

Chapter 6

GROWTH MANAGEMENT STRATEGY

INTRODUCTION

This chapter describes the infrastructure, community facilities and services strategies and initiatives that will be necessary for the vision in Chapter 3 and the future land use arrangement in Chapter 4 to become a reality. It discusses the importance of ensuring that public investments in land and infrastructure contribute to building the kind of community desired by Township residents and paid for as each new increment of growth occurs. It describes the importance of adopting an adequate public facilities ordinance, maintaining an annual capital improvements program and helping ensure major investments are made into the Township road system according to Township design standards. The importance of adequate public sewer and water, fire, police and park and recreation services is also stressed. These measures replace the urban growth staging strategy promoted in the 1991 Plan.

INFRASTRUCTURE AND PUBLIC LAND INVESTMENTS

Background

Where a municipality does and does not spend public money to improve roads or extend sewer and/or water lines is one of the most effective tools available to guide growth. However, it is very expensive for municipalities to build new infrastructure to stimulate growth in an area and may create a situation where existing residents are paying for most of the infrastructure costs of growth rather than the new residents served by the new infrastructure. Partly as a result, it has long been the policy of DeWitt Township that new development pay all the incremental infrastructure costs associated with new development. This is especially fair given that existing and former property owners of the Township have paid for the existing major infrastructure framework, such as the sewer and water mains, the treatment facilities, the fire stations, Township Hall and major Township parks—which for the most part served existing development when they were constructed. This Plan is based on a continuation of the policy that the Township does NOT pay for the incremental costs of infrastructure expansion, except perhaps in the following instances:

- Where it is an extension of a sewer or water main that will serve much more than the new development, and there is some major physical problem giving rise to unusual costs, such as topographic relief requiring extra large lift stations. The normal policy is for the developer to construct the expanded infrastructure at a size determined by the Township to be able to serve the additional property, and the Township will incur those costs associated with over-sizing the system to serve beyond the new development.
- Where right-of-way acquisition is involved on properties not proposed for development and the right-of-way is not being acquired by a road authority to address an existing congestion or safety problem, but rather is for the purpose of ultimately building a new road at a higher standard than the road authority would otherwise build it.

Photo 6-1

Road and other Public Infrastructure Investments will be Necessary



Photograph by Stephen Gobbo

Adequate Public Facilities Ordinance

Communities that reach the level and rate of suburban development that DeWitt Township has, usually consider adopting an adequate public facilities ordinance (APFO) to ensure that as new development occurs, developers are fairly and equally treated as relates to paying for new infrastructure. This way, existing Township residents do not experience deficiencies in infrastructure and public service needs or have to pay higher taxes for infrastructure that developers should have provided. An APFO sets level of service thresholds for new development in each of the service areas it covers, such as paved and gravel roads, public sewer and water, storm drains, and often parks, recreation and school facilities. Each new development above a certain size threshold is required to be reviewed for its impact on these public facilities and if found to be inadequate, are not approved unless the project is scaled back to an acceptable impact level, or the public facility or service is improved to the point the impact is acceptable. This approach requires new development to pay for the incremental cost associated with the new development, without saddling existing taxpayers with subsidies for the new development. Not all costs of new development could be fairly charged to developers. For example if a water main is needed on a road, that line may need to be larger than necessary to service a particular development, so only the cost of the line associated with the service needs of the development could be charged—or the developer could pay for it all and get paid back as adjoining lands are developed. The same is true of a lane widening or intersection improvement.

APFO's are common in many parts of the country but are just starting to come into use in Michigan. They require communities to carefully plan and know the excess capacity of each public service included in the APFO, and to set and uniformly apply fair standards for the application of the ordinance. They are often effectuated through development agreements signed by the developer and the Township Board. The ordinance usually permits the Township Board to waive certain standards when the public benefit is great enough to warrant doing so. This may be the case where a developer volunteers to build a new road segment at an oversized standard as a substitute for mitigating another facility impact. Or, perhaps a developer has proposed an affordable housing project with an especially good design in an area that is both planned for affordable housing and at a time when the need in the Township for such housing is not being adequately met. An

adequate public facilities ordinance should be in place before public sewer is extended up US-27BR to Round Lake Road.

