

SLATS

State Line Area Transportation Study

2011 Update of the **2035 Long-Range Transportation Plan** **UPDATE REPORTS LIST**

The following ten reports were developed and adopted in 2011 by SLATS for the purpose of updating the SLATS Long-Range Transportation Plan as first adopted in 2006. Portions of the 2006 Plan unaffected by these update reports remain as the official plan and policy of SLATS.

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Update Reports:

- 1. BACKGROUND**
- 2. GOALS & RECOMMENDATIONS**
- 3. ACCOMPLISHMENTS SINCE 2006**
- 4. FINANCIAL ASPECTS**
- 5. PERFORMANCE INDICATORS**
- 6. ENVIRONMENTAL CONSULTATION / MITIGATION PROCESS**
- 7. TRAFFIC SIMULATION MODELING**
- 8. RAIL 7 FREIGHT**
- 9. HUMAN SERVICES**
- 10. Roadway System Plan (this report in draft form only, not adopted)**

THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THESE REPORTS ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES

Questions or comments pertaining to this document or any other SLATS activities should be directed to the SLATS Coordinator at 608-364-6702

SLATS

State Line Area Transportation Study

L RTP

BACKGROUND

Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 8, 2011

This document provides general background on SLATS, the Planning Process and the Work of SLATS

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INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to restate the general background the transportation planning process, the origins of that process, and the main work products required in the planning process. This document is part of the 2011 Update of the 2035 Long-Range Transportation Plan (LRTP). This document does not rescind materials expressed in the September 11, 2006 document; it is intended to reiterate and re-emphasize the more important aspects. This document will be most beneficial to persons new to SLATS and the planning process.

TRANSPORTATION PLANNING BACKGROUND

THE 3-C PLANNING PROCESS. It has been over forty years since the Federal Highway Act was passed in 1962. The act inaugurated the transportation planning activity known today as the **3-C Planning Process** which stands for, “**comprehensive, cooperative, and continuous**”. Comprehensive means it has planning authority over the programming Federal funds for all major modes of transportation such as automobiles, bicycles, pedestrian, freight, and transit, and highway linkages to railroads, ports, and airports. Cooperative means the units of government in the region must work together on transportation planning, problem solving and the selection / prioritization of transportation improvements. Cooperative also means the planning process must seek to involve citizens and interest groups and take into account not only traditional highway problems, but also the environment and quality of life issues. Continuous means the planning process is on-going over a long period of time dealing with long-range problems and solutions as well as assigning funding in the short-term to specific projects, usually over the next three years.

METROPOLITAN PLANNING ORGANIZATIONS. The 3-C process was further reinforced in 1991 with the passage of ISTEA, “The Inter-modal Surface Transportation Efficiency Act”, and in 1998 with the passage of TEA-21, “The Transportation Equity Act for the 21st Century”. In 2005 the government approved a new Highway Act called SAFETEA-LU for a Safe, Accountable, Flexible, Efficient Transportation Equity Act-A Legacy for Users. SAFETEA-LU expired in September, 2009 and the country has been waiting since then for a new transportation act. ISTEA, TEA-21, and SFETEA-LU all emphasized the requirement that a local Metropolitan Planning Organization (MPO) must carry out the 3-C planning process in each metropolitan area having a population of at least 50,000 as designated by the Census Bureau. Elected officials representing at least 70% of the population of the Census Bureau defined “urbanized area” must agree on how to organize the regional MPO contingent on approval by the Governor of the State or of both States if the MPO operates in more than one. Some MPOs are located in Regional Planning Commissions, others in city or county governments, and some MPOs are stand-alone independent organizations created through intergovernmental agreements and operated as quasi-government not-for-profit corporations. By agreement of the members, the SLATS MPO is operated out of the Engineering Department of the City of Beloit. The full-time MPO Coordinator who does most of the day to day work of the MPO is an employee of the city.

ISSUES FACING THE EVOLVING PLANNING PROCESS. Prior to the Federal Highway Act, early highway planning concentrated on developing a network of all-weather roads to connect the various parts of the nation. As this work was proceeding, the benefits and problems of serving increasing traffic grew. The successful management of the transportation planning process can produce significant benefits for a regional area. These include the creation of new jobs and expanding the local economy, improving safety for the motoring public, decreasing commute times, providing more availability of transit services, and increasing the local government tax base. The planning of urban areas also can involve potential problems and issues of excess land development, dislocation of homes and businesses, environmental degradation, energy consumption, and social concerns such as scattered, not compact, development. More recently, concerns have been raised about the deterioration of transportation infrastructure and traffic congestion.

In the past two decades urban transportation planning in the United States has increasingly shifted from federal to state and local officials. This is appropriate since the highway and transit facilities and services are owned and operated overwhelmingly by state and local agencies. The role of the federal government in more recent years has been to set national policy, provide financial aid, supply technical assistance and training, and conduct research. Over the years, the federal government has attached increased requirements to its financial assistance, but recently has also provided some increased flexibility in how the funding can be assigned to highway, transit, pedestrian, bicycle and other transportation projects.

THE CREATION OF SLATS. From a planning perspective, the most important requirement has been that transportation projects in urbanized areas of 50,000 or greater in population be based on an urban transportation planning process. This requirement was first incorporated into the Federal-Aid Highway Act of 1962. In 1970, the Bureau of the Census determined that the heavily developed lands in and around the Cities of Beloit and South Beloit met their pre-defined criteria so as to be declared an "urbanized area". (In short, to be declared urbanized, the area must be a densely populated contiguous area with a minimum of 50,000 persons). In 1974, the Stateline Area Transportation Study (SLATS) was created by cooperative agreement of the general purpose units of government in the urbanized area. With the approval of the Governors of the States of Illinois and Wisconsin, SLATS was given the responsibility to carry out the urban transportation planning for the StateLine MPA.

THE "UA", THE AUA, AND THE MPA. To reiterate, the **Stateline Area Transportation Study (SLATS)** is the officially designated **Metropolitan Planning Organization (MPO)** for the **StateLine Metropolitan Planning Area (MPA)**. The MPA is comprised of three parts:

1. The Beloit WI-IL urbanized area as defined by the Census Bureau, plus;
2. The Adjusted Urbanized Area (those surrounding lands forecasted by SLATS to become urbanized in the next 5 years, plus;
3. Those additional surrounding lands forecasted by SLATS to become urbanized in the next 20 years.

