

WASHINGTON TOWNSHIP

THOROUGHFARE ANALYSIS

INTRODUCTION

The automobile has had a dramatic impact on land use development and human settlement patterns. Improved transportation facilities are, in large part, responsible for changes in our urban landscape, which have resulted in a dispersed development pattern. Direct evidence of this change is apparent throughout southeast Michigan. Low density household growth in Wayne, Oakland, and Macomb County over the past 50 years would not have been possible without the automobile and the extensive network of roads serving the region.

Recognizing the direct functional relationship that exists between land use patterns and the movement of goods and people, there is an obvious need to coordinate land use planning activities with plans to upgrade and expand the capacities of the local and regional thoroughfare system.

Preparation of a Thoroughfare Plan has several practical applications that have important consequences for the community's ultimate development pattern. Through the identification of future right-of-way locations and standards, a community establishes the system of streets and roads that will provide access for future development. Furthermore, the cost of acquiring future road right-of-way can be significantly reduced if the necessary reservation is done well in advance of future road construction. Establishing right-of-way locations and standards through the Master Plan process provides the community with some authority to request right-of-way reservations through the land development process.

Designating right-of-way widths also helps a community establish consistent setback requirements, which are accomplished through the administration of a Zoning Ordinance. This minimizes the potential of having to acquire homes or businesses when road widening becomes necessary.

The Thoroughfare Plan provides the community with an opportunity to coordinate local transportation planning activities with those occurring on a regional or State-wide basis. Roads are the physical improvements that link communities together. Coordinating the planning associated with the regional transportation system offers some opportunities to consider mutually compatible land use policies relating to these needs. Finally, roads make a significant contribution to the community's image and identity. Streets offer an opportunity for urban design improvements in the way of landscaping and monuments. Too often, this opportunity is neglected with streets becoming cluttered with excessive signage and overhead utilities.

Three topics are considered in this report. The first of these is an identification of thoroughfare planning concepts. Broadly accepted concepts are offered as a way of providing a common basis of understanding or vocabulary.

The next section describes the characteristics of Washington Township's local road system. This includes a calculation of linear road miles by road classification, traffic volumes along major roads, accident locations, and identification of major traffic generators, among other factors.

The report concludes with a description of the Thoroughfare Plan and how the Plan relates to Washington Township's Land Use Plan. Major proposals and recommendations for the future are also offered.

Orderly development and a desirable environment can only be achieved if full consideration is given to the relationship between the type and intensity of land uses and the need for proper access and the resulting traffic generation movements. Improved planning of the thoroughfare system will likely result in a better urban development pattern and, consequently, a much improved environment and efficient use of land.

CONCEPTS AND STANDARDS

Transportation Planning Concepts

Roads are grouped into a number of different classifications necessary for administrative, design and planning purposes. Most classification systems make a distinction based on the intended purpose of the road and the geographic areas it is intended to serve. Common road classifications include freeways, arterials, collectors and local roads. Each classification carries with it suggested minimum design standards.

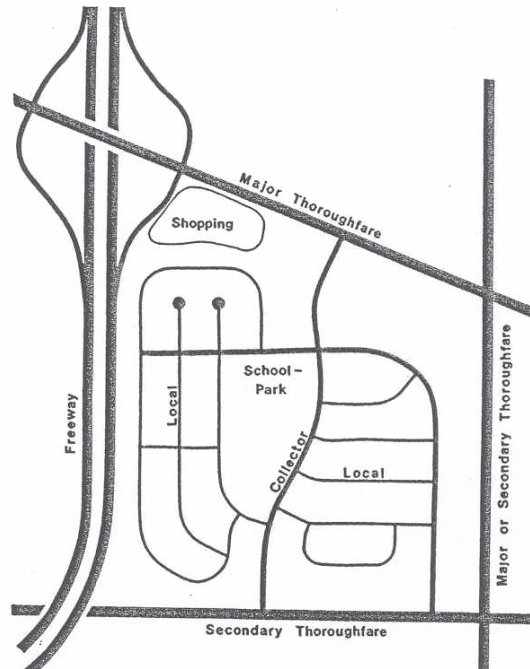
The benefit of a classification system extends beyond providing a common understanding or transportation planning vocabulary. Such a system establishes a functional system, permitting a community to relate categories of streets to various land use activities that they are best suited to serve. Classification systems should reflect the specific category and intensity of land use that they are designed to serve. In applying a classification system, the through-traffic movements and the access requirements of abutting property should be considered. A commonly accepted classification system prepared by the National Committee on Urban Transportation is on the following pages and shown in Illustration 14.

Expressway - This class is devoted entirely to traffic movement with little or no land service function. Thus, it is characterized by at least some degree of access control. Except in rare instances, this classification should be reserved for multi-lane, divided roads with few, if any, intersections at grade. Expressways serve large volumes of light speed traffic and are primarily intended to serve long trips.

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Illustration 14
ROADWAY CLASSIFICATION
SYSTEM

Major Thoroughfare - This class of streets brings traffic to and from the expressway and serves those major movements of traffic within or through the urban area that are not served by expressways. Major Thoroughfares interconnect the principal traffic generators within the community, as well as important rural routes. Major Thoroughfares handle trips between different areas of the community and should form a reasonably integrated system. The length of the typical trip on the system should exceed one mile.



