

WASHINGTON TOWNSHIP

COMMUNITY FACILITIES ANALYSIS

SECTION 7.0

INTRODUCTION

Community facilities are an important part of a municipality's overall development and, consequently, need to be considered in the preparation of the Master Plan. Those community facilities considered in this report include schools, parks, utilities, protective services, libraries, and other municipal buildings.

Each of these facilities has an impact on the community's future land use pattern and are important to the operation of a community. These facilities also make a significant contribution to a community's overall identity. Often, the impression created by a particular community is directly related to its municipal buildings, schools, parks, libraries and other public buildings. This is particularly true for those suburban communities where development is dispersed over a large geographic setting, as compared to the more compact physical form of many older cities.

Some types of community facilities, particularly schools and parks, have acreage requirements that need to be considered during the Master Plan process. It is desirable to allocate land for these facilities as a community grows so that neighborhoods are not left deficient in community facilities at the time of total development. Considering these needs as part of the community's total development offers a practical basis for a community to address these needs during the budgetary process.

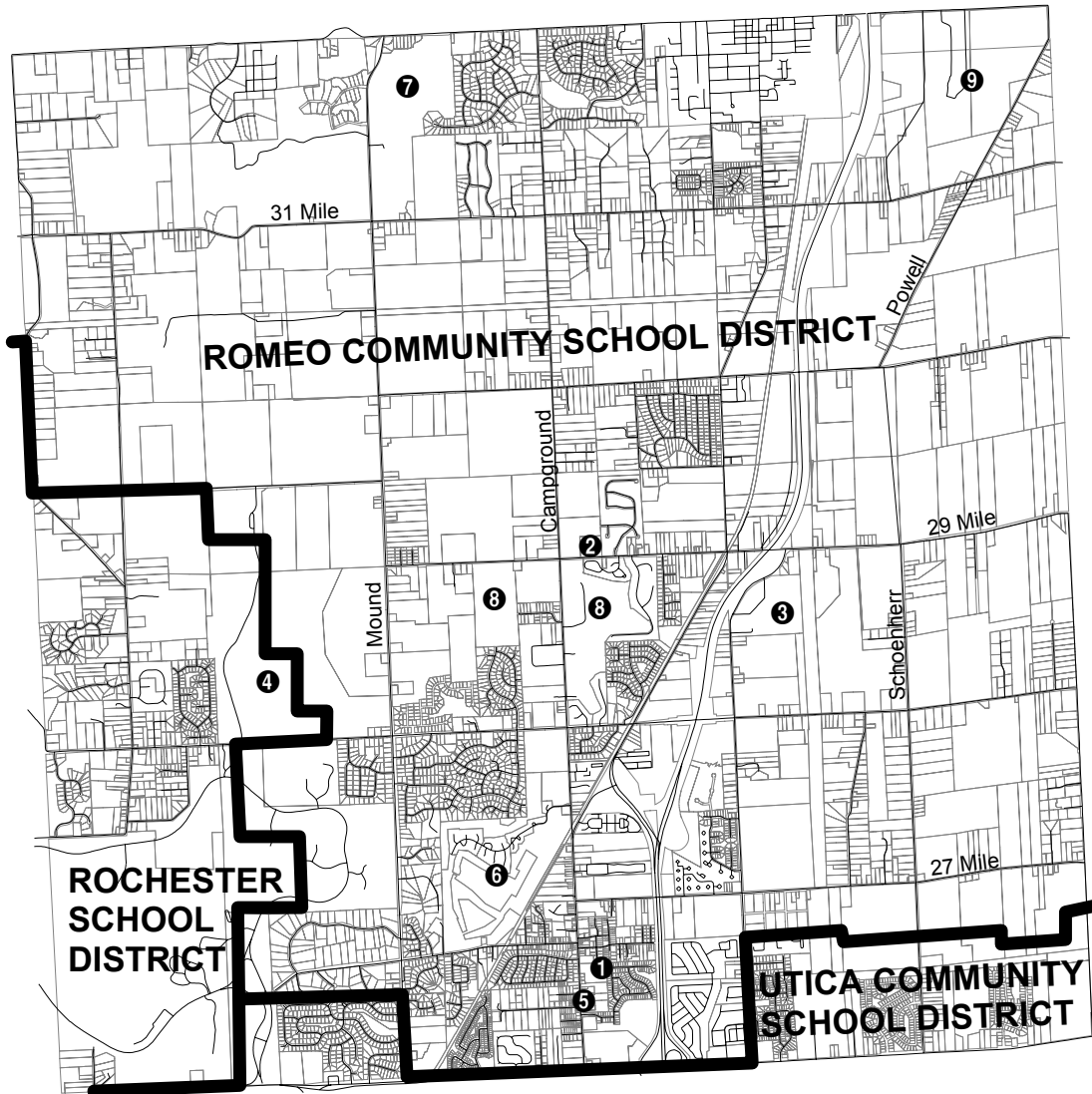
In 1999 and 2005, Washington Township partnered with Bruce Township and the Village of Romeo to complete a Recreation Plan. Much of the Community Facilities section is based on the results of these combined efforts, while also taking into consideration the specific goals developed by Washington Township during the development of the current Master Plan.

SCHOOLS

While the Township has no control over school operations or functions, school needs, particularly the location of schools, impact the community's overall land use plan. Schools are, therefore, considered as part of this analysis for coordination purposes.

Three school districts serve Washington Township. The Romeo Community School District covers the largest portion of the Township, with the remainder of the community divided among the Rochester and Utica Districts. Rochester Schools serve the part of the Township lying west of Stony Creek Metropark and south of Inwood Road. The Utica District serves only a small portion of the Township along 26 Mile Road (see Illustration 22).

The Romeo District operates three school sites in Washington Township. These three sites include three elementary schools and one middle school. A vocational school for high school students is also located at the 29 Mile and Jewell Road site. The District's remaining schools are located in the Village of Romeo, Bruce Township and Addison Township. The characteristics of the four schools in Washington Township, including the original date of construction, building additions, the number of classrooms, estimated classroom capacity and current enrollment levels, are reflected in Table 35.



