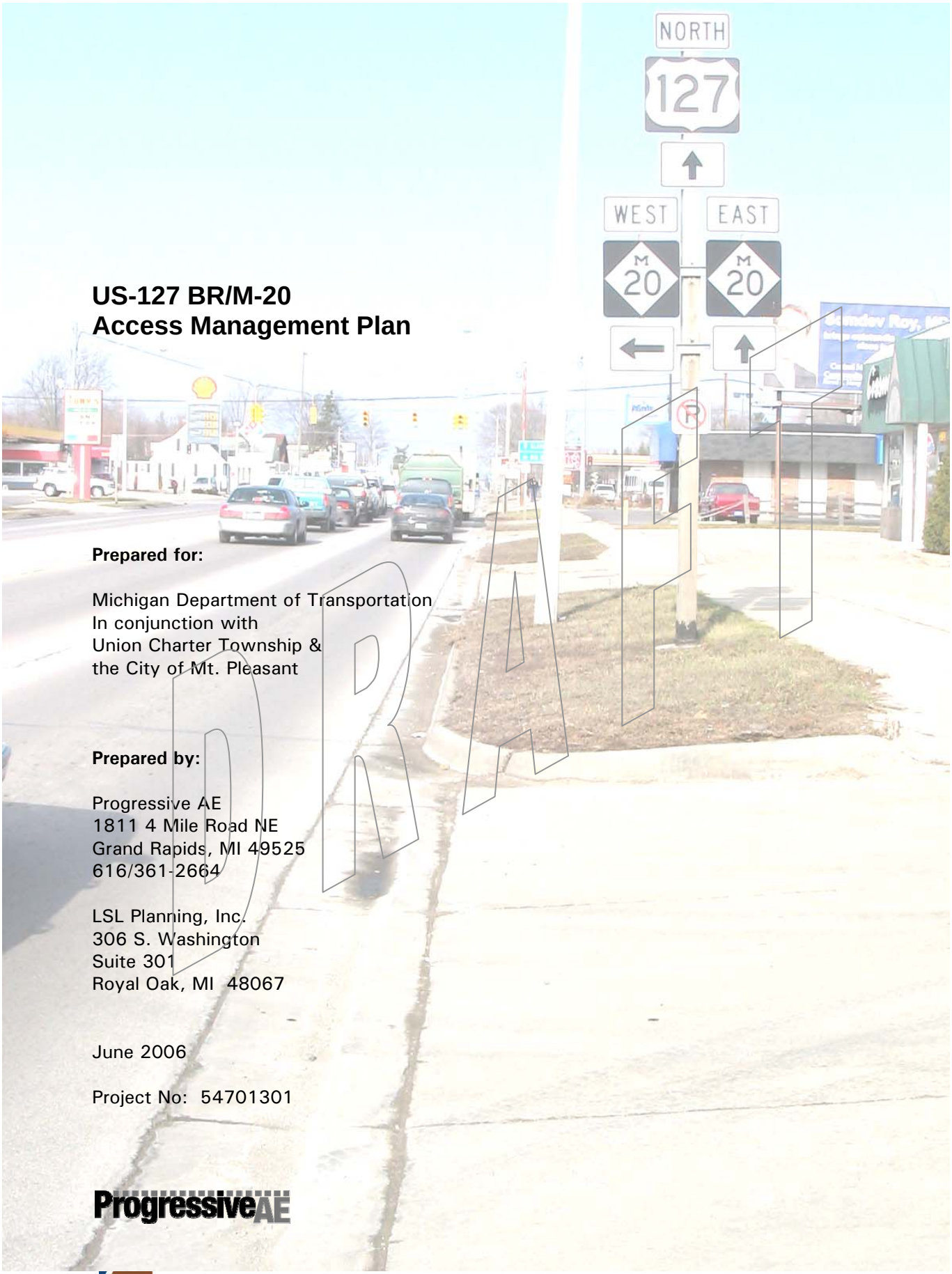

US-127 BR/M-20
Access Management Plan

Prepared for:

Michigan Department of Transportation
In conjunction with
Union Charter Township &
the City of Mt. Pleasant

Prepared by:

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June 2006

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LSL Planning, Inc.

US-127 BR/M-20 Access Management Plan

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Acknowledgements

US-127 BR/M-20 Access Management Steering Committee:

- City of Mt Pleasant
- Union Charter Township
- MDOT – Bay Region
- MDOT – Mt. Pleasant TSC
- Isabella County Road Commission
- Isabella County
- Mt. Pleasant Mission/Pickard DDA

Project Consultant Team:

- Progressive AE
- LSL Planning

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

June 2006

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Executive Summary

The US-127 BR (Mission Street)/M-20 (Pickard Street) Access Management Plan area encompasses three distinct roadway segments. It includes Mission Street from Bluegrass Road north to Corporate Drive, Pickard Street (M-20) from Mission east to Summerton Road, and M-20 from Lincoln Road west to Meridian Road. The first two of these corridors are experiencing significant congestion and crash issues, due largely to past heavy commercial development with little control to access. The third corridor is emerging and will likely come under increasing commercial development pressure in the coming years.

Both the City of Mt. Pleasant and Union Charter Township recognize that the preparation and implementation of an access management plan will help alleviate a portion of the existing traffic congestion on Mission and Pickard Streets, while allowing for the more effective accommodation of traffic generated by future development on M-20 west of Lincoln Road.

Access Management Tools and Benefits

Access management is an effort to maintain efficient traffic flow, preserve the roadway's capacity, and reduce the frequency and severity of crashes while maintaining reasonable access to land uses. This can be accomplished through careful placement (or relocation) 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),
- location of traffic signals, and
- shared access systems (connections between land uses, shared driveways, frontage roads or rear service drives).

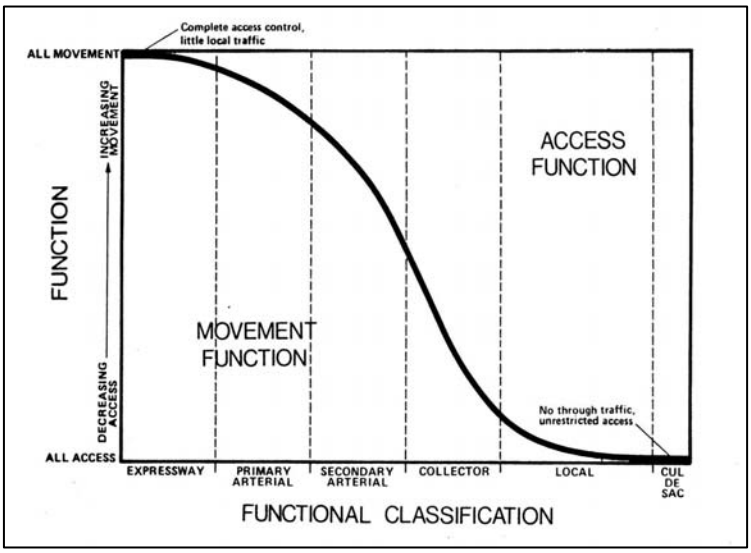
Access management can provide several benefits to motorists, communities and land uses along the US-127 BR/M-20 corridors. Among the benefits, based on experience and studies for similar corridors, are the following:

- reduce crashes and crash potential;
- preserve or increase 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.

Why Access Management?

