



Comprehensive Transportation Plan Update

City of Marshfield, Missouri

NOVEMBER 2009

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1. INTRODUCTION

Planning for the City of Marshfield's current and future transportation needs was a major objective behind the Comprehensive Plan update. The following goal was adopted in conjunction with the original plan and public input from the updating process to help address the City's existing and future transportation conditions:

The City shall plan and complete a safe, efficient, comprehensive transportation system that provides effective circulation and economic development while maintaining the integrity, security, and privacy of Marshfield's residential neighborhoods and small town character.

This transportation element of the Comprehensive Plan has focused on evaluating the community's existing conditions and suggesting and prioritizing improvements that are necessary to balance the City's circulation needs with existing and anticipated development and growth. This Plan takes an integrated approach to reviewing the City's transportation needs and takes a comprehensive, systems-planning approach to developing objectives and recommendations to address the City's transportation needs.

This Plan examines transportation issues inside City boundaries. However, because development outside Marshfield affects the City, some focus is given to areas outside the City's legal boundaries.

2. FUNCTIONAL ROADWAY CLASSIFICATION

To better review and evaluate the City's road system, the roadways have been classified into functional categories following Federal Highway Administration (FHWA) guidelines. The Functional Classification System (FCS) categorizes the design and operational standards of roadways according to their purpose in moving vehicles. The classification system adheres to a hierarchical structure to describe how roadways operate within a transportation system. A higher functional classification implies higher traffic capacity and speeds and typically longer traveling distances.

The hierarchy of roadway types in descending order includes Interstate/Freeway, Principal Arterial, Minor Arterial, Collector, and Local. This classification, which is based on the FHWA's FCS system, is used throughout this document to establish a functional hierarchy of roadways. The functional roadway classifications are described as follows:

Interstate/Freeway

An interstate or freeway is a major roadway designed for relatively uninterrupted, high-volume, high-speed traffic movement between urban centers and across the region. No traffic stops are available on this level of roadway, and access is limited to only grade-separated interchanges. Interstates are not intended to provide direct access to land.

Principal Arterial

Principal Arterials are intended for high-volume, moderate- to high-speed traffic across a metropolitan area with minimal access to adjacent land, allowing long-distance trips at relatively high speeds. Their primary purpose is to provide access between Collector Streets and roadways of higher functional classification while offering local mobility and some access to land. Although Principal Arterials are limited-access highways, they have some at-grade crossings and signals at major intersections.

Minor Arterial

Minor Arterials are primarily intended for medium- to high volume, moderate speed traffic between major activity centers. Access to abutting property is subordinate to major traffic movements and is subject to necessary control of entrances and exits. Minor Arterials provide alternative routes to and from freeways and interstates and usually link to cities, towns, and villages.

Collector Street

This level of roadway collects and distributes traffic to/from Principal Arterial and Minor Arterial streets. They are intended for low- to moderate-volume, low-speed, and short-length trips, while providing access to abutting properties. Commercial/industrial Collector Streets may be constructed to higher standards to serve truck traffic.

Local Roads

A roadway used for low-volume, low-speed, and short-length trips to and from abutting properties is generally classified as a Local Road. Its primary purpose is to provide access between abutting properties and roads of higher functional classifications.

Differentiating between roadway classifications is generally based upon through-traffic movement and access to adjacent land. Lower functional classes, such as Local Roads and Collectors, provide greater access to adjacent properties as compared to higher functional classifications, such as Arterial or Interstate, which provide greater mobility.

Most of the roadways within the Marshfield Transportation System are route classified as Minor Arterials and Collectors. Minor Arterials and Collectors typically serve mostly local destinations and traffic, and they have a lower level of access control.

3. CITY OF MARSHFIELD ROADWAY CLASSIFICATIONS

The City of Marshfield’s Classified Roadway Network includes an Interstate/Freeway, Principal Arterials, several Minor Arterials, and numerous Collectors and Local Roadways. These street classifications are displayed in **Figure 1**.

Interstate/Freeway

I-44 is an Interstate/Freeway that is included in Marshfield’s Transportation System. I-44 is a four-lane Interstate that carries the most diverse and largest volume of traffic along

the western edge of the City of Marshfield. A diamond interchange is located at the intersection of I-44 and Highway 38 (Spur Drive) at mile marker 100, providing access to the City.