ROMEO SCHOOLS

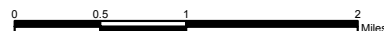
- ① Washington Elementary
- ② Indian Hills Elementary
- ③ Powell Middle/Hevel Elementary

PUBLIC PARKS

- ④ Stony Creek MetroPark
- ⑤ Washington Community Park

PRIVATE RECREATION FACILITIES

- ⑥ Glacier Club Golf Course
- ⑦ Greystone Golf Course
- ⑧ Orchards Golf Course
- ⑨ Romeo Golf Course



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TABLE 35

WASHINGTON TOWNSHIP
EXISTING SCHOOL FACILITIES

<u>Romeo Community Schools</u>	<u>Built</u>	<u>Additions</u>	<u>Classrooms</u>	<u>Capacity</u>	<u>Enrollment</u>
Washington Elementary	1951	1954, 1971, 1991	23	575	484
Indian Hills Elementary	1965	1967, 1991	22	550	470
Hevel Elementary	2002	N/A	23	N/A	423
Powell Jr. High	1973	1991	31	853	624

Continued household and population growth in the District, especially the Washington Township portion of the District, may require the eventual acquisition of land and development of a high school. The Romeo Engineering and Technical Center, on the same site as Hevel Elementary, could eventually function as a second high school for the District. The need for a second high school may not be necessary for another 15 to 20 years. Development trends within the Township and enrollment levels should be monitored to provide the necessary coordination between school needs and future land use patterns.

PARKS AND RECREATION

Administrative Structure

The Romeo-Washington-Bruce Recreation Commission is a public agency, formed by both Bruce and Washington Townships, which is responsible for providing recreation services to area residents. The purpose of the Commission is to promote, plan, coordinate and operate a system of indoor and outdoor public recreation programs and facilities for all residents of those areas encompassed by the boundaries of Bruce and Washington Townships along with the Village of Romeo. The Commission was organized pursuant to Public Act 156 of 1917.

The Commission consists of one Township Board representative from Bruce and Washington Townships. The administrative duties of the Commission are the responsibility of the Director of Parks and Recreation, who answers directly to the Commission. A Recreation Coordinator, Program Supervisor, a Senior Program Supervisor, and a Senior Citizen Coordinator, all of which are full-time positions, assist the director. Other full-time staff include a bookkeeper and two secretaries. The STAR Transportation program also has a full-time coordinator, who is responsible to the Director. The Director is also assisted by a number of permanent part-time and temporary staff who direct many of the individual programs offered by Parks and Recreation.

The duties and responsibilities of the Recreation Commission have evolved and expanded since its initial formation in 1968. Today, the Recreation Department is responsible for the coordination and delivery of recreation services and programs available to residents of all three communities. Its main responsibility lies in the area of recreational programming. The Department offers a diverse range of programs, which feature instructional classes, athletic competition and special events for all age groups. These programs change from time to time to reflect both the needs and preferences of area residents.

The Department operates two Older Adult Centers, one at The Romeo Community Center and the other at the Washington Township Municipal Building. Both centers focus on the needs of senior citizens. Programs offered by these centers emphasize the recreational, nutritional and health needs of senior citizens. Transportation services for seniors are provided by the STAR transportation program, which offers door-to-door transportation for eligible seniors or handicapped residents. A separate millage supports this service.

While the Recreation Department does not own any recreation sites, they assume responsibility for maintaining two (2) buildings, twenty seven (27) baseball/softball diamonds, nine (9) soccer fields, four (4) basketball courts, two (2) walking tracks with exercise circuits, two (2) tennis courts, one (1) sand volleyball court, and playgrounds available at several park and school sites throughout the communities. The Recreation Department also works with several local athletic leagues, which administer little league baseball, soccer, football, and softball programs.

Recreation Inventory

Five publicly-owned sites offering varying levels of recreation opportunities are available in Washington Township. The characteristics of each site are described below:

Washington Community Park - This 8-acre park site directly behind the Township Municipal Building is located on Van Dyke, north of 26 Mile Road, in the Washington Village area. The park was constructed at the same time that the Township offices were built in 1991. The park features two tennis courts, an asphalt walking path around the perimeter of the park, a playground with play equipment, two soccer fields, a gazebo and landscaped amphitheater. The park shares parking with the Township offices. The Washington Lions Club and Washington Elementary School occupy neighboring parcels to the north and west of the park. The Washington Township Municipal Building also includes a senior citizen center, which is programmed by the Recreation Department.

Washington Elementary School - The school is located on a 12.8-acre site in the Washington Village, adjoining the Township park site described previously. This site includes a large open area behind the school building that can accommodate a range of recreation opportunities. Facilities available at this site include playground equipment, a basketball court, baseball diamonds and large open play area. The school includes a gymnasium and stage. The site is adjacent to the Historical Museum and Jacqueline Merritt Cultural Center.

Indian Hills Grade School - This school site is located on the north side of 29 Mile Road, between Campground and Van Dyke. The school is located on a ten-acre site, which also includes modern playground equipment, an open play area, soccer field and a baseball field. The school building also includes an indoor gymnasium. This site is characterized by varied topography, which creates opportunities for different types of recreation activities that may not be equally available on a more level site. This facility is somewhat isolated from established residential neighborhoods.

Gilcher Crissman Park

This 40 acre site was acquired by the Township since the adoption of the last RWB Recreation Plan. This site has been developed with a total of eight (8) soccer fields and two (2) baseball diamonds. A large gravel parking area was also constructed at the entrance of the site. Future plans have called for the construction of a major indoor recreation center on the site.

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Powell Junior High School/Hevel Elementary/Barnabo Field - These facilities share a common 30-acre site located on the east side of Powell Road, south of 29 Mile Road. The Barnabo Field complex includes a football stadium, track, several baseball diamonds, a basketball court and two tennis courts.

Senior Citizen Centers - Two senior citizen centers are available for Township residents. One of these is located in the Washington Municipal Building. The second is located in Croswell Center in the Village of Romeo. Both centers offer a variety of programmed activities for seniors.

Stony Creek Metropark - The largest and most dominant recreation park site in Washington Township is Stony Creek Metropark, which is owned and operated by the Huron-Clinton Metropolitan Authority (HCMA). Stony Creek occupies 4,461 acres of land and is the single largest regional park in the HCMA system. Over 3,000 of these acres are within the Washington Township border.

The park includes a wide range of recreation facilities, which include boating, swimming, picnic facilities, golf, hiking, bicycling, golf, cross-country skiing and nature interpretation programs, among others.