Successful implementation of the recommendations in the US-127 BR/M-20 Access Management Plan will help the City, Township, and MDOT accommodate planned development along the corridor while reducing the amount of negative impact on traffic flow and crash potential. 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 Plan includes specific recommendations for individual properties as well as general recommendations that apply to a number of areas along the corridors. While some of the recommendations can be directly implemented, many are long-term initiatives that will require an on-going partnership and commitment between the City, Township, and MDOT. This requires the two communities' planning commissions, elected bodies, and zoning board of appeals members to be aware of the benefits of access management and their role in the Plan's implementation.



The model US-127 BR/M-20 overlay zoning district is expected to be placed over the existing zoning regulations for all parcels with frontage along the Plan corridors or those within 120 feet of the centerline of those corridor roadways. Many of the existing sites along Mission and Pickard Streets will not 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 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.

Plan Development

The US-127 BR/M-20 Access Management Plan and ordinances were prepared under the direction of a Steering Committee comprised of representatives from the City of Mt. Pleasant, Union Charter Township, MDOT, Isabella County (Road Commission and Planning/Development) and the DDA. Public involvement included two public workshops/open houses. Comments and recommendations by the public, local officials and the MDOT staff at the workshops were considered and incorporated into the final plan.

While individual land owners may see the regulations as restricting access to their property, a well-managed access system will improve access to properties and maintain or even improve 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

Historically Mission Street, and more recently Pickard Street and M-20 to the west, have served as the key transportation corridors for moving significant traffic and goods through the central part of the Mt. Pleasant area. Mission Street has long served as the main commercial spine within the area, partly due to its current designation as the US-127 Business Route through town. Pickard Street is becoming increasingly developed as the communities grow and development continues to the east outside of the study area. And M-20 to the west is expected to come under increasing commercial development/rezoning pressure and will need to plan for the traffic impacts that always come with that type of development.

Union Charter Township, the City of Mt. Pleasant, and the Michigan Department of Transportation (MDOT) have recognized that there are significant congestion and safety issues on the highly developed Mission Street, and to a slightly lesser extent on Pickard Street, that can be addressed in part by retrofitting the existing poor commercial access system. It's also recognized that those same poor conditions need to be avoided in the emerging section of M-20 west of Lincoln Road. To that end, access management is recognized as a key tool to improve operating conditions and preserve the public dollars spent in the past on these roadways. The study area is illustrated on Figure 1.

The primary goal behind this access management plan is to improve traffic operations and reduce crash potential along all three roadway corridors while retaining reasonable access to existing and future developments. Access management will preserve the road'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:

- ***What access-related improvements should be made to existing uses to reduce crash potential and enhance efficiency of the US-127 BR/M-20 corridors?***

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

- ***What access guidelines should be adopted to help maintain safety and efficiency while still providing reasonable access to adjacent land uses?***

figure 1

Preparation of this Plan

To assist in the development of this plan a Steering Committee was formed with representatives from the City of Mt. Pleasant, Union Charter Township, MDOT, Isabella County Road Commission, Isabella County Planning/Development, and the DDA. The Steering Committee met regularly to review the issues, provide suggestions on draft recommendations and assist in obtaining comments from the public and local officials.

This plan was developed over seven months through a series of meetings with the Steering Committee. The process also included two public workshops/open houses held at Mt Pleasant city hall and Union Township hall – the first held on April 6, 2006 and the latter on June 29, 2006. Both of these open houses provided a presentation on the need for, and benefits of, access management in this study area. Large graphics were on display illustrating the preliminary 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 can be found in the appendix.

Role of Access Management

As noted, the goal behind this access management plan is to improve traffic operations and safety along the existing US-127 BR and M-20 corridors while retaining reasonable access to existing and future development along the roadways. Access management, in this situation, involves improving upon and preservation of the road's capacity through reducing or 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 MDOT, City, and Township the latitude to make future improvements with the least disruption on homeowners, businesses and the anticipated development pattern along the roadway.

- Preserves or improves the capacity of the roadway by locating/relocating access points where they will have the least disruption on through traffic flow.

- Reduces crash potential through careful placement and spacing of access points and median crossovers.

- Provides landowners with reasonable access to their property from Mission, Pickard, or M-20, though to meet the benefits above, in some cases the number of access points will be fewer or more indirect than previously allowed.

- Improves traffic operations and safety that will benefit everyone. Access management and other improvements along the plan corridors require a partnership

between the City, Township, MDOT, and the Isabella County Road Commission. One way to promote this collaborative approach is through improved coordination and communication between the MDOT and the two communities when reviewing development proposals.

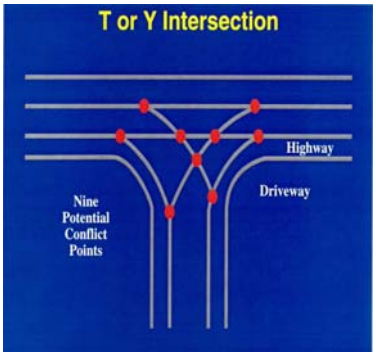
- Provides general background and information on the benefits of access management to assist Mt Pleasant and Union Township officials.

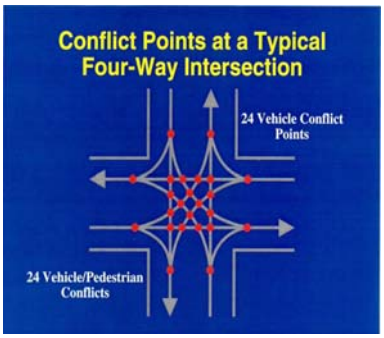
Realization of the benefits listed above can be accomplished through a variety of changes, both physical and regulatory. Key recommendations of this access management plan are listed below, and are explained in more detail in the subsequent chapters.

- Identify changes to existing access points to improve safety and efficiency of the roadway corridors. Such improvements, especially along Mission Street, include closure or consolidation of numerous existing access points to improve spacing. Specific recommendations are illustrated on a series of drawings for sections of the corridors.

- 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 future development proposals. Generally, the deepest separation from the roadway is desired, but in some cases, a frontage road may be the most practical design.





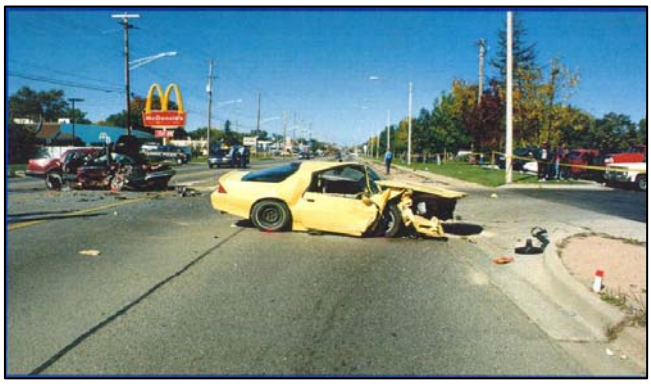
Each new driveway adds to the number of conflict points along a roadway at which a traffic crash could occur.

- 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 the City and Township review development proposals, through improved coordination with MDOT, and through adoption of access management standards into the two zoning ordinances.

Access Management – What is it?

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-127BR/M-20 corridors. 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. Land owners 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.

"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."