Collector - This class of streets serves internal traffic movements within an area of the community, such as a subdivision, and connects this area with the arterial system. Collectors do not handle long through-trips and are not, of necessity, continuous for any great length. In grid-iron street patterns, however, a street of several miles in length may serve as a collector, rather than an arterial if the predominant use is to reach the next junction with an arterial and there turn off.

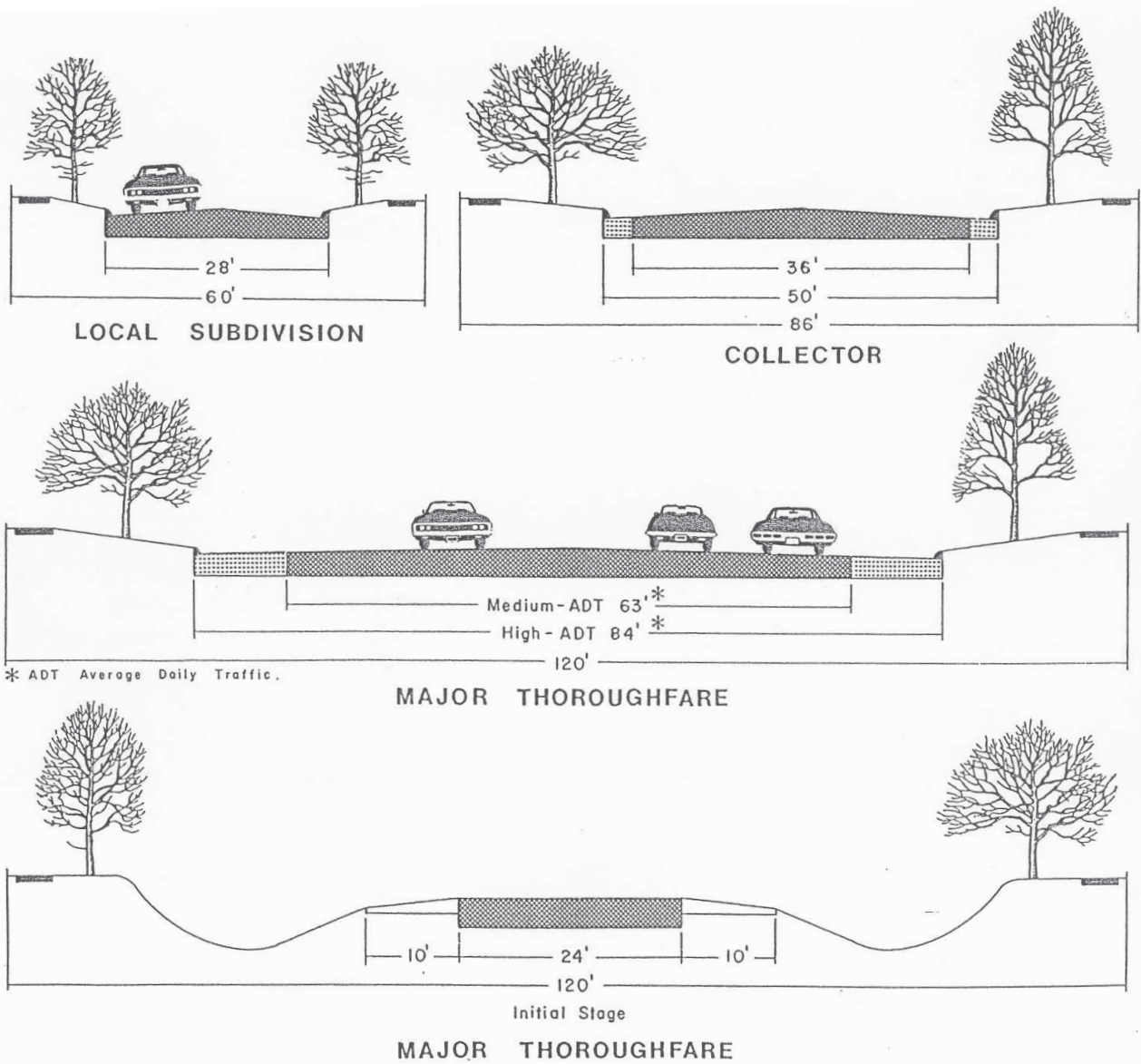
Local - The sole function of local streets is to provide access to adjacent land. These streets make up a large percentage of the total street mileage of the township, but carry a small proportion of the vehicle miles of travel. In and around the central business district (CBD), local streets may carry traffic volumes measured in thousands, but this is the exception. Local residential streets, in most cases, carry daily volumes of 1,000 or less.

Standards

The configuration of the highway system throughout much of the nation, including southeast Michigan and Washington Township, is, in large part, a product of the Northwest Ordinance of 1787. This noteworthy legislation continues to exert a broad and lasting impact on land use and transportation patterns.

The Northwest Ordinance of 1787 divided the Country into one-mile square grids, which serve as the paths for an extensive network of major thoroughfares or section line roads. This pattern is likewise evident in Washington Township, especially the eastern two-thirds of the Township. The one-square mile grid is interrupted in the western portion of the community by Stony Creek Metropark and the mining operations located along the Stony Creek Valley.