Other Recreation Facilities - Aside from the public recreation sites described above, several private recreation facilities are also available in the Township. The most significant of these facilities, from a land use perspective, are the four golf courses. Both Romeo Golf and Country Club and Greystone Golf Club are located in the northern part of the Township along 32 Mile Road. The Glacier Club and The Orchards Golf Club are located along Camp Ground Road. Romeo Golf Club offers 36 holes of golf while the remaining courses maintain 18-hole configurations.

It is also important to note that the open space provision in the Zoning Ordinance has given single-family housing developers the option to include park or natural open space in their developments. Open space developments have been constructed at 28 Mile and Jewell Road and at 29 Mile and Schoenherr Road.

DEVELOPMENT STANDARDS

A community's recreation needs, both short and long-term, should be evaluated in relation to the amount of land available for recreation purposes, the types of facilities available at these sites and the range of programs and services offered to Township residents.

Several techniques are used for the purpose of projecting future needs. Frequently, these techniques rely on comparisons of existing facilities to commonly accepted standards. These standards present optimum conditions as a benchmark against which progress can be measured. The risk in using these standards is that they are not uniformly applicable to all communities and need to be adapted to the unique physical, social and economic conditions that characterize a specific community. The community's participation in other recreational facilities provided nearby also should be factored into the formula. Commonly used recreation and school planning standards are included in Table 36.

<u>School Type</u>	<u>Minimum Size</u>	<u>Pupils Ideal</u>	<u>Maximum Size</u>	<u>Acres Site Size</u>	<u>Service Area (Radius Miles)</u>
Elementary (K-6)	300	600	1,200	5+1 per 100 pupils	0.5
Junior High (7-9)	750	1,000	1,500	15+1 per 100 pupils	1.0
Senior High (10-12)	900	1,500	2,000	25+1 per 100 pupils	2.0
Elementary-Park Combination				8+1 per 100 pupils	0.5
Junior High-Park Combination				30+1 per 100 pupils	1.0
Senior High-Park Combination				35+1 per 100 pupils	2.0

TABLE 36
SCHOOL AND RECREATION
STANDARDS

SCHOOL STANDARDS

<u>Recreation</u>	<u>Acres per 1,000 Persons</u>	<u>Ideal Acres</u>	<u>Service Area (Radius Miles)</u>
Neighborhood Parks	1.0 - 2.0	5+	1/4 to 1/2
Community Parks	5.0 - 8.0	25+	1 - 2
Regional Parks	5.0 - 10.0	200	1 hr.driving time

PARK STANDARDS

<u>Recreation Type</u>	<u>Space Requirements</u>	<u>Recreation Areas</u>
Children's Play Lot (with equipment)	1 per 3,000 persons	Neighborhood parks, school playgrounds and community parks
Tennis-Outdoor Basketball, Other Court Sports	1 per 10,000 persons	Neighborhood and community park
Swimming	1 outdoor pool/ 25,000 persons	Community park
Picnicking	1 table/200 persons	All parks
Softball	1 per 5,000 persons	Community parks

SELECTED RECREATION
FACILITY STANDARDS

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Neighborhood Parks

These sites are intended to be areas for intense recreational activities, such as field games, court games, crafts, playground apparatus areas, skating and picnicking, among others. This type of park is optimally suited to serving a neighborhood consisting of up to 5,000 people and having a service radius of one-quarter to one-half mile. The desirable size of such a facility is approximately five acres. Between one and two acres of neighborhood park land should be provided for each 1,000 persons anticipated to reside within a given neighborhood area. Such facilities should be easily accessible to the neighborhood they are intended to serve, with consideration given to pedestrian and bicycle safety. This type of park may be appropriately developed in conjunction with an elementary school.

When neighborhood parks are developed in conjunction with elementary school sites as shared school/park sites, they have many inherent advantages. These include reduced land costs and economies of scale relative to both development and maintenance. Joint use arrangement avoids duplication of services and requires less total acreage than developing each facility independent of one another.

Community Parks

These parks customarily include areas suited for intense recreational facilities, such as athletic complexes and large swimming pools and are frequently areas of diverse environmental quality. They may also feature an area of natural quality for outdoor recreation activities, such as walking, viewing, sitting and picnicking. Community parks are intended to serve several neighborhoods located within a one to two-mile radius and should be easily accessible to these neighborhoods.

Community-wide recreation needs are examined by comparing anticipated recreation needs to the availability of existing Township or school-operated facilities. Ideally, community parks should be provided at a ratio of between five and eight acres per 1,000 persons. Applying these standards, a population base of 20,000 yields an estimated demand of between 100 and 160 acres. Continued growth will escalate this demand further. The Township does not own or operate any existing community park sites. Stony Creek Metropark, while technically classified as a regional park, provides many of the recreation facilities commonly found at community parks.

RECREATION PLAN

The previous analysis offers an evaluation of anticipated future recreation needs on the basis of commonly accepted planning standards. These estimates, however, need to be evaluated in relation to the Township's existing and proposed development pattern and the availability of other recreation opportunities in the Township and in nearby communities.

As population and housing growth continue, there is frequently an expectation on the part of residents for those services customarily available in a more suburbanized setting. The availability of parks is among the type of services that is frequently requested and expected by residents. Parks and recreation services can also make a significant contribution to the community's overall quality of life.

The purpose of the Master Plan is to consider the Township's recreation needs on a long-term basis. The longer view is necessary, especially for considering land acquisition needs. Land required for any future park sites should be identified and acquired before choice sites are committed to other uses. Acquisition of needed acreage at a later date, when the development pattern is set, is frequently more expensive than when it is done earlier in the development process.

While the Plan anticipates a broader role for the Township as a recreation provider, it recognizes the financial limitations accompanying such an expanded role. To lessen the financial burden of an expanded recreation role and to avoid an unnecessary duplication of services, the Plan promotes the need to foster cooperative arrangements with other recreation providers, especially the Romeo Community School District, Huron-Clinton Metropolitan Authority, and the State of Michigan.