As such, the StateLine MPA is a bi-state MPA that straddles the IL-WI State Line and includes significant parts of Rock County on the Wisconsin side and Winnebago County on the Illinois side. The SLATS MPA encompasses all or parts of several local general purpose units of government. In Wisconsin, these include all of the City of Beloit and all of parts of the Towns of Beloit, Turtle, and Rock; in Illinois, included are all of parts of the City of South Beloit, the Villages of Rockton and Roscoe, and the Townships of Rockton and Roscoe. (Note, all of the Village of Roscoe and a significant portion of Roscoe Township was within the SLATS MPA until the Year 2000 Census when most of those lands were transferred to the Rockford urbanized area by the Census Bureau.) Attached, Map 1-1 illustrates this situation at the time the SLATS 2035 Long-Range Transportation Plan was adopted in 2006. This map is currently being updated to reflect 2010 Census data.

At the time the 2035 LRTP was adopted in 2006, the Beloit WI-IL urbanized area encompassed an area of approximately 54.7 square miles, had over 114.1 miles of roads, and a population of 58,274. The larger SLATS MPA has a population of 62,646. These figures are from the year 2000 census.

HOW SLATS IS ORGANIZED & GOVERNED. SLATS policy is determined by a Policy Committee which receives advice from a Technical Committee. The Technical Committee is composed mainly of appointed employees of the member units of government such as city, county, and village engineers, planners, and various transportation related government employees although others could be appointed to the Policy Committee as well. The Policy Committee is composed mainly of elected representatives such as mayors, county board representatives, and others who are voted into office. The Technical Committee reviews and recommends policies, proposals, and documents to the Policy Committee which has final approval authority.

REQUIRED SLATS WORK PRODUCTS

SLATS is required to prepare and maintain three primary documents as part of the 3-C Planning Process, as follows:

1. **Long-Range Transportation Plan (LRTP).** Under current law, the LRTP must be prepared or updated every five years. The LRTP outlines all of the major projects that might be undertaken during the next 20 to 30 years. All projects that will use federal funds and all regionally significant, major projects must be included. It also must include various other modal forms of transportation including highway, transit, pedestrian, and integration of freight, rail, and air with the ground transportation system. The Plan must address the integration of these modes with the goal of optimizing their coordination and efficiency. Also, the Plan must attempt to equitably address the transportation needs of all citizens and users, regardless of race, ethnicity, gender, and economic or financial standing.

Although, according to federal law, the projects do not need to be prioritized within the Plan, the Plan must be fiscally constrained. That is to say, projects proposed for implementation within the time-frame of the Plan must have reasonable cost estimates and be balanced with reasonable funding forecasts and funding sources.

Other, non-fiscally constrained projects, can be included within the plan, but must be identified as "illustrative projects". Illustrative projects are projects that are deemed desirable or potentially beneficial, at least by some of the area's stakeholders, but for which no source of funds can be reasonably at this time. If funding becomes available, and all stakeholders concur, the illustrative projects can be advanced into the fiscally constrained list by Plan amendment.

It is important to remember that all projects involving Federal funds and all major locally funded transportation projects must be included in both an approved LRTP and an approved TIP (below) before they can be implemented. Because the LRTP is only prepared or updated every five years it is important to be as diligent and comprehensive as possible when listing projects in the LRTP, especially for projects likely to be implemented within the next five years. Such diligence will minimize the need to amend the LRTP for an unlisted project and, in turn, prevent project implementation delays.

2. **Transportation Improvement Program (TIP).** The TIP is prepared every one or two years and at a minimum must include all specific projects or phased elements to be started in the planning area that use federal funds, including highway, transit, bicycle, pedestrian, etc. The TIP should also include projects using only local and state funding if they are regionally

significant, major proposals. The TIP is a listing of projects to be implemented over the next three years, at a minimum. By including a project in the TIP, a commitment is being made to give priority to and implement that project or a portion of a project, especially if the project is listed in the first year of the three-year sequence. Like the LRTP, the TIP must state what the sources and the uses of the funds will be in a financially constrained manner.

Again, major projects, especially those involving Federal funding, must be including in both the LRTP and the TIP to be implemented. To avoid the possible delays and complications of amending the LRTP concerted efforts should be made to make sure that LRTP includes all projects to be funded in its five-year life-span.

3. **Unified Planning Work Program (UPWP).** The UWP is prepared annually and is the foundation of contracts between the MPO and the Wisconsin Department of Transportation (WisDOT) and the Illinois Department of Transportation (IDOT) to use Federal Highway, Transit, and Special Research planning funds to carry out the work that SLATS will perform. It outlines the planning work to be done during the coming year. It specifies how the 3-C process is going to be carried out and must include all federally funded transportation planning activities. The federal funds are provided at 80% to be matched by State or local non-federal funds for a total of 20%. WisDOT and IDOT assist SLATS by proving significant state match relieving some of the requirement for local funds for the participating local communities.

ADDITIONAL MAJOR WORK ACTIVITIES

While the above summarized the foremost responsibilities of SLATS, considerable additional work is also conducted annually on an as needed basis or when opportunity presents itself. Please refer to the SLATS Major Accomplishments 2011 Update Memo for a discussion of the most important work conducted by SLATS since the 2035 LRTP was adopted in 2006.

Map 1-1

SLATS Metropolitan Planning Area

- SLATS Metro Planning Area
- SLATS UA Adptd 02
- Census Urbanized area
- Counties
- Local Roads

Rock Co Townships

- Beloit
- Bradford
- Clinton
- La Prairie
- Newark
- Plymouth
- Rock
- Turtle

Boone Townships

- Caledonia
- Manchester

Winnebago Townships

- Harlem
- Owen
- Rockton
- Roscoe

WISCONSIN

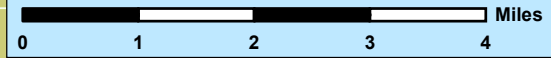
ILLINOIS

StateLine Area Transportation Study

2035 PLAN

Incorporated Places

- Beloit
- Janesville
- Machesney Park
- Rockton
- Roscoe
- South Beloit



Petrotte 9/15/05
Map based on Year 2000 Census & data from RATS, SLATS & Janesville MPOs

SLATS
State Line Area Transportation Study

**LRTP GOALS &
RECOMMENDATIONS**

**Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 3, 2011**

This document identifies and reaffirms the most important goals and recommendations contained in the 2035 Long-Range Transportation Plan.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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GOALS OF THE SLATS 2035 LRTP & 2011 UPDATE

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to provide, reiterate, and reaffirm the most important goals and recommendations of the SLATS 2035 Long-Range Transportation Plan. This document is part of the 2011 Update of the 2035 LRTP.