ILLUSTRATION 15
CROSS SECTION
STANDARDS



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TABLE 32
SUMMARY OF ROADWAY
PLANNING STANDARDS *

Standards For:				
<u>Element</u>	<u>Major Thoroughfares</u>		<u>Collector</u>	<u>Local</u>
Right-of-Way	150 feet	120 feet	86 feet	60 feet
Pavement Width (initial stage)	88 feet	64-88 feet (24 feet)	36-50 feet	28 feet
Number of Lanes	7	4 or more	2-4	2
Spacing	-	1 mile	½ mile	-

Road standards, including rights-of-way and pavement widths and specifications, were developed by the Inter-County Highway Commission and remain in use today by the Macomb County Road Commission. Cross-section standards and right-of-way designations recommended for various categories of road are specified in Table 32 and Illustration 15.

EXISTING CONDITIONS

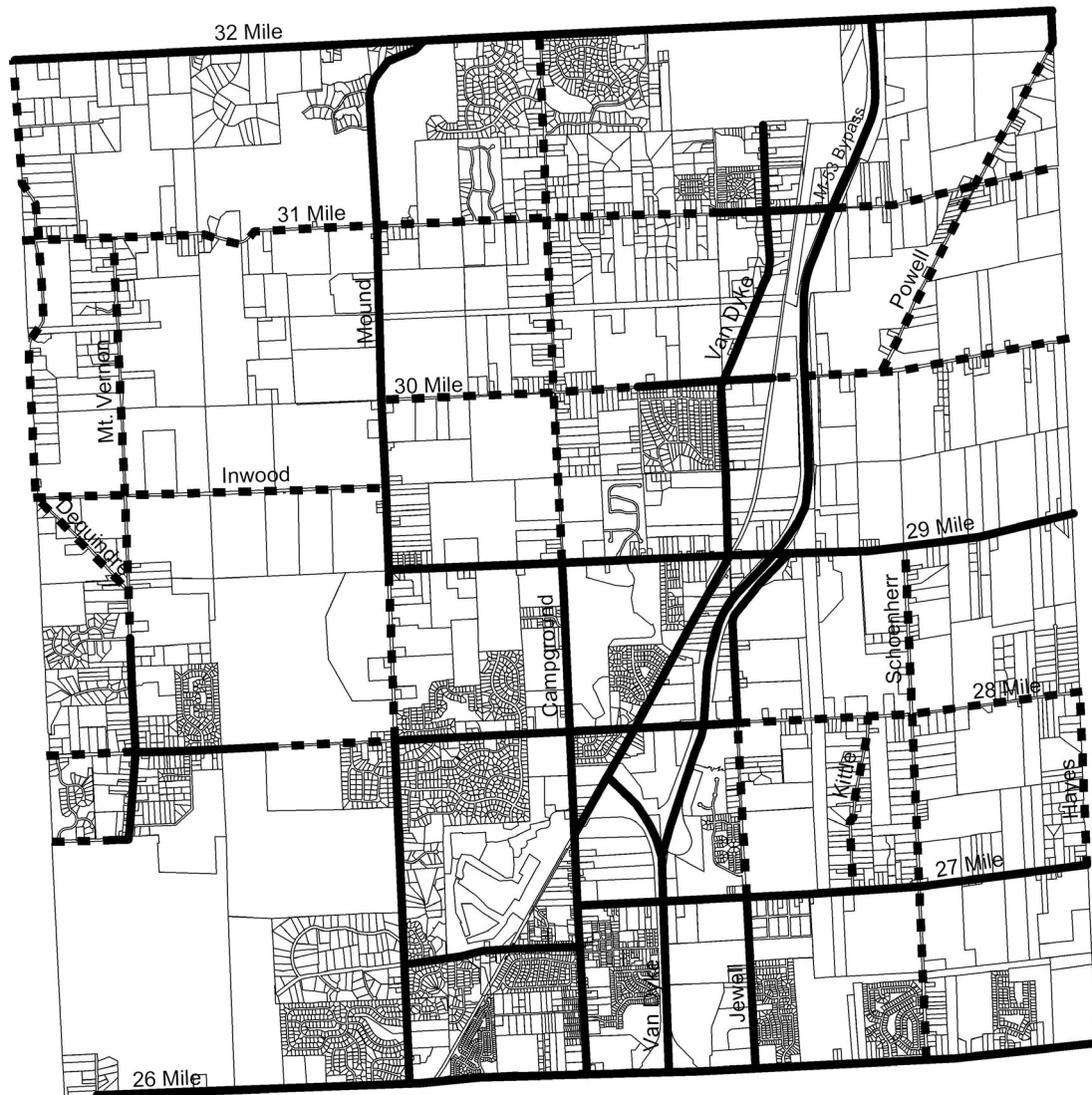
Street Inventory

Washington Township contains approximately 143.1 linear road miles, as measured from the current Township base map. This mileage is allocated among the various road classification categories reflected in Table 33. Illustration 16 reflects the existing conditions on primary roads in the Township.