Neighborhood Parks

Because of the low densities in many of the Township's residential developments and the character of many of these areas, it may not be practical or desirable to plan for a park in each neighborhood. However, the plan recognizes the potential for individual parks being provided for each subdivision as part of the open space development process. From a Township initiated standpoint, a more legitimate response for park planning may be for the acquisition and development of parks patterned after the existing park located behind the Township Municipal Building. Each of these parks would be located to serve existing and proposed population concentrations. Locations where additional park sites may be needed are identified in Illustration 23. Specific site locations are not indicated on the Plan to allow the Township to respond more freely to acquisition opportunities.

Each neighborhood park site should occupy between five and ten acres of land and include similar types of facilities, such as playground equipment for children, picnic tables, walking paths, ballfields, open play areas, landscaping and tennis courts, among other improvements. The design of each site should be related to the characteristics of the selected site and the preferences of neighborhood residents.

Community Parks

Neighborhood parks are often not adequately equipped to provide for organized athletic and sporting events. The Recreation Plan should provide a site that can accommodate the more intense recreation activities commonly found at community park sites. A practical and desirable location for this type of park is the Barnabo Field Athletic Complex, located on Powell Road south of 29 Mile Road. This site already contains several community-wide recreation facilities and could possibly accommodate future expansion, as necessary. For example, this site would be appropriate for a softball/baseball complex to accommodate league play. This site is buffered from surrounding land uses by the M-53 Freeway and the Detroit Edison Corridor, thereby minimizing any compatibility or nuisance concerns, especially if the ball fields are lighted.

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Regional Parks

The location of Stony Creek Metropark in Washington Township offers numerous benefits for the long-term development of the community. The foremost advantage of the park is the varied recreational facilities that are available in the park. To some extent, Stony Creek partially satisfies the Township's need for additional community park acreage. Additionally, the Huron-Clinton Metropolitan Authority's extensive land holdings in the Township effectively preserve many of the community's unique natural features, including the Stony Creek drainage basin and the woodlands and wetlands associated with this water course. The park, therefore, makes a significant contribution to maintaining the Township's rural character. For these reasons, the Master Plan encourages the continued use and development of Stony Creek as a regional recreation facility.

Pedestrian/Bicycle Circulation

The Township currently lacks a comprehensive system of sidewalks providing for pedestrian circulation throughout the area. A network to accommodate pedestrians is necessary for two reasons: 1) to accommodate walking, jogging, biking and related activities which continue to gain popularity as recreation activities; and 2) to link the existing and proposed residential neighborhoods and park sites to one another for better overall access by pedestrian means of travel.

While the ultimate goal is to provide recreational opportunities within each residential development, it is unlikely that each neighborhood will contain its own park site. Residents, especially children, therefore, need a safe and convenient means of access to parks located outside of the boundaries of their own neighborhoods. In some instances, the connection could consist of a five-foot wide sidewalk. In other cases, a wider path may be needed. The Macomb Orchard Trail will be established along the Grand Trunk Western Railroad Corridor which runs north and south through Washington and through the southern section of Romeo. In the fall of 1998, the railroad was granted an abandonment of the rail line starting at the southern end of Washington Township and running north and east to Richmond Township. This project will not only provide a link between Romeo and Washington, but at a much more regional scale it will allow for a connection to Richmond to the northeast and ultimately Oakland County and the already established Paint Creek Trail System to the southwest.

This regional railway will also link into the 26 Mile Road Trailway. The trailway is nearing completion within the western half of the Township and will ultimately tie into the Stony Creek Metropark Trail. Currently, only two sections of the trail between the Grand Trunk Western Railroad and Stony Creek Metro-Park are unfinished. The first incomplete section is at the northeast corner of 26 Mile Road and Mound Road. This section is currently in the planning and engineering stages. The second section of unfinished trailway is along the TRW Technology Park site and will tie into the Metro Park Trail. This site contains severe topography, which may hinder the placement of a trail directly adjacent to 26 Mile Road.

This regional trail should also provide connections to the other local community and neighborhood parks. This will provide for a more complete system and allow the opportunity for more residents to use these facilities. This trailway coincides with the Greenways Corridor Plan which has been adopted by Macomb County and the other members within SEMCOG. A more comprehensive look at the greenway and linkages plan is located in the Land Use Plan section of this document. The plan proposes a number of greenways connecting primary activity nodes in the Township.

Recreation Programming

Recreation administration and programming are addressed by the staff of the Romeo-Washington-Bruce Recreation Department. By serving three communities, the Department achieves certain economies of scale that would not be possible if each community operated their own recreation programs. This shared arrangement is both efficient and effective and avoids unnecessary duplication of effort. The Master Plan, therefore, encourages the continuation of this arrangement in the future.

Golf Course Development

A total of four golf courses with ninety holes of golf are currently available in the Township. Township residents who golf will enjoy convenient access to several courses offering varying levels of difficulty. The benefits of these golf courses, however, go beyond their value as a recreational asset. While golf course construction requires some alteration of the site's natural features, the completed course more-or-less maintains the open natural character of the site which is an advantage to golfers and non-golfers. Golf courses, therefore, contribute to the visual character of the community.

Another advantage of golf courses involves the type of development that occurs on property surrounding these courses. Golf course developments often include plans for residential home sites that have views of the course. Frequently, these homes are more upscale in character and help achieve the residential development goal of encouraging quality housing.

