads identified in Map 4.
- d.e. Incorporate Complete Streets principles into all future transportation planning and capital improvement programming to ensure multimodal accommodation consistent with rural character.



11.9 IMPLEMENTATION

Implementation of the Transportation Element shall occur through:

- A. Zoning ordinance amendments
- B. Site plan review standards
- C. Capital improvement planning
- D. Intergovernmental coordination with the Washtenaw County Road Commission and MDOT
- E. Corridor-specific planning initiatives