Principal Arterial

Highway 38 and Hubble Drive/Route CC are Principal Arterials that serve the greater Marshfield area. Highway 38 is a State route that transverses the entire city and includes all of Spur Drive and Commercial Street, and portions of Washington Street, Jackson Street and Crittenden Street. Hubble Drive/Route CC is a State route that moves traffic through the City and to Highway 38. Both Highway 38 and Hubble Drive/Route CC serve an arterial function of moving traffic through the City and to points outside the City. However, within the City limits, the characteristics of both roadways resemble that of city streets with a more Minor Arterial function, as many portions have higher access to adjacent land use than typically found with Principal Arterials.

Minor Arterial

Washington Street/Route OO, Route DD, Highway W, and South Marshall Street/Route A are all Minor Arterial roadways that provide alternative routes to and from I-44 and U.S. Highway 60 and provide linkages within the City of Marshfield and to numerous cities including Springfield, Niangua, Strafford, Seymour, Hartville, Conway, Buffalo, Elkland, and Fair Grove. As these routes move through the City of Marshfield, a high level of direct access exists to adjacent parcels, the number of at grade intersections increases, and the speed limit decreases.

Collector Street

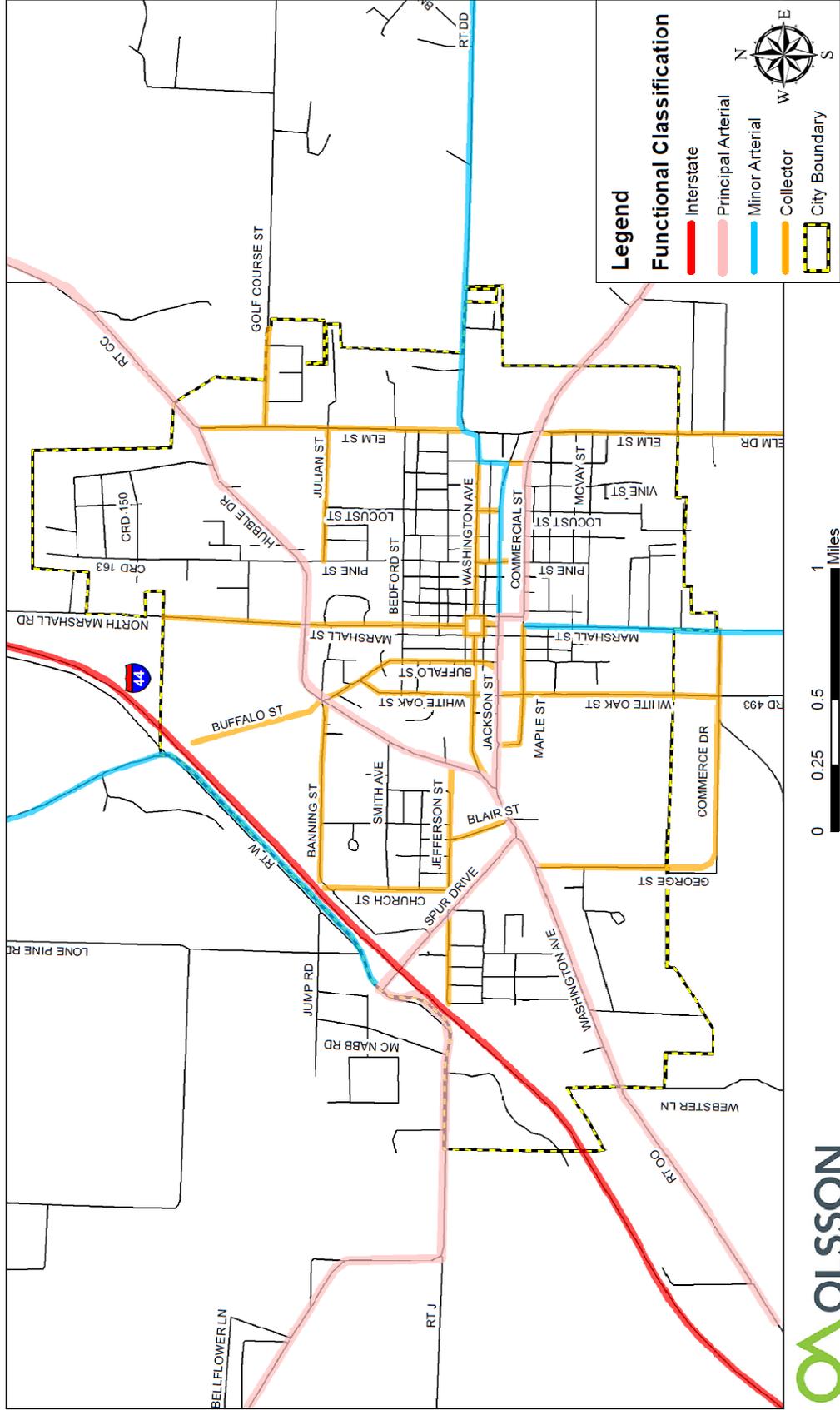
Marshfield's Collector Street Network supports the Arterial Network. These streets are intended to collect and distribute traffic to/from Arterial and Secondary Arterial Streets and are thus classified as Collector Streets. Streets that function as Collectors include a portion of Washington Street, Jefferson Street, Maple Street, Church Street, Banning Street, Buffalo Street, White Oak Street, Bedford Street, Pine Street, Elm Street, Julian Street, Blair Street, McVay Street, Golf Course Road, George Street, and North Marshall Street, as well as a number of county roads, including Rifle Range Road, Commerce Road, McNabb / Jump Road, and Pleasant Prairie Road.