TABLE 33
ROAD MILEAGE

<u>Road Classification</u>	<u>Linear Mileage</u>
Freeways	6.5
State Highways	4.4
County Primary	29.7
County Local	36.9
Subdivision and Other	65.6
Total	143.1

ILLUSTRATION 16
EXISTING ROAD CONDITIONS

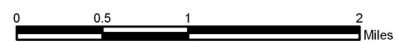


Condition

- Paved
- - - Gravel

EXISTING ROAD CONDITIONS

Prepared By: Washington Township Planning Commission



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Professional Planning Consultants

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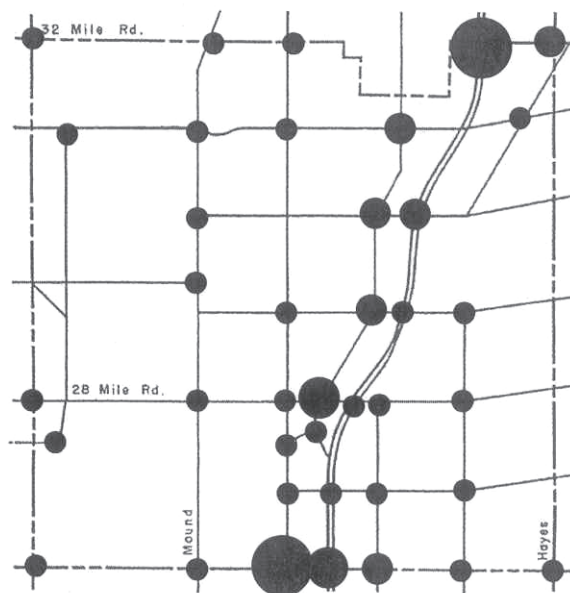
Traffic Volumes

According to year 2000 traffic count data, the heaviest traffic volumes in Washington Township are concentrated along the M-53 Bypass, where vehicle counts reach as high as 37,230. Van Dyke also carries a large share of the traffic in the Township with counts ranging from 10,621 in the Washington Village area, to 20,113 at the Village of Romeo border.

The Township's northern and southern boundary roads experience the next highest traffic volumes. For example, 32 Mile, between Dequindre Road and Camp Ground Road experiences volumes in the area of 11,000 vehicles per day. At the eastern end of 32 Mile Road, traffic counts as high as 18,630 vehicles have been recorded. The southern end of the Township along 26 Mile Road produces average daily traffic counts of 6,300 vehicles at the western border, and 23,176 a short distance west of the M-53 Bypass entrance and exit ramp.

Higher volumes of traffic can be seen extending along Camp Ground Road up to 29 Mile Road, where counts exceed 6,300 vehicles per day. The designated truck route along this alignment and the frequency of truck traffic serving the extractive uses in the northwest corner of the Township explain these volumes. Aside from the northern and southern boundary roads, 29 Mile carries the heaviest volumes of east-west traffic with vehicle counts ranging from 3,400 to 5,265.

ILLUSTRATION 17
ACCIDENTS WITHIN 200' OF
AN INTERSECTION - 1999



MAJOR ACCIDENT LOCATIONS



Accident Locations

As traffic volumes increase, so do the difficulties of accommodating more vehicles. The number of accidents generally rises along with the increase in traffic volume.

Approximately 283 accidents occurred within 250 feet of an intersection on Township roads in 1999. Accidents occurred most frequently along both Van Dyke Road and the M-53 Bypass. This is expected due to the high volumes of traffic that these two roads carry. Twenty-five percent of the accidents recorded resulted in personal injury. Illustration 17 identifies the locations where the greatest number of accidents occurred.

Freeway Availability

The ability of a community to support various categories of business and industry is directly related to the availability of freeway access. The M-53 Freeway crosses the full length of the Township, running parallel to Van Dyke. The M-53bypass has decreased travel time through the Township. It was originally constructed as a two-lane highway, with access at 28, 30, 31 and 32 Mile Roads. The road is elevated above 29 Mile Road. The expansion of the M-53 Bypass in Washington Township was completed in 2004 and maintains two north and southbound lanes separated by a median.

Traffic Generation

Land use patterns have a significant and measurable impact on traffic volumes. Several national studies offer estimates of the number of trips generated by various land use categories. These estimates are useful in assessing the impact of various land uses on a site-specific basis and for the community as a whole. Included in Table 34 is a list of traffic generation rates for specific types of land uses.

The frequency of these trips is directly related to the availability of employment and retail opportunities in the community. A final category of vehicle trip includes through-traffic, where neither the origin or destination point is located in the community. This type of trip is likely where an interstate freeway or State trunkline crosses the community.

Traffic is generated by Washington's 6,132 households. Individual residential units create between 3 and 12 vehicle trips per day, depending on the type of unit. The actual number of trips generated by residential uses is influenced by several factors, such as household income, car ownership and household composition.

Because of the smaller quantity of developed commercial and industrial acreage in the Township, commuter traffic into the Township has a limited impact. Most of the Township's traffic attributed to commercial and industrial activity is concentrated along Van Dyke. The location of M-53 crossing the Township accounts for significant volumes of traffic passing through the Township en route to other regional locations.

Each of the previously identified traffic generators places demands on the Township's road system and suggests the need to carefully consider the relationship between land use and transportation planning.