This document does not rescind any of the statements, goals, objectives, recommendation, or suggestions expressed in the September 11, 2006 document, nor is it meant to include all of the Plan's goals, objectives, recommendations or suggestions. It is intended to reiterate and re-emphasize the most important aspects.

Overall, or perhaps above-all, the SLATS LRTP seeks to comply with the following categories of goals:

- I. SLATS Visioning Process of 2003.**
- II. Eight Planning Factors of SAFETEA-LU.**
- III. Any New Federal Goals as more recently emphasized.**
- IV. SLATS Project Evaluation Criteria.**
- V. Element-specific goals and recommendations.**
- VI. Planning process goals and objectives.**

These are defined and reiterated in more detail as follows.

I. THE SLATS VISIONING PROCESS OF 2003

The SLATS Visioning Process of 2003 was an effort that solicited and involved a full-spectrum of transportation stakeholders in the StateLine Area – the general public, persons served by transportation, and transportation providers. This effort developed six main goals. These goals, endorsed by the 2035 LRTP and re-endorsed by this Update, are:

1. Tie into the regional economy and promote efficiency and accessibility.
2. Enhance regional multimodal connectivity.
3. Encourage community development.
4. Improve safety for all users and all modes.
5. Maintain and maximize the use of the existing infrastructure.
6. Minimize negative impacts to the environment.

II. EIGHT PLANNING FACTORS OF SAFETEA-LU

The “Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users,” in short, referred to as SAFETEA-LU, was adopted by the Federal government in 2005. SAFETEA-LU is the most recent in a long series of Federal laws and programs establishing the metropolitan planning process. All long-range plans must comply with this law, its guidelines and its “Eight Planning Factors.” **The SLATS 2035 LRTP and this 2011 Update recognize and re-emphasize these factors, as follows:**

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety of the transportation system for all motorized and non-motorized users.
3. Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users.
4. Increase accessibility and mobility of people and freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.

III. COMPLY WITH NEW OR EXPANDED STATE & FEDERAL GOALS

Periodically, often as part of the planning work program development process, the State and Federal agencies responsible for transportation planning and research stress special goals or emphasis areas. These newly-stressed items can stem from new research results, new demands or requests from transportation stakeholders, or new leadership at higher levels (both from transportation professionals and/or public officials). Also, State and Federal transportation agencies frequently refine and embellish goals and objectives stated in official legislation or guidance documents.

In the SLATS 2035 LRTP adopted in 2006, six emphasis areas were acknowledged and supported by the Plan. These included: (1) Better coordination with the States, (2) Greater use of Asset Management Principles, (3) Development of and compliance with Intelligent Transportation System Architecture, (4) Better coordination of public transit with other human services, (4) Strategic Highway Safety planning, and (5) Environmental mitigation. These emphasis areas continue to be important and supported by the 2011 Update.

In general, a goal of SLATS is to be alert and attentive to the most current aspects of transportation planning that are being stressed at the State and Federal levels. Combined and coordinated approaches to solving transportation problems have better chances for success than efforts pursued by individuals or single units of government.

More current examples of emphasis areas being stressed at the State and Federal levels include, but are not limited to, the following:

The FY 2011 Surface Transportation Environment and Planning Cooperative Research Program (STEP). Detailed information on this program can be viewed at www.fhwa.dot.gov/hep/step/strategy.htm. The emphasis areas stressed include (1) Air quality and climate change; (2) Water, wetlands, vegetation, and wildlife habitat; (3) Historic preservation; (4) Livability; (5) Bicycles and pedestrians; (6) Noise; (7) Environmental Streamlining; (8) Context sensitive solutions; (9) Congestion reduction; (10) Safety planning; (11) Freight planning; (12) Public involvement, visualization in planning, and Environmental Justice; (13) Planning capacity building; (14) Border planning; (15) National security, defense and interstate planning; (16) Real Estate planning; (17) Outdoor advertising control; (18) Travel modeling; (19) GIS development; and (20) STEP program management and outreach efforts. Details can be found on the above web site.

The 2010 WisDOT Strategic Plan. A description of this effort can be found at:

<http://www.dot.wisconsin.gov/about/docs/strategicplan.pdf>.

WisDOT's Mobility Management Program ("New Freedom Program"). For details, see the following web site:

<http://www.wsti.org/documents/conf%202011/handouts/session%2048/Session%2048-Mobility%20Managment.pdf>.

Another example of programs/efforts supported by SLATS in the interest of complying with State and Federal goals is the **Local Alcohol Program (LAP) FY2012** promulgated by IDOT. Details of this program can be found at:

http://www.trafficsafetygrantsillinois.org/TrafficSafety_Forms/2012/FY12%20LAP%20Specs.pdf.

Finally, another example of like-minded SLATS/IDOT goals is illustrated in IDOT's "**Overview of the MPO Planning Process**" documented at the web site:

<http://www.dot.il.gov/opp/MPO%20Process.pdf>.

This document reinforces the six basic steps in the MPO planning process and the five core functions of the MPO, as follows:

A. The planning process includes a number of steps:

- Forecasting future population and employment growth;
- Assessing projected land uses in the region;
- Forecasting future travel demand;

- Identifying major growth corridors and analyzing, through detailed planning studies, various transportation improvements;
- Estimating the impact of the transportation system on air quality within the region in (non-attainment areas); and
- Developing a financial plan that covers operating costs, maintenance of the system, system preservation costs and new capital investments.