Local Roads

Most other roadways within the City limits accommodate low-volume, low-speed, and short-length trips to and from abutting properties. The primary purpose of these roadways is to provide access between abutting properties and roadways of higher functional classifications.

Marshfield, Missouri

Figure 1: Functional Classification Map



4. EXISTING TRANSPORTATION OVERVIEW

Many transportation problems in Marshfield result from high population growth rates over the last few decades, in conjunction with several regionally important roadways intersecting at the City's center. Traffic delays frequently occur with the concentration of retail establishments at the City's primary access to I-44 at the Spur Drive/Highway 38 interchange area. This impact has been addressed with the following recent improvements that were cost-share projects with MoDOT using City bond revenue:

- The diamond interchange at the I-44 off-ramp has been improved with signalization and the provision of dual right-turn lanes from Eastbound I-44 onto Highway 38.
- The Jefferson Street and Highway 38/Spur Drive intersection was recently upgraded with improved paving and a signal added to this intersection. This allows motorists to bypass the Highway 38 & Route OO intersection, and Highway 38 & Route CC intersection, and proceed directly east to Highway CC without first traveling south.

Further improvements, completed in 2008 to improve traffic flow along Spur Drive/Highway 38, including the following:

- Widening the roadway to a four-lane and include a middle left-turn lane and new traffic signals at Banning Street & Highway 38 and Highway CC/Hubble Drive & Highway 38
- Upgrading traffic signals and redesigning the intersection at Highway OO

Most traffic accessing I-44 or the retail developments located east and west of I-44 must use Highway 38/Spur Drive. The improvements to Spur Drive and the existing I-44 interchange serve existing traffic well. The concern is that this sole access point will restrict future growth and will become congested in the future. As the City of Marshfield, in conjunction with other local government agencies, continue to study a second interchange location, the City, Webster County, and the Missouri Department of Transportation (MoDOT) should continue to look at access management along key roadways such as Spur Drive to contribute to the smooth flow of traffic.

5. TRAFFIC VOLUMES

This section discusses Average Daily Traffic (ADT) counts for the major road systems that serve the City of Marshfield and identifies locations experiencing the highest traffic volumes. Level of Service is not discussed as it utilizes more factors than ADT such as travel time and intersection turning movements. Year 2008 traffic counts were taken but were considered by the City and MoDOT to not reflect recent traffic growth. For that reason, Year 2004 traffic counts were used in deriving Year 2008 traffic volumes, with a three percent applied annual growth rate representing the average growth rate determined for all of the major routes in Marshfield.

In 2004, traffic conditions were unimpeded by recent construction enhancing Spur Drive. As expected, the highest volumes of traffic within Marshfield existed on Highway 38 as it links I-44 to the City of Marshfield via Spur Drive. The heaviest volumes of traffic recorded in the City's 2008 Annual Average Daily Traffic (AADT), derived from the 2004 counts, were recorded at Highway 38 between Highway OO and Highway CC (24,549 ADT), Spur Drive (20,567), and Jackson Street near Highway CC (17,647). The traffic volumes progressively decreased further from the intersection of Highway 38 and Route OO. For example, at Highway 38 west of Highway CC, the ADT was 24,549; as Highway 38 turned off of Jackson Street the ADT was 6,610; and, finally, on Highway 38/Commercial Street on the eastern side of Marshfield the ADT was 4,169. Outside traffic is required to travel through Marshfield to reach Highway 38 east of the City limits, Highway CC northeast of the City, or Route A south of the City. This outside traffic, along with traffic generated within the City of Marshfield, contribute to the high volumes on Spur Drive. **Figure 2** shows the AADT counts for 2008 as a function of the 2004 counts.