Capital Improvement Programs

Communities use capital improvement programs (CIP) to help make infrastructure investment decisions. A CIP is a schedule of public infrastructure improvements for the next six years. The CIP is updated annually by removing the just completed year and adding one more year at the end. The CIP lists each new public facility or expansion to an existing facility, where it will be located, how much it will cost, what the means of financing is and relevant information related to the project. Each project is scored against criteria that include conformance with this Plan. A CIP allows a community to stage development and spread infrastructure investment over time so the community does not overextend its finances. Some communities only include the community cost portion of infrastructure in the CIP, others include any infrastructure expansion, including that by developers.

The most important public infrastructure as relates to development are: roads, sewer, water, storm drains, fire, police and schools. Each is briefly discussed in the next few sections of this Chapter.

Future Road Improvements

Three major highways, US-27BR, US-127 and I-69 run through the Township. These highways give the Township exceptional accessibility within both a regional and state-wide context. Map 2-15 shows the existing street classification system in Township.

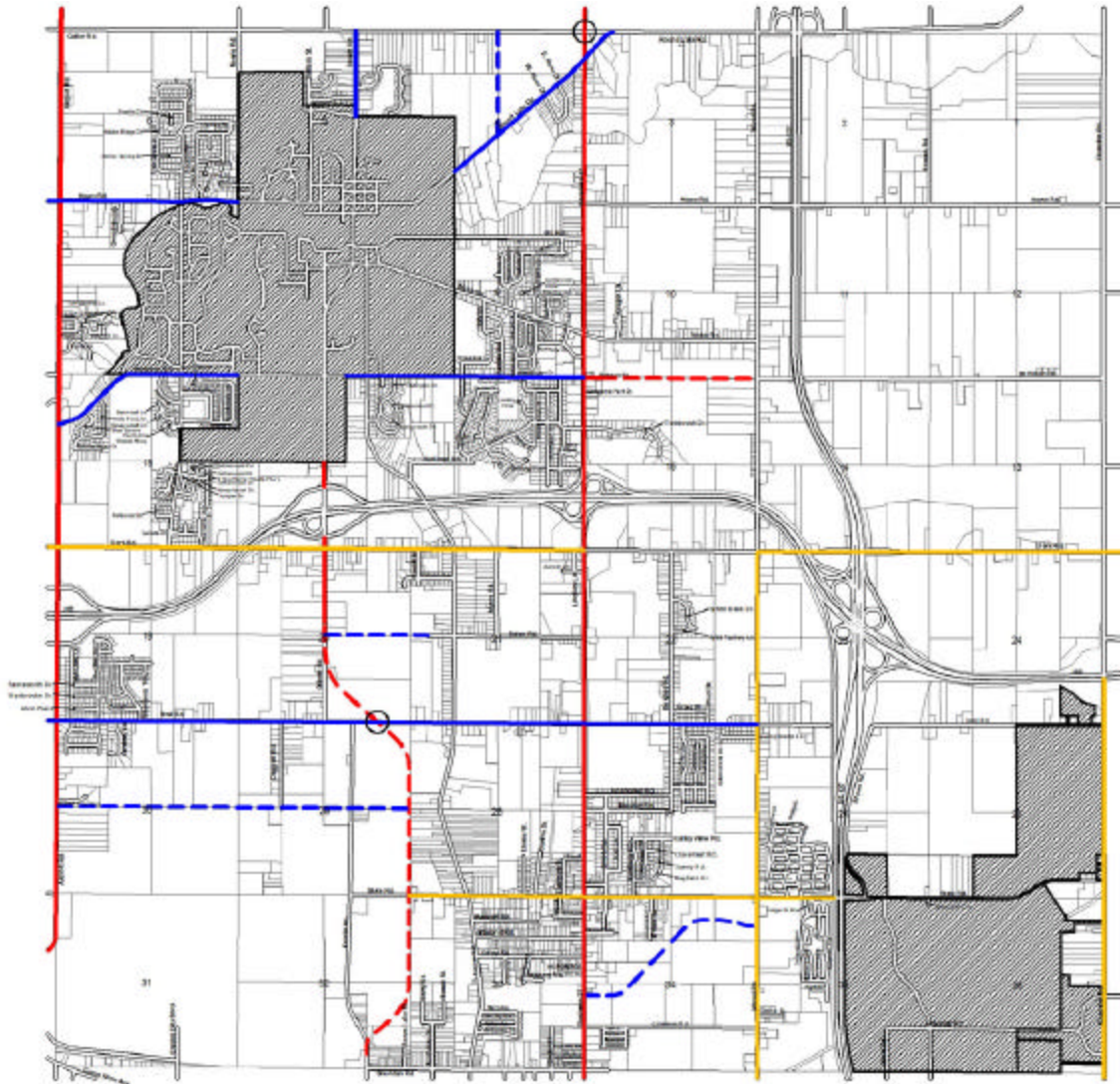
Due to its geographical relationship to Lansing and the highway network, DeWitt Township is inherently tied to the future development of the overall Lansing Metropolitan area. DeWitt Township has a good system of arterial roads and collector streets to efficiently move people and goods. Numerous north/south routes are most important for journey-to-work travel, especially for persons from DeWitt and adjoining jurisdictions to the north that travel into Lansing on a daily basis. The major problem with the street system is that it is not designed to accommodate the increased traffic volume on arterial and collector streets that will come if the Township and adjoining jurisdictions build out as planned. As the Township grows, better traffic and access controls will be necessary to avoid traffic and land use conflicts. Several roads already have congestion problems, especially during peak hours. These include Herbison Road and Airport Roads, and parts of Clark Road. Many of the roads within DeWitt Township have just two lanes, some with paved shoulders. In the more rural areas of the Township, some of the east/west collector streets are gravel. For example, Howe Road is gravel on the east side of US-127 and is of diminishing quality eastbound until it intersects with Chandler Road.