B. There are five core functions of an MPO:

- Establish a setting and manage a fair and impartial setting for effective regional decision making in the metropolitan area.
- Evaluate transportation alternatives, scaled to the size and complexity of the region; to the nature of its transportation issues, and within the realistically achievable options.
- Develop and maintain a Long Range Transportation Plan (PLAN) for the metropolitan area with a planning horizon of at least twenty years. The PLAN should foster mobility and access for people and goods, promote efficient system performance and preservation and enhance the area's quality of life.
- Develop a Transportation Improvement Program (TIP) -- a short range capital improvement program based on the long-range transportation plan. The TIP is designed to promote the area's transportation goals by programming projects that address capacity needs, congestion reduction, transit service needs, air quality improvements and transportation enhancements.
- Involve the Public: Involve the general public and the affected special interest groups in the four essential functions listed above.

As already stated, the above items are not meant to be all-inclusive of the intention of SLATS to comply with changing goals, objectives, recommendations and/or priorities of the State and Federal agencies involved in transportation planning.

IV. SLATS PROJECT EVALUATION CRITERIA

The SLATS Policy Committee has developed and adopted the following set of criteria to be used in evaluating and determining the priority of transportation improvement projects. These criteria are reaffirmed. SLATS will endeavor to select projects that:

1. Improve or maintain the Level of Service, the ability of roadways to safely accommodate traffic. Forecasted traffic (10 years) should be compared with road capacity.
2. Improve Safety. Based on the number & severity of accidents over the most recent 3-year period.
3. Maintain or improve the Physical Condition. Evaluated in consideration of the type of surface (gravel, seal coat, asphalt, or concrete, the condition of the surface, and the traffic levels (current and forecasted).
4. Improve, encourage or promote: Air Quality, Automobile Alternatives, and Economic

Development.

5. Promote Intergovernmental Cooperation. Both within the SLATS MPA and with communities to the north (the Janesville MPA) and the south (the RMAP MPA).

V. ELEMENT-SPECIFIC GOALS & RECOMMENDATIONS

In addition to the above overall goals, several “element-specific” goals and recommendations were made in the 2035 LRTP of 2005. The most important of these are restated in this 2011 Update and reemphasized below.

A. Public Transit

1. Continue public transit services for persons without driving privileges, who cannot afford autos, or who prefer transit.
2. Continue coordination with Janesville transit, to the north, and Rockford Transit, to the south.
3. Continue expansion of services in parts of Stateline area in Illinois.
4. Implement seamless service from Rockford, through SLATS, to Janesville.
5. Improve coordination via the Human Services Transportation Plan.
6. Implement feasible recommendations of the latest BTS Transit Development Plan, to the extent funding permits.

B. Pedestrian & Non-Motorized (Bicycle) Travel

1. Recognizes the 5 goals of the Bike & Pedestrian System Plan.
 - a. Reduce motor vehicle dependency and assure bike and pedestrian access.
 - b. Encourage further local planning that supports walking and cycling.
 - c. Integrate the Stateline B&P system with systems serving the region.
 - d. Follow approved standards to create a safe system.
 - e. Encourages an education & awareness program to promote safe use of the B&P system.
2. Implementation of the 1st Priority Bike and Pedestrian Projects as listed in the B&P System Plan. In 2010, the Bike and Pedestrian Plan was updated. This 2011 LRTP Update endorses all aspects of that B&P Update including the priority of project implementations.

C. Roadways for the Motoring Public

1. Recognizes Roadways as the predominant mode of travel and recommends greatest emphasis on this mode.
2. Recommends the continued development of a Functional Classified Roadway System.

- a. Functional System layout.
 - b. Encourages the further refinement of a "full-build-out" network of roadways.
 - c. Designated Truck Route system.
3. Other recommendations as the roadway system is maintained and improved.
- a. Life-cycle costing of projects and alternates, especially large expensive projects
 - b. Encourages Stateline governments to collaboratively evaluate their roadway construction standards and polices for improvement responsibilities.
 - c. Strive for consistency and compatibility.
 - d. Increase standards where appropriate but try to hold pavement square footage to a minimum.
 - e. When making improvements to "default" collectors or minor arterials (roadways not originally designed for heavy traffic they now carry) attempt to balance traffic movement needs with the need to minimize adverse impacts on adjacent property, particularly residential properties.
 - f. Give special attention to the design of Collector Roadways. To save cost, developers prefer to design these roadways similar to Local streets. In the long term, this creates traffic movement and quality of life conflicts.
 - g. Local governments should not assume the costs of new Collector roads and some necessary Arterial road modifications unless there is clear benefit to the general public. Developers should be responsible for, or share responsibility for, situations from which they will profit.
 - h. All new roadways and roadway improvements should, as appropriate, accommodate the needs of non-motorized travelers and mass transportation needs.
 - i. The LRTP recognizes numerous roadways in the Stateline Area that have been designed to handle heavy trucks and also proposes a number of additions to this system to make the system more continuous and to address truck movement needs in the future.
 - j. Continue traffic simulation modeling and forecasting as a tool to help size and time roadway improvements.
 - k. Monitor traffic incidents in the interest of improving roadway safety.
 - l. Consider and utilize Intelligent Transportation techniques as a means of improving roadway capacity and safety.
 - m. Consider and encourage the use of roundabouts or rotaries as a means of controlling traffic at intersections in the interest of improving safety and reducing intersection improvement costs.

VI. PLANNING PROCESS GOALS AND OBJECTIVES

A. Financial Feasibility

A fiscally constrained plan for roadway improvements was developed in 2006 and will be updated as part of the LRTP 2011 Update. This list of projects is considered fundable and implementable. The plan should be closely monitored and significant deviations or changes subjected to public review.

B. Public Participation

A Public Participation Plan was adopted in March of 2005. That Plan should be followed rigorously as the Long-Range Plan is refined and as Transportation Improvement Programs and Unified Work Programs are developed and other aspects of the SLATS planning process are pursued.

C. Environmental Justice

The laws and guidelines pertaining to "Environmental Justice" are recognized and adopted by SLATS in the PIP and the LRTP. Programs, policies, and activities that have disproportionately high and adverse human health or environmental impacts on minority and low-income populations are not appropriate. The projects, programs, and policies of the LRTP must also benefit proportionately, over time, the more disadvantaged segments of the population of the Stateline Area.

D. Natural Resource Conservation / Preservation

The conservation of the area's natural resources and natural environment is important to the Stateline community and recognized in the LRTP. Preservation of irreplaceable natural resources that are essential parts of the area's natural ecosystem must be considered in the transportation planning process. Future transportation improvements will not be planned or programmed without consultation with area entities supporting the protection of the natural environment. The selection of transportation projects will consider the effects to the human and natural environment. To address environmental concerns, project scope changes and/or mitigation efforts may be applied.