Implementation

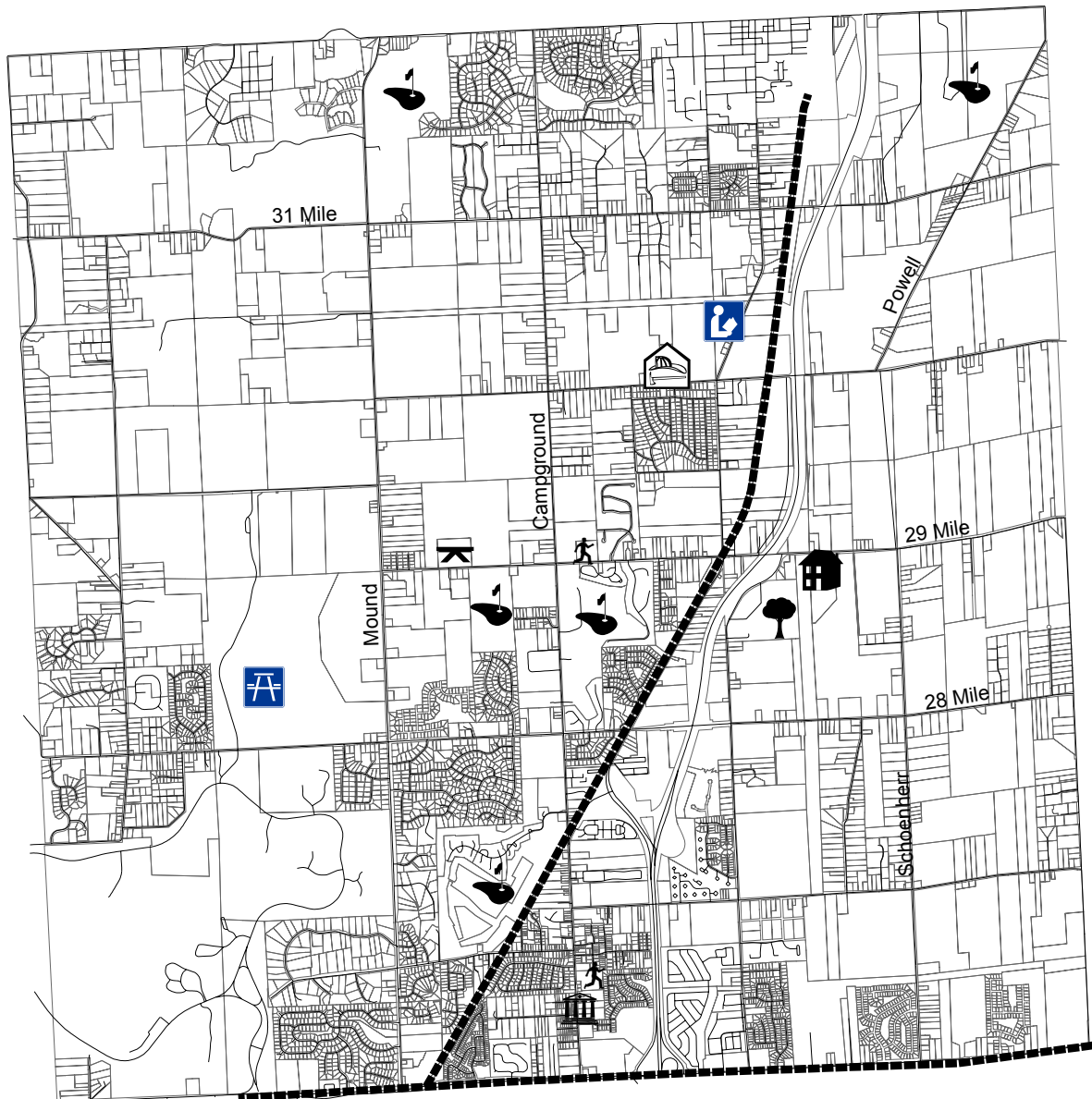
Clearly, the greatest recreation challenge facing the community in the near future is the need to acquire additional land for recreation purposes. As observed earlier, sites should be acquired before, or in conjunction with, the development process. The acquisition of local park land remains a Township responsibility. While the Romeo-Washington-Bruce Recreation Commission is the programming and administrative arm of the community for recreation purposes, it does not have any authority to purchase land on its own. It is, therefore, necessary that the need for future park sites be reflected in the Master Plan and mechanisms put into place to secure needed sites.

Several alternatives exist to accomplish this. First, property could be purchased by the Township, with funds budgeted for this purpose by the existing recreation millage. It is also possible to use these millage dollars to leverage additional funding in the way of matching grants available through an annual recreation funding program available through the Michigan Department of Natural Resources. Finally, the Township could explore administrative or regulatory tools that could be used to provide park sites as part of the land development process. Some combination of techniques may offer the best possible solution to this problem.

LIBRARY

Libraries are sometimes given a lower priority in municipal development. However, libraries, together with recreation programs, form an integral element in the character and reputation of desirable communities. Libraries today provide a diverse range of services that touch a broad spectrum of the community, including children and adults as well as business and industry.

ILLUSTRATION 23
COMMUNITY FACILITIES
PLAN



- | | | | |
|---|-----------------------|---|---------------------------------|
|  | Township Hall |  | Regional Park |
|  | Fire Station |  | Community Park - Barnaboo Field |
|  | Proposed Fire Station |  | Community Park - Gilcher |
|  | Library |  | Neighborhood Park |
| | |  | Golf Course |
| | |  | Trails |



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Community Facilities Plan prepared by Washington Township

Washington Township and the neighboring communities of Bruce Township and the Village of Romeo cooperate to provide library services to residents in all three communities. A new library, constructed in 2000, is located north of 30 Mile Road on Van Dyke and has replaced the library in the Village of Romeo as the main branch. After construction of this facility was complete, the existing library in the Township Municipal Building was closed. Funding to operate the system is provided through a special millage. A total of one mil is assessed annually on all property within each community. This millage was approved by voters in 2000 and is valid for ten years. This principal funding source is supplemented by grants and penal fines.

The library system has a book collection equal to approximately 298,129 volumes. This number does not include magazines and audio-visual material, which the library also maintains. The main branch occupies a total floor area of 20,000 square feet. Two full-time and two part-time staff operate this site. Library staff offer a variety of programs for area residents, including story hours and summer reading programs.

Since the new main library was opened last year, circulation has increased steadily. In 2000-01, for example, circulation totaled 78,322 volumes, an increase of almost 20,000 volumes from ten years ago. The burgeoning population in Washington Township can explain the increase in circulation.

POLICE

Washington Township does not provide community-wide police services. Law enforcement is provided to Township residents by the Macomb County Sheriff and the Michigan State Police. The State Police offices have relocated to Richmond from their previous station located in downtown Romeo.

If the Township continues to grow as previous projections would indicate, there may be a need to consider the expansion of police services. Expanded service could be provided by the Macomb County Sheriff's Department on a contractual basis. Shared arrangements with neighboring communities should also be explored, where practical and cost effective. The Township is considering an arrangement with the County Sheriff to assist the Township on ordinance enforcement.

FIRE

The Washington Township Fire Department provides emergency services and fire protection to Township residents. The Fire Department consists of a full-time chief, six full-time firemen/medics, and a full-time dispatcher/secretary. Twenty-eight (28) part-time fire-fighters augment the full-time staff. Two fire stations support the full and part-time staff. The Department headquarters is located on Wicker Street in the Washington Village area. A second station is located on 29 Mile Road, between Van Dyke and Campground Road.