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TABLE 34
TRIP END GENERATION RATES
BY LAND USE

<u>Type of Land Use</u>	<u>Type of Development</u>	<u>Weekday Trip End Generation Rates</u>	
		<u>Average *</u>	<u>Range</u>
Residential	Subdivision	9.5 TE per Occupied Dwelling Unit	6.4 - 12.7
	Apartment	5.7 TE per Occupied Dwelling Unit	3.1 - 7.9
	Mobile Home Park	5.4 TE per Occupied Dwelling Unit	2.8 - 6.8
Institution	High School	1.3 TE per Student	1.1 - 2.1
	Elementary School	1.0 TE per Student	0.7 - 1.2
	Government Office Building	44 TE per 1,000 SqFt. Floor Area	25 - 139
	Church	44 TE per Employee (Sunday)	30 - 191
Commercial	Shopping Center (regional)	315 TE per Net Acre	149 - 671
	Shopping Center(neighborhood)	949 TE per Net Acre	800 -1,064
	Commercial Store (freestanding)	47 TE per 1,000 SqFt. Floor Area	35 - 330
	Commercial Office Building	15 TE per 1,000 SqFt. Floor Area	8.8 - 23.6
	Medical Office	41 TE per Doctor	31 - 53
	Motel	10.1 TE per Occupied Unit	4.7 - 14.6
	Restaurant (sit-down)	14 TE per Employee	9 - 22
	Restaurant (fast-food)	75 TE per Employee	62 - 89
	Bank, Savings & Loan	43 TE per Employee	31 - 76
	Service Station	57 TE per Employee	41 - 79
	Various Types of Industry	79 TE per Net Acre	9 - 350
Industrial	Industrial Park	64 TE per Gross Acre	52 - 140
	Warehouse	81 TE per Net Acre	28 - 256
	Mass Production	93 TE per Net Acre	38 - 191
	Administration	60 TE per Net Acre	28 - 229
	Research and Development	31 TE per Net Acre	20 - 127
	Specialty Production	39 TE per Net Acre	9 - 159
	Truck Terminals	56 TE per Net Acre	43 - 128

Source: California Department of Transportation.

Adequacy of Existing System

Freeways - Originally, completion of the M-53 Bypass through Washington Township successfully reduced traffic congestion along Old Van Dyke, especially in the Village of Romeo. The bypass, however, was not without problems. The most significant problem stemmed from the fact that the road was not fully improved. Only two lanes of the ultimate four-lane highway were being used. MDOT began construction on the expansion of the M-53 Bypass in the Spring of 2003. The highway now maintains four lanes from 28 Mile to 34 Mile Road. The improvements have created a limited access highway with grade separations at each mile road, with the exception of 30 and 32 Mile Roads, which are median separated intersections.

Major Streets - The major street system serving Washington Township principally follows section-line alignments. This system provides a framework for major and secondary roads, which permits access both through and within the Township. The principal function of these major streets is to efficiently move large volumes of traffic. Routes that provide continuous access can best achieve this purpose. The Township's major road network permits through-traffic movement in the Township, except where this pattern is interrupted.

The continuity of this general pattern is interrupted by Stony Creek in the southwest and western portions of the Township. Three east-west roads stop short of the park's boundary. These include 27, 29 and 30 Mile Roads. Inwood is the only road that crosses the park between 29 and 32 Mile Roads. The location of the park also changes the course of Dequindre Road, which serves as the dividing line between Oakland and Macomb Counties from Eight Mile Road north to a point south of 26 Mile Road. Dequindre begins north of the park, intersecting with Mt. Vernon Road south of Inwood Road.

On the east side of the Township, several section-line roads have missing segments which limit through-traffic movement. Neither Hayes Road nor Schoenherr Road, for example, cross the full length of the Township, thereby limiting north-south traffic flow.

Improvements to the major road system in the foreseeable future should include right-of-way reservations to equal the recommended standards of the Master Plan which is 120 feet, in most instances.

Subdivision Streets - Most of the Township's residential streets in newer subdivisions are constructed to Macomb County Road Commission standards. These standards incorporate a 60-foot right-of-way width, with a 28-foot wide pavement cross-section measured from the back of the curb. Some subdivisions are constructed to different cross-section standards. These feature slightly narrower pavement widths and open drainage. The most significant deviation from contemporary road design standards in the Township occurs in those residential neighborhoods located in the Washington Village area. A significant number of these streets are discontinuous and unpaved.

Many of the Township's existing subdivisions are located adjacent to undeveloped land. Stub streets are provided in most instances to permit the eventual extension of a continuous road system to this adjoining acreage. Piecing together this type of circulation system, including collector roads where necessary, is an important planning objective in the Township.

Private Roads - The Washington Township Zoning Ordinance allows for the construction of private roads to facilitate the development of single-family home sites in the more rural portions of the Township that are not intended to be served by municipal utilities. This development option allows property owners to divide their property for single-family purposes, served by a gravel road that does not conform to established Macomb County Road Commission standards. Individual property owners, who share frontage on the road, jointly share maintenance responsibilities. The widespread use of private roads has resulted in numerous problems relating to construction standards and continuity of access that have long-range implications which need to be considered as part of the Township's long-range development plans.

THOROUGHFARE PLAN

The Thoroughfare Plan incorporates the views and strategies later outlined in this plan, along with the inventory information and concepts and standards introduced in this section. Major proposed improvements needed to support the land use and community facility elements of the Plan are identified on the following pages.

Traffic Planning Principles

Certain general principles have been recognized by planners and traffic engineers as conducive to sound transportation planning for urbanizing communities. These principles may be summarized as follows:

1. There must be coordination between the Thoroughfare Plan and existing and proposed land usage in order to achieve a trafficway system that may efficiently service the land use patterns.
2. Because of its permanency, the existing road system must form the basis for long-range transportation planning, with modifications in the system made, where necessary, to accommodate future needs.
3. Existing and anticipated traffic volumes must be considered and provisions made to accommodate the increased traffic and changing trip movements generated by population growth.
4. There must be correlation between the Thoroughfare Plan and residential neighborhoods so that the Plan will provide for adequate service to the neighborhoods but, wherever feasible, not bisect them with heavily traveled routes.
5. A comprehensive network of direct, continuous routes must unite all parts of the Township insofar as is compatible with geography and land use so that improvement is achieved in the overall traffic flow and trip time in the Township.
6. Modern design standards must be utilized in planning width of right-of-way and pavement and other development characteristics of the roads.
7. The Plan must consider the proposals of road planning agencies throughout the region in order to achieve a complete and functional road system.

