



US-31 Corridor Management Plan

Prepared for:

Filer Township
City of Manistee
Manistee Township
Little River Band of Ottawa Indians
Manistee County Road Commission
Manistee County
Northwest Michigan Council of Governments
Michigan Department of Transportation

Prepared by:

Progressive AE
1811 4 Mile Road NE
Grand Rapids, MI 49525-2442
616/361-2664

Langworthy Strader LeBlanc, Inc.
15 Ionia, SW
Suite 450
Grand Rapids, MI 49503

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Participating Communities/Organizations

**Filer Township
Little River Band of Ottawa Indians
City of Manistee
Manistee Township
Manistee County
Manistee County Road Commission
Michigan Department of Transportation
Northwest Michigan Council of Governments**

Advisory Committee Members

**Frank Beaver, Manistee County Planning Department
Jim Baker, Manistee Township
Dennis Switalski, Manistee Township
Tom Kubanek, Manistee County EDC
David Langhorst, Michigan Department of Transportation
Rick Liptak, Michigan Department of Transportation
Dan Lund, Michigan Department of Transportation
Megan Olds, Northwest Michigan Council of Governments
Jim Perkins, Filer Township
Dana Schindler, Filer Township
Gerald Peterson, Manistee County Road Commission
Jon Rose, City of Manistee
Dan Shepard, Little River Band of Ottawa Indians**

Project Consultant Team:

**Progressive AE
Langworthy, Strader, LeBlanc & Associates**

The Advisory Committee would like to thank the many interested citizens, landowners, public officials, and agency staff that provided input at the public open houses and advisory committee meetings.

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Overview

The communities within the US-31 Corridor Management Plan area include the City of Manistee, Manistee Township, Filer Township, and the Little River Band of Ottawa Indians. Development growth in the area and to the north over the last 10 to 15 years has resulted in steady increases in traffic along US-31 within the study area. The development of the Tribe's casino has also created sharp increases in traffic on some segments of the roadway.

To varying degrees, each of the communities in the study area is planning for a mix of residential and higher density commercial and industrial land uses. The communities and road and planning agencies recognize that the preparation and implementation of an corridor/access management plan can help alleviate some of the existing traffic congestion, while allowing for the more effective accommodation of traffic generated by future development in and around the study corridor.

There are several key aspects of the Corridor Management Plan including access management, specific roadway/intersection improvements, and coordinated land use and aesthetic decisions. From a long-term capacity/safety viewpoint, access management will be the key element of improving and maintaining efficient traffic flow, preserve US-31's capacity, and reduce the frequency and severity of crashes while maintaining reasonable access to the adjacent land uses. This can be accomplished through careful placement of access points to reduce conflicts with traffic using other access points and traffic flowing through intersections. Access management usually involves tools to space access points or restrict certain turning movements. Some of these tools are:



- proper spacing of access points along the same side of the street,
- alignment or spacing from access points on the opposite side of the street,
- placing driveways a sufficient distance from intersections to minimize impact to intersection operations,
- geometric design to restrict certain turning movements (usually left turns),
- medians,
- location of traffic signals, and
- shared access systems (connections between land uses, shared driveways, frontage roads or rear service drives).

Access management can provide several benefits to motorists, communities and land uses along the US-31 corridor. Among the benefits, based on experience and findings from other corridors, are the following:

- reduce crashes and crash potential;
- preserve roadway capacity and the useful life of roads;
- decrease travel time and congestion;
- improve access to and from properties;
- ensure reasonable access to properties (though not necessarily direct access nor the number of driveways preferred by the landowner/developer);
- coordinate land use and transportation decisions;
- improve environment for pedestrians and bicyclists (less driveways to cross);

- improve air quality; and
- maintain travel efficiency and related economic prosperity.

Successful implementation of the recommendations in the US-31 Corridor Management Plan will allow for the impacts of the planned growth in the communities to be addressed. Numerous studies nationwide have shown that a proliferation of driveways or an uncontrolled driveway environment increases the number of crashes, can severely reduce capacity of the roadway and may create a need for costly improvements in the future.

Areas where access management plans have been adopted and followed by the communities and road agencies have resulted in 25-50 percent reductions in access-related crashes.

The access management portion of the US-31 Corridor Management Plan includes specific recommendations for individual properties as well as general recommendations that apply to a number of areas along the corridor. These recommendations include closure, relocation, and/or sharing of specific existing driveways, locations of future access points, and development of service drive systems. While some of the recommendations can be easily implemented, many are long-term initiatives that will require an on-going partnership and commitment between the four communities and MDOT. This requires each community's planning commission, elected body and zoning board of appeals members to be aware of the benefits of access management and their role in its implementation.

The model US-31 overlay zoning district is expected to be placed over the existing zoning regulations for all parcels within 350 feet of the US-31 right-of-way. The focus of the overlay zone is a set of access management standards that are proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, prevent crashes, preserve existing roadway capacity and preserve investment in roads by managing the location, design and type of access to property.

Not all sites will be able to meet all of the access management standards, particularly older sites. In order to address these situations the ordinance provides the authority to modify the standards on a case-by-case basis. The model ordinance provides planning commissions or the designated planning agency with the authority to modify the standards during site plan review, provided the intent of the standards is being met to the maximum extent practical on the site. The ordinance also requires traffic impact studies to be performed for larger developments that have the potential to generate significant volumes of traffic. These studies would evaluate the impact that a proposed development will have on the road system and identify mitigation to offset the impact.

The US-31 Corridor Management Plan and model ordinance were prepared under the direction of a Advisory Committee comprised of representatives from the four communities in the study area, County road and planning agencies, MDOT, and the Northwest Michigan Council of Governments. Public involvement included two sets of public workshops/open houses. Comments and recommendations by the public, local officials and the MDOT staff at the open houses were considered and incorporated into the final plan.

While individual landowners may see the regulations as restricting access to their property, a well-managed access system will improve access to properties and maintain travel efficiency, thereby enhancing economic prosperity for local businesses. A strong access management program also has the benefit of closely coordinating land use and transportation decisions to improve the overall quality of life in the community.

1. Introduction

US-31 has historically served as the key north/south transportation corridor for moving significant traffic and goods between the four local communities as well as many other communities along the western side of Michigan. There have been sharp seasonal peaks in the amount of traffic using the corridor in the past although the non-summer seasons are experiencing steady growth too.

The Michigan Department of Transportation (MDOT) is continually looking for ways to help improve, or maintain, the capacity and safety of the state trunkline system, especially in the current fund-constricted environment. To that end, corridor and access management have been recognized as a key tools to preserve the public dollars spent on roadways in Michigan.



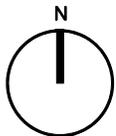
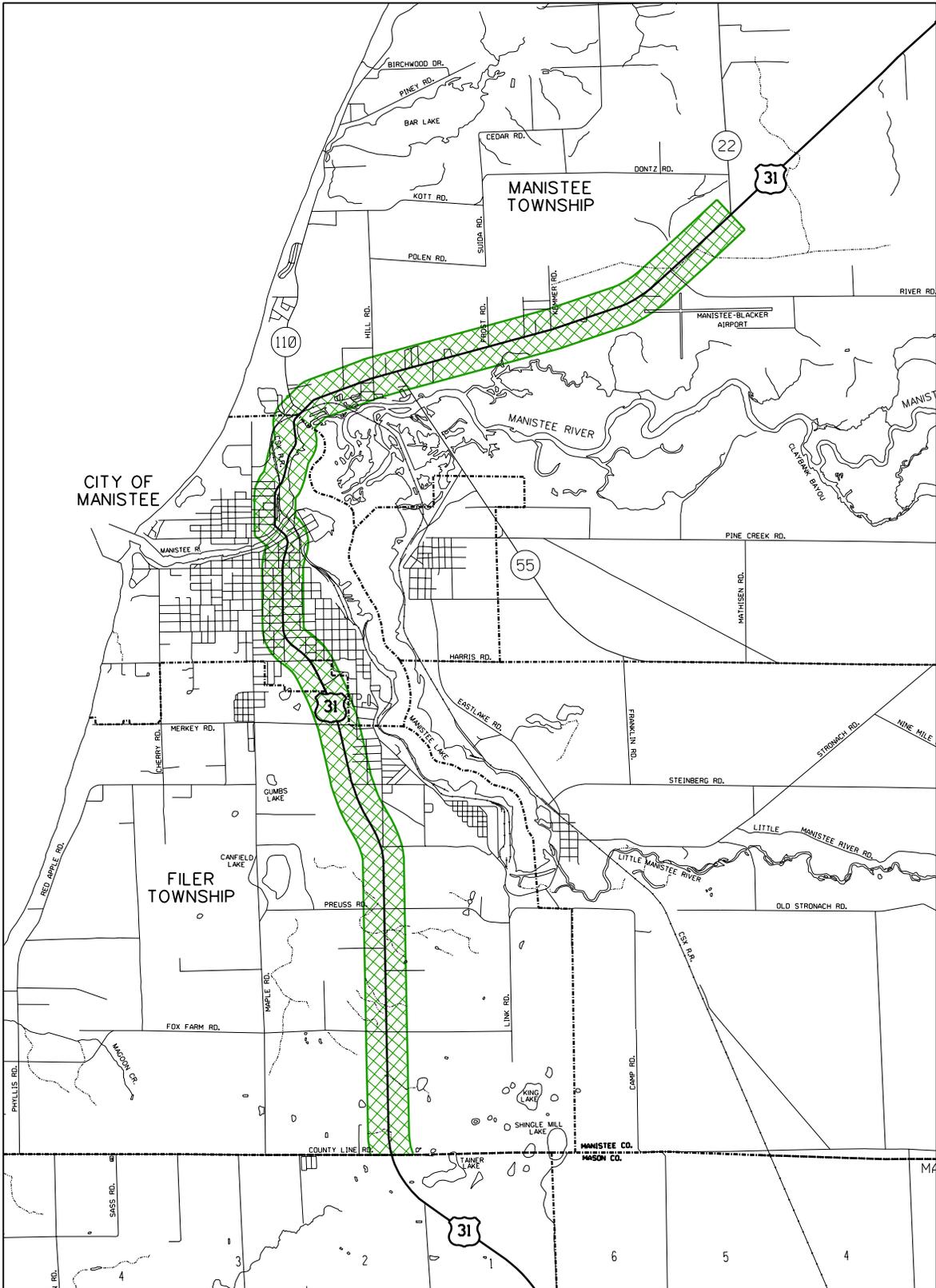
Through initial efforts by the study area communities and subsequently the Northwest Michigan Council of Governments (NWMCOG), the US-31 study area was identified for which a set of access management, land use, and traffic improvement

recommendations would be developed. The study area communities are Filer Township, City of Manistee, Manistee Township, and the Little River Band of Ottawa Indians. The study area is illustrated on Figure 1.

The primary goal behind this plan is to improve traffic operations and safety along US-31 between the south Manistee County line and M-22 while retaining reasonable access to existing and future developments. The access management tools will preserve the US-31's capacity through limiting the number of access points along with careful placement and spacing of new or retrofit access points. The resulting improvements can be significant and at a relatively low cost in comparison to roadway reconstruction.

The questions this access management plan will help address include:

- ***How can land use/site plan decisions support the recommendations and enhance the effectiveness of this access management plan?***



US-31 CORRIDOR MANAGEMENT PLAN

STUDY AREA

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FIGURE 1

- ***What access-related improvements should be made to existing uses to enhance the safety and efficiency of the US-31 corridor?***
- ***What roadway or intersection improvements should be considered to help maintain/improve the safety and capacity of the corridor?***
- ***What access guidelines should be adopted to help maintain safety and efficiency while still providing reasonable access to adjacent land uses?***

Development of this Plan

To assist in the preparation of this plan, an Advisory Committee was formed with one or two representatives of the following communities/agencies; Little River Band of Ottawa Indians (LRBOI), Manistee Township, City of Manistee, Filer Township, Manistee County (Planning), Manistee County Road Commission, MDOT (Cadillac TSC and Gaylord Region), and the NWMCOG. The Advisory Committee met regularly to review the issues, provide suggestions on draft recommendations and assist in obtaining comments from the public and other local officials.

This plan was developed over 11 months through a series of meetings with the Advisory Committee. The process also included two sets of public workshops/open houses - one set (two meetings) held early in the process on April 17, 2003 and one set on January 7, 2004. The initial set of these open houses provided a presentation on the need for, and benefits of, access management in this study area. The January open houses provided a summary of the process and large graphics illustrating the preliminary corridor and access management recommendations. Comments and recommendations by the public, local officials and the MDOT staff were considered and incorporated into the final recommendations. A listing of the public comments and responses (via survey) and attendees can be found in the appendix.

Role of Access Management

As noted earlier, access management is the primary focus of this plan. Its goal is to improve traffic operations and safety along the existing US-31 corridor while retaining reasonable access to existing and future development along the roadway. Access management, in this situation, involves preservation of the road's capacity through limiting the number of access points, careful placement and spacing of access points, and small scale road improvements to separate turning movements from through traffic.

The terms "access" and "access point" are used frequently throughout this document. Those terms refer to commercial driveways (ie. retail, office, industrial, etc.) and platted roadways or private roads but do not refer to driveways to individual single-family homes unless otherwise noted.

There are many short and long-term benefits to this program, some of which are listed below:

- Gives the communities and MDOT the latitude to make future improvements with the least disruption on homeowners, businesses and the anticipated development pattern along the roadway.
- Reduces crash potential through careful placement and spacing of access points

and median crossovers.

- Preserves the capacity of the roadway by locating access points where they will have the least disruption on through traffic flow.
- Provides landowners with reasonable access to their property from US-31, though to meet the benefits above, in some cases the number of access points will be fewer or more indirect.
- Improves traffic operations and safety that will benefit everyone. Access management and other improvements along the US-31 corridor require a partnership between the local units of government and the MDOT. One way to promote this collaborative approach is through improved coordination and communication between the MDOT and the local units of government when reviewing development proposals.
- Provides general background and information on the benefits of access management to assist community officials.

Realization of the benefits listed above can be accomplished through a variety of changes, both physical and regulatory. Key recommendations of this corridor/access management plan are listed below, and are explained in more detail in the subsequent chapters.

- Identify changes to existing access points to improve safety and efficiency of the roadway corridors. Such improvements include closure or consolidation of some existing access points to improve spacing. Specific recommendations are illustrated on a series of drawings for some typical sections of the corridor.
- Gradual replacement of individual direct access points with access through rear service drives or shared driveways.
- Access for new development through service drives. The plan illustrates options, since the preferred location and alignment will depend upon the intensity of development proposals. Generally, the deepest separation from US-31 is desired, but in some cases, a frontage road may be the most practical design.
- Establish access standards to help maintain safety and efficiency while still providing reasonable access to adjacent land uses. These standards should be applied to both retrofit existing sites and to new developments. This can be done through consideration of access issues as local units of government review development proposals, through improved coordination with MDOT, and through adoption of access management standards into the local zoning ordinances.

Access Management

Access management is a process that regulates access to land uses in order to help preserve the flow of traffic on the road system. Numerous studies nationwide have shown that a proliferation of driveways or an uncontrolled driveway environment increases the number of crashes, severely reduces capacity of the roadway and may create a need for costly improvements in the future. Areas where access management plans have been adopted and implemented by the communities and road agencies have resulted in 25-50 percent reductions in access-related crashes. Further statistical data is available in an

MDOT access management publication called “Improving Driveway & Access Management in Michigan.”

Access management can provide several benefits to motorists, communities and land uses along the US-31 corridor. Among the benefits, based on experience along other corridors and numerous studies are the following:

- Preserve roadway capacity and the useful life of roads;
- Reduce crashes and crash potential;
- Coordinate land use and transportation decisions;
- Improve access to properties;
- Decrease travel time and congestion;
- Improve air quality; and
- Maintain travel efficiency and related economic prosperity.

In addition to those measurable benefits, the public also benefits due to the reduction in roadway improvement costs and reduced environmental impacts. Landowners and developers benefit from the long-term enhancement of property values and knowing up front that there are established access criteria thereby reducing the need for redesign and the likelihood of a lengthy site approval process.

Successful implementation of the plan’s recommendations will require continued coordination among the communities, road agencies and MDOT. This document includes a model corridor overlay zoning district that each community can refine and adopt.

Perhaps the most important result that comes out of this process will not be the corridor management plan itself. It may be the further recognition that good, timely communication between the communities and the road agencies is the key to a successful plan that will be implemented.

The following chapters discuss in detail the benefits and background of access management and the specific recommendations for each subarea within this approximate 10-mile long study corridor.

“Numerous studies nationwide have shown that a proliferation of driveways or an uncontrolled driveway environment increases the number of crashes, can severely reduce capacity of the roadway and may create a need for costly improvements in the future.”

2. Existing Access and Traffic Conditions

Defining the current access, traffic, and land use conditions along the length of the corridor is one of the key initial tasks when developing a corridor and access management plan. This chapter of the plan report outlines those current traffic and access conditions and land use issues. A brief description of the roadway's design and traffic characteristics within each of the communities follows.

Existing Roadway and Access Characteristics

There are a wide variety of geometric, traffic, and access conditions along US-31 within the 10-mile length of the study area. Its cross section ranges from two to five lanes and there is a wide disparity in daily traffic volumes.

There are typically two or three general development characteristics that need to be taken into account for most access management corridors. In general, there are areas that are currently undeveloped (and may stay that way for some time), areas that are relatively undeveloped but experiencing growth pressures, and areas that are already mostly or fully developed.

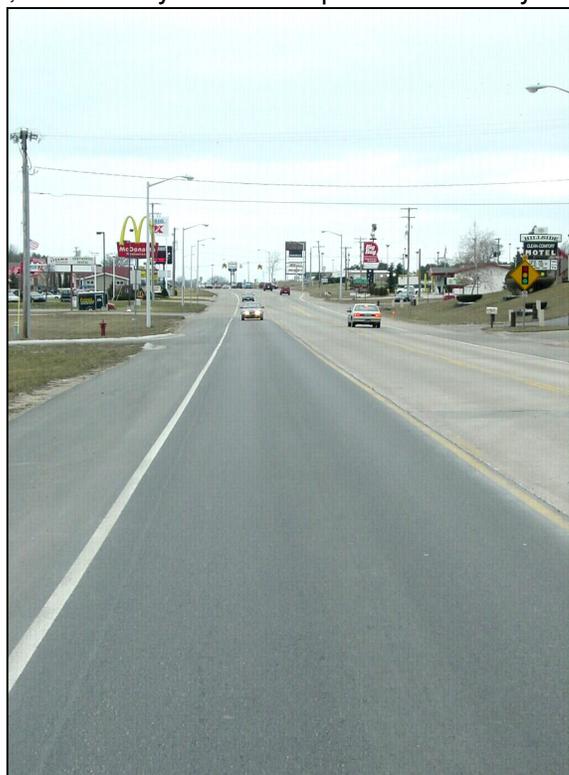
Subsequent chapters will outline proposed improvements and standards that the communities and road agencies can use to improve or retain an efficient access system. In order to define those proposed improvements, field surveys were completed to identify existing locations or areas that have poor or substandard access conditions. These are outlined below, along with current roadway characteristics, on a community-by-community basis.