The Township's Planning Department conducted two buildout analyses to provide an estimate of the number of homes that might result if all property in a community developed at the maximum allowable density. The first analysis examined the total buildout if the Township fully developed under the current Zoning Map. The second analyzed the total buildout under the current Future Land Use Map. Assuming the trend of approximately 2.49 persons per household remains constant, the population of the Township under the two buildout scenarios would increase to between 38,500 and nearly 53,000 people. The roads within the Township are not adequate to accommodate such growth. Any section in the Township with over 800 dwelling units will be a

significant problem. The average household makes about ten trips per day. This would result in 8,000 trips per day per section, not counting through trips starting and ending outside the Township. The numerous two-lane roads throughout the Township will start to be congested over time as buildout occurs. Generally, a two-lane paved road can handle a maximum of about 15,000 vehicles per day.

The system of roads in DeWitt Township will require improvements to better handle the increasing traffic and congestion from within the Township and through traffic from adjoining jurisdictions. At a minimum, the road segments in Table 6-1 will need major lane additions, from two lanes to four or five lanes or boulevards. These and other new roads are illustrated on Map 6-2.

Map 6-1
Future Road Improvements



Future Road Improvements

- Proposed Road Improvements
- New 2-Lane
 - 2-Lane Traffic Calmed or 3-Lane
 - Expand to 4-Lane
 - New or Realigned Boulevard
 - Convert to Boulevard
 - Possible Roundabout



April 13, 2005



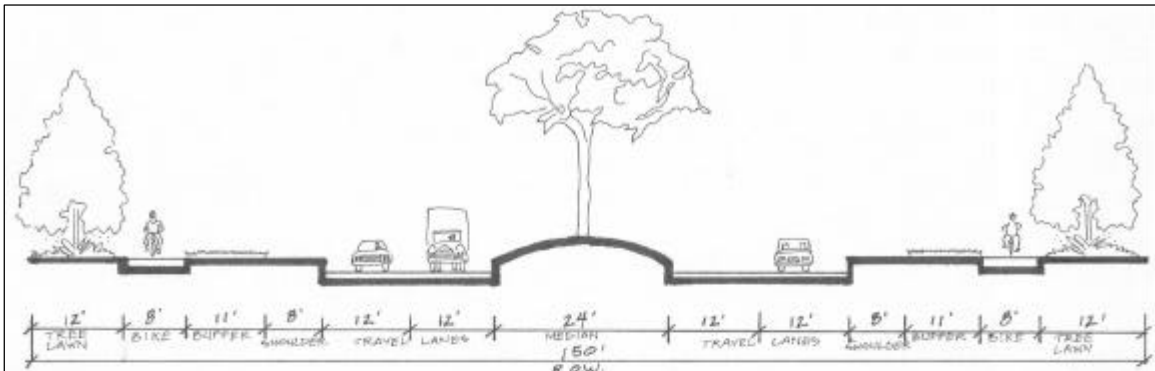
Planning Department
1401 W. Herbison Rd.
DeWitt, MI 48820
(517) 689-6576

Table 6-1
Proposed Road Improvements