An inventory of Department vehicles is as follows:

- 2 fire engines
- 2 water tenders
- 2 aerial trucks
- 2 grass fire trucks
- 1 rescue truck
- 3 ambulances
- 1 echo unit (non-transport life support).

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The Fire Department is financed through a Township-wide Special Assessment District. Each year, the Department prepares a budget which is approved by the Township Board. These costs are then assessed against all property owners. A separate millage provides funding for the Department's EMS units.

Future Facility Needs

Expansion of the Fire Department will be necessary to accommodate the future land use pattern shown on the Master Plan. For example, there will be a need to consider the development of two additional fire stations to serve the Township at capacity development. One station is currently in the planning stages at 29 Mile Road and Jewell Road to serve the areas east of the M-53 Freeway.

The northwest portion of the Township is currently not served by public water. The absence of public water in this area further supports this location as an earlier priority. The ideal site should be between five and ten acres and provide an area that could be used for training purposes. The construction of a training tower should also be considered for this site. It may be appropriate to approach the Huron-Clinton Metropolitan Authority (HCMA) regarding the availability of a suitable site in the northwest portion of the Township. HCMA owns more than 3,000 acres of land in the west half of the Township where a new station could be located. The Fire Department provides fire and emergency services to the Metropark which services a regional population base. A location on Inwood Road or Mt. Vernon could accommodate this need.

Both stations will require a minimum of six full-time fire fighters and 20 part-time staff. One engine and one tanker are necessary to equip each site.

Other Needs

Meeting the Department's personnel needs, particularly the part-paid staff, is a recurring problem. In spite of an increasing population, recruiting part-time volunteers remains difficult.

As new construction continues in the community, it is important that the Fire Department be involved in all phases of the development review and approval process. During site plan review the Fire Department should be involved to assure that adequate access is provided to all new developments. Providing multiple access points and connections between existing and proposed development is necessary; in the event that one entrance is blocked, another route may be used. Therefore, long dead-end roads should be avoided.

Copies of approved site plans should be provided to the Fire Department for inspection purposes and for building inspection purposes. The Fire Department's file should also include the hazardous substances reporting form.

UTILITIES

Public utility systems, namely the provision of sanitary sewers, public water and storm water drainage, represent an important element of a community's future growth plans. Public utilities are a prerequisite for most forms of development, particularly development of an urban character or intensity. Consideration of utilities is relevant for planning purposes for several reasons. Foremost, the availability of utilities, or their absence, will ultimately determine the intensity of growth in the community. Decisions on utility extensions can also be used to control or direct growth to specific areas of the community. Installing and maintaining utilities also have long-term financial implications for a community. This portion of the Community Facilities section of the Master Plan broadly considers the general characteristics of Washington Township's public utility system and the influence the system will have on the future development pattern portrayed in the Land Use Plan.

Public Water

The Township's public water supply is provided by the Detroit Water and Sewerage Department (DWSD), which is a regional system serving large portions of the Metropolitan Detroit Area. The source of this supply in the Township is the 96-inch water main paralleling the Grand Trunk and Western railroad track. This main is supplied by the DWSD plant in Port Huron. Taps are available at three locations along this transmission line in Washington Township.

Water service to existing homes and businesses are confined principally to the central portion of the Township between 26 Mile Road and the area just south of 31 Mile Road. The system extends service to the Washington Village area and development along 26 Mile Road, generally between Jewell Road and the entrance to Stony Creek. Service is also provided to the shopping centers located on opposite sides of Van Dyke between 30 and 31 Mile Roads.

In 2000, the Township Engineers prepared a long-range plan for future extensions of the Township's water system (Illustration 24). The plan "provides an overall transmission system to serve the community when it is developed to its full holding capacity. The resulting water distribution plan anticipates the eventual extension of water lines throughout the entire Township with the exception of Stony Creek Metropark.

Sanitary Sewers

History

Sanitary Sewer service in Washington Township was initiated by order of the State Health Department in 1971, due to the failure of numerous septic systems existing in the central area of the Township. Since there had been no plan to provide such service, there were no funds available to pay for the installation of the initial system. As a result, the Township was placed in debt for several years to cover these costs. Once service became available, the Township Engineers prepared a plan projecting areas of potential service. This plan has been revised several times over the years to accommodate changing growth patterns, as well as changes in utility expansion policy.

Washington Township does not have a direct connection to the County sanitary sewer system, which increased initial installation costs and continues to affect the cost of serving the Township. The Township is responsible for three miles of off-site sanitary sewer running south on Hayes from 26 Mile to 23 Mile Road. From that point, Washington utilizes sewer lines owned by Macomb Township and Macomb County. Based on these factors, Township Engineers recommended that the Township acquire additional sewer capacity from downstream agencies.

At the same time the recommendation to acquire additional capacity was made, Macomb County proposed the construction of the Garfield Interceptor Sewer, requiring commitments from the affected municipalities for the amount of capacity needed. Township Officials were placed in the position to decide how much capacity to purchase, or lose the opportunity of ever increasing the available capacity for Washington. With input from the Township, the Township Engineers prepared a map showing future sanitary sewer lines and service districts considering such issues as; existing zoning, topography, and soil conditions. This map (see Illustration 25) is based on all recent decisions regarding sanitary sewer service and is the basis for the current sewer benefit fee structure. The fee structure was calculated to cover the costs of installing the sewers shown on the future service map, as well as the cost of the Township's portion of the Garfield Interceptor.

Factors for Consideration

Washington Township is generally split into two drainage districts, with approximately the eastern two-thirds of the Township draining from northwest to southeast. The remainder of the Township drains towards the southwest and Stony Creek. This area is past the ridge line and has never been included in any sanitary sewer district map because the area would require pump stations. Pump station failure is the main cause of sewer backups and consequently, the Township has followed a policy of avoiding new pump station construction and eliminating existing pump stations.