Filer Township

Roadway Characteristics

The US-31 study area begins at Filer Township's southern edge at the US-31/County Line Road intersection. At this point and for three+ miles to the north, the typical US-31 cross section is two lanes. At Red Apple Road/28th Street the cross section transitions to three lanes and essentially remains that way on into the south city.

Summer traffic counts taken in 2001 indicate that daily traffic volumes along this section of the corridor range from



approximately 8,000 vehicles per day at its southern end to almost 17,000 vehicles per day at its northern end. Average annual daily traffic projections developed by MDOT (statewide model) indicate, through interpolation, that these areas may experience summertime weekday traffic volumes in the year 2025 of approximately 11,000 vehicles per day and 23,000 vehicles per day, respectively.

Almost all of the public street and major driveway intersections on US-31 in Filer Township are currently stop sign controlled, the exception being the signalized intersection at Merkey Road. Speed limits range from 55 miles per hour in the less developed southern portion to 30 miles per hour just south of 12th Street.

Existing Access Conditions

The portion of the US-31 study area in Filer Township is relatively undeveloped except for the northern sections in the Merkey Road area. This northern section has numerous driveways serving mostly commercial/retail uses with some small office uses in the mix. There are a few commercial and light industrial uses sprinkled along the southern three miles of the corridor in the Township.

Current deficient access design examples in the Filer Township subarea are outlined below.

- *Poor driveway spacing and/or unnecessary second drive*; several businesses along US-31 north of Red Apple Road on either side have driveways that are very close together, several of which are to the same commercial use.
- *Substandard driveway design/storage*; too little driveway storage (distance from roadway to first internal parking/circulation) at several locations.
- *Substandard driveway alignment/ offsets*; the existence of too many commercial drives north of Red Apple Road has led to poor offsets of driveways on opposite sides of US-31. This leads to consistent inbound left-turn conflicts where opposing drivers wish to use the same section of the center left turn lane.

It should be noted that there are a couple of good examples of access management tools in place along the Township section. MDOT and the Township have maintained relatively good spacing of commercial driveways away from the US-31/Merkey intersection. Also,



there are internal connections between the Kmart shopping center and the frontage uses that help reduce the amount of traffic conflicts on US-31.

Key Traffic Locations/Deficiencies

Given the relatively low volumes and undeveloped nature of most of this corridor section, there are not many significant traffic issues outside the access deficiencies noted above. MDOT has recently widened US-31 to three lanes north of

Red Apple Road/28th Street and completed other intersection improvements along with their ongoing monitoring process.

The US-31/Merkey intersection is operating acceptably and appears to have an average crash rate. However, concerns have been expressed by Advisory Committee members, and at the public open houses, about the operating conditions at the US-31/Red Apple/28th intersection – specifically regarding the need for a traffic signal.

City of Manistee

Roadway Characteristics

US-31 within the City of Manistee generally has a four-lane cross section with only a few locations that shift to either a three-lane or five-lane cross section. Year 2001 counts indicate that this section of US-31 carries between 17,000 to 21,500 vehicles on a summer weekday. Year 2025 weekday traffic projections indicate that those weekday traffic volumes may be up to 23,000 vehicles near 12th Street and 31,000 vehicles per day north of the Manistee River.

Speed limits vary from 30 to 40 miles per hour within the City. Most of the side street intersections with US-31 are stop sign controlled. Only 1st Street and River Street (other than the bridge control signals) are currently controlled by a traffic signal.

Existing Access Conditions

Manistee has a wide-ranging mix of existing access configurations related to the varied land uses adjacent to the US-31 corridor. This section of the corridor is the most densely developed subareas within the study area. Given that most of this development occurred some time ago, it not surprising that there are numerous access management deficiencies along this section.

Existing access management deficiencies include the following:

- *Substandard driveway design/storage*; there are many locations where shallow parcel depths in the past have resulted in driveways with little or no storage, other locations have very wide driveways that don't meet current standards.
- *Poor intersection-to-driveway spacing*; numerous locations – driveways right next to 1st Street, River Street, and Harrison Street are examples of the poor spacing that affect the safety of an intersection.



- *Poor driveway spacing and/or unnecessary second drive*; many commercial uses along the City's section of the corridor have multiple driveways that appear unnecessary given their trip generation characteristics.
- *Substandard driveway alignment/offsets*; the above driveway issue (too many) leads to many instances where driveways on the opposite sides of US-31 are poorly offset from each other. This creates driver visibility problems given the predominant four-lane cross section.

There are several examples within the City section of the corridor that reflect good access management principles. Several of those are good alignment of existing (relatively new) driveways. Another is the past closure of a wide commercial driveway on the west side of US-31 just north of the US-31/1st Street intersection.

Key Traffic Locations/Deficiencies

Based upon pre-study designations and discussions with the Advisory Committee, there are several intersections or roadway sections of special concern. Those included the US-31 intersections with 12th Street, Eighth Street, and Taylor Street/Memorial Drive. Although not specifically a deficiency, there was also some discussion regarding a long-term interest in shifting the US-31 alignment for a section from Monroe Street north into Manistee Township.

The concerns at the first two are directly related to the potential need for a traffic signal to allow easier access to US-31. For 12th Street, the concern is related to traffic generated by the high school located to the west. The US-31/Taylor/Memorial intersection is a special case and has been a concern for some time given its unusual geometric layout and the operational and physical constraints created by the adjacent bridge.

On-site reviews of each of these were completed along with traffic counts where appropriate. The findings and recommendations resulting from these analyses are summarized in a subsequent chapter of this report.

Manistee Township

Roadway Characteristics

The section of US-31 in Manistee Township has a cross section that varies from two to three lanes through most of this subarea. Count data indicates that traffic volumes vary within this section of the study from approximately 17,000+ vehicles per summer weekday near Lakeshore Road to approximately 15,000 vehicles per day north of the M-55 intersection. Traffic projections indicate that those two volumes may increase to approximately 21,000 vehicles per day by the year 2025.



Speeds vary from 40 mph between Lakeshore Road and M-55 up 55 miles per hour from that point north to M-22. With the exception of the signalized US-31/M-55 intersection, all

cross streets and roads are stop sign controlled.

Existing Access Conditions

As in the city, the Township has an interesting mix of existing access configurations related to the varied land uses in this subarea, especially on the southern third of this corridor section. Again, the access management deficiencies are not surprising given that it appears most of the existing development has been in place for some time.

Current access deficiencies on US-31 within Manistee Township include the following examples.

- *Poor driveway spacing and/or unnecessary second drive*; many businesses along this entire corridor section, especially between Lakeshore Road and M-55, have unnecessary second/third driveways. Many of these are spaced way too close together – either from drives to the same site or from adjacent site’s driveways. In a short section on either side of Hahn Road, there are at least 10 commercial driveways that are considered poorly spaced and/or unnecessary.
- *Substandard driveway alignment/ offsets*; as noted earlier for the city section, the existence of too many commercial drives has led to poor offsets of driveways on opposite sides of US-31. This leads to consistent inbound left-turn conflicts where opposing drivers wish to use the same section of the center left-turn lane.
- *Substandard driveway design/ storage*; numerous commercial entities have older style access points that have little or no driveway storage.

On the positive side, the driveway spacing and opposing driveway alignment are relatively good at the US-31/M-55 intersection. Also, the addition/expansion of a center turn lane adjacent to the hospital, along with driveway improvements, have made for a fairly good section of highway.

Key Traffic Locations/Deficiencies

There was only one specific location that was brought up as an area of concern in regards to traffic conditions. That location is adjacent to the US-31/Lakeshore Road intersection, where US-31 transitions from four to three lanes and the current



pavement marking design appears to create driver confusion during busy periods. Also, comments received during the open houses indicate that completing a left-turn from a driveway onto US-31 (in the three-lane cross section area) on the southern portion can be very difficult during peak periods.

USA in Trust - LRBOI

Roadway Characteristics

The study area within the tribal properties is relatively short and comprises the northern half-mile of the overall study corridor. US-31 has a two-lane cross section in this subarea (three lanes at M-22) and carries approximately 15,000 vehicles on a summer weekday (2003 count). By 2025, the daily volumes on this section are expected to climb to over 21,000 vehicles.



Currently, the only public road intersection within this area is M-22 that is stop sign controlled at US-31 (with flashing beacon). The speed limit is set at 55 mph for this section of the corridor.

Existing Access Conditions

Current access conditions on this section of US-31 are limited except for one or two poorly-spaced gravel driveways on the east side near M-22 that are currently used only intermittently.

Access to the large casino

site on the west side of US-31 is currently provided by driveways off M-22 – fairly well spaced from the US-31/M-22 intersection.

Given the above, there are no existing access or traffic-related deficiencies to point out at this time within this subarea.

3. Access Management Standards

Based upon the analysis of existing conditions and constraints, and review of MDOT, national, local, and other states access guidelines, the access management portion of the plan for the US-31 study area was developed. This chapter summarizes the basic design standards that should be used by the four communities.

Access Management Standards

Since there is a wide disparity in the current and planned future development along the US-31 corridor, it is impractical to impose driveway standards uniformly throughout the study area. Design or spacing criteria applicable to the heavily developed portions of the City of Manistee would be less than ideal for an undeveloped section of Filer Township, and vice versa. Standards should provide sufficient flexibility to be effective and equitable as well as meet requirements set by MDOT and the Manistee County Road Commission (ICRC).

The introduction of this report mentioned several benefits that typically result from consistent use of an access management plan. To achieve those benefits, access standards for US-31 must recognize the following principles:

- **Design for efficient access.** Identify driveway design criteria that promote safe and efficient ingress and egress at driveways.
- **Separate the conflict areas.** Reduce the number of driveways, increase the spacing between driveways and between driveways and intersections, and reduce the number of poorly aligned driveways.
- **Remove turning vehicles or queues from the through lanes.** Reduce both the frequency and severity of conflicts by providing separate paths and storage areas for turning vehicles and queues.
- **Limit the types of conflicts.** Reduce the frequency of conflicts or reduce the area of conflict at some or all driveways by limiting or preventing certain kinds of maneuvers.
- **Preserve public investment and the integrity of the roadway.** Acknowledge that substantial public funds have been invested to develop the corridor to move traffic safely and efficiently.
- **Provide reasonable access.** Recognize that property owners have an inherent right to access public roadways although reasonable access may be indirect in some instances.

Correct driveway spacing simplifies driving by reducing the amount of information to which a driver must process and react. Locating a driveway away from the operational area of a signalized intersection decreases the potential for congestion and accidents for both through traffic and vehicles using that driveway. Adequate spacing between driveways and unsignalized roadways (or other driveways) can reduce confusion that otherwise requires drivers to watch for ingress and egress traffic at several points simultaneously while controlling their vehicle and monitoring other traffic ahead and behind them.

The following sections discuss a few of the basic access design criteria that were used during the analysis of the US-31 study area. The specific way in which these criteria or standards applied to the corridor is then outlined in the following chapter.

“Improved driveway spacing simplifies driving by reducing the amount of information to which a driver must process and react.”

Access Design Parameters

Access management involves a series of tools to limit and separate traffic conflict points, separate turning volumes from through movements, locate traffic signals to facilitate traffic movement and limit direct access on higher speed roads and thus preserve capacity and improve safety. The following is a summary of what access management standards would involve.

- **Number of Access Points:** The number of access points to a development should be limited to one where possible. The number of driveways allowed along US-31 will affect traffic flow, ease of driving, and crash potential. Every effort should be made to limit the number of driveways; and encourage access off side streets, service drives, frontage roads, and shared driveways. Along US-31, driveways should be properly spaced from one another and from intersections with other major streets.

Access to a parcel should generally consist of a single driveway, which should be shared with adjacent parcels wherever possible. Certain developments generate enough traffic to consider allowing more than one driveway and larger parcels with frontages of at least 500 feet may also warrant an additional driveway. An additional driveway should only be considered following a traffic impact study that demonstrates the need for additional access and, where possible, the second access point should be located on a side street or be shared with adjacent uses.

- **Driveway Spacing from Intersections:** Driveways need to be placed such that there is adequate spacing from an intersecting street to ensure that traffic entering or exiting a driveway does not conflict with intersection traffic.

Spacing between a proposed driveway and an existing public street intersection is an important design element that must be identified. Typical standards take into account the type of roadways involved (trunkline, arterial, etc.), type of intersection control, and type of access requested. In most cases, there should be no driveways developed within the functional boundary of a given intersection unless the size of that parcel and other constraints do not provide a good alternative.

For the state trunkline roadways involved with this US-31 plan, full movement driveways should be a minimum of 400 feet away from the intersection in 55 mile per hour zones. Such distances are typically not attainable in lower speed zones (like in the City of Manistee) but a minimum of 150-200 feet should still be pursued wherever possible.

In locations where existing parcel constraints limit that spacing (retrofit areas such as in portions of Manistee and Filer Townships and most of the City), driveways onto US-31 should be placed as far as possible away from the intersection. In most undeveloped areas of the corridor, spacing of driveways on the major side roads should be at least 250 feet from the nearest edge of the trunkline pavement. In any case, driveways to side roads that fall under the jurisdiction of the MCRC must meet current road commission standards.

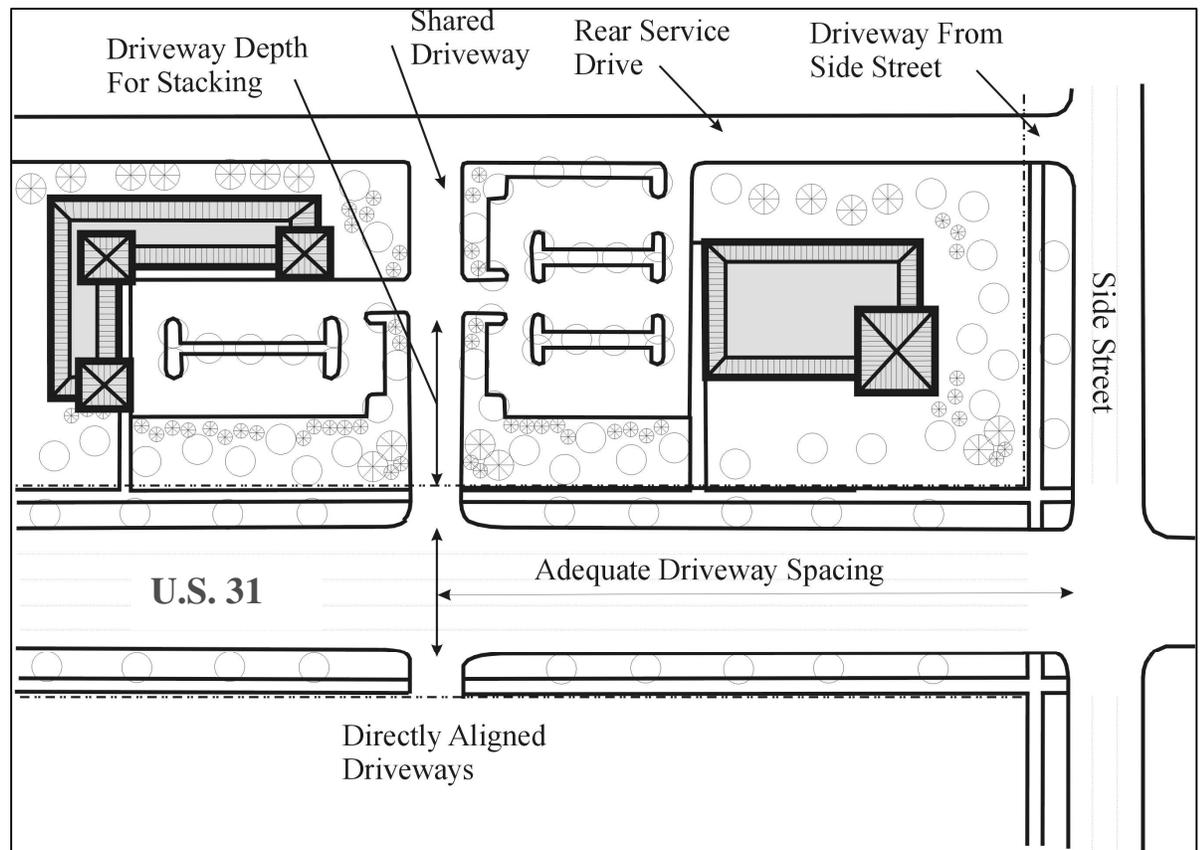
- **Driveway Spacing from Other Driveways:** Driveways also need to provide adequate spacing from other driveways to ensure that turning movement conflicts are minimized. Generally, the greater the speed along the roadway the greater the driveway spacing should be.

Spacing standards recommended for this study area corridor are based upon MDOT guidelines adopted several years ago (that are based upon numerous national references) and require the following minimum distances between driveways (centerline to centerline) given a measured average speed:

<u>Posted Speed (MPH)</u>	<u>Minimum Driveway Spacing (on US-31)</u>
25	130 feet
30	185 feet
35	245 feet
40	300 feet
45	350 feet
50+	455 feet

It is understood that in older developed sections of this corridor (like in the City of Manistee) the above spacing will be difficult to achieve even as sites redevelop. The primary goal in those areas, therefore, is to aggressively pursue the removal of unnecessary drives whenever possible to at least improve upon the current driveway spacing conditions.

- **Driveway Alignment:** In order to prevent left turn conflicts, driveways should be aligned with those across the street or offset a sufficient distance to prevent turning movement conflicts. Minimum offsets on US-31 should be determined by posted speeds and range from 255 feet for a 25-mile per hour zone to 750 feet in a 55-mile per hour zone.
- **Shared Driveways:** Sharing or joint use of a driveway by two or more property owners should be encouraged. This will require a written easement from all affected property owners during the site plan approval process. Where a future shared access is desired, the developer should indicate an easement that will be provided to future adjacent uses.
- **Alternative Access:** Alternative access should be encouraged, such as shared driveways, rear service drives or frontage roads. Where parcels have frontage on US-31 and a side street, access should be provided off of the side street. Certain turning movements should be limited, especially left turns, where safety hazards may be created or traffic flow may be impeded.
- **Service Drives:** Frontage drives, rear service drives, shared driveways, and connected parking lots should be used to minimize the number of driveways, while preserving the property owner's right to reasonable access. In areas within one-quarter mile of existing



or future signal locations, access to individual properties should be provided via these alternative access methods rather than by direct connection to a major arterial.

In areas where service drives are proposed or recommended, but adjacent properties have not yet developed, the site should be designed to accommodate a future service drive, with access easements provided.