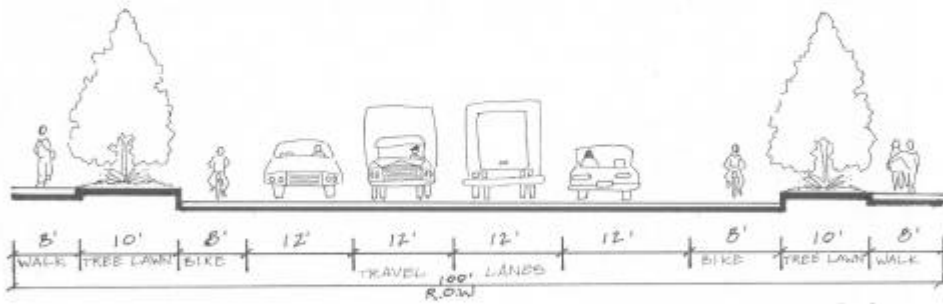
Location of Segment	Existing Design Character	Proposed Design Character	Existing ROW	Future ROW
Airport Road from Grand River to Cutler Road	2-lane paved	4-lane boulevard with separate bike path on one side	Mostly 66 feet, but varies with 80-100 feet at subdivisions	120 - 150 feet at intersections and boulevard openings if semi-trucks are likely
US-27BR from Lansing to Round Lake Road	5-lane paved	4-lane boulevard by filling center lane wherever feasible	Varies widely with 100 feet min. and much 130-170 feet, and some 225-350'	Same
Clark Road, from Airport Road to US-27BR and from Wood to Chandler	2-lane paved	4-lane with separate bike path on one side (may be better as 3 lane with path on both sides)	Mostly 66 feet but varies with 80-100 feet at subdivisions	100-120 feet at intersections
DeWitt Road from Lansing to Interstate 69	2-lane paved	4-lane boulevard with separate bike path on one side	Mostly 66 feet	150 feet
Herbison Road from Airport Road to US-27BR	2-lane paved	2- or 3-lane paved with traffic calming with separate bike path on one side	Mostly 66 feet by the City, but 80-100 elsewhere	100 feet with 120 feet at intersections if feasible
Herbison Road should also be extended from US-27BR to Wood Road	Does not yet exist	4 lane boulevard with separate bike path on both sides of road	NA	150 - 200 feet necessary to accommodate large semi-truck turns
Stoll Road from Airport Road to Wood Road	2-lane paved	2- or 3-lane paved with traffic calming with separate bike path on one side	Mostly 66 feet in the middle with 100 feet on the west end and 80-100 feet on the east end	100-120 feet at intersections
State Road from DeWitt Road to US-127	2-lane paved	4-lane with separate bike path on one side (may be better as 3 lane with path on both sides)	Mostly 66 feet	100-120 feet at intersections

Examples of road cross sections consistent with these rights-of-way follow (see Figure 6-1).