As a general rule, a five-lane roadway such as Spur Drive can typically handle a volume of 28,000 cars per day or more, given the current spacing of intersections and driveways. The 2008 derived traffic counts show volumes of 20,567 vehicles north of the Highway OO and Highway 38 intersection. The five-lane roadway on Highway 38/Washington Street between Highway 38/Spur Drive and Highway CC/Hubble Drive has a traffic count of 24,549 ADT for this section. Highway 38/Jackson Street has an ADT of 17,647 east of the intersection of Highway CC/Hubble Drive. These are the three highest areas of traffic in the City.

6. TRAVEL SAFETY

MoDOT provided accident data for State roadways within the City of Marshfield from 2001 to 2007. The frequency of traffic accidents is a major factor in determining existing conditions and needs, and the frequency generally reflects the physical roadway features and the traffic volumes the road carries. **Table 1** indicates State roadways and corresponding cross streets with ten or more accidents from 2001 to 2007.

Table 1; MoDOT Intersection Accident Data in City of Marshfield

On Location Street	At Location Street	Accident Count
I 44	MO 38	87
MO 38	RT OO	83
MO 38	I 44	46
MO 38	BANNING	38
MO 38	WHITE OAK	37
RT CC	MO 38	37
MO 38	JEFFERSON	35
RT CC	BANNING	35
RT CC	PINE	20
MO 38	CLAY	19
MO 38	BLAIR	17
MO 38	RT CC	17
MO 38	RT W	14
RT DD	ELM	14
RT DD	PINE	14
MO 38	ALLEN	13
MO 38	RT DD	13
MO 38	CRITTENDEN	12
RT CC	MARSHALL	11
RT OO	MO 38	10

The highest accident locations correspond with high traffic-volume streets. Continued attention should be paid to high accident locations.

7. ALTERNATIVE TRANSPORTATION MODES

Alternative transportation modes are necessary to accommodate the diverse needs of the population. The following summarizes some of the limited alternative transportation modes available in Marshfield.

Increasing, but still limited, pedestrian paths and trails provide alternative means for accessing activity centers and neighborhoods without relying on vehicular transportation. Public participants in the original Comprehensive Plan planning process

strongly recommended implementing a citywide system of sidewalks and trail ways. Sidewalks and/or bike paths need to be installed throughout the City to link neighborhoods, schools, parks, churches, businesses, government buildings, and employment centers. All commercial and residential development should be required to provide sidewalks with safe and direct pedestrian accessibility.

Two public transportation programs are available that provide low-cost transportation alternatives to residents:

- The City of Marshfield uses Federal grant money and maintains its own on-demand bus system – the Marshfield Metro. The system uses two buses, and with one operating on weekdays between 8:00 a.m. and 3:30 p.m., excluding holidays.
- The Ozarks Area Transportation System (OATS) provides public transit service from Marshfield to Springfield every other Tuesday and to destinations in designated adjacent counties every other Wednesday. No age, income, or disability-status requirements limit the use of this service.

Two commuter lots exist in the City of Marshfield. MoDOT maintains a designated lot at Highway W next to I-44, and the City maintains a lot available to commuters next to City Hall on Highway A/South Marshall St. These are carpool lots, as no transit service has regularly scheduled service to these lots.

The nearest commercial airport is the Springfield-Branson National Airport, which offers daily service. The airport's longest lighted runway is 8,000 feet long, and the airport features aircraft storage, maintenance, and fuel. The Springfield-Branson National Airport is approximately 30 miles from Marshfield. Reviewing existing airport facilities in the Marshfield region reveals the need for substantial improvements over the next 20 years. No public-owned airports currently exist in Webster County.

A February 2001 community survey of the general public revealed that, of targeted users (pilots and others associated with the industry), 81 percent of respondents think the area does need another airport, with 55 percent of the targeted users stating that a Marshfield airport would attract new business and industry.

8. TRANSPORTATION IMPROVEMENT INDICATORS

The existing conditions of the greater Marshfield area indicate future and anticipated transportation improvement needs. Demographic growth rates such as population, housing, and economic development are measurable conditions that are used in determining the level of service needed to adequately serve the community. This information will help prioritize the type and scope of improvements needed to efficiently

serve the rapidly growing community and its critical infrastructure, as well as nearby dependent communities and larger statewide interests.

Since the 1990s, Marshfield and Webster County experienced an extremely high rate of growth as compared to the State and other cities within the State. Both the City of Marshfield and Webster County demonstrated annual percent growth rates of 3.1 percent from 1990 to 2000. From 2000 to 2007, the County's annual growth rate was 2.3 percent, and the City of Marshfield's annual population growth rate was 3.5 percent. In 1990, 18.4 percent of Webster County residents lived in Marshfield; in 2007 this had increased to 19.8 percent¹, and was 19.9 percent in 2008². As the population of Webster County continues to remain centered in the City of Marshfield, the County seat, the transportation systems serving this area will serve increasing travel demands.