“Shared access drives, service drives or frontage roads all serve to minimize the number of conflict points along a corridor while still providing reasonable access to the adjacent land uses.”

The community and MDOT may temporarily grant individual properties a direct connection to an arterial road (temporary driveway permit) until the frontage road or service drive is constructed. This access point should be closed when the frontage road or service drive is constructed.

The safety and efficiency of these types of facilities (and shared driveways) is only as good as their design allows. An important but often overlooked design aspect of that design is the "storage" provided at the access driveways. This is the distance between the main road and the service drive or the first internal cross access. This storage needs to be deep enough to accommodate expected vehicle queues thereby reducing the chance of

blocking internal circulation on the service drive. The correct length is also needed to reduce the possibility of entering vehicles backing up into the main road due to internal congestion. Correct location and maintenance of traffic control signs and pavement markings are essential to a smooth operation of these driveways.

There are several factors that affect the determination of the best alignment and depth of a service drive. Those factors include the existing roadway right-of-way, the depth of the adjacent parcels, and the location of existing buildings in partially developed corridors. For drives providing access to two small commercial uses, the storage should be at least 40 feet. For drives providing access to more than two small commercial uses, the storage should be at least 60-100 feet and potentially much more than that (100 - 300 feet) depending upon the trip generation characteristics of the existing/proposed long term land uses to be served.

Rear service drives are preferred because they do not create issues with driveway depth. They also facilitate placing parking to the rear of buildings and moving the buildings closer to the road. Rear service drives also have the added benefit of facilitating integrated access and circulation with development further to the rear. On larger sites, these rear service drives can be designed to function similar to roads interconnecting uses and sites.

Service drives are usually constructed and maintained by the property owner or an association of adjacent owners. The service drive itself should be constructed to public roadway standards in regard to cross section (ie. 22-30 feet wide) materials, design, and alignment. The design is often predicated upon the type and size of vehicles it will need to accommodate including delivery trucks. However, an easement that defines a service drive does not need to be nearly as wide as a public street right-of-way. Since, by definition, these internal roadways will be serving several uses with numerous driveways, additional uses such as on-street parking (temporary or otherwise) should be allowed only under special circumstances.

- **Sight Distance:** Because of sight distance limitations on some roads there are limited locations for optimum driveway placement. The minimum sight distance required for a vehicle to enter or exit the traffic stream on US-31 is determined by MDOT at the time of an application for a driveway permit. The local unit of government should coordinate with the MDOT at the time of site plan review to ensure that this sight distance requirement can be met. If this distance cannot be met on the site, indirect access through another property should be sought.

Implementation of the above access recommendations will help to preserve the capacity, safety, and useful life of US-31 in the study area and on other major roadways. Travel time and congestion will be decreased and the potential for crashes will be reduced. While individual landowners may see the regulations as restricting access to their property, over the long term a well-managed access system will improve access to properties and maintain travel efficiency, thereby enhancing economic prosperity of local businesses.

A strong access management program also has the benefit of closely coordinating land use and transportation decisions to improve the overall quality of life in the corridor communities. The design of the access points can be as important to the overall operation of a corridor as their location. Both MDOT and the road commission's driveway design standards can be supplemented by requirements adopted by the four communities along this US-31 study corridor. Design standards usually define geometric requirements regarding driveway widths, corner radii, and taper lengths to name a few.

4. Corridor Management Plan – Access and Traffic

This chapter outlines the recommended improvements to the corridor’s access system and specific traffic issues and concerns. The actual plan, in regards to access management, is illustrated on the graphics included within this chapter.

Access Management Recommendations

The access management portion of the corridor plan developed for this US-31 study area was directly and indirectly based upon both state and nationally recognized standards. Developing standards to be used for future access considerations are only part of the picture. The other key element for any access management plan is to identify improvements to existing access systems that will provide better safety and efficiency within the corridor. These corrections are typically referred to as retrofit access improvements.

As noted earlier, in a good portion of the developed areas on the corridor, it may be all but impossible to retrofit a corridor section to meet spacing guidelines for driveways. In those cases, however, the goal still is to minimize the number of driveways as much as possible. It should be recognized that many of the retrofit improvements recommended in the plan will only become implementable when an owner or developer approaches the community or MDOT during another approval process.

This plan is a flexible document that is subject to adjustments and improvements as the study area corridor develops. Although the basic design parameters should remain in place, exact locations and configurations of suggested driveways and service/frontage roads may shift as development plans come into focus. This is especially true for undeveloped areas within the two townships.

The recommendations of the access plan are largely based on parcel configurations and future land use plans in existence at the time this plan was prepared. Property combinations and unified development of small parcels is strongly encouraged. In addition, existing parcels should only be divided if a coordinated access system is retained through signed agreements and illustrated on a plan.

It should be recognized that many of the retrofit improvements recommended in the plan will only become implementable when an owner or developer approaches the community and MDOT during another approval process.

The following sections and accompanying figures outline how the recommended access management standards are applied to each of the key subareas within the overall US-31 corridor. As discussed in the previous section, the average speed of traffic along a given corridor is one of several design parameters used to develop driveway spacing standards. Other factors that came into play include the roadway design types, sight distance concerns, physical constraints (ie. railroads) and the type and size of potential traffic generators.

Service drives may play an integral part of the future access management system along the study area frontage, especially in undeveloped commercial portions of Filer Township. The likely locations for these will typically be where there are significant sections of commercial or developmental areas that have not yet been developed. The plan illustrates a few locations for these facilities and the variability in alignment that service drives can take.

Filer Township

The access management recommendations for the section of US-31 in Filer Township are illustrated on Figure 2 and a portion of Figure 3 on the following pages. The plan includes numerous recommendations for addressing existing driveway/access issues and also outlines recommendations for defining access for potential future development.

As one might expect, the number of recommendations increase as the planned/existing land uses increase in density. In the southern portions, the township's future land use plan calls for agricultural, transitional, or residential development so specific access recommendations are not shown. However, even in these areas, the township should try to maintain a minimum 455-600-foot spacing (if not more) between residential plat or other developments driveways/streets.

Further north, Stronach Road becomes the southern edge of the planned commercial section of the township's corridor that continues on up into the City of Manistee. Recommendations for the undeveloped part of this subarea focus on the long term need for a service drive system to provide good interconnection between commercial sites and to minimize the number of access points. This is especially true for the section south of the existing shopping center where commercial development may be more likely in the short term.

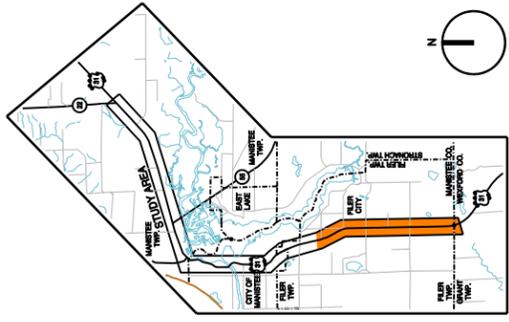
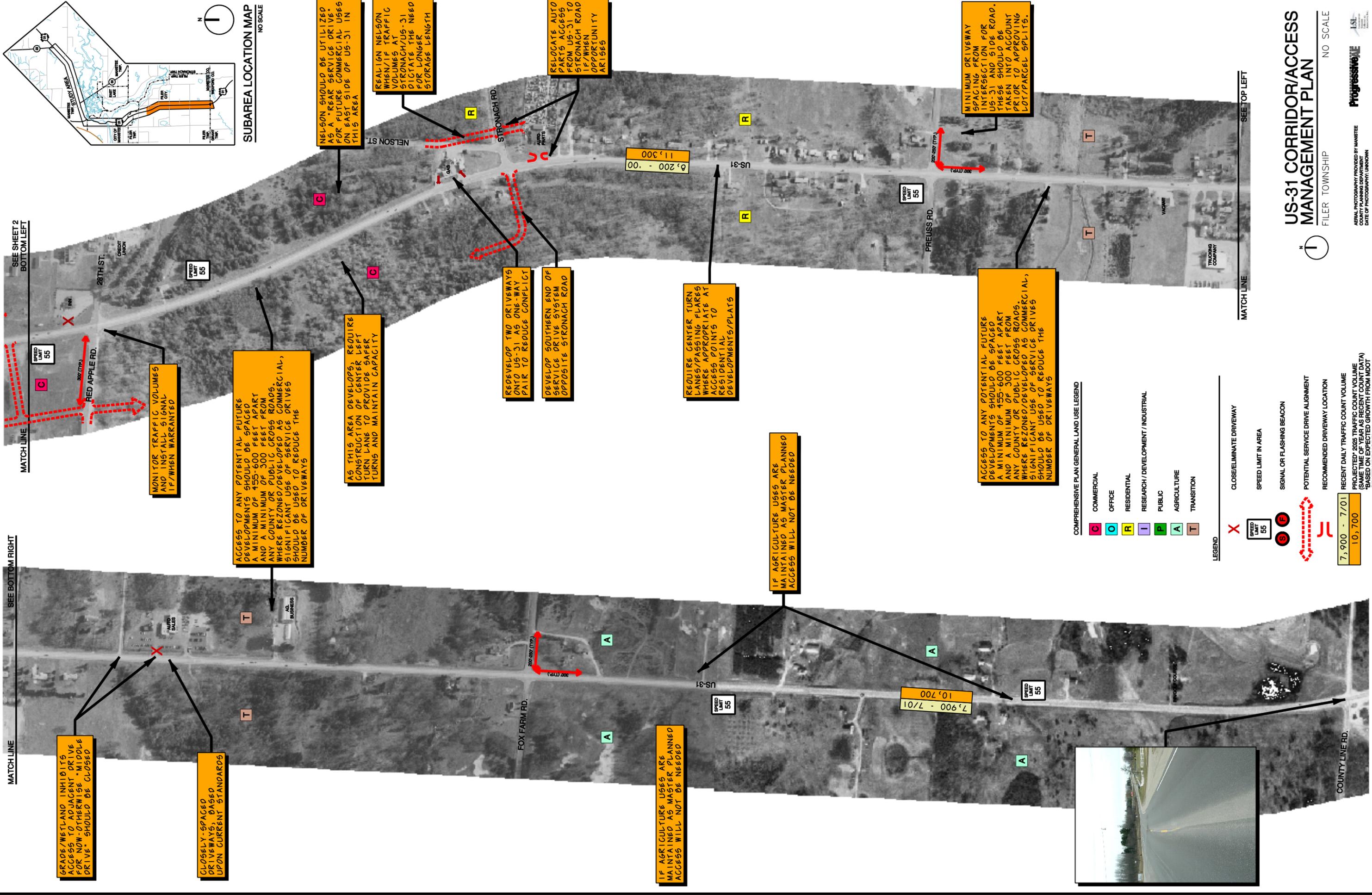
In the subarea surrounding Merkey Road, recommendations are more of the retrofit type and include the closure of several poorly-spaced or unnecessary driveways and/or combining driveways where appropriate. Adjusting several poor driveway offsets is also addressed on the plan for this area. It appears discussions have already taken place for a rear service drive to connect the Prevos shopping center south to the old Kmart site. This is a good example of sharing access and service drive connectivity, especially given the physical constraints (grades) that surround the existing Prevos site.

City of Manistee

Almost all of the recommended access improvements outlined in Figure 3 for the City fall under the retrofit category given the built-out nature of this part of the corridor. These types of improvements (closing unnecessary drives/sharing drives) are typically not items that can be done overnight as the City or MDOT can't simply force an owner to close a driveway.

In most cases, such closures are done through a site plan approval and/or building occupancy process when the site is redeveloped, improved, or changes uses. These closures, then, are part of a long-range plan and can take many years to come to full fruition. However, past experience has shown that the ultimate safety and capacity benefits realized by the residents of the City and other travelers, even if long term, are worth the effort.

Recommended driveways closures/relocations do not focus solely on commercial sites. For example, there are two existing school driveways at the US-31/12th Street intersection



SUBAREA LOCATION MAP
NO SCALE

SEE SHEET 2
BOTTOM LEFT

SEE BOTTOM RIGHT

MATCH LINE SEE TOP LEFT

MATCH LINE

GRADE/WETLAND INHIBITS ACCESS TO ADJACENT DRIVE FOR NOW-OTHERWISE "MIDDLE DRIVE" SHOULD BE CLOSED

CLOSELY-SPACED DRIVEWAYS, BASED UPON CURRENT STANDARDS

MONITOR TRAFFIC VOLUMES AND INSTALL SIGNAL IF/WHEN WARRANTED

ACCESS TO ANY POTENTIAL FUTURE DEVELOPMENTS SHOULD BE SPACED A MINIMUM OF 455-600 FEET APART AND A MINIMUM OF 300 FEET FROM ANY COUNTY OR PUBLIC CROSS ROADS. WHERE REZONED/DEVELOPED AS COMMERCIAL, SIGNIFICANT USE OF SERVICE DRIVES SHOULD BE USED TO REDUCE THE NUMBER OF DRIVEWAYS

AS THIS AREA DEVELOPS, REQUIRE CONSTRUCTION OF CENTER LEFT TURN LANE TO PROVIDE SAFER TURNS AND MAINTAIN CAPACITY

NELSON SHOULD BE UTILIZED AS A "REAR SERVICE DRIVE" FOR FUTURE COMMERCIAL USES ON EAST SIDE OF US-31 IN THIS AREA

REALIGN NELSON WHEN/IF TRAFFIC VOLUMES AT STRONACH/US-31 DICTATE THE NEED FOR LONGER STORAGE LENGTH

REDEVELOP TWO DRIVEWAYS ONTO US-31 AS ONE-WAY PAIR TO REDUCE CONFLICT

DEVELOP SOUTHERN END OF SERVICE DRIVE SYSTEM OPPOSITE STRONACH ROAD

RELOCATE AUTO PARTS ACCESS FROM US-31 TO STRONACH ROAD IF/WHEN OPPORTUNITY ARISES

IF AGRICULTURE USES ARE MAINTAINED AS MASTER PLANNED ACCESS WILL NOT BE NEEDED

IF AGRICULTURE USES ARE MAINTAINED AS MASTER PLANNED ACCESS WILL NOT BE NEEDED

REQUIRE CENTER TURN LANES/PASSING FLARES WHERE APPROPRIATE AT ACCESS POINTS TO RESIDENTIAL DEVELOPMENTS/PLATS

ACCESS TO ANY POTENTIAL FUTURE DEVELOPMENTS SHOULD BE SPACED A MINIMUM OF 455-600 FEET APART AND A MINIMUM OF 300 FEET FROM ANY COUNTY OR PUBLIC CROSS ROADS. WHERE REZONED/DEVELOPED AS COMMERCIAL, SIGNIFICANT USE OF SERVICE DRIVES SHOULD BE USED TO REDUCE THE NUMBER OF DRIVEWAYS

MINIMUM DRIVEWAY SPACING FROM INTERSECTION FOR US-31 AND SLOE ROAD. THESE SHOULD BE TAKEN INTO ACCOUNT PRIOR TO APPROVING LOT/PARCEL SPLITS.

- COMPREHENSIVE PLAN GENERAL LAND USE LEGEND**
- COMMERCIAL
 - OFFICE
 - RESIDENTIAL
 - RESEARCH / DEVELOPMENT / INDUSTRIAL
 - PUBLIC
 - AGRICULTURE
 - TRANSITION

- LEGEND**
- X CLOSE/ELIMINATE DRIVEWAY
 - SPEED LIMIT 55 SPEED LIMIT IN AREA
 - Ⓢ SIGNAL OR FLASHING BEACON
 - - - POTENTIAL SERVICE DRIVE ALIGNMENT
 - || RECOMMENDED DRIVEWAY LOCATION

7,900 - 7,701	RECENT DAILY TRAFFIC COUNT VOLUME
10,700	PROJECTED 2025 TRAFFIC COUNT VOLUME (SAME TIME OF YEAR AS RECENT COUNT DATA) *BASED ON EXPECTED GROWTH FROM MDOT STATEWIDE MODEL

US-31 CORRIDOR/ACCESS MANAGEMENT PLAN
FILER TOWNSHIP NO SCALE

PREPARED BY: PROGRESSIVE
COUNTY PLANNING DEPARTMENT
DATE OF PHOTOGRAPHY: UNKNOWN

FIGURE 2

that are too close and can affect the safety of the intersection. The driveway onto US-31 should be closed and the one onto 12th should be shifted westward (the grade difference issues can be solved).

As shown on Figure 3, there are several small subareas within the city corridor that will need significant driveway adjustments; near/at 1st Street, just north of Monroe Street, and just south of the city's northern limits. Also noted on the plan is the recommendation to limit the number of access points to a potential redevelopment site on the east side of US-31 just north of the bridge. If/when the rail facilities are removed/relocated, two access points (located directly opposite city street intersections) will be enough to provide good access.

Manistee Township

As noted earlier, there is a wide variety of development and access conditions along US-31 in Manistee Township. For that reason, the access management recommendations vary from very intense specific changes to generalized future requirements. Figures 4 and 5 illustrate the recommended access improvements.

The section of US-31 between Lakeshore Road and M-55 will need to have a significant number of the current poorly-spaced/unnecessary driveways eliminated to help this roadway section operate more efficiently. The numerous driveways are one of the primary reasons this section of US-31 is difficult to drive on and exit out onto as there are just too many conflict points for drivers. One or two other locations simply need to have their driveway widths adjusted to more current standards.

The access conditions at the intersection of US-31/Park Avenue/Oak Grove Street are poor given the five-legged layout. It appears that the best solution for providing long term efficiency at this location is to close one or two drives and potential cul-de-sac of Oak Grove. Further investigation of this location may be needed to define the best configuration of such a closure.

North of M-55 there is much less retrofit recommendations as development is not as intense. Recommendations include widening US-31 to three lanes up to at least the school to provide a safer and more efficient environment for left-turn vehicles (and potentially as far north as the hospital to match up with the existing three lane section there).