Freeway Access

As stated previously, the recently completed M-53 freeway expansion includes two additional travel lanes to the east of the existing road surface. This permits a separation of north and south bound traffic. Crossings at 28 and 31 Mile Roads are now grade separated, while the crossings at 30 and 32 Mile Roads are at-grade, requiring motorists to navigate around a median. These additional improvements should resolve the existing problems that characterize this road.

Major Roads

The Master Plan encourages the extension of the section line road system to provide improved traffic flow in and through the Township. While the existing one-mile square section line road system is fairly well established in the Township, there are several gaps in the system that should be completed as development occurs.

The completion of the M-53 Bypass improvements, with grade separated intersections at 28, 29 and 31 Mile Roads, will limit opportunities for the movement of vehicles in a north-south direction through the eastern half of the Township. To alleviate this problem the Master Plan suggests two improvements. The first is an extension of Schoenherr Road north, between 29 and 30 Mile Roads, where it would connect to Powell Road. A related improvement includes the completion of Hayes Road along the Township's eastern boundary, from 26 Mile Road on the south to 29 Mile Road on the north.

Van Dyke Improvements

Van Dyke is now under the jurisdiction of the Macomb County Road Commission, which assumes maintenance and improvement responsibilities. Currently, consideration is being given towards the construction of a traffic circle at Van Dyke and Campground Road to improve traffic flow and make the intersection more navigable. Other possibilities for the intersection include realigning Campground Road to allow for easier left turns from the south bound lane, and possibly redirect truck traffic away from the Washington Village area. In addition, the Township is working with the County to redesign Van Dyke in the Washington Village area to allow for a three lane road with on-street parking.

Collector Roads

There remains a need for a modified collector road system to provide access to the interior acreage bounded by section line roads. These roads are intended to have an 86-foot wide right-of-way and follow quarter section lines. Topography, drainage and existing land use characteristics may alter the precise location of these roads or limit their development in other areas. Additionally, other opportunities for the eventual development of these roads has been limited by extensive private road development in parts of the Township. As each section develops, care should be taken to provide for collector roads. The Master Plan also calls for the construction of a collector road abutting the M-53 Bypass between 29 and 30 Mile Roads to facilitate industrial development.

Residential Streets

Many of the community's existing single-family neighborhoods were developed as free-standing subdivisions. When they were developed, they were required to include one or more stub streets to adjoining vacant land. The intent of these stub streets is to provide for continuous access to adjoining property when it is developed. Carriage Hills Sub-division, located south of 28 Mile Road, and Buffington Knolls and Gray Glen Subdivision in the northern portion of the Township illustrate the benefits of how these stub street connections facilitate a logical progression of development offering a continuous circulation system with multiple access points to the section line road system. There are several advantages to this concept that merit consideration. First, it permits continuous vehicular and pedestrian circulation through neighborhoods without using section line roads, which serve a different function. Further, these connections facilitate better access for emergency vehicles and improved response time for police, fire or rescue vehicles.

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The problem of continuous access is especially evident with private roads, which rarely offer any opportunities to connect with adjoining property or other private roads. Access for emergency vehicles is further complicated by the excessive length of these private roads, which frequently extend up to one-half mile in length.

Scenic Roads

Frequently, local county roads make a significant contribution to a community's sense of rural character. Gravel roads, with dense vegetation along both sides of the road, are common features in rural settings across the county. This sense of character is frequently lost as roads are widened and paved to accommodate higher traffic volumes associated with suburban development. The Natural Beauty Roads Act of 1970 allows county road commissions to designate specific roads as natural beauty roads. This legislation is designed to minimize road improvements such as widening or brush removal unless needed to improve safety. Limiting road improvements helps to ensure that the rural character of the road is maintained. Mt. Vernon Road, from Dean Road north to 31 Mile Road, and Campground Road between 29 and 32 Mile Road carry this designation. This designation is important for the preservation of the rural character in the western part of the Township.

Coordination with Other Agencies

Washington Township does not have any direct control over the maintenance or improvement of the road system serving the community. Aside from the M-53 Freeway, which is under the jurisdiction of the Michigan Department of Transportation, the principal control over local roads rests with the Macomb County Road Commission.

In spite of the lack of control over the major road system, the Township can directly influence the amount of traffic generated on these roads through careful land use planning. Washington aims to limit densities in areas of the community where the existing road infrastructure would become unduly burdened by added traffic. Efforts to maintain a minimum Level of Service (LOS) of "C" on all roads will allow residents to move freely throughout the Township, without the worry of traffic congestion. Areas along Van Dyke, particularly at 26 Mile Road, are the only intersections in the Township currently existing that do not maintain an existing LOS of "C" or better.

The Township can also influence the road improvement process by maintaining an ongoing relationship with those agencies responsible for transportation issues, including MDOT, the Road Commission, and SEMCOG, which coordinates the regional transportation planning process. Sharing local planning issues with officials at these agencies assists them in their efforts to allocate funding for existing or anticipated transportation needs.