SLATS
StateLine Area Transportation Study

LRTP

ACCOMPLISHMENTS SINCE 2006

**Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 8, 2011**

This document Summarizes the Major Accomplishments of SLATS since 2006 when the LRTP was first adopted.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THIS REPORT ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES

Questions or comments pertaining to this document or any other SLATS activities should be directed to the SLATS Coordinator at 608-364-6702

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to summarize the major accomplishments of SLATS in the five years since the LRTP was adopted. This document is part of the 2011 Update of the 2035 Long-Range Transportation Plan (LRTP). The major required documents that, by law, must be prepared and maintained (the LRTP, the TIP, and the UPWP) were discussed in the Update Memo providing “Background” on SLATS and the transportation planning process. This “Accomplishments Memo” supplements that information by discussing many of the additional planning projects, studies and activities of SLATS since 2006.

SLATS ACCOMPLISHMENTS SINCE 2006

Since the 2035 LRTP was adopted in 2006 SLATS planning efforts have been extensive. The following is a lengthy but incomplete list of the various special studies and projects of particular importance to the local communities and stakeholders. Work similar to this will continue as time and funding permit.

- 1. The Required Reports.** As discussed in the **SLATS Transportation Background Update Memo**, SLATS diligently prepared, adopted and monitored the three major reports required by SAFETEA-LU and the 3-C Transportation Planning Process: **A.** The Long-Range Transportation Plan (prepared or updated every 5 years and the subject of this 2011 Update), **B.** The Transportation Improvement Program, (updated by SLATS annually), and **C.** The Unified Planning Work Program (also updated annually). An explanation of these documents is contained in the Background Report.
- 2. South Central Wisconsin Commuter Transportation Study.** SLATS acted as the local facilitator/coordinator for this important study. Initiated in November 2006, the study was an enhanced feasibility study for potential South Central Wisconsin commuter connections to North East Illinois with emphasis on the Harvard Metra Station. When early findings of the study revealed that there were more commuter trips in the corridor from Dane County and the City of Madison through the Cities in Rock County (WI) and Winnebago County (IL) the study was broadened to include that corridor. The study was funded with \$248,600 consisting of \$198,880 in federal transportation funds and \$49,720 in WisDOT state funds. The government members of the Steering Committee were Beloit, Janesville, the Villages of Sharon and Clinton, Rock County, WisDOT, SLATS, and the Janesville Area Metropolitan Planning Organization (JAMPO). Wisconsin, Senator Judy [Robson](#) and the renowned Beloit-area entrepreneur, Ken Hendricks were also committee members. EarthTech, now AECOM was the consulting firm for the study, selected for their broad experience in this sort of work. The study’s Stakeholders Report

addressed: improving regional transit links, enhancing regional transit versus other transportation investments, evaluating the quality of current regional transportation services, and determining the maximum acceptable commuting distances and travel times. An Inventory of Rail Assets, a Market Report, and a Purpose and Needs Statement determined with unanimous support from the Steering Committee that it was not financially feasible to pursue passenger rail for Beloit and Janesville at this time. Additional details on the study included in the "Rail and Freight Planning" 2011 Update Memo.

3. **Stateline Area Bike and Pedestrian System Plan Update.** First prepared in 2004, SLATS initiated and led the process to update this Plan and to prepare a user map and brochure. The first priority project listings from 2004 also needed to be amended and updated. This effort will encourage funding applications for the bike/ped projects and makes SLATS members more competitive for State and Federal funding. The new bicycle/pedestrian map and user guide provides useful information to local citizens and visitors alike and encourages biking and walking as an alternative to motorized transportation. All the SLATS member units of government and many others participated in the study. The general public also was actively encouraged to participate and many citizens participated including bike clubs from Wisconsin and Illinois. Vandewahle and Associates did the contractual / technical work. The report they prepared included additional background information; a Regional Biking and Walking Suitability Analysis; a Public Participation Summary; revised Goals, Objectives and Policies; Bicycle and Pedestrian System Recommendations; a Plan Implementation section; and appendices identifying funding sources, Second Priority Facilities, Facility Improvements Per Unit, and Model Ordinances. Copies of the plan on CD can be requested from SLATS and are integrated by reference in the Long Range Transportation Plan 2011 Update.
4. **State Line Mass Transit District.** SLATS led the process to establish this new demand-response transit service serving communities in the StateLine MPA south of the State Line. The effort involved the support, participation, and financial assistance of the Illinois SLATS member units of government, officials for the State of Illinois, the Rockford Mass Transit District and others. Various elected, appointed, and public citizens had been meeting over several years in search of a more comprehensive and coordinated method of providing public transit service to the general public and transit-dependant citizens of **Rockton, Roscoe and South Beloit and Rockton Township**. A new urgency was brought to the process by the provision of four busses provided through an earmark of funds from Congressman Manzullo.

The Rockford Mass Transit District (RMTD) generously included these busses in a bid they let for several other busses thereby facilitating their delivery in early 2007. Subsequently, SLATS acquired \$40,000 from the Illinois Department of Transportation (IDOT), matched with \$10,000 in local funds. These funds were used to organize the operating system for the transit, establish a governing structure, and develop a contractual service agreement with RMTD to operate the vehicles and provide the service.

A Steering Committee for the Study was formed consisting of a representative from each of the local contributing jurisdictions. SLATS served as the Project Manager and public participation was strongly encouraged. At the conclusion of the Study, the Stateline Mass Transit System was established with its own Board. The Rockford Mass Transit District was contracted to provide the service. Targeted service levels were achieved in short order and the on-going system is deemed to be very successful. In addition, SLATS worked to gain **Designated Beneficiary Status** from the Illinois Governor for the SMTD.

5. **Beloit Bypass Study.** Initiated in 1991, this effort had come to a standstill in recent years due to significant public opposition. Other conditions that presumably warranted the study had also changed. As a result, both IDOT and WisDOT had determined the study should be terminated

but were struggling with how to go about this. They requested that SLATS take the lead to bring about a consensus on how to proceed. SLATS held informal working task force meetings on July 13, 2009 and January 20, 2010 and brought a wide array of stakeholders together including the City of Beloit. The consensus achieved was to terminate the study. Subsequently, SLATS submitted a formal termination request to IDOT (the lead agency) and WisDOT who, in turn, requested FHWA issue a Federal Register notice that the study was being terminated.