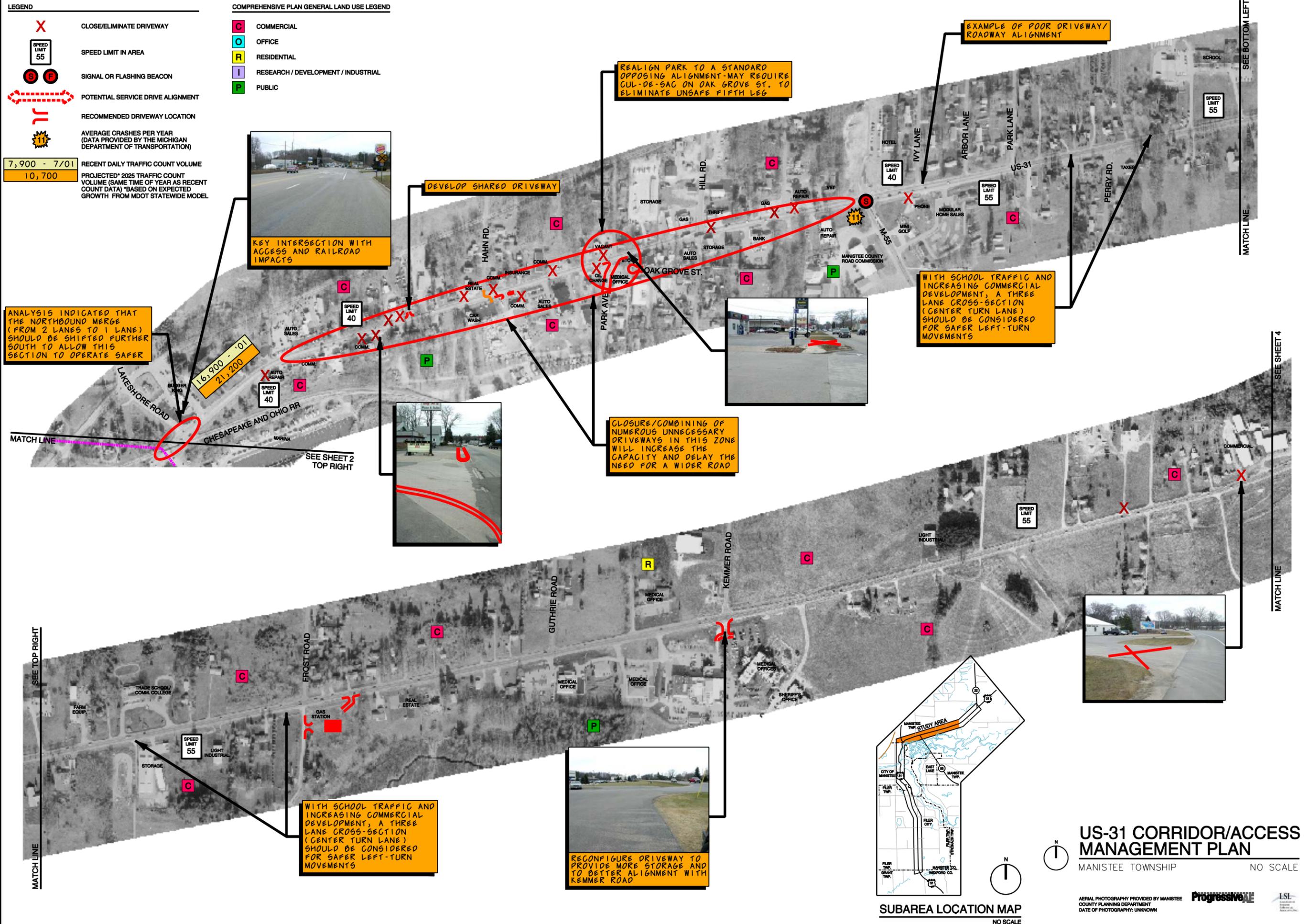
USA in Trust - LRBOI

The Trust lands that are the focus of this portion of the plan are those immediately adjacent to US-31 between River Road and M-22. As shown in Figure 5, the access management recommendations for this area are limited given the existing topographic constraints and undeveloped nature (except the casino) of the adjacent land.

As noted, access to those undeveloped areas should be limited and well spaced – 500-600 feet apart if possible. For the land opposite the casino, one location that would provide good access would be directly opposite M-22 to create a fourth leg of that intersection. Potential future full signalization at this location would then provide better service to the motoring public on M-22 and also good access/egress for the patrons of any uses on that east side.

- LEGEND**
- X CLOSE/ELIMINATE DRIVEWAY
 - SPEED LIMIT 55
 - SIGNAL OR FLASHING BEACON
 - POTENTIAL SERVICE DRIVE ALIGNMENT
 - RECOMMENDED DRIVEWAY LOCATION
 - AVERAGE CRASHES PER YEAR (DATA PROVIDED BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION)
 - 7,900 - 7/01 RECENT DAILY TRAFFIC COUNT VOLUME
 - 10,700 PROJECTED* 2025 TRAFFIC COUNT VOLUME (SAME TIME OF YEAR AS RECENT COUNT DATA) *BASED ON EXPECTED GROWTH FROM MDOT STATEWIDE MODEL

- COMPREHENSIVE PLAN GENERAL LAND USE LEGEND**
- C COMMERCIAL
 - O OFFICE
 - R RESIDENTIAL
 - I RESEARCH / DEVELOPMENT / INDUSTRIAL
 - P PUBLIC



ANALYSIS INDICATED THAT THE NORTHBOUND MERGE (FROM 2 LANES TO 1 LANE) SHOULD BE SHIFTED FURTHER SOUTH TO ALLOW THIS SECTION TO OPERATE SAFER



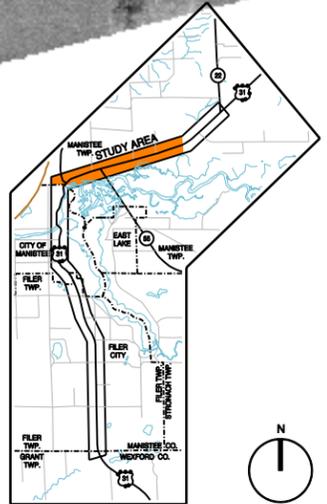
DEVELOP SHARED DRIVEWAY

REALIGN PARK TO A STANDARD OPPOSING ALIGNMENT-MAY REQUIRE GUL-DE-SAC ON OAK GROVE ST. TO ELIMINATE UNSAFE FIFTH LEG

WITH SCHOOL TRAFFIC AND INCREASING COMMERCIAL DEVELOPMENT, A THREE LANE CROSS-SECTION (CENTER TURN LANE) SHOULD BE CONSIDERED FOR SAFER LEFT-TURN MOVEMENTS

CLOSURE/COMBINING OF NUMEROUS UNNECESSARY DRIVEWAYS IN THIS ZONE WILL INCREASE THE CAPACITY AND DELAY THE NEED FOR A WIDER ROAD

WITH SCHOOL TRAFFIC AND INCREASING COMMERCIAL DEVELOPMENT, A THREE LANE CROSS-SECTION (CENTER TURN LANE) SHOULD BE CONSIDERED FOR SAFER LEFT-TURN MOVEMENTS



US-31 CORRIDOR/ACCESS MANAGEMENT PLAN
MANISTEE TOWNSHIP
NO SCALE

AERIAL PHOTOGRAPHY PROVIDED BY MANISTEE COUNTY PLANNING DEPARTMENT
DATE OF PHOTOGRAPHY: UNKNOWN

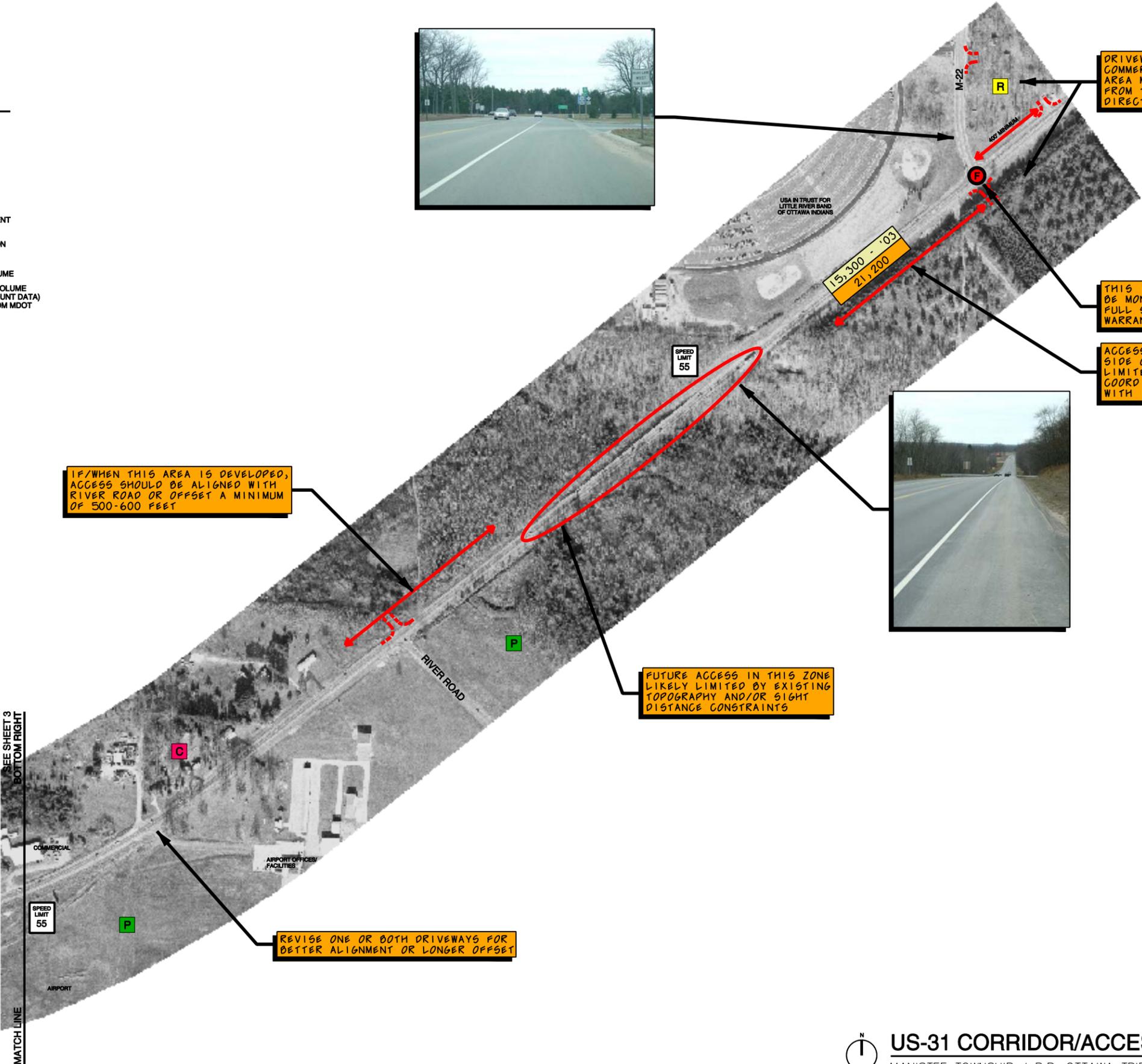
FIGURE 4

COMPREHENSIVE PLAN GENERAL LAND USE LEGEND

- C COMMERCIAL
- O OFFICE
- R RESIDENTIAL
- I RESEARCH / DEVELOPMENT / INDUSTRIAL
- P PUBLIC

LEGEND

- X CLOSE/ELIMINATE DRIVEWAY
- SPEED LIMIT
55 SPEED LIMIT IN AREA
- S F SIGNAL OR FLASHING BEACON
- POTENTIAL SERVICE DRIVE ALIGNMENT
- || RECOMMENDED DRIVEWAY LOCATION
- 7,900 - 7/01 RECENT DAILY TRAFFIC COUNT VOLUME
- 10,700 PROJECTED* 2025 TRAFFIC COUNT VOLUME
(SAME TIME OF YEAR AS RECENT COUNT DATA)
*BASED ON EXPECTED GROWTH FROM MDOT STATEWIDE MODEL



DRIVEWAYS TO POTENTIAL FUTURE COMMERCIAL DEVELOPMENT IN THIS AREA MUST BE MINIMUM OF 300 FEET FROM THE INTERSECTION. OR ALIGNED DIRECTLY OPPOSITE M-22

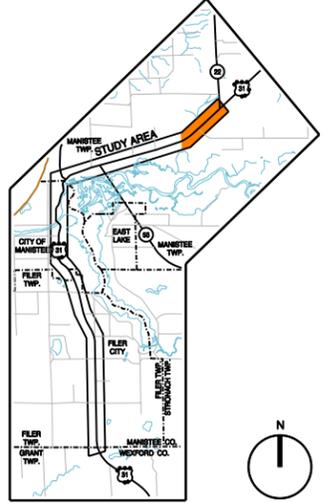
THIS INTERSECTION MAY NEED TO BE MONITORED TO UPGRADE TO FULL SIGNALIZATION IF/WHEN WARRANTED IN FUTURE

ACCESS TO FRONTAGE ON EAST SIDE OF U.S. -31 SHOULD BE LIMITED TO ONE OR TWO COORDINATED DRIVEWAYS WITH INTERNAL CONNECTIONS

IF/WHEN THIS AREA IS DEVELOPED, ACCESS SHOULD BE ALIGNED WITH RIVER ROAD OR OFFSET A MINIMUM OF 500-600 FEET

FUTURE ACCESS IN THIS ZONE LIKELY LIMITED BY EXISTING TOPOGRAPHY AND/OR SIGHT DISTANCE CONSTRAINTS

REVISE ONE OR BOTH DRIVEWAYS FOR BETTER ALIGNMENT OR LONGER OFFSET



SUBAREA LOCATION MAP
NO SCALE

US-31 CORRIDOR/ACCESS MANAGEMENT PLAN
MANISTEE TOWNSHIP, L.R.B. OTTAWA TRIBE
NO SCALE

AERIAL PHOTOGRAPHY PROVIDED BY MANISTEE COUNTY PLANNING DEPARTMENT
DATE OF PHOTOGRAPHY: UNKNOWN



Traffic System Recommendations

The following sections outline several of the recommended roadway improvements that will help address concerns and issues brought up by the Advisory Committee.

US-31 at Red Apple Road/28th Street – Filer Township

Although recent improvements by MDOT have provided more capacity at this intersection, there are still concerns that a traffic signal is needed now or in the near future. Based upon discussion with MDOT regarding current side street traffic volumes and recent crash history, it does not appear that this location meets the primary traffic warrants outlined in the Michigan Manual of Uniform Traffic Control Devices (MMUTCD).

However, given the ongoing commercial growth in this immediate area and additional traffic generators to the west, the intersection is a prime candidate for signalization. It is therefore recommended that MDOT continue to monitor this location on a yearly basis and install a full signal as soon as applicable warrants are met.

US-31 at 12th Street – City of Manistee

Concerns were expressed by the City that a traffic signal may be needed at this intersection due traffic generated by the high school located to the west. New traffic counts were performed last fall at this location during school periods for base data on a signal warrant analysis. Those traffic volumes indicated that this intersection does not currently meet those warrants at this time. However, this is another location where ongoing monitoring of traffic volume and crash history is needed to determine when signalization becomes necessary.

US-31 at 8th Street – City of Manistee

This intersection has two issues/concerns that were brought up by the City – the existing southbound transition from two lanes to one lane and a potential need for a signal. Based upon the discussions with MDOT staff, it appears, at this time, that the traffic volumes at the intersection do not meet the typical warrants for signalization. Review of the recent crash data appears to further confirm that there is not a pattern of crash types that would be addressed by the installation of a signal. As with 12th Street, though, this location should continue to be monitored so a signal can be installed once warrants are met.

Based upon the field review during this study, an improvement was identified that should help improve the efficiency and safety of the US-31/8th intersection and addresses the southbound transition issue. Observations and discussions indicate that the southbound transition to one lane is often confusing due to its current location just south of the intersection, even with the additional MERGE markings placed north of the intersection. Since the intersection is a local high elevation point on US-31, drivers approaching from the north can't see the actual longitudinal transition pavement markings until they are at the intersection.

The recommended improvement is to shift the actual transition location to between 7th and 8th Streets and also provide a short southbound left-turn lane at the US-31/8th intersection. This location will make the transition easily visible for southbound drivers for some distance and also provides a safer environment for southbound left-turning vehicles. A conceptual sketch of the recommendation is included in the appendix.

US-31 at Taylor Street/Memorial Drive - City of Manistee

There have been long-standing concerns regarding the operation of this one-sided intersection. The safety and efficiency issues are due to several key design factors; it's proximity to the bridge (and its drawbridge operations), the four-legged configuration with both side streets on one side of US-31, and the turning limitations, poor sightlines to and from those side streets, and, of course, the growing traffic volumes along the US-31 corridor. This is particularly true for the Memorial Drive portion of the intersection as it approaches US-31 immediately adjacent to the bridge where sight distance issues arise.

This intersection has been experiencing an average of nine crashes per year over the last few years. This is a fairly high number given the relatively low traffic volumes on either Taylor or Memorial. Traffic counts taken during peak hours indicate that the approach volumes on the Taylor Street and Memorial Drive were only about 40 vehicles and 150 vehicles, respectively.



Given the above constraints and data, the best solution appears to be one that combines the two side streets into one. Several alternatives were developed and discussed at length by the Advisory Committee. Those discussions touched on the need to reduce, as much as possible, the impact to the adjacent market and other implications regarding the closure/relocation of a portion of the current Memorial Drive alignment.

The preferred alternative (Concept B) was chosen that maintains the Taylor Street approach (widened slightly) and closes the Memorial Drive approach. Memorial Drive is kept as is up to a point approximately 150 feet from US-31. Traffic going to/from the market (and adjacent uses) can still easily gain access/egress through Taylor. Traffic currently using Memorial Drive to get to/from the Washington corridor will experience little or no delay using Taylor Street instead. An illustration of Concept B is shown on the next page. A vicinity map of that subarea is included in the appendix.

US-31 Northbound Transition (@ Lakeshore Road) - Manistee Township, City of Manistee

One of the most consistent concerns that came up during the plan process was the apparent driver confusion on northbound US-31 where it transitions from two through lanes down to one. The combination of roadway curvature, the railroad crossing, and a long section of a wide, unmarked lane leads to either confusion and/or a short “raceway” before the single northbound lane (overall three-lane section north of Lakeshore Road).