As new businesses open and existing businesses expand to serve an increasing population, the amount of commercial and truck travel will continue to grow. It is anticipated that more retail, hospitality, and service industries will move into the Marshfield market due to consumer demand, increasing the number of jobs and the number of commuters. This increase in economic development depends upon and requires the implementation of more efficient transportation systems.

Due to the past, present, and anticipated future population, housing, and economic growth within and around the City of Marshfield, the City's transportation system will continue to experience traffic pressure. The City must continue to focus upon achieving efficient use of the local road system and implement key roadway improvements for Marshfield to remain attractive to new residents, businesses, and industries.

9. RECOMMENDED TRANSPORTATION IMPROVEMENTS

Throughout the City's Transportation System, several specific locations are experiencing traffic-related problems. In addition, several roadways and intersections are potentially hazardous locations. Following is a list of a few of the traffic concerns, including a brief description of each problem and possible solutions. A list of transportation priorities is provided in **Table 2**. The proposed recommendations are intended to target transportation investments that are cost-effective and maximize transportation enhancements and economic return.

¹ Source: 1990 and 2000 U.S. Census. 2007 U.S. Census projection. Webster County census: 23,753 (1990); 31,045 (2000); and 35,927 (2007). City of Marshfield census population: 4,374 (1990); 5,720 (2000); 7,118 (2007).

² Source: 2008 U.S. Census Projection. Webster County census 36,473 (2008), City of Marshfield census 7,274 (2008)

Table 2: Priority Transportation Improvements as identified by the community

Priority	Name	From	To	Description
1	Additional I-44 Interchange			New Interchange
2	Buffalo Street/Highway W Intersection Improvements	Banning St	Route CC/Hubble Drive	Improve intersection geometrics at intersection
3	Buffalo Street/Highway W Overpass and Road Improvements	Route W	Route CC/Hubble Drive	New overpass spanning I-44 and improvements to N. Buffalo
4	Highway 38 from Route CC to South Crittenden Street	Route CC	South Crittenden	Lane Modification
5	Highway DD Intersection Improvements on east edge of city limits	Elm	Walnut	Intersection Geometrics
6	Commerce Road from George Street to South Prairie Lane	George St	Prairie Lane	New 2-lane road
7	Commerce Road from east of Highway A/Marshall Street to Elm Street	Marshall/Highway A	Elm St	Pave gravel section
8	Jackson Street / Highway 38 downtown Intersection Improvements	Crittenden/East Highway 38	Commercial/East Highway 38	Intersection improvements
9	Marshall Road Reconstruction	Highway CC/Hubble Dr	I-44	Reconstruction
10	Route CC and North Pine Street Intersection Improvements	Route CC / North Pine Street	Route CC / North Pine Street	Intersection Improvements

Buffalo Street Intersection Improvements

The Highway CC-Banning Street-Buffalo Street intersection has limited sight distance and six roadway approaches at the intersection creating undesirable geometrics. Existing traffic problems resulting from poor intersection geometrics would be greatly relieved by the construction of a North Highway W/Buffalo Street overpass (discussed below), and the implementation of Buffalo Street roadway improvements. Several intersection improvement concepts can be considered. Often, when more than four intersection approaches exist, roundabouts are a consideration. Even with the standard four approaches to an intersection, roundabouts generally perform favorably in terms of shorter delays, increased capacity, improved safety, and improved aesthetics. Roundabouts have resulted in reducing the overall number and severity of accidents, despite the initial concern that lack of familiarity with this type of intersection would lead to driver confusion. Springfield, Missouri, the closest large metropolitan area only 19 miles away from Marshfield, already has several roundabouts that many Marshfield residents have used. Intersection improvements at this location should be considered immediately. In exchange for these improvements to Buffalo Street, the City may

consider assuming jurisdiction of this roadway that is currently a non-designated State route.

Highway W/Buffalo Overpass and Street Improvements

Before I-44 was constructed, Highway W/North Buffalo Street used to intersect with the current alignment of I-44 at an at-grade intersection, and the street provided north-south circulation for travelers. The City of Marshfield recognizes that a new interchange at this location would be too close to the current interchange at I-44 and Highway 38/Spur Drive. However, an overpass at this location would provide additional north-south circulation to Marshfield, as well as allow citizens and businesses currently separated by I-44 to bypass the congestion at Highway 38/Spur Drive to access Marshfield destinations north and south of I-44. This overpass would also increase the usage of the existing frontage road, Highway W north of I-44. It would provide ideal areas for commercial development between the existing interchange and the proposed overpass on the north side of I-44. Area residents would have increased access options.