Washington Township shall require, in their continuing planning and implementing ordinances, sufficient setbacks so that additional right-of-way requirements can be met clear of obstruction. The linear commercial and industrial uses should be closely regulated with respect to turning movements, bypass lanes, parking, setbacks, signs and displays. With the many hazards already along its major roads, the Township should rigidly enforce these and other requirements necessary to protect the public health, safety and welfare.

ACCESS MANAGEMENT

Access management and internal circulation are critical elements in creating a safe and efficient roadway system. The capacity of a regional or major thoroughfare can be enhanced, and its useful life extended, by careful attention to access controls and circulation between adjacent sites. This coordination and review will also likely reduce the total number of access drives as well as the total number of conflict points. The Township has the ability to implement access management standards which will allow for the proper planning and placement of access drives in the Township. If not implemented as new development occurs, the Township will be faced with the difficult task of eliminating access drives on a piecemeal basis, such as the case in the area of Van Dyke between 30 Mile Road and the Village of Romeo.

The concept of access management is based on granting owners of property along a specified roadway, specifically those owning commercial, office or industrial, access to their property, but not unlimited access. There are many access management standards which can be implemented within the Township. These include driveway spacing, limiting the number of access drives, and shared drives. As part of the Master Plan, the Township has noted the following objectives for access management.

Joint Access Easement

One method of reducing the need for access drives onto major thoroughfares is to provide joint or cross access easements between sites. During the site planning process, consideration should be given to the alignment of parking lot maneuvering lanes which would allow for continuous and safe travel between parking lots. Joint access easements allowing for such travel should be required prior to site plan approval. These documents will require review by the Township Attorney, as well as the Township Engineer.

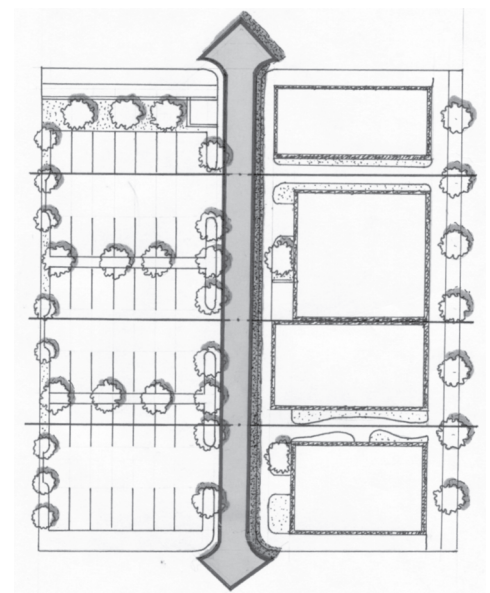
Maximizing Corner Clearance

Curb cuts for properties located on a corner parcel require special attention. Access drives and curb cuts should provide the maximum amount of spacing possible from the intersection to the curb cut. Further, in most cases, the access drive should be limited to the secondary roadway rather than the primary. This will help in channeling vehicles to a common intersection rather than creating new turning areas.

Maximize Clear Vision

Particular attention should be given to the areas of the Township where commercial access drives would be located on curves or portions of roadways with varying topographic height. Clear vision for motorists in this area should be reviewed carefully due to potential blind spots. If possible, access drives should be located in such a manner where clear vision in both directions is maximized.

ILLUSTRATION 18
JOINT ACCESS EASEMENT

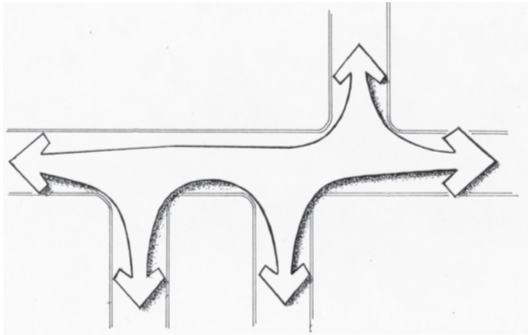


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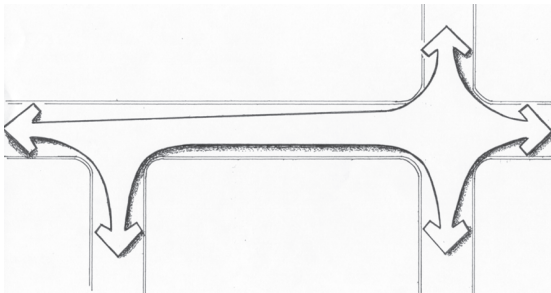
Maximize Drive Offset

The Planning Commission, in their review of site plans, needs to pay particular attention to driveway offsets. Driveways and roadways on opposite sides of the road can increase the potential for conflict. Therefore, if drives cannot be aligned across a street, the distance between driveway centerlines should be maximized.

ILLUSTRATION 19
DRIVEWAY OFFSETS



IMPROPER DRIVEWAY
OFFSETS CREATING
CONFLICT POINTS



PROPER DRIVEWAY
OFFSETS MINIMIZE
CONFLICT POINTS

Interior Parking Lot Review

The Planning Commission must give attention to interior parking lot configuration. Review of parking lot efficiency and safety will allow for traffic to move onto the site quickly, without generating traffic backups onto the adjacent roadway. Particular attention should be given to maneuvering lanes which cross the main access drive. This may cause conflict or the need for slowing or stopping.

Coordinated Review Process

The Township should establish an open line of communication between itself and the Road Commission of Macomb County. The Township does not grant driveway permits and therefore, if particular attention is to be given to a section of roadway or area of the Township, the appropriate road agency must be made aware of the goals and objectives of the Township.