Based upon field observations and discussions with MDOT staff, the best solution appears to be shifting the transition section to a more visible location. Shown on an illustration in the Appendix, it is recommended the northbound transition be relocated further south to a point

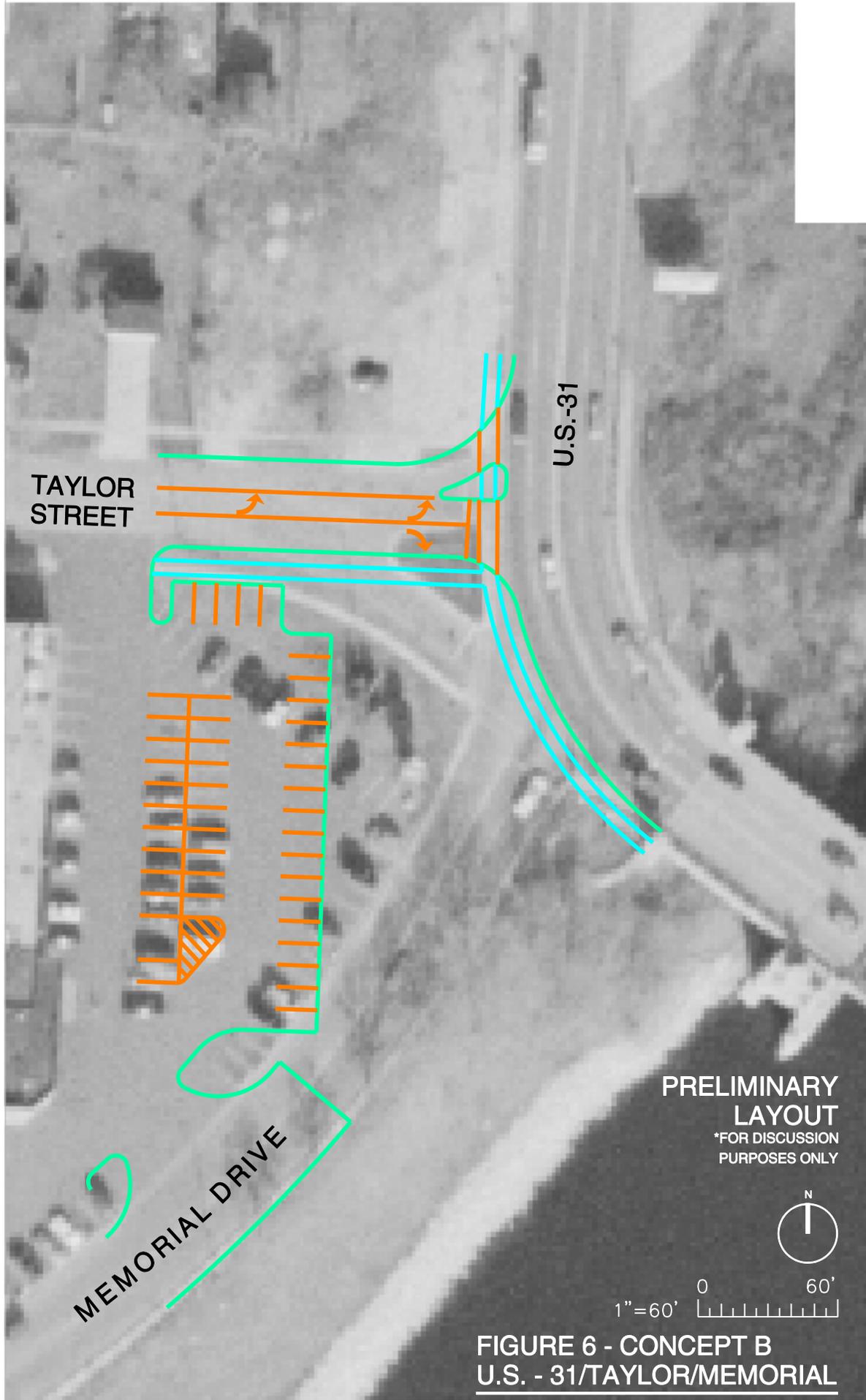


FIGURE 6 - CONCEPT B
U.S. - 31/TAYLOR/MEMORIAL

FILE NO 56820101
 DATE 01/19/04
 DRAWING REF

DRAWN BY RXM
 JC/ENG BY PCL
 CHECKED BY PCL
 PROJECT LDR PCL

U.S. - 31 ACCESS/CORRIDOR MANAGEMENT PLAN

N.W.M.C.O.G.
 CITY OF MANISTEE, MICHIGAN

FIGURE 6 - CONCEPT B
 U.S. - 31/TAYLOR/
 MEMORIAL

FIGURE 6

Progressive AE

1811 4 MILE ROAD, NE
 GRAND RAPIDS, MI 49525-2442
 616 361 2864 VOICE
 616 361 1483 FAX
 WWW.PROGRESSIVEAE.COM

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where it is readily visible from a distance to northbound US-31 traffic. This improvement will provide the following benefits:

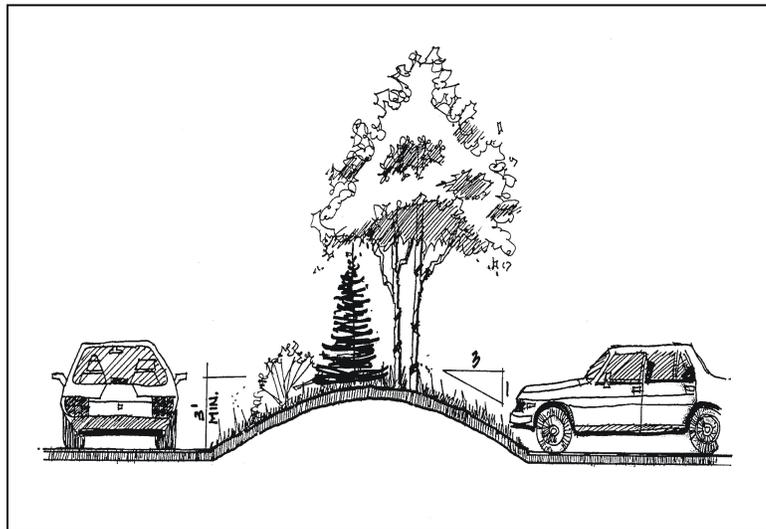
- Will remove the transition area from an already busy intersection/RR crossing zone;
- Will provide better visibility of the actual transition from a distance;
- Will retain the existing northbound left-turn lane at Lakeshore Drive; and
- Will provide a two-way left-turn lane for improved/safer access to commercial uses in the short segment just south of the RR crossing.

5. Aesthetic and Pedestrian Issues and Opportunities

Why Have Aesthetic and Pedestrian Regulations?

The visual characteristics of a corridor provide a first impression to visitors, pass through traffic and for those who live near it who form positive and/or negative opinions about an area which in turn influence decisions of whether they will return in the future and if so, how often and for how long.

Amenities and attention to design details are important to the creation of a “sense of place” and creating atmospheres for social interaction. For instance, a restaurant within a poorly maintained building placed in the middle of an asphalt parking lot with no trees around it and a outdoor dog kennel next door will likely have a much more difficult time of succeeding over a restaurant placed along the banks of a river with outdoor seating, a pedestrian path passing by it and mature trees. Whereas a pedestrian path, river and outdoor seating create an atmosphere or place to relax and enjoy a good meal, the image of a dog kennel, large paved area and unattractive building does little for relaxation and social interaction. The same principals applied to individual sites can be carried over to a road corridor and subareas along it.



Vehicular Image Components

Feelings of a sense of place can be created along a corridor through use of repetitious elements within the public right-of-way. Such as light fixtures, sidewalk, and street trees. Utilization of historic light fixtures in mature neighborhoods and contemporary fixtures in new areas can help tell a visitor they are entering a different area of the corridor or even a different community. Attaching banners to light poles can also serve as demarcation points between subareas along a corridor, or serve to recognize a corridor as the same “place”.

Street trees can be planted within the public right-of-way to bring nature into an area of machines and development creating a softer image. Trees can serve to create a ceiling for the corridor portraying a sense of enclosure which has the benefit of slowing traffic down because drivers feel that they are in a more confined space.

Feelings of a sense of place for subareas along a corridor can be created through regulations that govern the placement of buildings, building materials and design, types of signs and their locations and landscaping outside of the public right-of-way. For instance a requirement that all buildings be built of brick and that they be located 50 foot away from the public street right-of-way can create visual unity between sites achieved through texture, color, and creation of visual lines for travelers along a street (build to line of buildings). Such requirements can portray feelings of a cohesive place that cannot be achieved by allowing each individual site to be designed with little regard to the community around them. Examples of this can be seen virtually in the same form anywhere in the United States and is largely the product of corporate franchise designs and suburban design standards or lack thereof that cater to the automobile.

Pedestrian Image Components

Attention to detail becomes even more important when one enters the realm of the pedestrian. Pedestrians travel at much slower speeds than a speeding car and thus have time to notice details and be affected more intimately by design decisions. For pedestrians to want to utilize an area the area should be designed with pedestrian safety in mind, creating visual interest and establishing destinations.

Pedestrians must feel safe in walking from place to place. Buffer strips should be installed in-between sidewalks and roadways with their speeding cars. Sites should also not be designed with many hiding places for possible criminal activity. For instance, a pedestrian path should not connect a residential area to a commercial area via a tunnel and plenty of evergreen trees on either end. A pedestrian path should also not be placed directly adjacent to a heavily traveled roadway, nor should pedestrian crossings be encouraged across a large street without pedestrian crossing devices such as a pedestrian island and/or signal.

Destinations should be strategically located and connections provided to encourage their use by pedestrians. Desirable uses placed at great distances from one-another that make them inconvenient to be utilized by pedestrians does little to encourage pedestrian activity. Buildings placed close together in subareas in relatively compact areas promotes parking of cars and walking between sites as well as travel to locations by pedestrians reducing vehicle trips on adjacent roadways.

Visual interest can be accomplished through utilization of color and texture of such things as sidewalks, buildings and plant life. Colors and textures should compliment one another but also provide unity and variety. Introduction of public art and public street furniture in strategic locations to serve the needs of pedestrians for such things as social interaction and rest.

Aesthetics & Pedestrian Opportunities

Looking solely at the issue of access to sites for the automobile and ignoring the aesthetic appearance and pedestrian functionality of the corridor does little to build community and a sense of place that is the larger Manistee community. In driving the U.S. 31 corridor it is

apparent that there is a mixture of development along the corridor including residential uses, commercial uses and public uses with varying architectural styles, setbacks, lot sizes and parking and pedestrian amenities/facilities.

This chapter discusses existing characteristics along the corridor by general age of development and offers alternative aesthetic and pedestrian design possibilities. It is recognized that with aesthetics and design there is a certain amount of subjectivity. The discussion and opportunities highlighted in this chapter are therefore intended for review by each community with decisions to be made by each community at the local level for development of specific regulations in the future.



Older commercial development near downtown Manistee

Mature Areas

Areas of mature development are near the City of Manistee’s historic central business district which includes areas of commercial surrounded by residential. This is an area of dense development, small lots and buildings historically built close to roadways.

Opportunities for aesthetic improvement within these mature commercial areas include installation of small areas of landscaping, elimination of pole signs, elimination of above ground utility lines, implementation of building façade improvements, and introduction of community elements.

Landscaping can be added along road frontages in medians or in planters on sidewalks through the use of tree grates (see sketch example at right).

Pole signs for commercial site identification can often be eliminated due to the proximity of buildings to roads. Generally, commercial site identification can instead be achieved quite well through the use of wall signs. The photos on the top of the next page show an existing building within the City of Manistee placed close to U.S. 31. This location is an excellent opportunity for utilization of wall signs for identification rather than pole signs. However, if a pole sign is still desired there are other opportunities to the more traditional pole signs. At this same location a historic light fixture could be added with a banner depicting the business name.

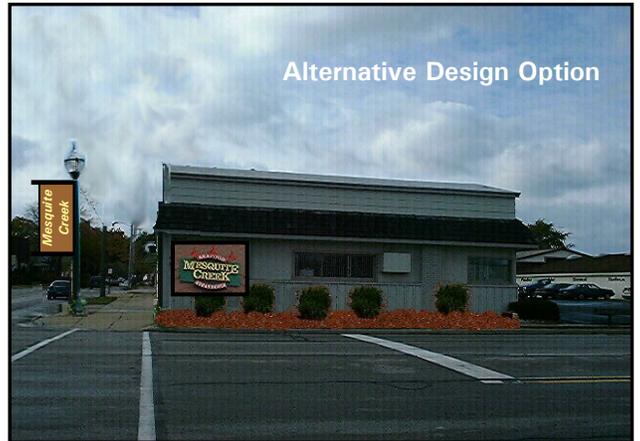


Example of how landscaping can be added to a site with a 5 to 10 ft. building setback.



Current Appearance

Existing commercial building- City of Manistee.



Alternative Design Option

Existing commercial building with minor enhancements, including a wall sign, historic light pole, banner and landscaping. Overhead wires were also removed.

Poles can also be used for community messages or themes. The sketch drawing at right is an example of how banners are added to poles to unify areas of a corridor.

Building architecture in the central business district of Manistee is primarily brick and concrete. For design unity and character, similar building materials, architectural features and awnings should be considered for along U.S. 31 near downtown Manistee. The photo at right is an example of how a single story building can be improved to enhance the architectural image of a traditional downtown. The image includes decorative cornices, designated locations for wall signs with decorative light fixtures mounted above, utilization of subtle colors and utilization of awnings and large windows for display.



Example of how banners can be utilized to promote community design unity.

Similar to many of the commercial buildings, residential uses along U.S. 31 within the City of Manistee are placed close to the roadway, some have individual driveway access to the corridor while others have alley access to the rear. Some blocks contain street trees and others do not. Consideration should be given to planting street trees in front of homes along the corridor to improve the visual appearance for travelers and residents and to serve as a visual buffer between the traffic on U.S. 31, residents, and pedestrians on sidewalks.



Example of building façade improvements to a single story building

U.S. 31 as a large roadway serves to divide portions of the larger Manistee community. It is therefore important to identify opportunities for pedestrian connections across the corridor to assist in linking neighborhoods to encourage community social interaction and commercial activity.

Logical areas for improving pedestrian connections within the City of Manistee include near street intersections where pedestrian markings already exist and at mid-block locations in higher pedestrian traffic areas where crossings do not currently exist. Specific improvements that can be made include the installation of pavement markings and/or texture change (such as brick paving designating a pedestrian path) and installation of pedestrian islands within the roadway where feasible. Pedestrian islands are raised pavement and/or landscaped areas placed in the middle of roadways to allow pedestrians to cross traffic moving in one direction, pause and cross traffic in another direction.



Mature housing within the City of Manistee



Example of a residential neighborhood along U.S. 31 within the City of Manistee. Note the existing sidewalk and mature trees.

Adding pedestrian crossing islands may involve extensive modification of the street to provide sufficient room for the island in locations that lack turn medians. To add pedestrian island crossings requires working with the MDOT to discuss costs and feasibility. A pedestrian island could not be placed within the location shown in the aforementioned photograph without modification to the street width.

Middle Aged Areas

Slightly newer “middle aged” areas can be found as one travels both north and south of downtown Manistee.

Just north of the Manistee River on the east side of U.S. 31 the sidewalk ends and an area of scrub brush, billboards and older commercial use begins. As this area redevelops sidewalks and landscaping should be added and the billboards should be considered for removal.

Further to the north in the City of Manistee is an area with some marine uses, a hotel, and more recent commercial retail strip development. Within the retail area pole signs are used for site identification, buildings are set back from roadways with parking in front, landscaping is little to non-existent and building materials most often relate less to context in which they are placed as to cost to build and speed to which they can be erected.



Billboard in City of Manistee and end of sidewalk (north of Manistee River)

The photo in the middle is an example of newer development showing many of the aforementioned characteristics. The photo at lower right is an example of how this area can visually be improved with some small changes such as the introduction of a ground sign and the introduction of a historic light pole and landscaping.



Current Appearance

Unattractive streetscape with paved front yards, minimal unkempt landscaping and pole signs, City of Manistee.

Further to the north in Manistee Township there exists similar development to that previously described, with little to no landscaping and plenty of pavement.

The picture to the right on the next page is a newer example within Manistee Township. One difference between the site within Manistee Township and the site within the City of Manistee on this page is that in the Manistee Township picture there are no specific areas designated for pedestrians or bicycles.



Alternative Design Option

Modified streetscape with grass median, ground sign, historic light pole and flowers.

There is also no clear indication of where the public right-of-way starts and where the site begins. The

picture to the right middle shows how a few small changes to the same area can change the aesthetics of the area and pedestrian functionality.

On the south side of the City of Manistee development has occurred that is similar to the designs on the north end of the city. Development has been established with large setbacks, plenty of parking, pavement to the street and street right of way, little to no landscaping and tall pole signs.

In addition pole lights for the roadway are wood poles with “cobra head” fixtures, a common standard in Michigan that does little to enhance the attractiveness and character of the corridor. Sidewalks that do exist are located directly adjacent to the road with little distance separation for the protection and comfort of pedestrians.



Existing development within the City of Manistee, south of downtown. Paving to right-of-way with no streetscape. Sidewalk exists but is directly adjacent to road.



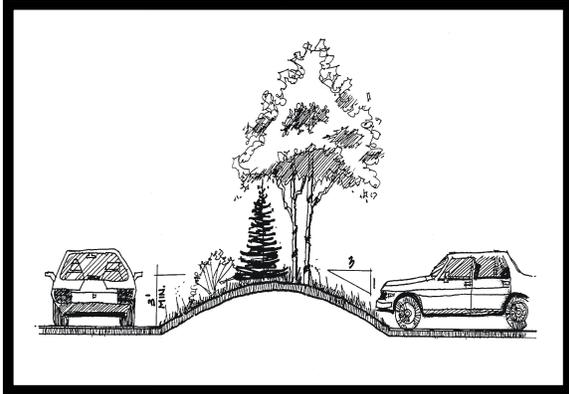
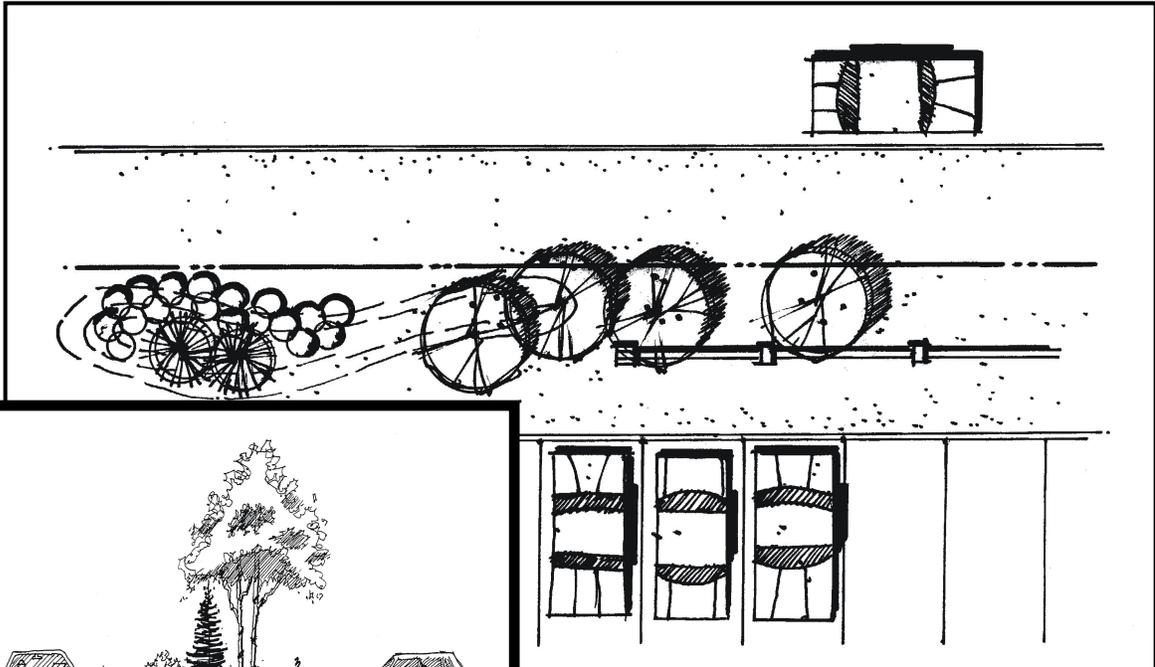
The same site with minor improvements. Sidewalk relocated for public safety, ground sign added and street tree added.