Successful implementation of the plan's recommendations will require continued coordination between the two communities and MDOT. This document includes a draft corridor overlay zoning district that the City and Township have refined further for adoption.

Perhaps the most important result that comes out of this process will not be the access management plan itself. It may be the further recognition that good, timely communication between the Mt. Pleasant, Union Township, and MDOT 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 this seven mile study corridor.

2. EXISTING ACCESS and LAND USE CONDITIONS

One of the primary initial tasks when developing an access management plan is to define the current access conditions and land use plans along the study area corridors. This section of the report outlines those current traffic and access conditions and land use issues. A brief description of the US-127BR and M-20 design and traffic characteristics within the study area follows.

Current Roadway and Access Characteristics

There is a wide variety of geometric, traffic, and access conditions along the study are sections of Mission Street, Pickard Street, and M-20 to the west. Cross sections range from two to seven lanes and there is a fairly 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 two communities and road agencies can use to improve upon 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, in three general corridor sections; US-127 BR/Mission Street, M-20/Pickard Street from Mission to Summerton Road, and M-20/Remus Road from Lincoln Road west to Meridian Road. Clearly the first tow sections are very developed while the section of M-20 to the west is relatively undeveloped.

Mission Street (US-127 Business Route)

Roadway Characteristics

The Mission Street portion of the study area begins at Bluegrass Road and ends at Corporate Drive at the north end. The typical cross section throughout the corridor is five lanes, not including short right turn lanes provided at a few key intersections.

Recent traffic counts indicate that weekday daily traffic volumes on Mission range from approximately 17,000 vehicles on the north end up to about 32,000 vehicles in the Broomfield Road area. Speed limits range from 30 miles per hour in the central part of the

corridor up to 40 miles per hour towards each end. Mission Street/US-127BR currently has signalized intersections at the following cross streets:

- Bluegrass Road
- Broomfield Road
- Preston Street
- Bellows Street
- High Street
- Michigan Street
- Broadway Street
- Pickard Street

It should be noted that Mission Street has a relatively high number of crashes, with the block between Preston Street and Broomfield Street experiencing over 150 crashes in the last five years. Over 30 percent of those were directly related to driveway traffic movements, with that percentage likely higher if crashes at main intersections that were indirectly access-related were also taken into account.

Existing Access Conditions

Mission Street is considered a retrofit corridor in terms of access management. It is highly developed, with little or no undeveloped parcels within the study area. The existing access system is similar to many other older high volume/high development corridors around the state where sites were approved and constructed in the past without the current knowledge of the detrimental effects of poor access management. Although there are examples of good recent site plan/access decisions (eg. Walgreen's at Preston), there are many examples of substandard (by today's standards) access/driveway spacing, design, and numbers.

Existing access management deficiencies on Mission Street include the following:

- *Substandard driveway storage;* many of the commercial driveways along Mission have little or no internal storage (distance from Mission to first internal cross aisle or parking) that provides more efficient ingress/egress operations.

- *Poor intersection-to-driveway spacing*; there are examples of poor spacing between an intersection and an adjacent commercial driveway at almost every intersection along the corridor, several of these are gas stations but other sites/uses also have this issue that affects the operational safety of the intersection.

- *Poor driveway spacing and/or unnecessary second drive;* too numerous to mention again – many instances of driveways spaced too close together or sites that have more than one driveway that do not warrant a second (or more) access.

- *No internal cross access/service drive connections*; lack of internal connections between adjacent uses (either large or small businesses) can significantly affect Mission Street – appears in many cases to have been a conscious decision to block cross access in many cases.

- *Substandard driveway offset*; this currently exists at several locations, although it would be difficult in the past to align or offset driveways properly given that there are so many.

- *Parking/Access deficiencies*. At several spots, most notably on the eastern leg of the Mission/Preston intersection, where on-street, 90-degree parking is allowed well within the functional area of a signalized intersection.

- *Substandard driveway width*. Several locations have older very wide driveway openings that can lead to driver confusion, multiple access movements.

Pickard Street (M-20 – Mission Street to Summerton Road)

Roadway Characteristics

Pickard Street generally has a five-lane cross section between Mission and Summerton Road, with separate right turn deceleration lanes or tapers at a few locations. Traffic counts indicate that daily weekday volumes range from approximately 21,000 to 26,000 vehicles on Pickard in this section.

Speed limits in this subarea currently range from 35 miles per hour in the City section near Mission, 45 miles per hour from roughly Russell Street to the interchange, and up to 55 miles per hour out near Summerton. Along with the aforementioned Mission Street signal, Pickard's intersections with Brown Street, Isabella Road, and the two US-27 interchange ramps are controlled by traffic signals.

Existing Access Conditions

Pickard Street/M-20 is also very developed for much of its frontage although several of the more recent developed commercial sites have better access controls in place. By in large though, it is still considered predominantly as a retrofit corridor as there are many corrections to the existing access system that will need to be made over the coming years when opportunities arise.

There are several newer developments that the City or Township has approved, along with MDOT, that have better access design or location based upon the guidelines MDOT has now adopted and used on a regular basis. However, there are many examples of older access points with deficient design/location attributes.

- *Substandard driveway to intersection spacing;* numerous examples of poorly located driveways along Pickard at signalized cross roads and/or on those cross roads.

- *Poor driveway spacing;* many examples along the corridor, particularly on the south side across from the Meijer store, on the north side just west of Belmont, and on the southeast quadrant of the US-127/M-20 interchange.

- *Unnecessary second drives;* same locations as those noted above and several other locations.

- *Substandard driveway design/storage;* wide open commercial driveways, like the one on Florence Street on the south side of Pickard, too little driveway storage (distance from roadway to first internal parking/circulation) at numerous locations, typically older small commercial sites.

- *No internal cross access/service drive connections*; lack of internal connections between adjacent commercial uses –for example the two newer restaurants on the northeast quadrant of the Pickard/Brown intersection.

- *Substandard driveway offsets*; this currently exists at several locations, including the driveway to the medical office building that is offset from Betty Lane.

M-20 (Remus Road – Lincoln Road to Meridian Road)

Roadway Characteristics

This section of M-20 has a two-lane cross section with a center left turn lane added at its intersections with Lincoln and Meridian. Recent 24-hour traffic counts indicate that M-20 in this area carries approximately 13,000 vehicles on a weekday.

Currently, the M-20/Lincoln intersection is the only one in this part of the study area that is traffic signal controlled. At this time all other side roads are stop sign controlled. The speed limit is 55 miles per hour throughout this corridor section.

Existing Access Conditions

For the most part the M-20 frontage within the Lincoln-to-Meridian segment is relatively undeveloped, at least in a commercial sense. Small commercial development is focused at the two endpoints, with single family homes and/or residential plats sprinkled along the remainder of the corridor.

The Township has started the development of a service drive system along the north side of M-20 at Lincoln Road that is planned to be extended as sites develop. Existing access management deficiencies are limited to the following:

- *Poor driveway spacing;* A couple of locations, including the proximity of the McDonald's and adjacent bank driveways.
- *Unnecessary second drive/poor driveway offsets;* the small commercial site opposite the above uses does not warrant the need for two driveways, especially as one or both help create poor offset issues.