6. **Urbanized Area Delineation Issues.** SLATS participated in and led a regional effort to inform the **Census Bureau** of major negative effects that could result from a rulemaking change concerning new “urbanized area” determinations stemming from the 2010 Census. Of concern are the ramifications of a merging of the Beloit WI-IL urbanized area with the Rockford urbanized area. Such a merger would mean that communities now in SLATS, a “small urbanized area” (50,000 to 200,000 persons, would transition into a “large urbanized area” (over 200,000 persons). Conceivably, this could force a complete restructuring of the MPOs of both SLATS and RMAP, to the south, and of greater concern, could significantly complicate funding eligibilities for the current SLATS communities. One major concern, for example, is the Federal transit subsidy used by the Beloit Transit System and the new Stateline Mass Transit District. Specifically, funding now used for operating expenses would no longer be eligible for this purpose but would be limited to capital expenses. Over the last year, SLATS has worked with local, State, and Federal officials in an effort identify and understand these issues and seek remedies to remove or mitigate disruptive effects of these changes. Currently, a partial resolution, through the US Department of Transportation Highway Act reauthorization, is actively being discussed and is a likely outcome. A proposal under consideration would permit the use of 50% of Federal Transit Administration funds to be used for operations. Although this would solve the problem for the **Stateline Mass Transit System** but it could still leave a shortfall in funds for the **Beloit Transit System**. (Although stemming from another cause, BTS also faces another major funding issue: the Wisconsin-“proposed / enacted?” law against collective bargaining by transit employees. This could also make BTS ineligible for Federal transit subsidies or grants.)

Based on recent memos, there is good reason to believe that the Census Bureau will back away from merging urbanized areas. This would completely solve the problem and SLATS has been trying to get a letter from the Census Bureau confirming this. In any case, the census Bureau will release their rule very soon so we will know where we stand. The new “urbanized area” Boundaries will be announced in the spring to fall of 2012.

7. **Stimulus and STP Funds for the StateLine Area.** Over the last two years, SLATS has worked to identify and capture several hundreds of thousands of dollars in Federal Stimulus Funds for the Towns of Turtle and Beloit and approximately \$2 million dollars to finish the Gateway Industrial Park road construction. Stimulus funds and early capture of Surface Transportation Program-Urban funds allowed SLATS to program the first ever projects for the City of South Beloit and the Village of Rockton as well as complete two projects for Winnebago County (the Prairie Hill and Hononegah Roads projects). Construction of the South Beloit Project will begin in the Spring of 2011.
8. **New Travel Lanes on I-39/90.** SLATS has participated in the on-going work effort to highlight the benefits of adding a lane in each direction it I-39/90. SLATS worked with a large and dispersed coalition both in Illinois and Wisconsin. IDOT will engage in a construction project during the 2011 and 2012 construction years. In Wisconsin the add lane project has been “enumerated” by the Transportation Projects Commission. Planning and design are being programmed in 2012 and construction should start in 2015 proceeding north from the State Line.
9. **Title VI / Environmental Justice Evaluation.** SLATS conducted extensive evaluations of Year 2000 Census data in the interest of determining if the public transit services of the Beloit Transit

System were being provided fairly. This work found no evidence of discrimination and met with the approval of the FTA. A similar analysis of proposed highway projects was conducted to the satisfaction of reviewing agencies.

- 10. Cross-Town Bus Route Feasibility Study.** SLATS conducted an extensive analysis of the feasibility and benefits of establishing a new cross-town to augment the radial-pulse network now in use by BTS. The study concluded there would be considerable benefits to such a route. Numerous alignments were compared with ridership and census data and a preferred alignment was proposed.
- 11. Roadway Functional Classification System Study.** An extensive study of the System of Functional Classified Roadways was conducted for all of the StateLine MPA. SLATS developed a composite map of the full system as now approved by Wisconsin and Illinois in the MPA. That composite map will be incorporated in to the 2035 LRTP, 2011 Update. SLATS also made an extensive evaluation of the system and an extensive list of possible changes at the next system update effort.
- 12. System Performance Indicators.** SLATS developed a lengthy list and analysis of System Performance Indicators to be included as part of the 2011 Update and to be used as a baseline for future evaluations.
- 13. Transit Development Plan.** SLATS is in the process of developing a Transit Development Plan Update for the Beloit Transit System. This TDP Update will be incorporated as part of the LRTP 2011 Update.
- 14.** Since 2006 SLATS has also:
 - a. Sponsored **project prioritization** meetings in both States.
 - b. Participated actively in Three **Human Service Transportation Planning (HSTP)** Councils, one in Wisconsin and two in Illinois.
 - c. Played an active role in the **Tri-State Alliance** meetings.
 - d. Coordinated **activities, projects and programs** with the Rockford Metro Agency for Planning, the Janesville Metropolitan Planning Organization, the Wisconsin Department of Transportation, and the Illinois Department of Transportation

SLATS
State Line Area Transportation Study

FINANCIAL ASPECTS

Part of the 2011 Update of the
2035 Long-Range Transportation Plan

Version dated: August 26, 2011

This document updates the Financial Aspects of the 2035 LRTP for the SLATS Metropolitan Planning Area.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THIS REPORT ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES.

Questions or comments pertaining to this document or any other SLATS activities should be directed to the SLATS Coordinator at 608-364-6702

AN UPDATE OF THE FINANCIAL ASPECTS OF THE SLATS 2006 LONG-RANGE TRANSPORTATION PLAN

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to provide a progress report / update pertaining to financial aspects of the SLATS Long-Range Transportation Plan that was adopted in 2006. This document is part of the official 2011 Update of the 2035 LRTP for SLATS.

The financial aspects of the 2035 LRTP are distributed in numerous places throughout the document. Chapter Four, Section IV of the Plan discusses most of the aspects related to public transit. Much of the information in this Section remains valid. Significant changes are addressed in the recently developed Transit Development Plan for BTS and are the subject of a separate Update Memorandum to the LRTP. Please consult that document for details. Chapter V, Section VII of the Plan summarizes the cost and revenue estimates for the Bike and Pedestrian Element of the Plan. That element was comprehensively evaluated and updated in 2010 by a consultant. A summary of the new B&P Element is also the subject of a separate Plan Update Memorandum. These documents are available at the SLATS offices and on the SLATS web page.