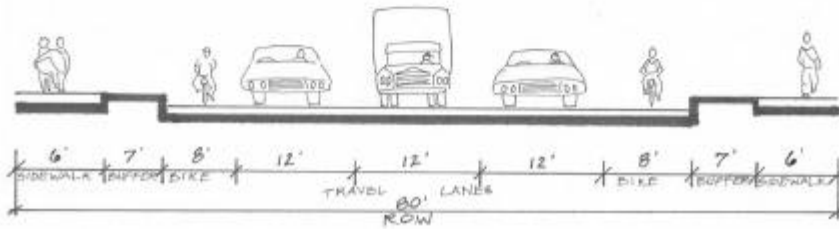
Figure 6-1
Future Road Cross Sections



4 Lane - 150' Right-of-Way Parkway



4 Lane - 100' Right-of-Way



3 Lane - 80' Right-of-Way

Graphic by Planning & Zoning Center, Inc.

The Township will have to work diligently to acquire a significant amount of right-of-way to expand some roads to four-lanes or boulevards. Boulevards with raised medians separate opposing traffic and reduce conflict points by eliminating left-turns into and out of driveways along an arterial. In fact, when properly designed, a roadway with limited median crossovers is the safest design with the maximum traffic carrying capacity. Rebuilding Airport, DeWitt and creating the as yet the unbuilt Herbison Road extension from US-27BR to Wood Road as boulevards will not only improve traffic flow and safety, but will also serve to give DeWitt Township a more clearly defined regional identity.

The Township will carefully monitor improvements at Capital City Airport. A proposed new terminal building near the current intersection of State Road and DeWitt Road will place increased emphasis on State Road between DeWitt Road and US-27BR as an entrance to the Airport. This may necessitate the expansion of State Road to as many as four lanes, in an area where existing development may make right-of-way acquisition difficult. As development is proposed at the Airport, the Township will explore the feasible roadway profiles in this area, up to and including, four lanes.

One way to acquire the needed right-of-way is to ask developers to donate it as a part of local plat or site plan approvals. In some cases, development incentives may need to be offered in the form of higher density or intensity of use of the site in order for the donation to be made. In other cases where no additional development is contemplated, the Township may need to buy it, and a fund should be created soon for that purpose. Clear guidelines for the circumstances under which Township funds will be used to purchase right-of-way will also need to be created. Opportunities to use federal, state and county road commission funds for obtaining the needed right-of-way should be actively sought. The Township should work cooperatively with all road authorities and developers to ensure that actual road improvements are paid for using funds from road authorities and developers wherever feasible. The Township may need to assist road authorities with the process of applying for and securing these funds, especially when discretionary and/or competitive.

Similarly, the Township will need to review the setback standards in all districts and establish greater setbacks on those roads which are planned for a wider right-of-way, so there is still an appropriate setback once the planned road segment is constructed. No arterial or collector right-of-way should be planned for less than 100 feet in width. This permits not only a five-lane roadway, but also space for separated sidewalks/bike paths on both sides. That would mean minimum setbacks that are now 35 feet from an existing 66' right-of-way, would need to be 35 feet from a future 100' right-of-way, or 17' more on each side than now.