Existing Land Use Characteristics

Introduction

The US-127 BR/M-20 corridors, located on portions of Pickard, Mission, and Remus Roads, provide access to numerous businesses and residences in the City of Mount Pleasant and Union Charter Township. With access points come access management issues, especially in corridors such as US-127 BR and M-20, which are have already been developed into various uses with many independent land and business owners. When evaluating the impacts that individual land uses have on a corridor, the intensity of the land use generally dictates the amount of traffic, and consequently the amount of traffic impact on a main road, that a use generates. Other impacts to the environment around the roadway include noise and air quality, light, and other physical nuisances that go beyond the limits of the property. Intensive uses, such as commercial and industrial uses, generally produce greater levels of traffic and other off-site impacts. These impacts should be considered by communities when determining not only the future land use along these corridors, but also the degree of access management needed to promote safety and traffic flow.

The US-127 BR/M-20 study area is located in an area that has experienced sustained residential and commercial growth over the past several decades. This growth has contributed to traffic congestion throughout the study area in both the City and the Township. In addition, the areas to the west on Remus Road are experiencing increased development pressure and could experience congestion in the future.

Existing Land Use

Existing land uses along the corridors can be grouped into two main categories. These are built-out commercial corridor, which includes all of Pickard and Mission, and an undeveloped agricultural corridor on Remus Road in the western area of the Township. The following are detailed discussions of these two groups and the areas that lie within.

Fully developed commercial corridor in the southern area of Mission.

- **Existing Commercial Corridors: Pickard and Mission**

  The first of these two categories includes all of Pickard and Mission in the study area. These connected roads have been developed over the last several decades and include short blocks and narrow, single-business parcels scattered throughout.

  The areas close to the interchanges on the east and south ends have seen some larger commercial developments, including strip centers, hotels, and large shopping centers.

Multiple driveways on Pickard just east of US-127 lead to a variety of commercial uses.

  Pickard (M-20). Uses along Pickard include manufactured home sales, hotels, gas stations, sit-down restaurants, movie theater, large-scale retail and grocery, fast food, and a wide range of other auto-oriented businesses. There are also several single family homes and vacant lots on the south side of Pickard. The eastern end of Pickard (east of the freeway) has a large home improvement store, but also has vacant acreage near the business school and hotels near the Township line.

Commercial development along Mission brings pavement right up to a lot line.

  Mission (US-127BR/M-20). Uses along Mission vary greatly but are generally retail and office commercial. The north half of Mission has the shortest blocks as well as the narrowest parcels. Many individual businesses have been built along this stretch of roadway, often very close to the right-of-way and with little room for parking. Progressing to the southern end of US-127 BR, there are increasingly larger commercial developments, with multi-tenant commercial centers and chain restaurants. On the east side of Mission from north of Bluegrass to US-127, large retailers including JC Penny, Target, and WalMart are incorporated into disjointed shopping centers. In

this same southern area, the west side of Mission consists of commercial parcels sandwiched between the roadway and the Central Michigan University Main Campus.

Development adjacent to Mission includes on-street parking for several commercial uses.

- **Undeveloped/Agricultural Corridor: Remus Road**

  The second category refers to Remus Road, located west of the City limits and in a primarily agricultural area of the Township.

  With the exception of small commercial uses at Lincoln and Meridian, the balance of this area is large tracts of agricultural land and larger-lot residential subdivisions. There is pressure near Lincoln for expanded commercial on the north and south sides of M-20.

Agriculture dominates the landscape on Remus west of Lincoln.

Future Land Use and Influence on Transportation

Planned future land uses vary from one community to another and are driven by development patterns, infrastructure and the desired community character. A composite map of the study area's future land use is illustrated in Figure 2 in the *Study Area Future Land Use Map*. The future land use adjacent to these corridors will have a significant impact on future traffic patterns, flow, and congestion. Examining the configuration of future land use categories can help drive both site-specific and corridor-wide policies for Access Management. The following are detailed discussions of the existing future land use along the various corridors as well as any adjustments recommended to improve traffic safety and flow.

- **Existing Commercial Corridors: Pickard and Mission**

The Pickard and Mission corridors are both planned for commercial land use. This pattern lends itself to a high number of vehicle trips, many access points, and abundant signage. The south end of Mission also abuts the University and its corporate park. Implementation of Access Management recommendations and policies will be critical to making these roadways safe to vehicle and pedestrian traffic while promoting flow and increasing capacity.