Before or while constructing a new overpass, Highway W/Buffalo Street from I-44 to Banning Street should be reconstructed to better accommodate the resulting increased traffic demands.

Commerce Road from George Street to Prairie Lane

Much of the traffic congestion inside Marshfield originates from through-traffic using Highway 38/Spur Drive accessing I-44. A new loop road would connect the northern portion of the City and I-44 with the southern and eastern portions of the City, providing the key connection to distribute traffic to and from the south part of Marshfield and outlying areas. This will allow State highway through-traffic and portions of local traffic accessing I-44 to avoid increasing congestion in Marshfield on Highway 38 at Spur Drive, Washington Street, and Jackson Street. The Industrial Park area located on the western edge of Marshfield would also benefit from this alternative. The loop connection is also shown in **Figure 3** to extend on the west side of I-44 in a northward direction connecting to the intersection of Highway 38 and Route J.

This portion of the loop road would extend Commerce Road from George Street to Prairie Lane. Completing the connection of Prairie Lane from Highway OO/West Washington Street to Commerce Road would allow large portions of the loop road system to be served by the existing portions of Highway OO/West Washington Street, Prairie Lane, and Commerce Road.

Commerce Road from East of Highway A/South Marshall Street to Highway 38

As mentioned previously, a loop system will assist traffic circulation in Marshfield and add access to I-44. After Commerce Road is connected to/from George Street to Prairie Lane, the next phase would be to extend Commerce Road, paving from east of Marshall Street to connect to Elm Street. This roadway section is currently a county gravel road. If public support and funding is limited, phasing the project and implementing the

improvements incrementally, as applicable to the community and county needs and financial capabilities, should be considered.

Jackson Street/Highway 38 Downtown Intersection Improvements

In the downtown/inter-city area, Highway 38 operates through three different streets (Jackson, Crittenden, and Commercial) and makes two right angle turns, forcing traffic to stop at three- and four-way stops and requiring tight turns. This is also the business route many trucks use. The small radii make it difficult for trucks to make turns. The roadway should be modified to provide better traffic flow through the City center. These modifications would need to be complete on Crittenden Street between Jackson Street and Commercial Street. These three streets are all designated as Highway 38.

Highway DD on the East Edge of City Limits

Jackson Street, at various points on the eastern side of the City is designated as Highway 38, Walnut Street, Washington Street, and Highway DD. There is an "S" curve as Highway DD comes out of Marshfield, with several roads intersecting Highway DD on the curves. Marshfield High School, Shook Elementary School, and Marshfield Schools Administrative Office are located just off of Highway DD after the "S" curves. This is recognized as a traffic concern; however, existing land use and limited right-of-way limit possible solutions. A more detailed traffic engineering study is recommended to study alternatives at this location.

Highway 38 from Route CC to South Crittenden Street

This section of roadway experiences traffic congestion and high number of accidents as shown by MoDOT data. It should be examined for lane modification, including the possibility of expanding to three-lanes with a center two-way left turn lane. Any lane modifications will need to take into account limited and constraining right-of-way. As traffic volumes increase in the future, utilizing a five-lane system with a center two-way left turn lane on this roadway portion may be evaluated. The affected intersections with Highway 38 include White Oak Street, North Clay Street, North Mill Street, and North Marshall Street.

Route CC and North Pine Street Intersection Improvements

The intersection of Route CC and North Pine Street Road has a high number of accidents according to MoDOT data. This intersection should be further examined for possible improvements.

Interchange Options

To effectively provide access to and from the City's businesses, nursing homes, industrial park, government offices, medical facilities, neighborhoods, parks, roads and employment centers, the City must plan for the implementation of an additional point of access to I-44. Better accessibility to I-44 will ultimately reduce costs and delay in the movement of people and goods. This will provide consumers increased accessibility to

businesses and industries in important economic clusters, enabling ongoing economic development.

In Marshfield's transportation system, some areas experience high peak traffic volumes while other segments are underutilized. This is a result of one primary access point to I-44, which is compounded by the location of the most significant traffic generators being located near the existing I-44 interchange. It is the only north-south access across I-44. It is recommended that a second connection to I-44 be provided to help alleviate the City's existing traffic congestion while spurring economic growth.