The area east of the ridge line is split into two general sewer districts, the existing “central district” and the proposed “eastern district”. As shown on the soil suitability map (see Illustration 7), the soil types in the eastern district are almost all listed as having severe limitations for septic systems. These soils are as bad, or worse than the soils in the areas where septic system failure caused the State to order sewer installation. This fact, combined with the general topography of the land, was the basis for locating the proposed sewer lines as shown on the map. It was recommend that the Township plan to provide sewer service to areas with severe soil conditions in order to avoid the potential for another major debt in the event that the State were to order service to those areas in the future.

The size of the proposed sewer was based on the master plan designations described later in this report. Substantial changes to the proposed density within each subdistrict will have a major impact, not only on the size of the proposed sewer serving that district, but also on the ability to provide service to other areas within the district. The Township has purchased a finite amount of sewer capacity which must be allocated in such a way that all future needs are met. If, for instance, the population density within a certain area were increased, a corresponding area must have its population density decreased so that the Township does not exceed its contractual capacity.

Any sewer system is, and must be, somewhat flexible in order to accommodate development as it occurs, while at the same time channeling growth into areas meeting the Master Plan of the Township. One factor contributing to the flexibility of the sewer district is the need for “relief line” construction. Relief lines are designed to reroute flows that otherwise would lead to sewer overloads when development is complete. These lines are also constructed in order to eliminate pump stations, which increases the reliability of the overall sewer system. Relief lines are needed in certain areas within the Township, and one major relief line is currently being designed. This will allow the pump station on 28 Mile Road and Van Dyke to be eliminated.

A Utility Master Plan is an important part of any municipal master plan for a variety of reasons. It allows the Township to decide in advance what areas of the Township will be served, and predicts the necessary route and size of piping to adequately serve those areas. Utility planning must be done hand in hand with overall density planning in order to assure that the pipe sizes selected are appropriate to handle the potential population of the area. A variety of factors must be considered in any utility master plan, including topography and soil conditions, proposed population density, and availability of service at the point of outlet.

The sewer system serves the 26 Mile Road corridor and Washington Village area extending north to 28 Mile Road, with connections provided to Carriage Hills No. 6 and Woodfield Subdivisions. The sanitary sewer expansion plan calls for a 36" Trunk Line between 26 and 29 Mile Road along the eastern border of the Township, with a change to a 30" Trunk Line between 29 and 31 Mile Road. The plan also proposes a sewer line expansion along each major mile road in the eastern part of the Township. The proposed expansion will have a significant impact on future land use trends in the area and will allow for a dramatic increase in residential density in the eastern third of the Township.

SECTION 7.0

Storm Water Drainage

One consequence of new development is an increase in the amount of impervious land surface and the need to accommodate storm water runoff. This concern will intensify as new homes and streets are built. Storm water that is allowed to flow randomly and uncontrolled can create a blighting influence for surrounding property. The Township Board authorized the Township Engineer to prepare a storm drainage plan for the community. The first phase of this project addresses the storm water drainage needs in the southern portion of the Township. A principal goal of this plan is to determine how much storm water retention is needed to contain anticipated runoff. Whenever possible, future storm water retention improvements should be designed as a development amenity with the capacity to be used for multiple purposes including recreation. This plan will provide the broader context within which to evaluate the specific storm water retention needs of individual projects.

CONCLUSIONS

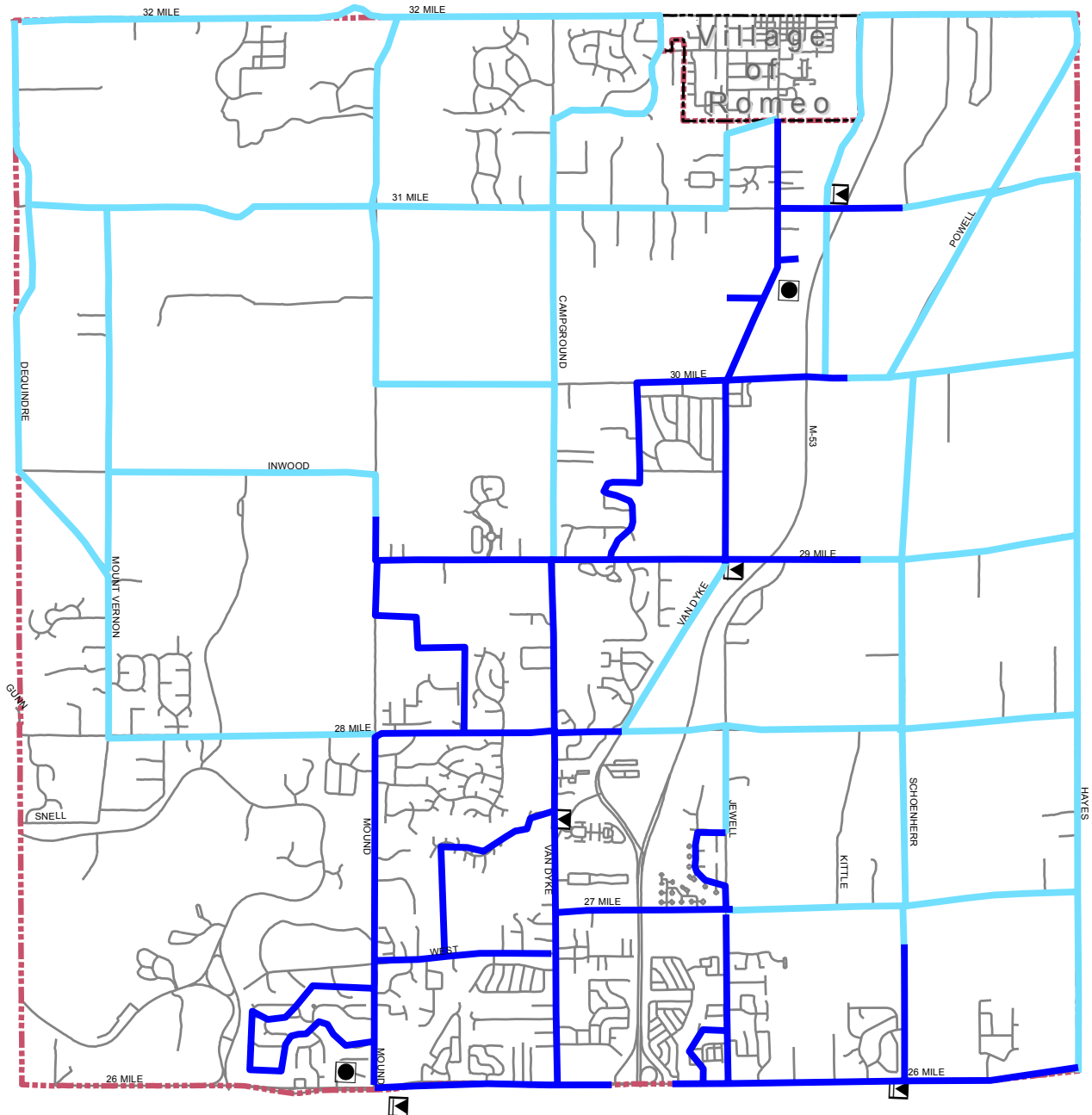
As the Township continues its gradual evolution from a rural community to one that is increasingly characterized by a more suburban development pattern, the demand to provide additional services commonly provided in a suburban setting will increase. The provision of services, however, needs to be coordinated and timed to coincide with development. This portion of the Master Plan provides the Township with an opportunity to anticipate the level of services that may be needed at a future point in time. Identifying these needs in advance of development is a useful tool for the budgeting process. It also allows the Township to use existing resources more effectively and minimize any unnecessary burden on Township residents.