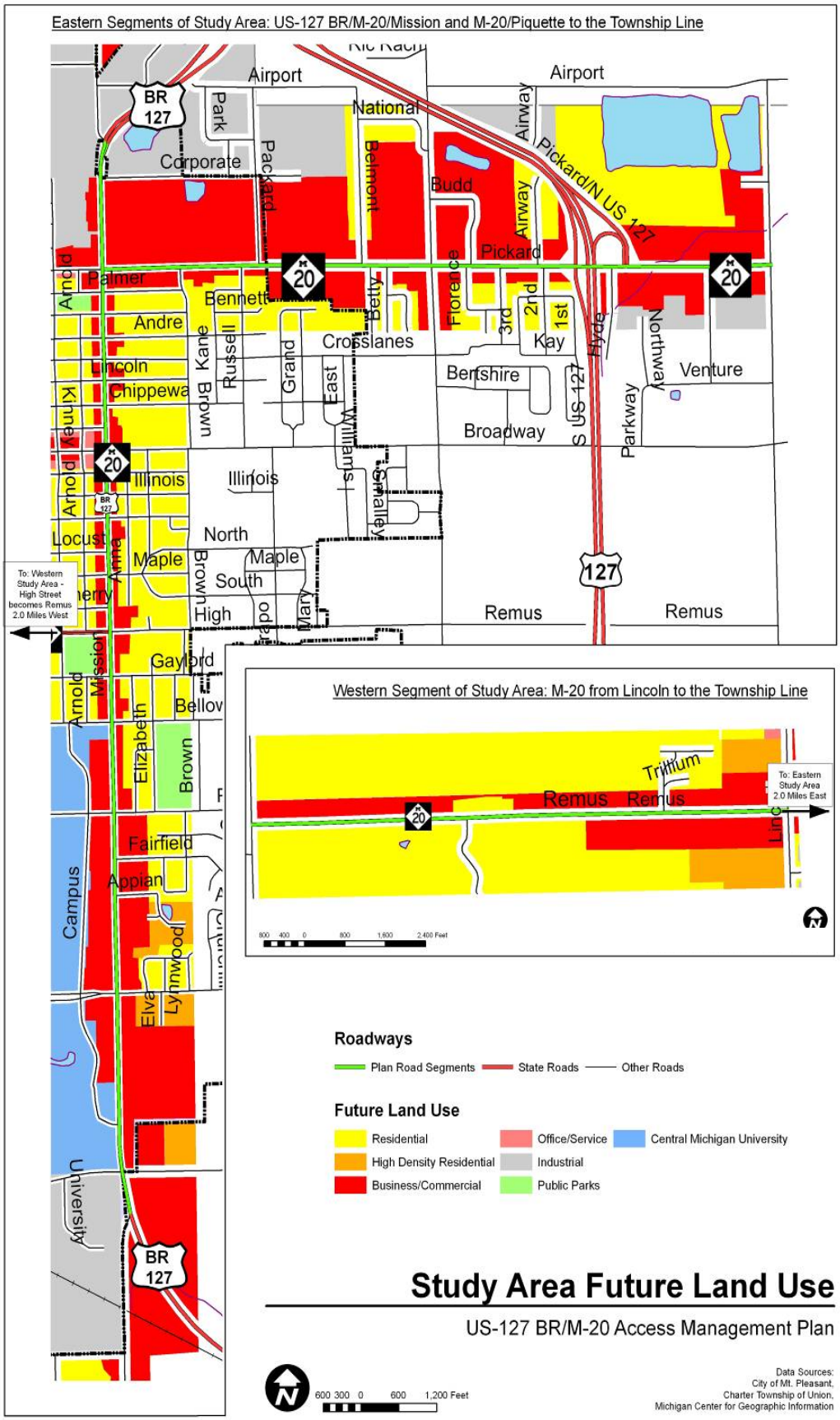

Eastern Segments of Study Area: US-127 BR/M-20/Mission and M-20/Piquette to the Township Line
Airport
Airport
BR 127
Park
National
Corporate
Packard
Belmont
Airway
Pickard/N US-127
Budd
Airway
Pickard
Florence
Palmer
Bennett
Betty
3rd
2nd
1st
Kay
Hyde
Northway
Venture
Andre
Kane
Russell
Grand
Crosslanes
Lincoln
Chippewa
Brown
East
Williams
Bertshire
Broadway
S US-127
Parkway
Illinois
Illinois
Smalley
Locust
North
Maple
Maple
Brown
South
High
Mary
Remus
Remus
127
To: Western Study Area - High Street becomes Remus 2.0 Miles West
Gaylord
Mission
Arnold
Elizabeth
Brown
Fairfield
Campus
Applan
Lynnwood
University
BR 127
Western Segment of Study Area: M-20 from Lincoln to the Township Line
Trillium
Remus
Remus
To: Eastern Study Area 2.0 Miles East
Roadways
Plan Road Segments
State Roads
Other Roads
Future Land Use
Residential
Office/Service
Central Michigan University
High Density Residential
Industrial
Business/Commercial
Public Parks
Study Area Future Land Use
US-127 BR/M-20 Access Management Plan
600 300 0 600 1,200 Feet
Data Sources:
City of Mt. Pleasant,
Charter Township of Union,
Michigan Center for Geographic Information

FIGURE 2

The area on the south end of Mission is also experiencing significant commercial and high-density residential development. Managing access and providing easy routes to signalized intersections for left turns will help maintain safety.

- **Undeveloped/Agricultural Corridor: Remus Road**

  The Remus Road corridor currently has commercial future land use on the north side of the road for it's entire length, and a area of planned commercial on the south that goes about 1/3 of the way to the Township's western boundary.

  The depth of these planned commercial zones will be a key component to managing access for future development. Currently the planned area on the north side of the road is only about 300 feet deep. With an expansion of the road, front shared access drives, and landscaping, the depth of these areas is too shallow and should be extended to the north by at least 150 feet. If area of planned commercial is a concern, reducing the length of commercial on Remus' north side in favor of a narrower, deeper area would allow for a planned, coordinated development with plenty of room for road expansion, internal access and landscaping.

  The planned commercial on the south side of Remus is closer to 600 feet, and should be able to accommodate an access pattern that limits any development to only one or two access for the entire length of M-20.

Each type of land use creates traffic that adds to the existing through traffic along the highway. For example, a typical single-family home generates about ten vehicle trips per day (5 in, 5 out), where a commercial use located on a similarly sized lot may generate as many as fifty or more trips in an hour.

A unique aspect of land use and zoning decisions is the impact a decision in one community can have on the other communities along the corridor. Traffic and other effects of commercial development are not constrained by community boundaries. Therefore, information on major planning and zoning changes being requested along the corridors should be shared with the other community and appropriate agencies.

"A unique aspect of land use and zoning decisions is the impact a decision in one community can have on the other communities along the corridor. Traffic and other effects of commercial development are not constrained by community boundaries."

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 plan for the US-127BR/M-20 study area was developed. This chapter summarizes the basic design standards that should be used by the City of Mt. Pleasant and Union Charter Township in future access deliberations along the study area corridors and other corridors where appropriate.

Access Management Standards

Since there is a wide disparity in the current and planned future development along the US-127BR/M-20 corridors, it is impractical to impose driveway standards uniformly throughout the study area. Design or spacing criteria applicable to the developed portions of study area on Mission Street and Pickard Street would be less than ideal for the relatively undeveloped M-20/Remus Road subarea. Standards should provide sufficient flexibility to be effective and equitable as well as meet requirements set by MDOT and administered by the City, Township and/or Isabella County Road Commission.

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 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

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

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.

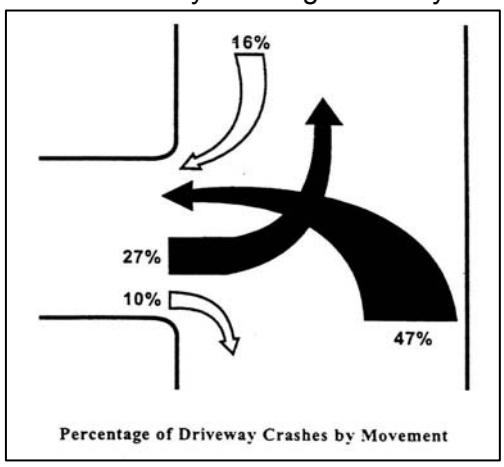
The following sections discuss a few of the basic access design criteria that were used during the analysis of the US-127BR/M-20 study area. The specific way in which these criteria or standards applied to the corridor is then outlined in the following chapter.

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 Mission Street and the two M-20 subareas 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 the study corridors, 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 660 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.



Data from the National Highway Institute indicates that most driveway crashes involve left-turn movementss

- **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 a state trunkline roadways such as Mission Street that have speed limits of 30 to 40 mile an hour, full movement driveways onto Mission should typically be a minimum of at least 230 away from a signalized intersection (460 feet in 40 mph zones) and 115 to 230 feet away from unsignalized intersections. Such distances are typically not attainable in highly developed/small parcel roadways such as Mission Street, and to a lesser extent on Pickard Street.

In locations where existing parcel constraints limit that spacing (retrofit areas – most of Mission and Pickard), driveways onto Mission or Pickard should be placed as far as possible away from the intersection. In most areas of the corridor, spacing of driveways on the side roads should be at least 250 feet from the nearest edge of the trunkline pavement.

- **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:

Posted Speed (MPH)	Minimum Driveway Spacing
25	130 feet
30	185 feet
35	245 feet
40	300 feet
45	350 feet
50+	455 feet

  Again, it will be difficult for sites along the two retrofit corridor sections to meet these standards, so the primary goal is to close/combine driveways that at least maximize driveway spacing as opportunities arise.