Paved frontage with no sidewalks. Manistee Township.



Street frontage with landscaping, sidewalk and a ground sign added.



Example of how landscaping can be included in a front yard between a

Newer Commercial Areas

The most recent commercial development has been occurring within Filer Township and within Manistee Township. The McDonalds and Kmart shopping center (photo at right) is an example of expansion of corporate America along the corridor. With expansion of corporate America, common store and franchise building, sign and site design standards are established at the national level and are distributed to communities throughout the nation. As a result uniqueness and character representing the community in which they locate is lost or not created.

Opportunity exists within Filer Township and similar areas within Manistee Township to add sidewalks and bike paths and



Large pole signs in Filer Township, limited streetscape and no sidewalks



Dramatic alternative design for McDonald's in Filer Township with building placed closer to road, pole sign replaced by a banner sign and clock and sidewalk added.

landscaping to the streetscape. In addition, as discussed and shown on previous pages, pole signs could be replaced by ground signs or design standards could be established for pole signs that develop a common theme among sites along the corridor.

Alternatively more dramatic changes could be made that require building placement closer to the road, unique building architecture with subtle colors and changes in signage. The picture at right middle is a concept of how McDonald's could look like within Filer Township with alternative zoning standards. The image at right is yet another alternative building design example for a fast-food restaurant.



Example of unique architectural treatment for a fast-food restaurant.

Away from the commercial franchise areas north of the City of Manistee within Manistee Township there is a hospital/professional office area that has developed. The development already appears to have included many of the design elements discussed within this chapter.

Further out within the Little River Band of Ottawa Indians Reservation is the Little River Casino and Resort. Similar to the hospital/professional office complex within Manistee Township, this site appears to include many of the elements recommended in the preceding paragraphs, which includes street trees and landscaping along the road frontage and greenspace.



Casino development with landscaping and large setback from road within the Little River Band of Ottawa Indians Reservation

Somewhat unique to the resort is the substantial amount of greenspace that is in front of the Casino. From an urban and rural planners perspective this large amount of green space presents opportunities. If the site is to be modified in the future, attention



Rural character along corridor in Manistee Township

should be given to how the modification(s) will affect the visual characteristics of the corridor.

Site design features that can be added to the frontage to accentuate the rural nature of the area include such things as ponds, pedestrian walkways and flower gardens. Focal points and building lines should be considered in any further development along the frontage. A gazebo or additional building for instance could strategically be placed in relation to site lines from the roadway to draw in visual interest of passers-by.

Rural Areas

Rural areas along the corridor include large areas of open land, which includes forest and agriculture intermixed with residential and limited commercial and industrial uses. These areas are not conducive to sidewalks, but may be conducive to bike paths for people desiring to recreate or use a bike as transportation from the countryside into town or vice versa. The use of billboards and addition of new uses requiring parking lots should be limited to preserve the rural character of these areas.

Landscaping is generally limited to natural character of the land and plantings established by property owners. Actions that could add character to rural areas include adding landscaping to the front yards of developed and developing sites. In addition, rural character can be preserved by providing proper building setbacks from the roadway.

Signs for uses that are allowed in rural areas could be ground signs versus pole signs to preserve views.

On the previous page, the photo at right middle is an example of how commercial uses such as a car dealership and billboard have been added to a rural area of Filer Township. The photo at right, bottom is an example of how the area can be modified to incorporate visual enhancements and



Rural character and commercial development within Filer Township



Rural Area of Filer Township with a bike path, decorative sign, informational kiosk, fencing and street tree added. Note, a billboard was also removed as part of this option.

pedestrian amenities including trees that add to the rural character and white fencing which provide a lineal visual focus directing a viewers eyes forward along the road.

6. Zoning Requirements

Understanding existing zoning regulations along U.S. 31 as they relate to the corridor is useful in that they can provide insight of how the corridor may appear and function under conditions of continued growth. Understanding what can occur under current regulations can allow Filer Township, Manistee Township and the City of Manistee to make appropriate modifications to their local ordinances to achieve the goals of corridor improvement (access management, aesthetics, and pedestrian use).

Filer Township

U.S. 31 includes portions of Agricultural Residential, Medium Density Residential, and General Commercial zoning districts. Each district has unique standards for setbacks, lots sizes and widths. The overall ordinance has general provisions applicable to multiple zoning districts. Specific corridor issues addressed by the Ordinance include clear view triangles, parking lot access, signs and general building setback and lot width requirements.

Clear View (Sight) Triangles

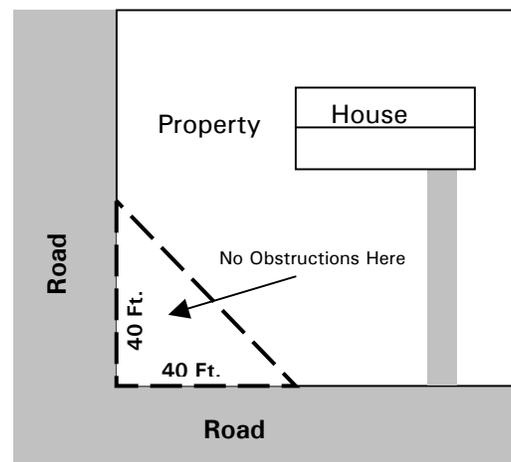
The Ordinance contains provisions within Section 31.10.1050 and Section 31.10.1051 that limit the planting of vegetation or construction of fences, signs, berms or parking spaces at street corners (both public and private). The clear vision corner requires a triangle 40 feet by 40 feet (see diagram at right).

Parking & Parking Lot Access

Section 31.10.1052 includes regulations for parking lot access.

This section states that parking lots shall be provided with a safe exit to and entrance from a public thoroughfare, not to exceed one (1) exit and one (1) entrance. Such entrance may be combined or provided separately. The Manistee County Road Commission shall review and approve the design and location of the access drives.

This section also states that there shall be a minimum ten (10) foot wide access drive and sites shall be designed to not make it necessary for vehicles to back out onto streets (delivery vehicles).



Dimensional Requirements

Front yard setback standards should take into account the existing road right-of-way along U.S. 31 and the possibility of its widening in the future. It is not uncommon to have zoning ordinance setback provisions greater than the norm for properties along major roadways. Currently the Agriculture Residential district requires a fifty (50) foot front yard setback distance, whereas the Medium Density Residential and General Commercial districts require a thirty five (35) ft. setback distance.

In examining the aforementioned minimum setback requirements the question exists of whether or not build to lines should be established? A build to line is a requirement that all buildings be placed at the same setback distance along a roadway (similar to what was historically done within downtowns years ago). Benefits of requiring a consistent build to line is that the buildings themselves can over time create a well defined place that could promote walkability as well as a sense of place and enclosure. Creating a feeling of enclosure by placing buildings closer to roadways has a direct effect on speeds on adjacent streets slowing traffic down. Alternatively when, buildings are placed further away from roadways and roadways are wide speed of traffic tends to increase and when buildings are allowed to be placed at varying setbacks what is created is a hodgepodge of individual sites that lack unity.

Filer Township Dimensional Regulations (Excerpt)						
District	Lot Area	Lot Width	Front Yard	Side Yard	Rear Yard	Height
Agriculture Residential	5 Acres	208 ft. 8 in.	50 ft.	20 ft.	50 ft.	Farm = 75 ft. Others = 3 stories (40 ft.)
Medium Density Residential	20,000 sq. ft. 15,000 sq. ft. (public water)	100 ft.	35 ft.	10 ft.	35 ft.	2 stories (35 ft.)
General Commercial	NA	30 ft.	35 ft.	0 or 5 ft.	20 ft.	35 ft.

Signs

The sign provisions lack several specifications that should be considered. For instance, the commercial district contains no requirements for sign setbacks, which suggests that pole signs can hang over the public right-of-way. Lacking a setback requirement could also result in a more scattered appearance for the corridor with signs placed at varying depths and no uniformity and consistency. Consideration should be given to establishing a setback requirement for ground mounted signs. Consideration should also be given to the appearance that signs can create for a corridor. For example, does Filer Township desire to require sign standards designed to unify the appearance of the U.S. 31 corridor. The chart below shows the existing sign regulations applicable to the Agriculture, Residential, and Commercial districts along the U.S. 31 corridor.

Filer Township Sign Regulations (Excerpt)						
District	Pole Sign			Wall Sign		
Agriculture Residential	Area	Height/Other	# Allowed	Area	Height	# Allowed
Education, religious, daycare, human care, cemeteries	18 sq. ft.	As high as building	1 per principal use	NA	NA	NA
Golf course	60 sq. ft.	2 ft. min. from Property Line	1 either wall or pole	60 sq. ft.	NA	1 either wall or pole
Public parks & buildings	NA	NA	NA	60 sq. ft.	Not above wall line	NA
Farms	32 sq. ft.	8 ft. high	1 per farm	NA	NA	NA
Housing development	32 sq. ft.	8 ft. high	1 per street entrance	NA	NA	NA
District	Pole Sign			Wall Sign		
Commercial	Area	Height/Other	# Allowed	Area	Height	# Allowed
Individual Site	80 sq. ft.	As high as building	1 sign	15% of wall area	Not above wall or roof line	1 per street frontage
Multi-establishments site	32 sq. ft. per tenant	As high as building or 35 ft.	1 sign	15% of wall area	Not above wall or roof line	NA
Auto service	32 sq. ft.	35 ft.	1, except 2 for corner lots	15% of wall area	Not above wall or roof line	No maximum
Auto dealer	32 sq. ft.	As high as building	1 per dealership or used car lot	15% of wall area	Not above wall or roof line	No maximum

Note: Projecting signs are prohibited

Site Plan & Special Use Standards

There are a couple of general review standards that relate in some way to access management and appearance issues that can be applied to the U.S. 31 corridor, as follows:

Special Land Use Standard #1: Will be harmonious with and in accordance with the general objectives, intent and purpose of this Chapter, both generally and for the particular district.

Special Land Use Standard #2: Will be designed, constructed, operated, maintained and managed so as to be harmonious and appropriate in appearance with the existing or the intended character of the general vicinity.

Special Land Use Standard #3: Will be served adequately by essential public facilities and services such as highways, roads, police and fire protection, drainage structures, refuse disposal, or the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such service.

Since all of the aforementioned are general standards they tend to be subjective and dependent upon the individual circumstances for each review. An additional standard could

be adopted that relates to access management and not just to whether a site is served by adequate facilities.

Other Issues

Items that the Filer Township Zoning Ordinance does not address include access management provisions (except references to county approval for driveways), landscaping and streetscape along the corridor including such items as street trees and sidewalks.

City of Manistee



The City of Manistee has four separate zoning districts that currently front U.S. 31; the C1, C3, C4 & R4 zoning districts. Current regulations deal with access management for driveway closures, driveway spacing and driveway

separation. Current regulations for all four zoning districts deal with clear view triangles and driveway spacing and separation from intersections. Although the topics are addressed, the aforementioned regulations should be reviewed and consideration given to strengthening them or replacing them altogether.

Clear View (Sight) Triangles

Section 1053 of the Ordinance requires a clear view triangle of 25 feet. This is slightly smaller than the clear view triangles required within both Filer and Manistee Township, which may be in part due to the smaller lots sizes and denser development associated with the City of Manistee. This standard should be evaluated to determine if adjustment would be preferable along at least certain portions of the corridor.

Driveways & Curb Cuts

Section 1051 has specific access management standards geared towards addressing the issue of left turn lock ups and minimizing traffic conflict points near street intersections. Current regulations for access management include:

City of Manistee Access Management Regulations		
Requirement	Lots < 100 ft. Wide	Lots > 100 ft. Wide
Driveway Distance From Intersection	50 ft. min.	60 ft. min.
Driveway Separation (regardless of street side)	30 ft. min.	50 ft. min.
Front Yard Parking Setback	10 ft. from R.O.W, or 40 ft. from street edge (whichever is greater)	
Driveway Width	10 to 20 ft. for one-way drive and 20 to 35 ft. for two way drive.	

The existing access requirements may need to be strengthened/modified to address the varying conditions along U.S. 31. The recommendations contained within Chapter 5 of this document should be considered as sites re-develop.

Regulations Specific to C-1 District

The C-1 zoning district contains specific regulations that deal with appearance issues. The C-3, C-4 and R-4 zoning districts do not contain similar provisions. Issues that the C-1 zoning district addresses include closing of driveways, parking lot setback requirements, loading and waste activity locations, landscaping, sidewalks, utilities, lighting and building architecture. The main questions to answer are whether or not similar standards should be applied to the other zoning districts along the corridor to improve aesthetics and functionality and whether existing regulations should be modified.

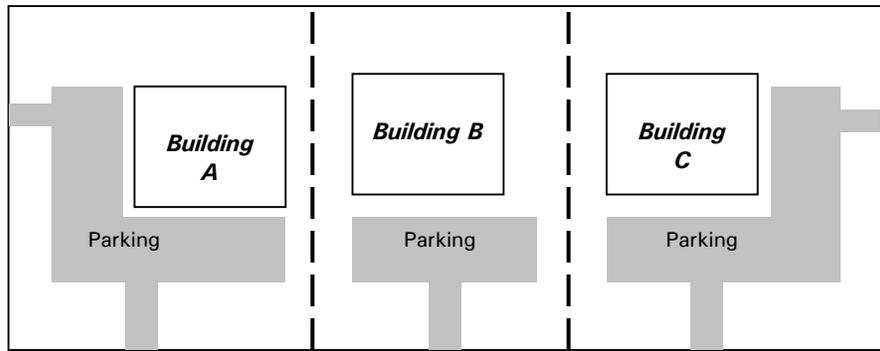
Current **access management** regulations specific to the C-1 zoning district centers on the issue of driveway closures. Section 5004.D.1 requires existing drives and curb cuts onto U.S. 31 to be removed and new access to be provided from a cross street or alley unless an exception is granted by the Planning Commission. This section could list thresholds for when this should occur. For example, requiring the closer of a drive when a building and/or parking lot is expanded or when there is a change in use.

Overall achieving improved access management in an area of already developed lots is an incremental process that can take years to achieve. For example, to achieve improved access management on the lots depicted within the diagram on the next page that follows the city would need to first wait for one of the properties to come in for a site modification (building B in the example). When building B does come in, the City should authorize the improvement with the requirement that they relocate their access point and that an easement be granted to the adjacent property owner to use the new access drive (see step two in diagram). Any number of years later property A could come to the city with a request for an expansion of their building. At that time the City would then require parcel A to revise access on their site, which would include consolidation of drives and granting of an access easement to parcels B and C (see step three).

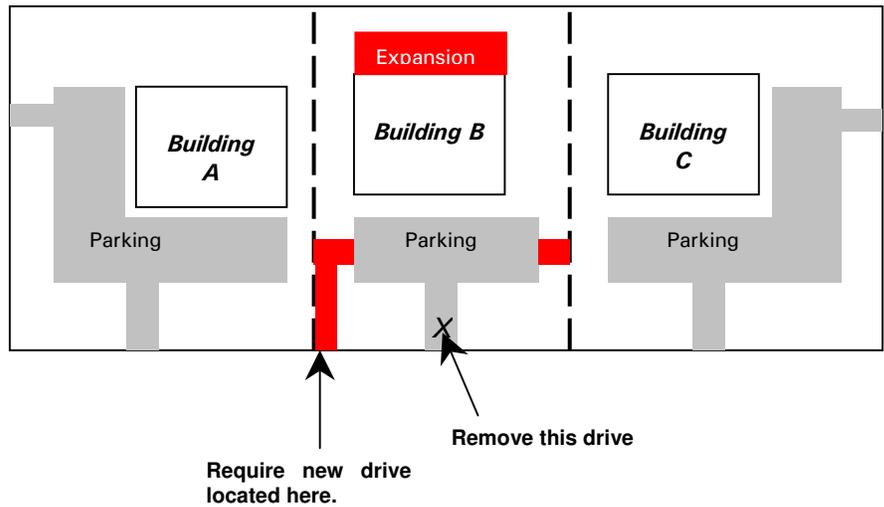
Section 5004.D.2 **prohibits parking within the front yard** setback area. In addition, this section states that all service drives, driveways, parking areas and sidewalks shall be paved. This requirement is only in the C-1 district. In other zoning districts along the U.S. 31 corridor pavement may not be necessary for the aforementioned areas and that parking may be allowed up to the front lot line. Consideration should be given to prohibiting parking in front yards of other zoning districts.

Section 5004.D.3 requires loading and solid waste receptacles to be located in side or rear yards. No similar provision exists within other zoning districts along the corridor.

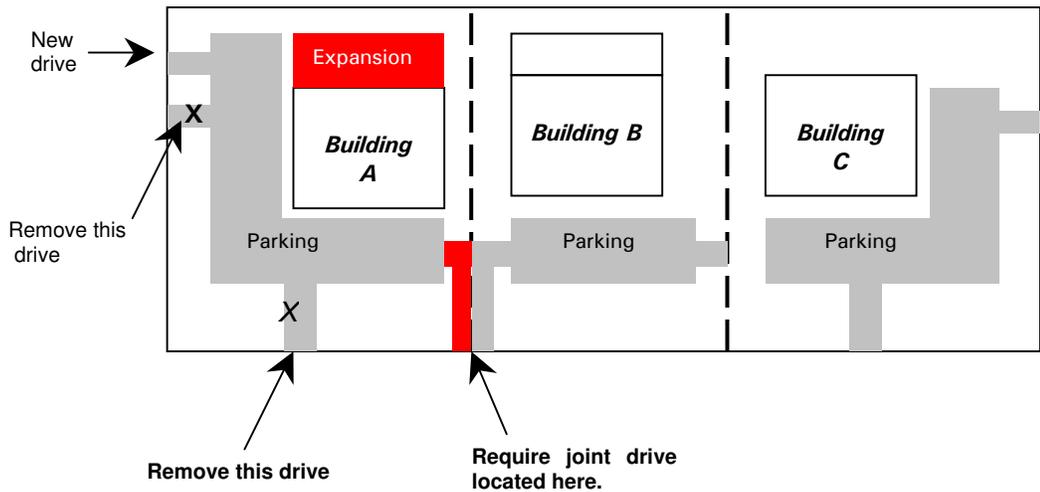
Two sections address the issue of **landscaping**, section 5004.D.4.a.1 and section 5004.D.4.e. The two sections require front yards to be landscaped lawn with shrubs, trees and bushes. In addition this section allows the Planning Commission to require more extensive landscaping, berms, fences and other screening. Consideration should be given



Step One: Building B requests an expansion.