Of those community facilities identified earlier, the provision of public water and sanitary sewers clearly has the broadest impact on the Township's future land use pattern. Decisions regarding future utility extensions should carefully consider the impact on the future land use pattern reflected on the Master Plan Illustration.

Utility extensions should be timed to coincide with growth. Premature utility extensions into the more rural portions of the Township should be avoided, especially where such extensions may compromise the low density development pattern favored by the Master Plan.

The Township has a history of cooperating with neighboring communities relative to provision of numerous other services described in this chapter. Schools, libraries and recreation services are provided on a larger geographic basis. Certain economies of scale and saving can be realized with these larger service areas. Services that could not be efficiently or cost-effectively provided by a community acting alone, may be provided by several communities working together. These cooperative arrangements should be continued and considered for other services, as applicable.

ILLUSTRATION 24
WATER TRANSMISSION
SYSTEM MASTER PLAN - 2002



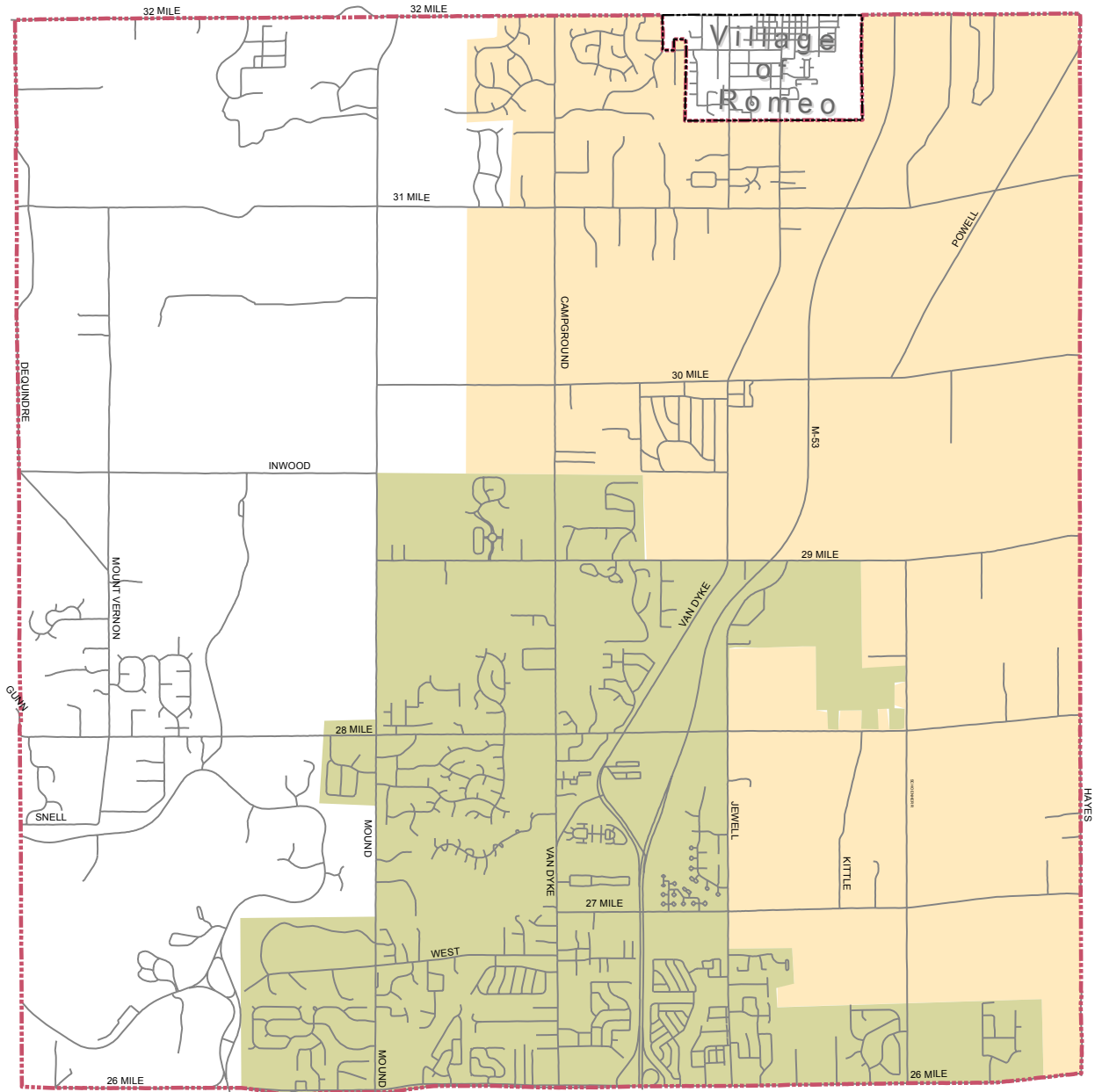
- Existing Watermain
- Future Watermain
- Pressure Reducing Valve
- Pump



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Water Transmission Plan prepared by Professional Engineering Associates

ILLUSTRATION 25
SANITARY SEWER SERVICE AREA



- Existing Central Sanitary Sewer District
- Future Sanitary Sewer District



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SECTION 7.0