The Financial Plan for Roadways is the subject of the 20-page part of the Chapter Six, Section XXI. Most of the materials in this Section remain applicable today, as the Plan moves into its next 5-year cycle. Finally, a Summary Financial Plan, Section II of Chapter Seven is included in the 2006 version of the 2035 LRTP. Essentially that Summary remains valid in that funding has been put forth over the last 5-6 years at rates that are similar to those forecasted in 2006 and are sufficient to implement the Plan as proposed in 2006. If anything, funding levels and rates have increased slightly and the Plan for roadways is somewhat accelerated.

Enclosed on the following pages is a series of seven tables that will substantiate the above statements. For the most part, the tables are self-explanatory, but the following brief discussion may be of use to readers. Note that most of the tables look at 2012 as if it is in the past. This is because the money shown for 2012 is committed to projects, or will be, when the FY 2012 TIP is approved within the next month or two.

EXPLANATION OF TABLES

Please note, when reading these tables, that all totals by category may not be precisely identical. The data in these tables was extracted from various SLATS TIP tables. Where possible, the data from a progress report on a previous year was used because this information was considered more accurate. Such information was not always available. More important, even the progress reports were not always complete and some assumptions had to be made regarding the final cost of a project or the exact year it was implemented. In some cases, the cost for parts of projects were not included because it was likely those costs had been subsequently repeated in a later phase. With regard to the BTS Downtown Transfer Facility, a large part of these cost were not included in those parts that were to be used in forecasting because this expensive project would skew the numbers on the high side. Please report any gross inconsistencies to the SLATS staff.

Table 1a traces and illustrates the funding of all major transportation projects in the StateLine Area since the 2035 LRTP was first adopted. Divided into three main groups, Federal, State, and Local, the table provides information on the various types of Federal funding, shows the Illinois and Wisconsin funding and the portions divided between public transit and roadway projects, and shows the funding breakdown from the 10 local governments that are charged with maintaining and developing the transportation system and services in the area. The graph at the bottom shows total funding is currently on the increase, primarily due to increases at the Federal level, but holding steady or declining slightly at the local level.

Table 2a shows the funding expenditures for roads only.

Table 3a shows the expenditures for public transit.

Table 2a looks at how expenditures have been divided by the various modes. Obviously road and bridge projects are dominant followed by public transit. Substantial investments have, however been made on Bikeway and Pedestrian projects over the last 5 years and will continue in 2012.

Table 2b illustrates expenditures by project purpose. Most of the funding in the 6-yr period is for repairing and preserving the existing system. However, substantial amounts have been spent for new expansion projects. Keep in mind, that a project's purpose is often debatable. For example, a reconstruction project might be considered simple preservation, but if an additional lane is added there is an element of expansion. Simply widening the road lane-width by a foot might also be considered expansion. Reconstructing an intersection could also go either way, especially if a turn-lane is added. But even if just signals are added, the capacity of the intersection and its roadway legs are improved.

Table 2c further breaks expenditures down by their phase (The roadway operations and maintenance data is also here. It, perhaps, would be more logically placed with the data in Table 2 data.) The most costly aspect is the construction work itself, but substantial funding

must be put forth long before construction; particularly, in planning and engineering. A likely understated category in the grouping is the money spent on Operations and Maintenance (not related to transit). Quite often the agencies submitting information for the preparation of the annual Transportation Improvement Programs, omit their estimates for this category. In addition, there is a group of projects referred to as Level of Effort projects that use various categories of Federal funds on small projects that are not always listed in the TIP. Projects that use "Safety" funds are an example. Such projects qualify only under strict criteria, set at the State level but are often determined after the TIP is developed and don't make it into the TIP's listings.

Table 3 is a listing of the Major Roadway Projects Completed since 2006. It also includes information on some projects that were proposed and partially funded (planning and feasibility), but dropped for various reasons. The best example is the West Side ByPass project on the Illinois side.

Table 4 lists all the projects that have been approved for the period 2011 through 2015. This is similar to the projects listed in the 2012 TIP but also includes the funding that was set aside for these projects before 2012, some as far back as 2010. This table shows that nearly \$121 million is programmed for projects that are underway, at some stage, but are not yet completed; some of which will not be complete even through 2015. This is programmed money -- this means there is strong assurance that the money is there or will be available sometime during the period.

Table 5 shows the current listing of "Illustrative Projects". These are projects that do not have money programmed for them yet. Some of these projects are almost certain to get funding. Some have already had money programmed for their planning, engineering or even ROW acquisition. A good example is the I-39 / 90 expansion project. We believe the State of Wisconsin is committed to this project, but because the main TIP table only extends thru 2015, the project is in the Illustrative list instead of the programmed list. Some of these projects will move to the main TIP table, later in 2012 if the TIP is amended or when the 2013 TIP is prepared. Nearly \$84 million worth of projects are shown in this table.

The two line items for "Safety Projects" are based on the following rationale. Information from IDOT for the 2012 TIP provided an estimate on the use of Safety funds throughout the District that encompasses the StateLine MPA. Staff estimated that the MPA comprises only 5% of that District and applied that percentage as an estimate of likely Safety expenditures. This was then projected over the remaining years of the Plan. Lacking numbers from WisDOT, staff applied the same estimate to the Wisconsin-side.

Table 5a was developed from the most recent SLATS Bicycle and Pedestrian Plan. It is the source of the B&P line in Table 5, above.

The General Pavement and Facility Maintenance line items were developed using a combination of data from the 2006 Plan, information from the TIPs, and the application of an inflation factor. **Charts 1a thru 1c** illustrate this information.

Estimates with regard to Public Transit were developed primarily from the TIPs. **Charts 2a thru 2c** illustrate this information.