Step Two: Building B obtains approval to expand conditioned on closing of the driveway, installation of a new driveway at property line and recording of an access easement to building A and building C.



Step Three: Building A obtains approval to expand with condition of closing of driveways, installation of new driveway at property line, installation of a new driveway on the side street, and recording of access easement to building B and building C.

to listing specific conditions in which case certain features are required or whether a certain standard should be applied to all sites (such as street trees or a fence).

Section 5004.D.4.a.2 states that the City may require **walkways**. Consideration should be given to making walkways a requirement for all properties. Section 5004.D.4.b requires utilities to be underground. This regulation appears to deal with the issue of **utilities** to their fullest aesthetic concern.

Section 5004.D.4.c requires **outdoor lighting** to be arranged and installed to shield direct illumination from adjacent non-commercial properties. Consideration should be given to strengthening this requirement to limit light trespass and off-site glare. Consideration should also be given to lighting color and lighting fixture design along the corridor.

Buildings Architecture is addressed within Section 5004.D.4.e. This section controls building materials by relating them to adjacent and nearby uses. This language could be more specific by providing examples of building materials that are generally acceptable or alternatively given specific building material requirements.

Dimensional Requirements

Minimum lot areas and setbacks for the various zoning districts are in large part based upon existing conditions within the City of Manistee. The C-1 and C-3 zoning districts are similar in their setback requirements, both requiring 30 ft. front yards. The C-4 district on the other hand has no front yard requirements. The current zoning regulations should be applied to sites within these areas to evaluate feasibility of redevelopment and improvement along the U.S. 31 Corridor and to subsequently change *the* ordinance as appropriate. The City should also look at the setbacks and discuss whether or not a build to line should be required so that buildings line up with each other as one travels down the corridor.

Section 1042 of the City’s zoning ordinance lists specific building height limitations. In nearly all cases principal buildings may not exceed a height of 30 feet, except in the C-4 district, which allows buildings as tall as 40 feet. Consideration should be given to requiring minimum building height standards for the corridor, particularly if a required build-to line is established for buildings. For instance should buildings along the corridor be at least two stories in height in commercial areas? Requiring taller buildings close to the road can create a sense of enclosure within the road corridor that can contribute to slowing vehicles down. Requiring buildings to be placed at a build-to line and relatively close together can also encourage pedestrian activity and also the door for multi-use buildings that create a “sense of place” (see discussion within Chapter 5).

City of Manistee Dimensional Requirements (Excerpt)						
District	Min. Lot Area	Lot Width	Front Yard	Side Yard	Rear Yard	Height
C-1	20,000 sq. ft.	120 ft.	30 ft.	10 ft.	20 ft.	30 feet
C-3	10,000 sq. ft.	100 ft.	30 ft.	10 ft.	10 ft.	30 feet
C-4	2,500 sq. ft.	25 ft.	0 ft.	0 ft.	6 ft.	40 feet
R-4	Min. 6,000 sq. ft.	60 ft.	25 ft.	10 ft.	10 ft.	30 feet

Signs

Current regulations allow for a wide range of signs, including portable signs, banners, wall signs, canopies, projecting signs and pole signs. Sign regulations should be evaluated with attention given to existing and planned character for subareas along the corridor.

Questions to ask are where are pole signs necessary? Where should ground signs be used instead of pole signs? Should sign materials be sympathetic to the area in which they are placed?

Billboards appear to be allowed near well-established residential areas. The City should evaluate both the need for and desirability of billboards within these areas. The current sign regulations allow up to 300 square foot billboards in the entire district, regardless of the characteristics of the area in which they may be proposed. Regulations can be strengthened in these areas to control their size as well as to further limit their locations.

Pole signs are allowed in all of the commercial areas. Is a 166 square foot pole sign desirable adjacent to the historic central business district or would no pole signs be preferred instead opting for an attractive designed wall sign?

Two sizes of portable signs are currently allowed by the ordinance (8 sq. ft. and 32 sq. ft.). Should portable signs be allowed in conjunction with banners? Should banners be allowed if they fit into design schemes of the City and be mounted on light fixtures in front of the business, to create unity between sites and within the overall community? These issues should be considered by the City and sign regulations should be revised as appropriate.

City of Manistee Sign Regulations (Excerpt)				
District				
C-1, C-3 and C-4	Area	Height/ Other	# Allowed	Setback Requirement
Pole Sign	1/3 max. sign area of between 150 sq. ft. to 500 sq. f.t (based on parcel street frontage)	20 ft. max. height, 10 ft. min. vertical clearance	1	4 ft. from R.O.W.
Ground Mount		7 ft. max. height	1	10 ft. from R.O.W.
Billboard	300 sq. ft.	10 ft. min. vertical clearance	C-1 & C-3 districts only. 1,000 ft. separation from other billboards.	30 ft. from R.O.W.
Portable Sign	8 to 32 sq. ft.	NA	NA	NA
Temporary Banners & Pennants	30 sq. ft. (60 day duration)	NA	NA	NA
Wall Sign	1/3 max. sign area of between 150 sq. ft. to 500 sq. f.t (based on parcel street frontage)	Up to top of building	NA	NA
Projecting Sign	16 sq. ft.	NA	NA	NA
Canopy	1/3 max. sign area of between 150 sq. ft. to 500 sq. f.t (based on parcel street frontage)	NA	NA	NA

R-4				
Ground Mount	4 sq. ft.	NA	Max. # allowed per parcel is two	10 ft. from R.O.W.
Portable	8 to 32 sq. ft.	NA		NA
Wall Sign	4 sq. ft.	NA		NA
Government, Schools & Churches				
Ground Mount	50 sq. ft.	7 ft.	NA	10 ft. from R.O.W.
Portable	8 to 32 sq. ft.	NA	NA	NA
Canopy	50 sq. ft.	NA	NA	NA
Wall	50 sq. ft.	Up to top of building	NA	NA
Projecting	16 sq. ft.	NA	NA	NA

Site Plan & Special Use Standards

The general review standards for the city of Manistee that in some form relate to access management include the following:

Special Use Review Standard #4 & Site Plan Review Standard #1: Is the use designed to insure that public services and facilities are capable of accommodating increased loads caused by the land use or activity.

Manistee Township

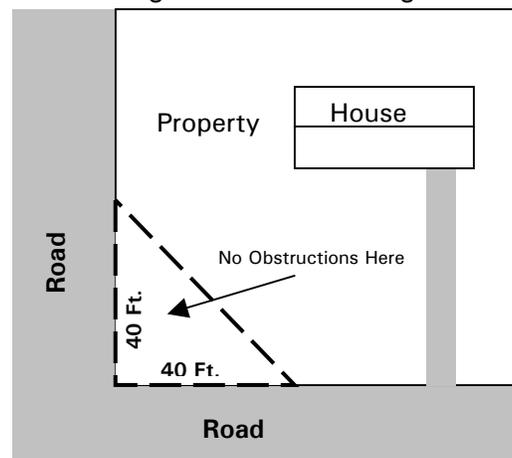
Manistee Township has two zoning districts along the U.S. 31 corridor and one overlay zoning district. The districts include the CR-1 Restricted Commercial District, C-1 Commercial District and OZ-1 Airport Overlay Zone.



Overall the existing regulations along the U.S. 31 corridor within Manistee Township are limited. The regulations are centered on basic dimensional regulations for building setbacks, lot size, lot width and building height. The only real exception is in the area of traffic visibility at intersections.

Traffic Visibility

Section 1052 of the Manistee Township Zoning Ordinance requires a clear vision area of 40 ft. by 40 ft. at the intersection of two streets (see image at right). This requirement is identical to the requirement of Filer Township.



Dimensional Standards

Both the CR-1 and C-1 zoning districts have exactly the same minimum lot area, lot width and building setback requirements. All regulations are minimum regulations. The end result using these regulations could be sites that meet very basic requirements, but lack cohesion through common amenities such as sidewalks, front yard landscaping, trees and common building materials.

Manistee Township District Regulations						
District	Min. Lot Area	Lot Width	Front Yard	Side Yard	Rear Yard	Height
C-1	15,000 sq. ft.	100 ft.	25 ft.	20 ft.	25 ft.	50 feet with approval of Twp Board as a special use, otherwise 35 ft.
CR-1	15,000 sq. ft.	100 ft.	25 ft.	20 ft.	25 ft.	
OZ-1	NA	NA	NA	NA	NA	25 feet

Signs

The Manistee Township sign regulations are limited when compared to the regulations of the City of Manistee and Filer Township. While the spacing requirement between signs can help to eliminate confusion and improve aesthetics, the sign size provisions can produce signs that are not proportionate to the site on which they are placed. There may also be vision issues without specific regulations to address minimum clearance underneath pole signs and their placement in relation to entrance and exit drives.

The sign provisions should be evaluated and discussed at the local level to answer appearance questions, location standards and height standards.

Manistee Township Sign Regulations (Excerpt)					
Sign Type	Sign Spacing	Setback	Sign Area	Height	Width
Advertising Signs	300 ft. separation between other pole/ground signs	Must be within 50 ft. of R.O.W. & setback at least 500 ft. from any dwelling	250 sq. ft. max.	10 ft. max	25 ft. max

Site Plan & Special Use Standards

The general review standards of the Manistee Township Zoning Ordinance are similar to those used within Filer Township. Special land use review standard number two requires uses to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity. Standard number 3 requires uses to be served by adequate public facilities such as highways.

The review standards do not currently discuss access management.

Little River Band of Ottawa Indians

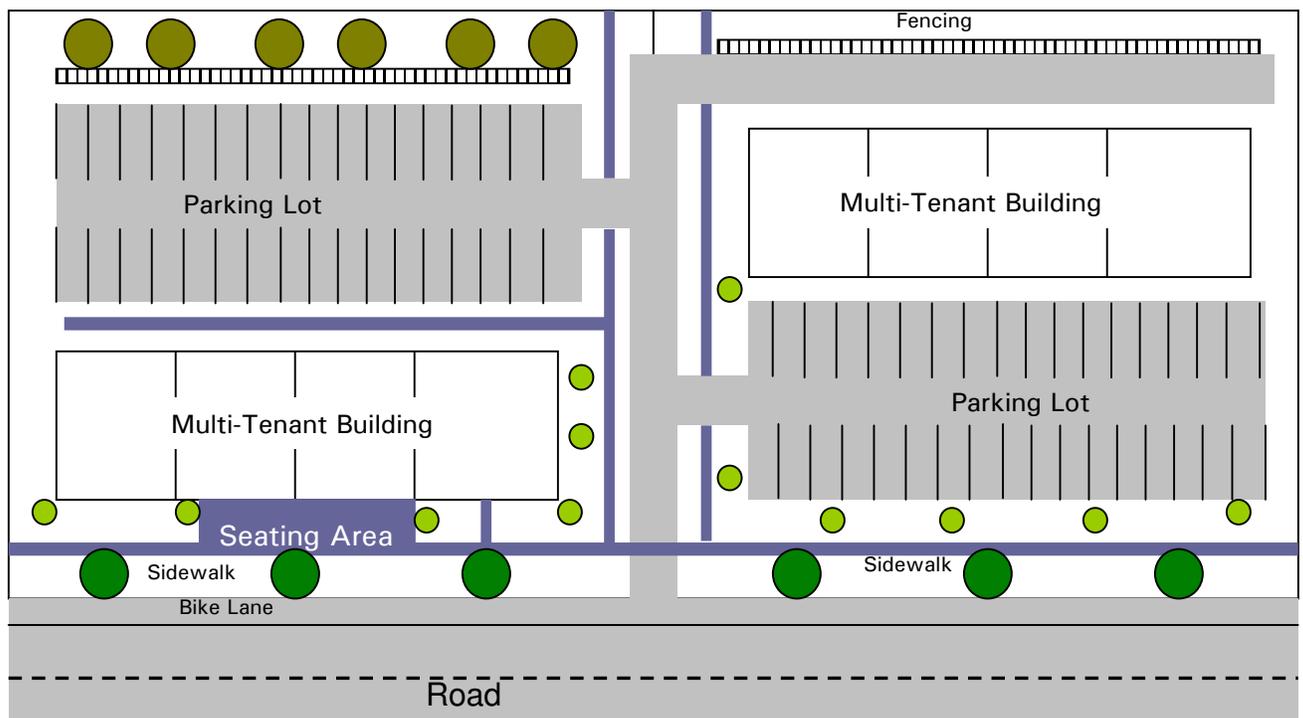
Currently, lands under the ownership and control of the Little River Band of Ottawa Indians are not governed by zoning standards per se. It is recommended that site development standards be implemented consistent with the recommendations of this Plan.

Modification to Ordinance Requirements

Sample aesthetic and pedestrian standards are provided as Appendix B of this document. The sample ordinance language is intended to serve as a focal point for discussion at the local level to address landscaping, signs, pedestrian ways and building materials.

The Model U.S. 31 Corridor Overlay Zone (Appendix A) includes requirements for frontage roads and minimum depth of site access points to allow for appropriate stacking of exiting vehicles. The sample regulations and the model U.S. 31 Corridor Overlay Zone do not address the issue of building setbacks.

Building setbacks could be modified in each zoning district of the community or alternatively subareas along the corridor can be identified as part of a Master Plan amendment for the community with subsequent setback requirements developed and included as part of the U.S. 31 Corridor Overlay Zone. Buildings could be set back hundreds of feet (which is commonly done with big box corporate designs) or buildings could be placed relatively close to the road, depending upon the existing and/or desired character of an area.



Sample site design with building close to road. See conceptual drawings - Chapter 3

Sample site design with parking lot placed close to road. See drawings in Chapter 3

Communities that desire zoning regulations with buildings close to the roadway should at a minimum allow room for landscaping and pedestrian ways (sidewalks and/or bike paths). Pedestrian paths are typically from 5 to 8 feet wide, planting strips should be a minimum 6 feet wide and building setbacks should be such that they provide opportunity for additional landscaping and/or outdoor sidewalk display or seating (for outdoor cafés), approximately 10 to 20 feet. Factoring in all of the aforementioned equates to a minimum building setback from pavement edge of 22 feet (5 foot sidewalk, 6 foot planting strip and 10 foot additional landscaping and or outdoor display/seating space).

Communities that desire zoning regulations with greater building setbacks than discussed above and allowance of such things as parking in front yards or more landscaping (grass, bushes, trees etc.) must consider additional dimensional requirements. In the previous example, to provide room for parking, you would typically need an additional setback distance equal to a drive aisle width (typically 24 feet), plus room for parking spaces at either 90 degree (one row equals 18 to 20 feet deep, two rows equals 36 to 40 feet deep) or parallel (one row equals 10 feet deep, two rows equals 20 feet deep). For a two dimensional concept see the drawing on the previous page. A three dimensional concept can be found within Chapter 3 of this document.

With either small or large building setbacks, it should be recognized that communities have the ability to set a build- to line to require all new buildings to be placed at the same setback depth. This encourages uniformity among sites and accessibility via such things as service drives and sidewalks. A build to line can be set by adding language to an ordinance that specifically states that all buildings must be built at the same depth (say 35 feet from the roadway). Alternatively, zoning ordinances could simply establish minimum building setback lines, such as 35 feet and allow the buildings to be placed anywhere on a lot, provided they meet other site design criteria (such as parking and landscape requirements).

In modifying ordinance requirements it should also be recognized that there are other state acts (above the zoning enabling legislation) that can affect placement of signs and driveways within or near the public right-of-way: Public Act 200 of 1969 entitled “Driveways, Banners, Events and Parades and Public Act 106 of 1972 entitled “Highway Advertising Act of 1972”.

The Driveways, Banners, Events and Parades Act provides the state with authority to regulate the aforementioned. To comply with the act, driveways may not be established and banners may not be erected across a State highway unless a permit is granted by the State.

The Highway Advertising Act of 1972 requires review of off-site signs (commonly referred to as billboards) for uses within business/commercial and industrial zoning districts that abut state and federal highway/road corridors such as U.S. 31. In general, under this act signs must be separated (on the same side of the street) a minimum of 500 feet and sign area can be no greater than 1,200 square feet (includes structural supports and design elements). In stating this it should also be recognized that through zoning regulations

communities can be more stringent on the size, number and placement of billboards provided they do not totally exclude off-site signs as a use from a community.

7. Future Land Uses

Understanding future land use recommendations of the communities along U.S. 31 is useful in that it can provide insight into the future appearance and function of the corridor.

Reviewing these plans and comparing the future land use text can allow communities within the corridor to amend their plans and policies to reflect the goals of access management and corridor improvement discussed throughout this report.

The map on the page that follows is a compilation of proposed future land uses along the U.S. 31 corridor. The sections below are discussions of proposed future land uses by municipality (taken directly out of each community's future land use plans) for the categories along the roadway.

Filer Township

The Filer Township Future Land Use Map (draft) dated July 1, 2003 shows a total of five (5) land use categories along U.S. 31. They include Agriculture, Transition, Residential, Urban Residential and Commercial.

The Agriculture category includes approximately 1.2 miles of U.S. 31 frontage (either side) starting at the southern boundary of Filer Township to just north of Fox Farm Road. This category is intended to have minimum lot sizes of 10 acres; no minimum lot widths are discussed. The category is intended primarily for small scale farm operations and only individual well and septic systems are planned for. No access management is discussed under this category. A modification to this category that may be appropriate for access management includes discussion of lot width and driveway spacing.

The Transition category includes approximately 0.8 miles of U.S. 31 road frontage starting somewhat north of Fox Farm Road and ending at Preuss Road. This category is intended for agriculture and forestry to be gradually converted to residential uses. There is no discussion of access management within this category. Similar to the Agriculture category, new language could be added that includes discussion of lot width requirements and driveway spacing.

The Residential category starts at Preuss Road and goes north along U.S. 31 approximately 0.5 miles to Stronach Road. This category is intended for housing on as little as two units per acre without public water and sewer with cluster housing given a density bonus of 1 additional unit per acre. There is no discussion within this category about

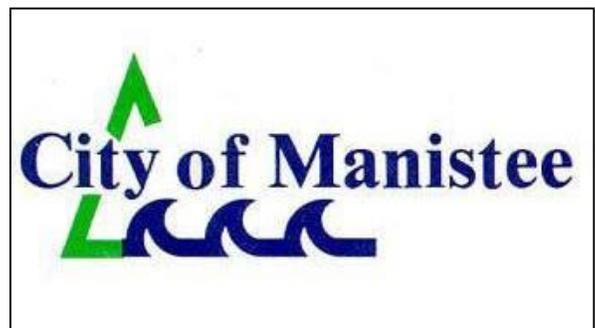
access management. New language could be added that limits access for cluster housing to individual roads either connected to side roads or directly to U.S. 31.