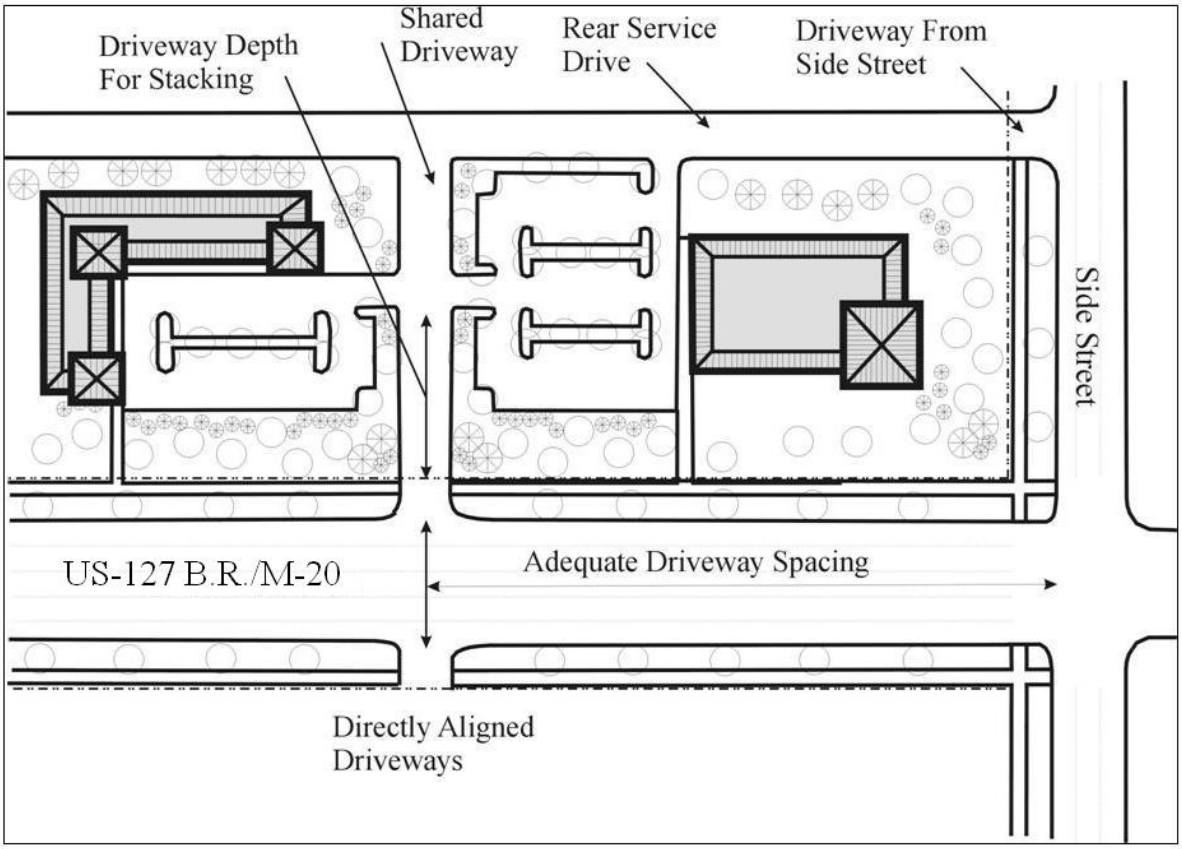
- **Driveway Alignment:** In order to prevent left turn conflicts, driveways should be aligned with those across the street or offset a sufficient distance to prevent turning movement conflicts. Minimum offsets on US-127BR and M-20 should be determined by posted speeds and range from 325 feet for a 30-mile 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 Mission Street/Pickard Street/M-20 (west) 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. The City/Township/MDOT/ICRC may temporarily grant individual properties a direct connection to an arterial road 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 right-of-way at that location on US-127 BR or M-20, the depth of the adjacent parcels, and the location of existing buildings in developed or partially developed corridor sections. 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.

"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."

Rear service drives are often 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:** There are only a few sight distance limitations in the study area and those are located in the M-20/Remus Road subarea. The minimum sight distance required for a vehicle to enter or exit the traffic stream on an arterial from a side street or driveway is determined by MDOT and/or the iCRC at the time of an application for a driveway permit. The Township 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 the US-127 BR and M-20 corridors. Travel time and congestion will be decreased and the potential for crashes will be reduced. While individual land owners 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 two communities. The design of the access points can be as important to the overall operation of a corridor as their location. MDOT's driveway design standards can be supplemented by requirements adopted by the City or Township along the study corridors. Design standards usually define geometric requirements regarding driveway widths, corner radii, and taper lengths to name a few.

4. ACCESS MANAGEMENT PLAN

The access management plan developed for the US-127BR/M-20 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 reduce crash potential and provide better efficiency within each of the corridor sections. These corrections are typically referred to as retrofit access improvements.

As discussed during several of the Steering Committee and public open house meetings, in several areas of the corridor it may be all but impossible to retrofit a corridor section to meet current spacing guidelines for new driveways. On roadways such as Mission and Pickard Streets, 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 Union Township, Mt. Pleasant, or MDOT during another approval process. Others, at least in the City, may be implemented through the newly proposed DDA-funded driveway closure process.

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

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

The recommendations of the access plan are largely based on parcel configurations and future land use plan 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.

The following sections and accompanying figures outline how the recommended access management standards are applied within the overall US-127BR/M-20 study area. 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, intersection traffic control type, sight distance concerns, physical constraints and the type and size of potential traffic generators.

Service drives and/or internal site connections may play an integral part of the future access management system along the study area frontage. These will likely be typically located in two general areas; where there are significant sections of commercial or developmental areas that have not yet been developed (M-20/Remus Road), or as shorter internal connections in developed areas. The plan illustrates a few locations for these facilities and the variability in alignment that service drives can take.

The Access Management Plan is illustrated in a series of 14 "maps." These show the final recommendations that resulted from numerous discussions with the Steering Committee members and input from other interested/affected obtained at the two public open houses (where presentation-size versions of the maps were used). The following discussions regarding the access management plan recommendations are summarized on a map-by-map basis. The discussion and graphics start with Mission Street (at southern end), then Pickard Street/M-20, and conclude with M-20/Remus Road from Lincoln west to Meridian Road.

Mission Street (US-127 BR) – Bluegrass Road to just north of Bellows Street

The access management improvements recommended for this section of Mission Street are illustrated on Figures 3, 4, and 5. Given its intensely developed nature, the plan is focused on numerous recommendations for addressing existing driveway/access issues.

Recommended retrofit improvements include many proposed driveway closures of older commercial driveways and related development of shared drives, especially on the block between Broomfield and Preston where excessive poorly spaced driveways dictates the need to reduce the number of access points from 35 to 26 . It's not a coincidence that this block had the highest number of crashes (150) along Mission Street over the last five years. It should be noted that using a strict application of MDOT's access management guidelines would result in reducing the number of access points to only 12.

There are several recommendations to develop better internal connections. The existing Target site is a good candidate for such connections, as are several of the restaurants and other businesses that line the west side of Mission Street north of Broomfield. The plan essentially calls for the removal of many/all of the various types of physical constraints (curbs, rails, fencing, etc) that currently block needed connectivity that will help reduce ingress/egress movements on Mission.

The need for better internal connectivity is also shown by the plan's recommendations for short service drive connections. One example within this subarea is on the west side of the short Appian Way-to-Fairfield Street block. If/when the hotel site redevelops, a rear service

drive should be constructed to provide access to that site as well as to adjacent sites and the two streets.

Recommended closures include several driveways that are very close to a key intersection and well within its functional area. The gas station located on the northeast quadrant of the Mission/Broomfield intersection is a classic case of an older 4-access point design that is/was common. The plan calls for closing combining two driveways that are immediately adjacent to the signalized intersection, revising one to a right-in only, and sharing a driveway with the small commercial use on the north side. Access to the site will still be very good (including tanker circulation) and the changes will benefit the oft-congested adjacent intersection.