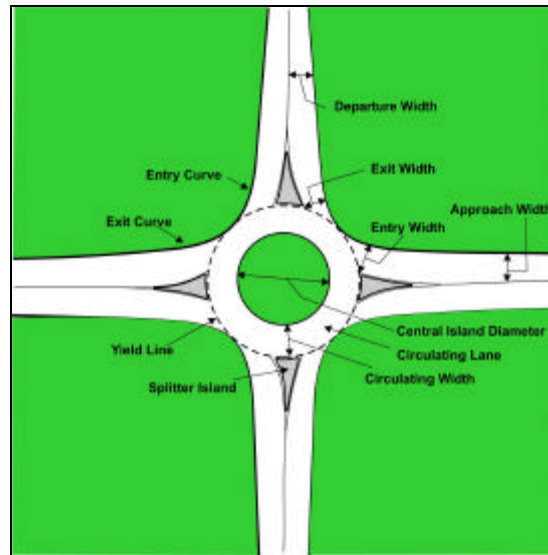
In some locations, existing development near the road will make it difficult to acquire the additional right-of-way needed to widen roads and add capacity. It may be appropriate to consider a major tree planting effort along these roadways as an alternative to road widening. A substantial tree canopy can have the effect of "calming" traffic, encouraging drivers to lower speeds and choose alternate routes with greater capacity. A major tree planting effort will have the additional benefit of helping the Township to retain its rural character.

In addition to the lane additions noted above, major intersection improvements will also be needed. Roundabout designs should be seriously considered in some locations. They are much safer and move traffic better. However, they require more right-of-way and

may cost more to create. As the above road improvements are made, roundabouts should be studied for placed at the following intersections:

- DeWitt Road and Stoll Road.
- Round Lake Road and US-27BR.

Figure 6-2
Roundabouts should be Considered for Some Locations



Graphic by Planning & Zoning Center, Inc.

The border roads of Airport Road and Chandler Road, should be carefully watched for volume increases, and measures taken to plan for road improvements long before any improvement work actually begins. DeWitt Township will need to work closely with its neighbors to maintain the efficiency of the circulation system, especially along boundary roads or traffic will use other routes to cut through the Township.

As mentioned earlier, access management plans are recommended for the following road segments and property along all roads in the Township should be required to conform with state, county and Township access management regulations.

- US-27BR north of Webb Road to Round Lake Road
- US-27BR south of Solon Road to Sheridan Road (perhaps in two segments)

Any access management study in these road segments should be done in concert with other studies conducted in the special planning areas described in Chapter 4.

As previously recommended, access control standards should be designed to regulate and coordinate access to undeveloped land along US-27. These standards should address such items as driveway placement, width, and number; acceleration and deceleration lanes; driveway distance from intersections; joint driveways; frontage roads and service drives; and pedestrian movement. In establishing access control standards, the Township must enlist the support of Michigan Department of Transportation officials in jointly reviewing site plans for new developments so that the access control standards developed by the Township can be implemented.

It will also be important to continue to require that each new development have a road and pedestrian system that connects to abutting property. If there are existing stub roads, they need to be connected to, and if the abutting property has not yet been developed, stub roads need to be appropriately designed and constructed.

Private Roads

Private roads are only permitted in site condominium developments, multi-family developments and the new Planned Office Development zoning district. They must be constructed consistent with County Road Commission standards.

Transit Services

When Township residents express a sufficient demand for expanded transit services, the Township will work with the Clinton Area Transit System (CATS) and Capital Area Transit Authority (CATA) to explore scheduled bus service in the Township. It is recommended that all new development along major arterials and collectors, particularly US-27BR be reviewed to ensure that it is transit friendly, and includes locations for future transit stops. Appropriate provisions should be placed in the Zoning Ordinance site plan review standards to ensure such a review takes place.