Additional connections to I-44 will have to serve several needs. Several activity centers and services are located west of the City towards and in Springfield, Missouri, while existing and proposed development north of I-44 could become a highly desirable commercial corridor linked by highway interchanges. The industrial area located adjacent to Prairie Lane has access to daily railroad service provided by Burlington Northern Santa Fe (BNSF) Railway with freight stops on demand. A large freight company, Con-Way Trucking, is located north of I-44 on west Highway 38 at Highway J. The freight activity in this area adds to the traffic pressure on Spur Drive and other arterial routes in the City of Marshfield that could be bypassed through an additional access point to I-44.

In addition to the freight and development opportunities on the west edge of Marshfield, there is land in the eastern portion of Marshfield that would be suitable for future commercial, residential, and industrial development with easy access to City schools. Any development in this area would increase cross-town traffic without additional access to I-44. Two interchange options are described below.

- **West Interchange/Connection to Route OO**

Through the public involvement process, community members expressed a need for an interchange west of the current existing interchange that would offer an additional departure/destination point from Marshfield to activity centers and services location west of the City and in Springfield, Missouri. This location supports current and future development opportunities north of I-44 and provides direct and uninterrupted access to the City's Industrial Park. Adding a further extension north of I-44 from the new interchange to connect Highway 38 could connect the existing and proposed development to the north, providing a highly desirable commercial corridor linked by highway interchanges. This location would also benefit any freight traffic using the industrial area located adjacent to Prairie Lane. The Industrial Park has access to daily railroad service provided by BNSF Railway with freight stops on demand. A new interchange would support extensive, diversified economic development, and would allow truck traffic delivering to businesses and the industrial area on the north side of Marshfield to bypass Spur Drive and the other arterial routes already experiencing congestion. To further complete a loop road system, this connection would take advantage of

existing portions of Route OO, Prairie Lane, Commerce Road, and designated land on Highway 38 for a new wastewater treatment facility.

An interchange west of the current location would be located outside the Marshfield City limits, in an area with no existing City services or zoning authority. Land annexation and infrastructure expansion would be required to handle planned growth.

- **East Interchange/Connection to Marshall Road**

Through the public involvement process, community members also expressed a need for an I-44 interchange east of the current location at Marshall Road. This interchange would reduce traffic across the City; provide access to property suitable for future commercial, residential, and industrial development; and provide access to Marshfield School District R-1 Schools. Much of this property, which has previously been offered to be donated for the purpose of constructing an interchange, provides open pasture land adjacent to I-44 suitable for construction.

As with the west location, an access point east of the current interchange would be located outside the Marshfield city limits, in an area with no City services or zoning authority. Land annexation may be required to handle planned growth, as well as infrastructure expansion.

North Marshall Street Reconstruction

North Marshall Street is a local roadway (City/County), rural in nature, with increasing traffic demand. It should be reconstructed to standards adequate to serve as a collector street between Highway CC/Hubble Drive and as a future east interchange to better accommodate development and traffic growth. North Marshall Street will have to be upgraded in conjunction with or before constructing the East I-44 interchange.

