

Chapter 7: Principles and Recommendations for Infrastructure and Community Services (Draft)

Infrastructure consists of those systems under public ownership, or operated or maintained for public benefit, that are necessary to support development, maintenance, and redevelopment of communities and to protect the public health, safety, welfare and the environment. The availability and condition of infrastructure such as roads and wastewater treatment facilities are critical considerations in most land use planning decisions. Federal, state, and local funding and related requirements for transportation and wastewater treatment infrastructure have had a profound and lasting effect on existing land use patterns.

Adequate infrastructure, especially transportation systems, is vital to the state's economic competitiveness in attracting businesses and workers, and is essential in providing necessary mobility for the state's population. As the state moves forward in addressing this need, it must assure that Michigan public transit:

- Serves those who rely on it as their primary mode of travel, such as the disabled, those without a personal vehicle, the elderly, and the young
- Is an attractive alternative to using a personal vehicle for people who have a choice
- Is an integral part of the state's overall transportation system
- Is positioned to accommodate Michigan's future population, including a rapidly aging population
- Attracts and retains essential workforce participants

To help guide land use decision-making in Michigan into the future, the Michigan Land Use Leadership Council considered how infrastructure systems are developed, from the planning phase through approval, funding, construction, and maintenance. Consistent with the fundamental goals underlying the vision of this council, efficient, effective, and reliable infrastructure systems must be available to support and ensure economic prosperity, environmental integrity, and social equity. They must be constructed and operated with regard to environmental factors, with adequate capacity to support affordable housing for Michigan's present and future population. For this to be accomplished there must be widespread public understanding and support of the importance and long-term cost of these systems. How Michigan's infrastructure planning decisions are made over the coming years will continue to have a profound and lasting effect on evolving land use patterns. Public health, safety, coordination, economic efficiency, mobility, and environmental quality are important considerations in all guiding principles.

GUIDING PRINCIPLES

In formulating its recommendations targeting infrastructure systems and decision-making processes, the council established the following guiding principles that address policies

and practices of government and a supporting legal framework. The council believes that it is important that state and local governments have policies and practices consistent with the following principles:

- Public health, safety, and environmental quality are fundamental considerations in infrastructure-related decisions for all guiding principles.
- Public investments in existing and new infrastructure encourage sustainability and are consistent with coordinated local and multijurisdictional planning efforts, state policy, and law.
- Infrastructure is managed, maintained and upgraded consistent with planned growth in the area and in a manner that assures equity, provides for efficient utilization of existing public facilities, and optimizes service quality and reliability with the lowest long-term capital and operating costs.
- Local and multijurisdictional transportation systems are safe, accessible, and reliable, and provide choices and mobility to the public and to business and industry sectors.
- Green infrastructure (such as parks, trails, nature preserves, watersheds, and open space) is essential to the sustainability of every community, and all governmental units have a responsibility to plan, build, and maintain this aspect of their infrastructure.
- Public investments in transportation systems (e.g., roads, maritime, rail), sewers, public institutions, and water supplies are focused to upgrade and maintain infrastructure already in place.
- Infrastructure policies and decisions support and encourage compact and mixed-use development and infill, while discouraging fragmentation and consumption of open space.

RECOMMENDATIONS

Infrastructure decisions have a profound and lasting impact on land use. The infrastructure recommendations are presented in four areas: (1) state infrastructure expenditures, (2) multijurisdictional infrastructure considerations, (3) local infrastructure decisions and expenditures, and (4) natural environment.

State Infrastructure Expenditures

1. **State decisions on the disposition of state and federal infrastructure funding have a significant impact on land use. To help ensure that these expenditures guide wise land use decisions and support growth in an orderly manner, the council recommends that:**
 - a. State and federal infrastructure funding should be prioritized to support existing developed areas, improve and maintain the effectiveness and integrity of existing infrastructure, ensure multijurisdictional coordination, and protect public health, safety, and the environment.

- b. State and federal infrastructure funding should be targeted to encourage compact, mixed-use development.
 - (1) Small communities and rural areas should be eligible for state funding support to provide sewerage infrastructure needed for compact, mixed-use development, provided that where the project affects more than one jurisdiction, it is consistent with multijurisdictional planning.
 - (2) State infrastructure funding should be targeted to encourage inclusionary zoning.
- c. State policy and funding should ensure that new school locations are consistent with local and multijurisdictional plans and encourage the use of existing sites, and ensure that all new school structures are subject to local zoning.
- d. The state should provide funding sufficient to ensure effective, safe, reliable, and accessible public transit that provides mobility and transportation choices. To help accomplish this, the state should work with members of Michigan's Congressional delegation to seek federal funding legislation that treats investment in bus transit systems and rail transit systems as comparable and equally important types of service that merit equivalent levels of funding. In addition, the state should:
 - (1) Utilize the full 10 percent of the Michigan Transportation Fund (MTF) to support the Comprehensive Transit Fund (CTF)
 - (2) Utilize 25 percent of auto-related sales taxes to support the Comprehensive Transportation Fund (CTF)
 - (3) Encourage state and local jurisdictions to adopt minimum standards for the level of spending on road repair and for the condition of the highway/road/street network
- e. Where the project may impact multiple jurisdictions, state transportation funding for local communities should be tied to comprehensive multijurisdictional plans that are consistent with a statewide transportation plan.
- f. The state should provide incentives and tools for communities that participate in multijurisdictional planning, develop master plans for these communities, and encourage development in areas where infrastructure exists.
- g. The state should provide incentives for local jurisdictions to build and maintain green infrastructure, such as stormwater management systems that provide cost-effective, environmentally beneficial alternatives for the treatment, storage, and transportation of stormwater.