Public Sewer & Water

Map 2-12 illustrates the present extent of public sewer service in the Township while Map 2-11 depicts the service area for public water. Large areas of the Township remain unserved with either public sewer or water. As was noted earlier, it is the Township's policy that the costs of infrastructure associated with new developments will generally be paid by the developers of those projects. Among the exceptions to this policy are instances when issues such as topography make it impractical for developers to accomplish the infrastructure extension without assistance from the Township. For example, the Township has been planning the extension of sanitary sewer (and coordinating the extension of public water) along US-27BR due to the topography associated with the Looking Glass River

While the Township will continue to plan for the eventual extension of these utilities along US-27BR, it does not appear that there is an immediate need to proceed with an expenditure of public funds for the project, based on the following observations:

- There is a considerable amount of land along and adjacent to the US-27BR corridor that is planned and/or zoned for commercial use, that is presently served with public water and sanitary sewer, and is undeveloped or underdeveloped.
- There is also a considerable amount of land just north of Webb Road along the US-27BR corridor that is planned for commercial use that can be served with privately funded extensions of public water and gravity sanitary sewer.
- Last, there is a considerable amount of land in the Township off from the US-27BR corridor, such as at the intersection of Clark and Airport Roads, that is planned and/or zoned for commercial and office uses, already served with public water and sanitary sewer, and is presently undeveloped.

It is important that development utilize this existing infrastructure before the Township invests public money into new extensions. The Township will continue to use its annual Capital Improvement Program (CIP) process to identify the areas in which public sewer and water will be extended.

Above-Ground Utilities

Utilities that are placed above ground on utility poles can have significant aesthetic and economic impacts on an area. The Township will explore programs to encourage, and perhaps require, existing and future electric, telephone, cable, telecommunications utilities to be placed below-ground.

Fire and Police Services

The Township has recently completed thorough reviews of its fire and police services. In 2003, the Township completed the *Fire Department Apparatus Study* to examine apparatus needs and staffing levels for the department. The Township has already begun implementation of the study by making necessary apparatus purchases and implementing a firefighter recruitment and retention program.

In 2004, the Township partnered with the city of DeWitt to examine police services in the two municipalities. The two communities formed a joint Police Services Exploratory Committee to review the manpower, equipment, and services of the two departments. The Committee considered options for delivery of services, including joining the two departments together and partnering with the Clinton County Sheriff's Department. The Committee completed its *Study Regarding Police Services Options* in May of 2004, concluding that the two departments function very efficiently and recommending that the departments remain autonomous, but explore joint training and equipment purchases to further increase efficiencies.

Greenspace, Parks, Open Space

The Township should move forward soon with the development of a Greenspace Plan that identifies both passive and active greenspace areas and connections between them. Connections should range from sidewalks to bike trails to walking paths and simply natural animal corridors. As new residential development occurs in the Township, it will also be necessary to ensure that each new development is contributing to meeting the need for future parks and open space, and for connections to the greenspace system. This can be done by requiring the need to be met with private recreational facilities on site, by building connecting trails or pathways, and/or by permitting developers to contribute land or money to public recreational facilities to be constructed in the area. Of course, this means the Township needs to be vigilant about tracking growing recreational needs and acting long before the need is acute to acquire key property for recreation, permanent open space, or trails. This effort should be a tandem effort with the load carried by both the Planning Commission and the DeWitt Area Recreation Authority (DARA). The Township Park Plan should continue to be updated at least once each five years and the Township should be vigilant in watching for federal and state grant programs to help meet local recreation needs.

Photo 6-2

Develop Greenway Connections such as this one in Western Michigan



Photograph by City of Grand Rapids Park and Recreation Department

SUMMARY OF PUBLIC LAND INVESTMENTS

Many of the public infrastructure investments in this chapter will require public land investments by the Township to become a reality. Notable among them are the following:

- Acquisition of right-of-way for future road improvements where the land is not donated by the landowner or developer, nor acquired by the road authority;
- Public parks;
- Trails, where land or easements are not donated.

These investments need to be included in the annual Capital Improvement Program (CIP) the same as any other infrastructure investment. The Planning Commission should always review all proposed capital improvements for consistency with this Plan, as required by the Township Planning Act, prior to approval of the CIP by the Township Board.