Van Dyke Avenue

The access management standards listed above can be utilized in any area of the Township to better increase the level of service of the road and enhance the general safety of vehicles traveling on that road. However, the Township recognizes Van Dyke, north of Kilarney as an area in need of specific attention. A significant amount of development that has occurred along Van Dyke took place during the 1970's or earlier, when little consideration was given to access management. As these aging sites are redeveloped, the Planning Commission should focus on the elimination of curb cuts and the utilization of cross access agreements.

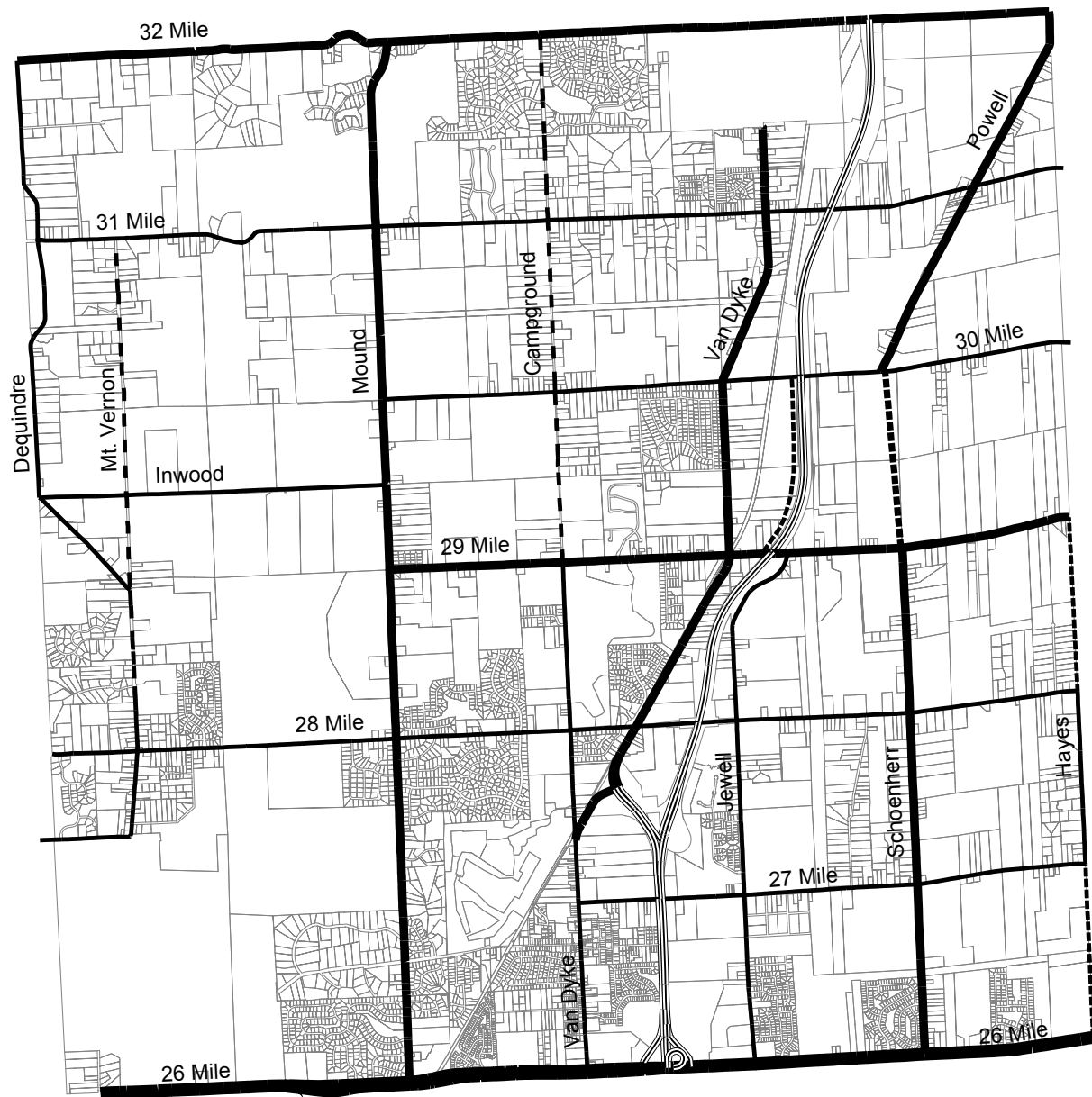
Of particular concern, the east side of Van Dyke between 31 Mile Road and the Village of Romeo has a number of aging commercial sites and residential properties which could become available for development. The lack of sanitary sewer and the long and narrow shape of many of these lots has restricted the potential development of many of these properties. Illustration 20 identifies projects that are existing or in the development stage, along with the two primary areas that could potentially be available for development during the lifetime of this plan. The circles denote existing curb cuts, making it apparent that the promotion of site consolidation and access management could greatly improve traffic patterns in this area.



ILLUSTRATION 20

EXISTING CURB CUTS &
DEVELOPMENT OPPORTUNITIES
- VAN DYKE AVENUE, NORTH
OF 31 MILE ROAD.

ILLUSTRATION 21
THOROUGHFARE PLAN



-  Freeway
-  Regional
-  Major - Existing
-  Major - Proposed
-  Secondary - Existing
-  Secondary - Proposed
-  Natural Beauty



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