Multijurisdictional Infrastructure Considerations

- 2. **Where infrastructure decisions affect more than one jurisdiction, multijurisdictional coordination and cooperation on infrastructure decisions are**

essential to effective and efficient use of infrastructure and wise land use planning. To help accomplish this, the council recommends that:

- a. Local and state officials should take action to preserve existing rail corridor rights-of-way for future trail and transit use.
- b. When planning roadway expansions, local and state officials should attempt to secure rights-of-way for future public transit projects.
- c. Consistent with state policy and law, infrastructure should be planned, guided, and coordinated at the multijurisdictional level and provided and managed in accordance with locally adopted master plans, zoning ordinances, and capital improvement programs. Infrastructure improvements and expansions should be made in accordance with multijurisdictional planning and in a timely fashion, not delayed until the capacity of the existing infrastructure is exceeded.
- d. When state and local leaders, under current authority, review water and sewerage infrastructure systems and develop recommendations to ensure that the systems are effectively planned and coordinated at a multijurisdictional level, it is imperative that they recognize the value of the historical investment the individual jurisdictions have made in these systems.

Local Infrastructure Decisions

3. Local jurisdictions make many key infrastructure decisions and should have the necessary legal tools to successfully make these decisions consistent with wise land use policy. To that end, the council recommends that:

- a. Local jurisdictions should have the necessary clear authority to effectively manage infrastructure decisions, as recommended under the planning and development section of this report.
- b. Recognizing that on-site disposal systems are an integral part of Michigan's sewerage infrastructure, a scientifically based statewide sanitary code for on-site disposal systems should be developed by which local and county jurisdictions can cost-effectively respond to local conditions, authorize the use of approved alternative on-site waste treatment systems, and ensure that the state's surface water and ground water are protected from inadequate or failing systems.
- c. Local jurisdictions should develop, adopt, and regularly update local capital improvement programs that identify necessary and equitable funding to build, maintain, and replace the infrastructure needed to support the locally adopted master plans.
- d. Where the local community has adopted a land use plan, the state should not issue a construction permit for new sewer or treatment facility construction unless the project is consistent with that plan.

- e. Local jurisdictions should have the authority to avoid the wasteful cost, disruption and visual degradation of landscape caused by redundant telecommunication infrastructure (such as utility poles, communication towers, fiber-optic lines) by requiring service providers to share supporting infrastructure through public or joint private ownership. Where possible, electrical and telecommunications lines should be underground.

Natural Environment

4. Michigan's natural environment is one of its most valued assets. To help assure its sustainability, the council recommends that:

- a. Appropriate state agencies should participate in the development of statewide plans for biodiversity conservation, wildlife habitat protection, water quality, and other potential environmental impacts, and the Michigan Department of Transportation should consider these plans when developing its statewide transportation plans.
- b. Infrastructure projects should be coordinated with environmental and natural resource agencies early, substantively, and continuously throughout project planning and development.
- c. Recognizing that invasive non-native species can significantly alter the ecological and economic components of Michigan's environment, state policies regarding plantings on state-owned lands and rights-of-way should encourage the use of native species and avoid the use of invasive non-native species. Where feasible and appropriate, new state or county road construction should include the planting of native vegetation, and native vegetation should be used where existing roadsides require new seeding. An example of this type of program is the Integrated Roadside Vegetation Management program utilized by the Minnesota Department of Transportation.
- d. The state should explore expanding the concept of wetland mitigation banking to other natural features, such as prairie lands, forests, and shorelines, to mitigate the loss of these types of natural features caused by infrastructure projects. Conservation banking programs in North Carolina, Colorado, and California are examples of current conservation banking programs.
- e. To increase the safety of travelers and to protect wildlife, the state should explore new methods to reduce the impact of major roads and highways on surrounding ecosystems through the creation of wildlife corridors and crossings. Wildlife crossings can help reconnect fragmented habitat and reduce injuries to drivers and passengers caused by collisions. Existing examples of programs to create structural and nonstructural wildlife crossings are those in Florida and California.