From Stronach Road to the City of Manistee is the commercial category. The commercial category is intended for uses that support the “big box” shopping center character of the area. This category contains some general remarks about the need for limited and well spaced access. Some general comments about the need for driveway alignments across U.S. 31 and service drives near U.S. 31 could be inserted. In addition, aesthetic issues could be discussed within this section that pertain to signs, landscaping, setback distance requirements from U.S. 31 for parking and buildings.

Filer Township Land Use Comparison Chart				
Category	Density	Water/Sewer	Access	Uses
Agriculture	10 acre min. (Residential)	Single system water and sewer. Community and cluster residential wastewater treatment facilities are not intended for Agriculture areas.	NA	Raising of farm animals, the production of crops such as fruits, grains, vegetables, greenhouse plants, trees and nursery plants, roadside stands and home based businesses; Cluster housing with access to side roads; Essential Services; Golf Courses
Transition	NA	On-site utilities where soils are appropriate, otherwise agriculture and forestry should remain.	NA	Agriculture & Forestry; Residential
Residential	2 units per acre (21,780 sq.ft.)– traditional residential 3 units per acre (14,520 sq.ft.) – cluster housing	On-site water and sewer	Improved roads	Access to parks via trails Single family homes; Public and institutional uses to serve residents.
Commercial	NA	Public utilities	Limited and well spaced access	Commercial uses that support shopping center character

City of Manistee

The City of Manistee adopted a Master Plan in 2002. The Future Land Use Map for the City of Manistee designates five future land use categories along the U.S. 31 corridor; they include Medium Density Residential, Residential/Commercial Redevelopment District, Central Business District, Highway Commercial District and Marine Mixed Use



District. The categories in many respects are designed to recognize the historic development patterns and well established uses that exist within the City of Manistee while at the same time they are intended to allow for reasonable and practical change of uses.

The Medium Density Residential District starts at the northern boundary of Filer Township along U.S. 31 and continues to 2nd and 3rd streets within the City of Manistee. This category is intended to allow the continuance of single and two family uses of 3 to 8 units per acre as well as churches, schools, parks, day care and bed and breakfast inns. Issues to consider including include well defined crosswalks for residents to cross U.S. 31. Access management could be discussed for shared driveways, rear access and side street access could be discussed for when redevelopment occurs.

The Medium Density Residential District is also located north of the Manistee River on the east side of U.S. 31 and south of the Marine Mixed Use District. This is an area that is currently in transportation uses. Opportunities for access management and corridor design are therefore on a blank slate if the area is redeveloped. Future access in this area should take into account the existing grid street pattern across U.S. 31 and at the same time limited access could be provided in this area by controlling the number of new access points (see Chapter 2 for specific access recommendations). Streetscape in this area should complement the city's efforts in the downtown central business district.

The Residential/Commercial Redevelopment District starts on the east side of U.S. 31 at 3rd Street and continues north to the Manistee River. This category is intended for a mixture of uses including high density residential, commercial and light industrial. Given the function of U.S. 31 however, it should be noted that some uses may not be preferable along the properties facing U.S. 31. For example, an industrial warehouse may not have the aesthetic attraction for placement along the corridor. It should be recognized that the road segment within this area is in close proximity to a funneling point of the roadway (bridge). The bridge also serves as a point of congestion as it is raised for boat traffic on the Manistee River. Redevelopment of properties along this segment of the corridor should include combining of properties and introduction of side street access and parking in the rear.

A portion of the Central Business District is located along the U.S. 31 road corridor on the west side between 2nd Street and Taylor Street (opposite of the Residential/Commercial Redevelopment District). The Central Business District is intended for a mixture of commercial, office, institutional and residential uses. Similar to comments under the Residential/Commercial Redevelopment District, development and redevelopment of sites should focus on providing side street access and parking in the rear of facilities. From an aesthetic standpoint this section should include statements in regards to urban design and continuation of central business district design themes onto the U.S. 31 frontage as well as use of landscaping.

The Highway Commercial District includes land on the west side of U.S. 31 north of the Central Business District and south of Madison Drive. This district is intended for a mixture

of uses including general retail, auto oriented businesses, personal service businesses and high density residential. The Highway Commercial category of the City of Manistee master plan currently notes several access management and corridor improvement strategies that should be pursued by the City. The strategies include:

1. Minimum and desirable driveway spacing requirements should be determined based on guidelines developed by MDOT to adequately plan for driveway spacing.
2. Driveways should be directly opposite other drives or be offset from opposing property by a distance sufficient to prevent conflicts with turning vehicles, or what is commonly known as a “left-turn lockup.” A minimum desirable driveway offset distance should be 150 feet.
3. Access to individual parcels should consist of either a single two-way driveway or a pair of one-way driveways. While certain developments may generate enough traffic to consider allowing more than one driveway along US-31, a second access point should be located on a side street or shared with adjacent uses whenever possible.
4. Shared driveways by two or more property owners should be required where feasible to reduce the overall number of access points.
5. Shared access requires a written easement from all affected property owners during the site plan approval process.
6. Where shared drives are not practical, service drives or frontage roads may serve as an alternative. A frontage road/service drive can be delineated through a parking lot by raised islands separating parking from the traffic lane.
7. Parking lots should be buffered by perimeter landscape, particularly for parking areas abutting a roadway.
8. Large parking areas (i.e., in excess of fifty spaces) should be broken up with internal landscaped areas. These may be in the form of plant clusters, plant islands, etc.
9. Greenbelts (plant islands) should be used to assist in directing traffic by separating access and primary circulation drives from the actual parking areas.

The Marine Mixed Use District includes the remaining frontage along U.S. 31 from Quincy Street north to Manistee Township. Uses planned for this district include those related to marine activities, ancillary commercial uses and high density residential. This section of the Master Plan should also include statements about shared access drives, adequate spacing of drives and greenbelts.

City of Manistee Land Use Comparison Chart				
Category	Density	Water/ Sewer	Access	Uses
Medium Density Residential	3 to 8 units per acre (5,000 to 12,000 sq. ft.)	Public Utilities	Should avoid intrusion into single family neighborhoods	Single Family & Two Family Residential. Institutional uses such as churches, parks and schools, day care, bed and breakfasts inns and senior care housing
Residential/ Commercial Redevelopment District	NA	Public Utilities	NA	Mixed uses, high density residential, commercial and light industrial
Central Business District	NA	Public Utilities	NA	Mixture of uses, commercial, office, institutional and residential
Highway Commercial	≥ ½ acre Lot Width 100 ft. +	Public Utilities	Shared driveways, parking setbacks, cross access (frontage roads and rear service drives), landscaping & bike paths	Mixture of uses, including general retail, institutional, and religious facilities, outdoor sales lots, auto service, convenience stores, fast food restaurants, car washes and grocery stores, high density residential.
Marine Mixed Use District	NA	Public Utilities	NA	Marine related uses combined with ancillary commercial uses and high density residential.

Manistee Township

The Manistee Township Future Land Use Map of 2001 shows three separate land use categories along the U.S. 31 corridor, Public & Semi-Public, Commercial and Urban Residential. In addition, there exists Indian reservation land that contains the Little River Casino and Resort.



Manistee Township Future Land Use Comparison Chart				
Category	Density	Water/ Sewer	Access	Uses
Public/Semi-Public	NA	NA	NA	schools, public buildings, churches and public recreational facilities
Commercial	NA	NA	Shared Driveways	commercial and mixed use developments (commercial & residential)
Urban Residential	1 to 2 units per acre	On-site water & sewer	NA	Single Family and two family residential
	3 to 5 units per acre	Public Utilities	NA	Single family and two family residential
	5 to 10 units per acre	Public Utilities	Direct access to U.S. 31 or collector street	Multi-family residential

The Public and Semi-Public land use category includes a small area on the west side of U.S. 31 at the City of Manistee/Manistee Township border as well as several small areas scattered along the roadway to the Little River Band of Ottawa Indians Casino and Resort. The current uses include a park, a road commission facility, a airport and a cemetery. The future land use designations and descriptions appear to promote the continuance of the existing public facilities already in place as well as additional public facilities in appropriate locations deemed to be in the future public interest, dependent upon the specific uses that develop in areas.

The Commercial category is located in a fairly continual chain on either side of the roadway, interrupted by small areas of public/semi-public and urban residential areas. The category is intended to allow a mixture of uses (commercial/residential) at high density. The plan notes that access management is important along the corridor in this land use category, particularly stating that commercial development should be created with safe and convenient access through utilization of such things as shared driveways.

Small portions of the Urban Residential category are proposed on the north side of U.S. 31; one segment is between Kemmer Road and Guthrie Road and another segment is in the area of Ivy Lane and Park Lane. This category is intended to allow for a range of residential uses, dependent upon the availability of water and sewer, possible uses include single family residential, two-family residential and multi-family residential. Preference is for multi-family uses to serve as a buffer between commercial uses and single and two family residential uses. Densities proposed when serviced by public water and sewer range between 5 and 10 units per acre for multi-family development and 3 to 5 units per acre for single family residential. Single-family residential densities of 1 to 2 units per acre are proposed for areas without public water and sewer.

The Little River Band of Ottawa Indians has land at the north end of the corridor study. The current use of the site is as a casino and resort and is expected to continue as such use.

8. Adoption and Use of the Plan

Successful implementation of the recommendations in the US-31 Corridor Management Plan requires a partnership between the various local units of government and MDOT – a commitment by both MDOT and each municipality. This requires each community’s planning commission, elected body and zoning board of appeals members to be aware of the benefits of access management and their role in its implementation.

A coordinated and comprehensive access management approach is essential if future growth in the study area is to be accommodated and its economic benefits are to be realized. Development decisions along US-31 are under the purview of several agencies. The local units of government have jurisdiction over land use planning, zoning, site plan and subdivision review outside the street right-of-way. MDOT has control over improvements within the US-31 right-of-way, the City has control over intersecting city streets, and the Manistee County Road Commission has control over improvements within the rights-of-way for other intersecting county roads. Successful implementation of the recommendations in the US-31 Corridor Management Plan requires a partnership between the local units of government, MDOT and the Manistee County Road Commission.

One technique to help implement the Plan is to amend the local zoning ordinance to acknowledge the special standards and review procedures for the US-31 corridor. Two issues are discussed in the remainder of this section. The first is a model review process the communities should adopt. The second is a model US-31 overlay zoning ordinance (included in the Appendix).

The US-31 overlay zoning district would be placed over the existing zoning regulations for all parcels with frontage along US-31 and along intersecting roads within three hundred fifty (350) feet of the US-31 right-of-way. For example, if the current zoning is residential, the uses permitted in that zoning district, the dimensional standards (setbacks, height, etc.) and other regulations would still apply, but the access spacing and circulation design standards of the overlay district would also apply. One significant change is that in addition to meeting minimum lot area and width requirements, any proposed land divisions must also demonstrate the ability to meet the access spacing standards in order to satisfy the “accessibility” requirements of the Land Division Act.

The focus of the overlay zone is a set of access and corridor management standards. Access management is a set of proven techniques that can help reduce traffic congestion, preserve the flow of traffic, improve traffic safety, minimize crash frequencies, preserve

existing roadway capacity and preserve investment in roads by managing the location, design and type of access to property. More than one technique is usually required to effectively address existing or anticipated traffic problems.

Not all sites will be able to meet all of the access management standards, particularly older sites. In order to address these situations the ordinance provides the authority to modify the standards on a case-by-case basis. The model ordinance provides the planning commission with the authority to modify the standards during site plan review, provided the intent of the standards is being met to the maximum extent practical on the site, and provided input from the MDOT is obtained.

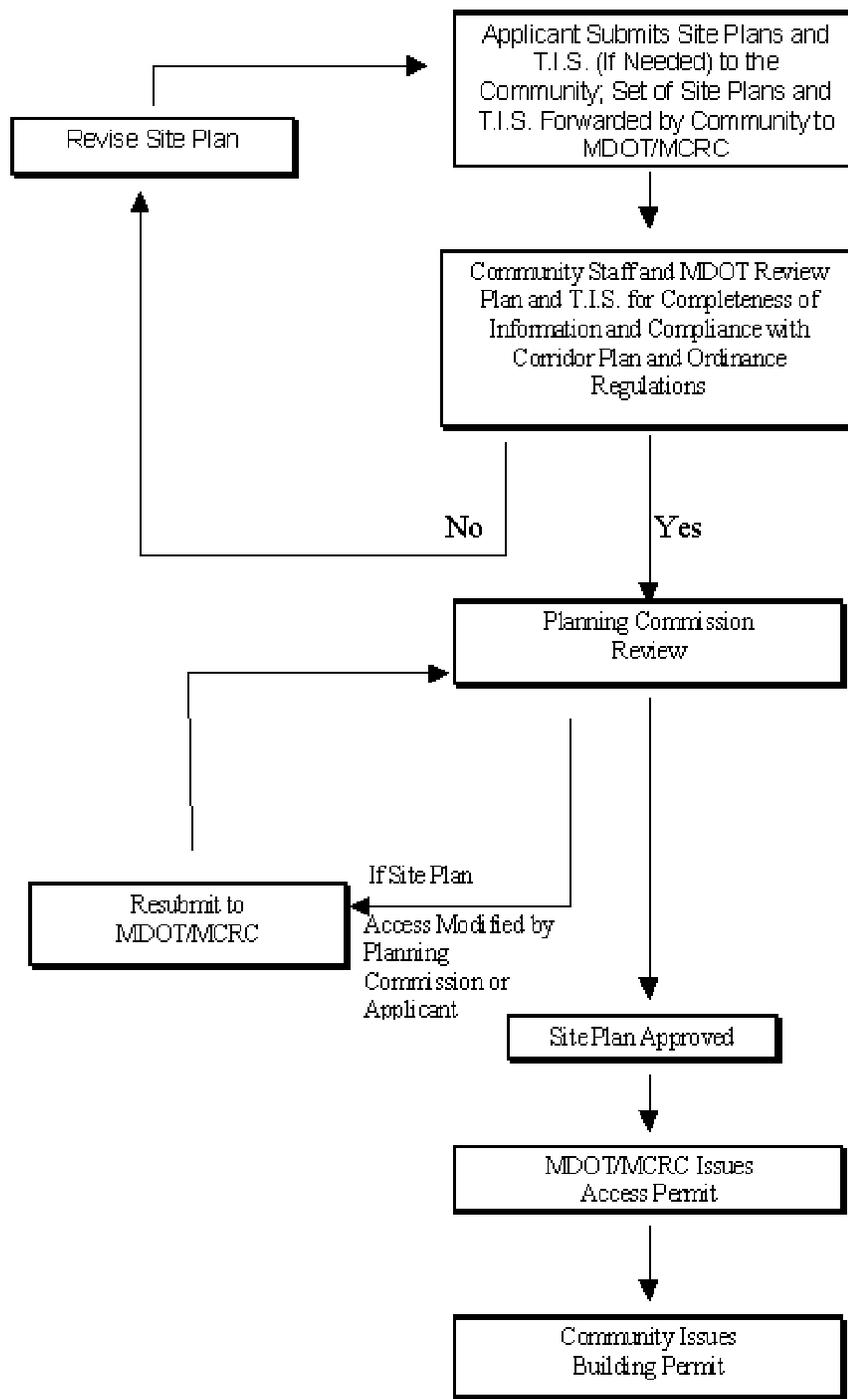
The ordinance also requires traffic impact studies be performed for larger developments that have the potential to generate significant volumes of traffic. These studies would evaluate the impact that a proposed development will have on the road system and identify mitigation to offset the impact. The ordinance makes reference to the handbook "Evaluating Traffic Impact Studies, a Recommended Practice for Michigan," developed by the MDOT and Tri-County Regional Planning Commission as the required methodology for completing the study.

The model overlay zone may not necessarily incorporate aesthetic requirements for such things as signs, building placement, building materials, landscaping, street lights or utilities. These issues are discussed at length within the body of this report with the intent for each community to address the issues through subsequent amendments to the corridor overlay zone and/or other applicable sections of their zoning regulations and general codes.

A flow chart for the model overlay zone is illustrated on the page that follows that outlines the process followed in review of any development proposal along the US-31 corridor. It provides for a coordinated review by the local unit of government, MDOT and the Manistee County Road Commission. The intent of the process is to ensure that the local unit's of government review of the site plan design and the road agency's access permit process is coordinated to implement the recommendations of this plan. The process provides for feedback loops between the local planning commission and the road agency as modifications are made to access and circulation.

To continue the implementation of the US-31 Corridor Management Plan, the Advisory Committee should continue to meet on a regular basis. This will provide a forum to discuss and coordinate major development proposals, traffic impact studies, access issues, rezoning proposals, local master plan updates, roadway improvements, non-motorized transportation, streetscape enhancement, and other common issues along the corridor.

Recommended Site Plan, Subdivision, and Site Condominiums Access Approval Procedure



LEGEND

T.I.S. = Traffic Impact Study

ZBA = Zoning Board of Appeals

MDOT = Michigan Department of Transportation

MCRC = Manistee County Road Commission

APPENDIX

- Revised model ordinance
- Roadway improvement concepts
- US-31 Taylor/Memorial subarea aerial
- FLU maps
- Public open house information
- Sample Advisory Committee meeting notice
- Miscellaneous

WASHINGTON

LINCOLN

U.S.-31



1"=100' 0 100'

VICINITY MAP

U.S.-31 CORRIDOR PLAN

TAYLOR

FILMORE

MEMORIAL DRIVE



FILE NO 56820101

DATE 01/13/04

DRAWING REF

- RECOMMENDED
- TRANSITION
- RELOCATION
- U.S. - 31 AT
- 8TH STREET

Appndx_01

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1811 4 MILE ROAD, NE
 GRAND RAPIDS, MI 49525-2442
 616 361 2664 VOICE
 616 361 1483 FAX
 WWW.PROGRESSIVEAE.COM

U.S. - 31 ACCESS/CORRIDOR MANAGEMENT PLAN

N.W.M.C.O.G.
 CITY OF MANISTEE, MICHIGAN

**RECOMMENDED
 TRANSITION
 RELOCATION**
 U.S. - 31 AT 8TH STREET



LAKESHORE ROAD

U.S. - 31

**RECOMMENDED
TRANSITION
RELOCATION**

U.S. - 31 AT LAKESHORE ROAD

FILE NO 56820101
DATE 01/13/04
DRAWING REF

- RECOMMENDED
- TRANSITION
- RELOCATION
- U.S. - 31 AT LAKESHORE ROAD

Appendx_02

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PROJECT LDR

RXM
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PCL

U.S. - 31 ACCESS/CORRIDOR MANAGEMENT PLAN

N.W.M.C.O.G.
CITY OF MANISTEE, MICHIGAN

ProgressiveAE

1811 4 MILE ROAD, NE
GRAND RAPIDS, MI 49525-2442
616 361 2864 VOICE
616 361 1483 FAX
WWW.PROGRESSIVEAE.COM

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