Typical Driveway Closure Costs

Closure Type	Estimated Cost*
Close/Remove Existing Commercial Driveway	$5,000 - $10,000
Close/Remove Two Driveways and Construct Shared Driveway	$15,000 - $25,000

**Costs typically borne by site owner if/when site redevelops/improves, unless planned MDOT roadway improvement project provides funds*.

As noted in the Existing Conditions chapter, on-street parking is also an access/safety issue, especially when it occurs within the functional area of a signalized intersection on Mission Street. The plan recommends that all on-street parking currently located on Preston Street just east of Mission be removed.

Mission Street (US-127 BR) –Just north of Bellows Street to Corporate Drive

The recommended improvements to the access system for this stretch of Mission Street are illustrated on Figures 6, 7, and 8. Much like the southern half of this corridor, the recommendations run the whole gamut of potential access solutions for a densely developed corridor.

The plan's recommendations include closing and/or combining a total of 35 existing access points along this subarea. Some of these are just unused curb cuts, but most are unnecessary second driveways or combined driveways that are too close together. Nine of the recommended closures are in the short Gaylord-to-High section. Several closure or driveway revision recommendations also address locations where existing drives are too close to a major intersection.

For instance, almost anything that can be done to reduce/eliminate access within the functional area of the Mission/Pickard intersection should be pursued, given the high traffic volumes at that location. That includes pursuing internal access between the commercial sites on the northeast corner of the intersection and the existing Meijer site. Its our understanding that one of the two recommended internal connections is already being planned/approved.

There are also several locations where the plan addresses side street access that is too close to the intersection (including on-street parking) and in one instance (at Wisconsin Street) where the recommendations include narrowing an existing very wide commercial driveway.

The commercial parcels along this section tend to have less depth than other areas so service drive recommendations don't come in to play much. There are recommendations, however, for internal connections between adjacent commercial parking areas that will help reduce conflicts on Mission Street. Also, continued or expanded use of the alley that runs parallel to Mission along the west side should be promoted – likely tied to potential widening of that alley if the opportunity arises.

Pickard Street (M-20) – Mission Street to Summerton Road

Figures 9 through 12 illustrate the plan's access management recommendations for this section of the study area. Although there are recommendations for the few undeveloped parcels, they are largely retrofit-type recommendations given the predominantly developed nature of the Pickard Street corridor.

Since this corridor's development is relatively newer than that of Mission Street, the number of recommended driveway closures per mile due to driveway spacing is somewhat less, although there still are subsections where this is an issue and is addressed. The section just west of Belmont on the north side is recommended for closure/combining of at least 4 of the eight existing driveways located within 650 feet. Of particular importance is the area next to the US-127/M-20 interchange. In order to provide a safer and more efficient roadway section at this key hub, recommendations include closing several existing commercial driveways and making better use of existing main access points, specifically the signalized northbound off-ramps/Home Depot intersection.

Recommendations include development of short rear service drive segments at a couple of locations; one behind the sites on the northeast corner of the Pickard/Brown intersection, and one located behind the northwest corner parcels at the Pickard/Isabella intersection. Both of these are designed to provide indirect access to a signalized intersection, thereby providing for safer left-turn movements.

Existing poor driveway offsets are also addressed. Current inbound left-turn conflicts observed in the opposing but offset college and Enterprise Drive "intersections" can be eliminated if the main driveway to the college is relocated to align with Enterprise. Combining restaurant drives in the section immediately east of Mission will also address current driveway offset issues. The plan notes that, in that same area, Palmer Street is functioning fairly well as a rear service drive type of facility.

M-20 (Remus Road) – Lincoln Road west to Meridian Road

As noted in other chapters, this section of the overall study area is quite different, mostly in terms of the level of development. Therefore, although there are a few retrofit type of proposed access changes, the recommendations are more oriented towards defining how and where future commercial or residential plat access should occur.

As depicted in the following pages (Figures 13 through 16), retrofit recommendations are limited to a couple of commercial driveway closures or relocations at both ends of this subarea.

In terms of future access to commercially planned areas, recommendations include pursuing a combination of shared access points, good spacing of those access onto M-20, and the continued development of rear or front service drives. Current land use plans provide for fairly good depth of commercial development, or enough so to provide room enough for construction of service drives that can serve multiple sites with fewer drives to the higher speed (55 mph) highway.

Those access spacing recommendations of 660-800 feet also apply to any potential future residential plats that may be pursued towards the western portion of this subarea. As with any such development, individual home access should be from internal plat streets, not directly onto M-20.

General Land Use Recommendations

Although access management is primarily intended to improve motor vehicle traffic flow, it can support transportation demand management by integrating transportation and land use planning, and by improving transportation options. Improved transportation options result in a more diverse and flexible transportation system that can accommodate variable and unpredictable conditions. A goal is to develop plans for US-127 BR and M-20 that will allow rational development while maintaining or improving safety and mobility along an existing roadway. This can be a powerful tool to direct development or redevelopment along the study area corridors. Access management can increase the capacity of a corridor to accommodate development, and can minimize development pressure in areas where development is not planned.

Land use planning efforts that can be used to support access management standards on Mission Street, Pickard Street, and M-20 to the west include encouraging clustered development (M-20 west), creating more pedestrian-oriented street designs, improved connectivity between development parcels, and road space reallocation to encourage efficiency. Road space reallocation involves shifting more road space to specific transportation activities, and managing roadways to encourage more efficient and equitable transportation. It is a method of prioritizing transportation to favor higher value trips and lower cost modes. Road space reallocation can involve strategies ranging from parking and sidewalk management and pedestrian improvements, to speed reductions and traffic calming. Road space reallocation can be particularly appropriate on a congested roadway such as Mission Street, since a vehicle's road space requirements increase with its size and speed. Motorists impose far more congestion on other road users than people who travel by other modes.

Recommendations

General land use strategies that can be used to accomplish access management strategies on one or more of the study corridor subareas include:

- **Establish future right-of-way needs for the corridor:** Although the right-of-way width appears to be sufficient at this time on M-20 to the west to accommodate recommendations of this plan, it should be determined whether additional right-of-way may be needed in the future to provide for future roadway and access improvements. Future cross sections for the roadway should gain agreement between MDOT and the Township. Specific issues that should be considered in establishing future right-of-way needs (widths) include:

  - Allow for variations in road location, based on existing development and natural elements which the Township may wish to preserve;
  - Accommodate drainage needs and topographical changes;
  - Accommodate operational features such as turn lanes at intersections and potential transit facilities; and
  - Flexibility in road design to allow for bike lanes, sidewalks, buffer strips between the curb and sidewalk, etc.

- **Increase minimum lot frontage along the corridors:** There exist multiple areas along the corridor that are undeveloped, mostly within Union Township on M-20/Remus Road. Minimum lot width requirements should be examined to insure future lot splits are not too narrow to meet frontage requirements based on access spacing standards. In particular, minimum lot widths within the overlay district should be between 400-600 feet in order to meet the desired spacing requirement between access points. This minimum lot frontage can be varied if one or more of the following is provided:

  - Provisions are made to share access between parcels; and/or
  - A determination has been made that topographic conditions preclude the ability to meet the driveway spacing standards.