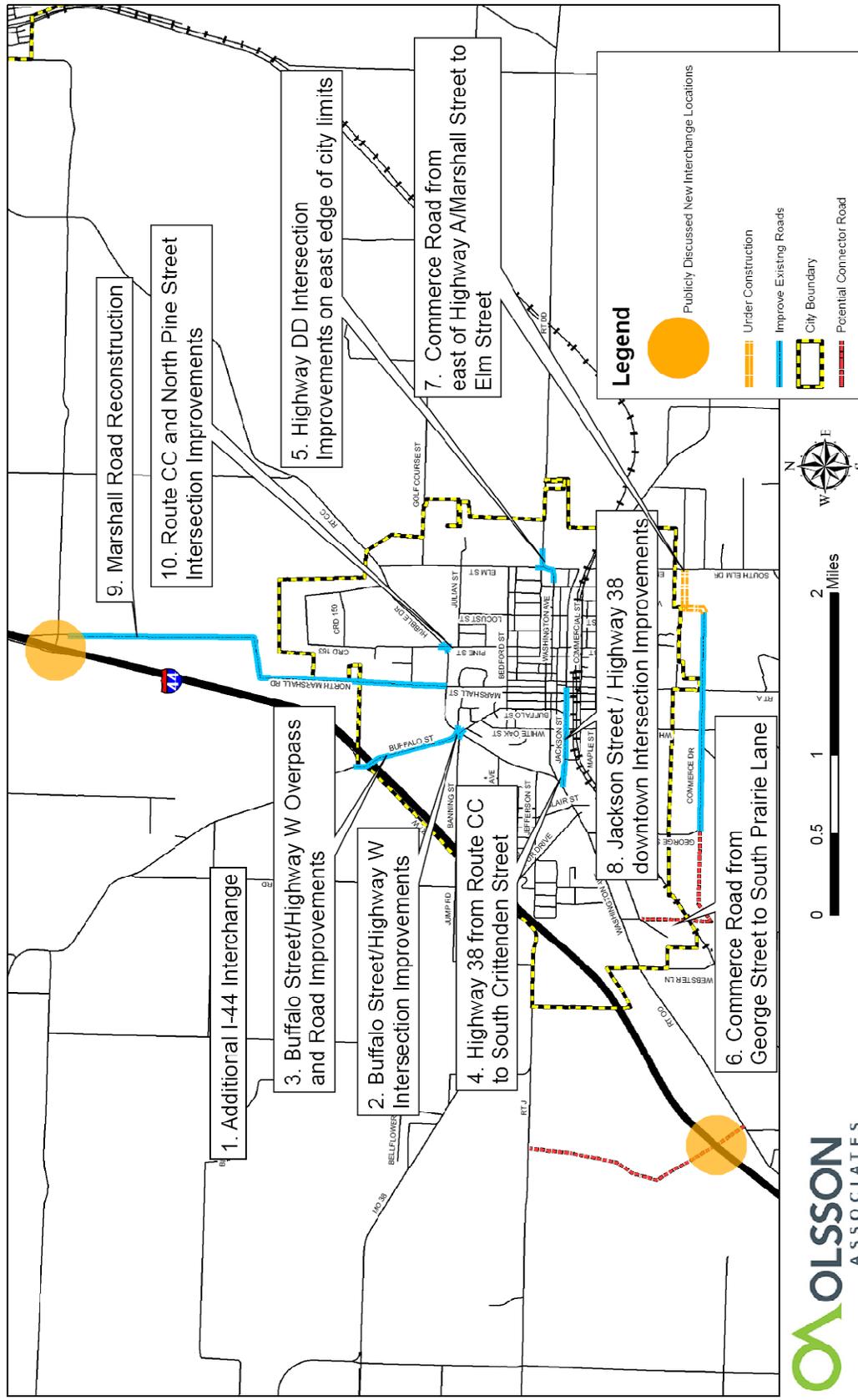
Other than at the Highway 38 intersection, traffic volumes along Route CC indicated the highest volumes at North Marshall Street (7,377) followed by Elm Street (3,982). North Marshall Street runs directly into the Downtown Square and is centrally located between the City's parks, schools, churches, and major east/west and north/south corridors (I-44, Highway 38, Route CC, and Route A).

Annexation

Several of the improvements discussed in this section concern making transportation improvements outside of Marshfield City limits, which may lead to discussions concerning annexation; this could then result in residential and commercial growth for the City of Marshfield. It is critical that annexation be viewed in the context of how it will affect, and how well it can be integrated into, the existing transportation system.

Figure 3 represents the aforementioned recommended transportation improvements.

Figure 3: Conceptual Potential Improvements Map



10. SUMMARY

The City should consider funding mechanisms to facilitate the transportation improvements outlined in this chapter. Although the recent improvements to Highway 38/Spur Drive and to dangerous intersections within the City of Marshfield were necessary, they represent short-term solutions to the City's increasing traffic problems. The recent improvements will help sustain the City's internal traffic circulation patterns for a short time, but they will not resolve the bottleneck situation created at Highway 38/Spur Drive. Ultimately, the City needs to implement additional traffic circulation means for motorists to access I-44 and to circulate throughout the City and to points beyond. Adding access points onto I-44 and implementing a loop road system are some improvements that can help achieve these goals.

The Transportation Chapter of the Comprehensive Plan identifies the existing conditions and recommends improvements needed to facilitate efficient traffic movements and future growth. The most pressing issues facing the City's Transportation System include managing traffic along Highway 38/Spur Drive and the adjacent intersections, which are currently operating over capacity, and investigating opportunities for a second interchange on I-44.

The planning process for the Comprehensive Plan revealed the highly anticipated need for a second interchange. The Comprehensive Plan provides a needs assessment, a land use map, and a conceptual roadway improvement plan that supports the City's transportation improvement needs. The City should concentrate on the short-term and most attainable improvements recommended in this plan. A possible funding mechanism for these improvements could be cost-share agreements using City bond revenue with other government or private entities. This mechanism has been successfully used by the City for past transportation improvements.