- **Adjust front yard setback requirements:** Front yard building setbacks within the overlay district should account for future right-of-way needs and access options. One option is to establish setbacks measured from the centerline of the road. In cases where a service drive and/or frontage road is being provided, a minimum of eighty (80) feet is needed between the M-20 centerline and the pavement of the service drive/frontage road. In order to minimize disruption and preserve areas for future right-of-way, setback requirements could be increased with no detention/improvements between the existing right-of-way and parking and building.

While there is no set time for implementing access management standards, the pace of development or redevelopment within the study area often determines the schedule for implementation. Access management standards within the US-127BR/M-20 Overlay District should be implemented by evaluating proposed access for each new or redeveloping property independently to determine its relationship to corridor plans and policies.

5. ADOPTION and USE of the PLAN

Successful implementation of the recommendations in the US-127BR/M-20 Access Management Plan requires a partnership between the City of Mt. Pleasant, Charter Township of Union, and MDOT. This requires that the City and Township Planning Commissions, elected bodies and zoning boards of appeals members 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 development and redevelopment in the study area is to be accommodated and traffic safety and flow in the area is to be improved. Development decisions along US-127BR/M-20 are under the purview of several agencies. The City and Township have jurisdiction over land use planning, zoning, site plan and subdivision review outside the US-127BR/M-20 rights-of-way and full jurisdiction on side streets. The City of Mt. Pleasant, the Isabella County Road Commission and MDOT, have control over improvements within the US-127BR/M-20 rights-of-way.

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-127BR/M-20 corridors. Part of the Access Management Plan project is to craft a zoning ordinance amendment for the City and Township and assist with having them adopted. This process will continue after the completion of this Plan.

The US-127BR/M-20 overlay zoning districts would be placed over the existing zoning regulations for all parcels with frontage along US-127BR/M-20 and along intersecting roads within three hundred fifty (350) feet of the US-127BR/M-20 rights-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.

The focus of the overlay zone is a set of access 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 with existing development. In order to address these situations the ordinance provides the authority to modify the standards on a case-by-case basis, with guidance on a site-specific scale coming from the recommendations outlined in this Plan.

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.

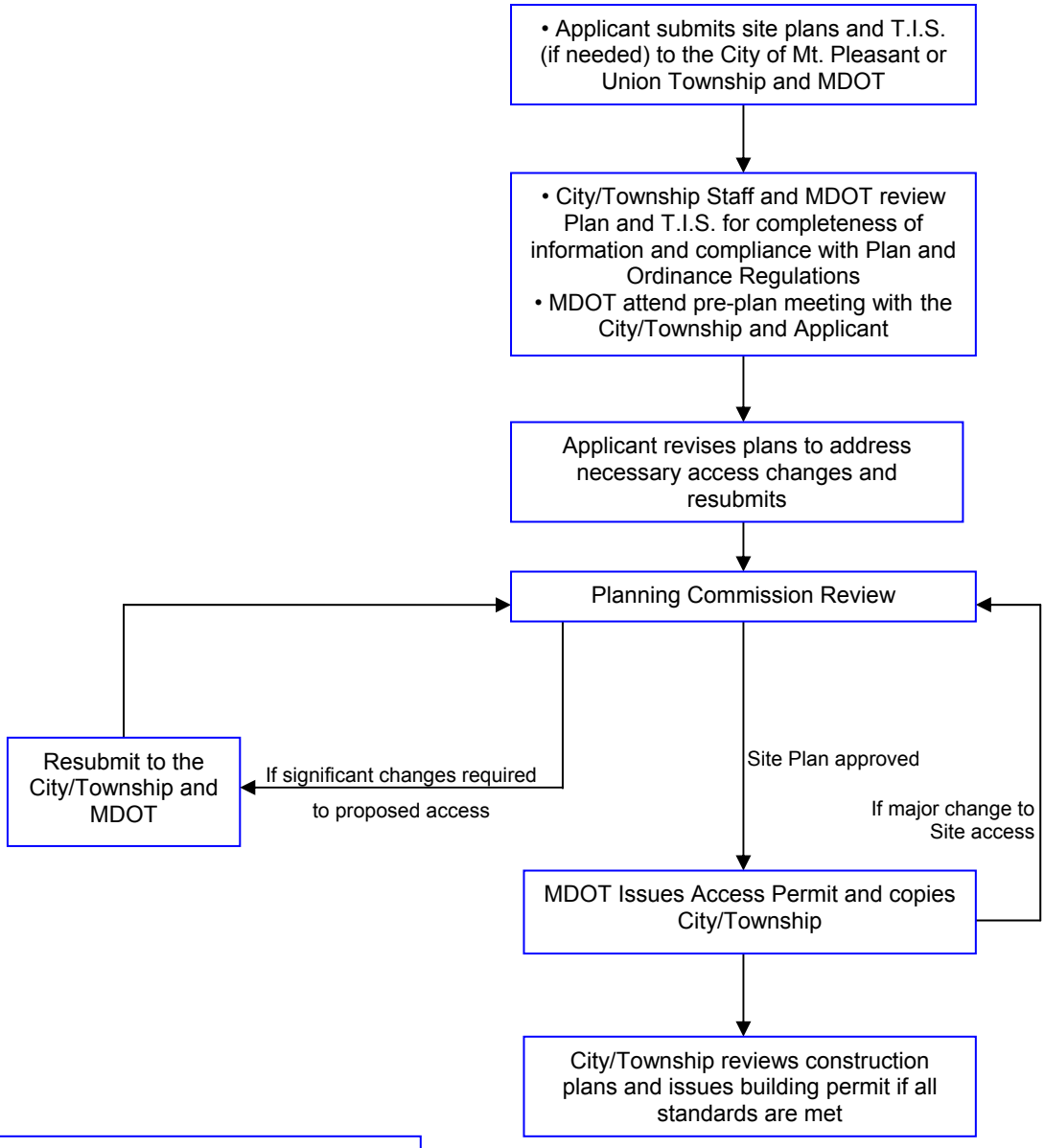
The flow chart illustrated on Figure 17 on the next page outlines the recommended process to be followed in review of any development proposal along the US-127BR/M-20 corridors. It provides for a coordinated review by the City of Mt. Pleasant, Union Charter Township, and MDOT (could be revised to include the Isabella County Road Commission for instances where side road access is an issue). The intent of the process is to ensure that the local unit's of government review of the site plan design and MDOT's access permit process is coordinated to implement the recommendations of this plan. The process provides for a feedback loops between the planning commission and MDOT as modifications are made to access and circulation.

To continue the implementation of the US-127BR/M-20 Access Management Plan, the Steering 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, right-of-way preservation and roadway cross-section designs, rezoning proposals, ordinance text amendments, local master plan updates, roadway improvements, non-motorized transportation, streetscape enhancement, and other common issues along the corridor.

US-127 BR/M-20

Recommended Access Approval Procedure

for Site Plans, Special Land Uses,
Subdivisions and Site Condominiums



LEGEND

T.I.S. = **Traffic Impact Study**

MDOT = **Michigan Department of Transportation**
Mt. Pleasant TSC
1212 Corporate Drive
Mt. Pleasant, MI 48858
989-773-7756

Note: This chart illustrates the preferred process to insure coordinated agency reviews on access-related issues. The site plan review process also involves other standards and agencies that will influence the approval process.

Draft ordinance
(submitted earlier for review)

APPENDIX