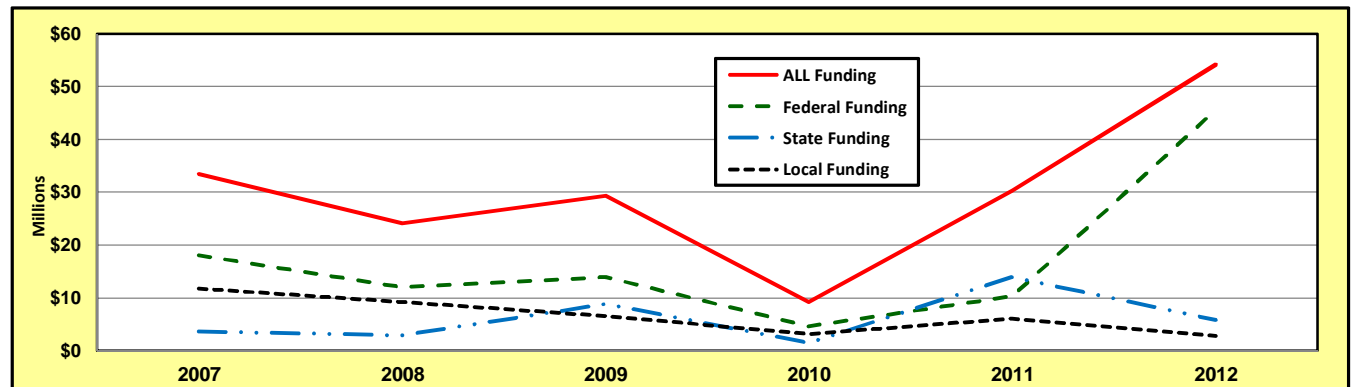
Table 6 rehashes some of the information presented in previous tables. The most important section is Part A where the project expenditures are grouped by road, transit and roadway projects, and where the funding is averaged over the 6-year period. Similar funding averages were developed, using earlier TIP information, when the LRTP was developed in 2006. In **Table 7** the new averages are compared with the 2006 information, as a means of determining if the Plan is on track toward implementation as forecasted in 2006.

Table 7, in fact, shows that average annual funding for all road projects is ahead of what was forecasted in 2006. A large part of this is due to the award of Federal stimulus monies for projects in the StateLine area. Other fortuitous allocations occurred because the StateLine Area had needed projects designed and ready to construct, while other areas throughout the State were not ready to act. Mass transit funding is slightly ahead of the forecasts primarily because funding was secured for the startup of the Stateline Mass Transit District in Illinois. Funding for the new BTS Downtown Transfer Center was not included because it would have made recent funding look far ahead of forecasted levels and would have resulted in over-forecasting in the future. Even B & P funding is up; again because the StateLine Area was ready with planned and designed projects.

Only the Operations and Maintenance funding is below the forecasted levels. This, as explained earlier, is largely because data on this aspect is seldom submitted by the State and some of the other entities.

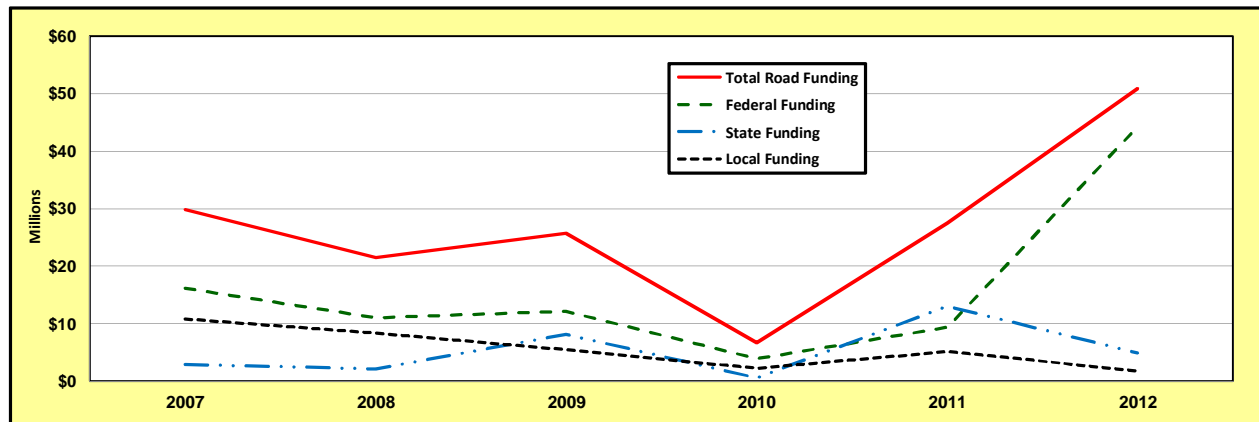
The bottom part of Table 7 demonstrates that all currently envisioned projects, as listed in the Illustrative Projects Table, appear implementable within a six to seven year time span. Thereafter, given the most recent funding rates or the slightly lower previously forecasted rates, considerable funding should become available for projects in the remaining time frame up to 2030. Moreover, most of this funding could be available for expansion projects – O&M work is including in the Illustrative Projects table through 2030.

All Annual Programmed Expenditures for ALL PURPOSES by Funding Source							(\$1,000)	Table 1a	
Source	Abbrv.	2007	2008	2009	2010	2011	2012	Sum	avg
Federal Funding Sources									
FTA Section 7 funding for public transit services	7	835	875	754	745	745	768		787
FTA Section 9 funding for public transit services	9	1,036	-	1,070	-	193	608		485
FTA Section 10 funding for public transit services	10	-	60	-	-	-	-		10
American Recovery & Reinvestment Act	AR	-	-	1,212	3,083	3,153	-		1,241
Federal or State bridge funds	BR	-	305	-	-	-	120		71
Special demonstration funds	D	375	375	-	431	1,469	-		442
Federal enhancement funds	EN	2,643	2,200	420	304	125	-		949
Congressional determined high priority projects	HP	-	215	-	-	-	-		36
Interstate maintenance	IM	-	-	-	66	-	-		11
Intelligent Transportation System funds	IT	-	-	-	-	-	-		-
NHS, National Highway System funds	NH	4,835	4,200	-	-	1,980	43,380		9,066
Funds for railroad-related and railroad safety work	RR	410	525	-	-	-	-		156
Safety funds	SA	-	135	-	-	-	513		108
Surface Transportation Program (STP) - Flexible funds	SF	460	800	-	-	2,378	96		622
Surface Transportation Program (STP) - Rural funds	SR	1,174	-	-	-	180	-		226
Surface Transportation Program (STP) - Urban funds	SU	376	376	3,606	-	-	-	4,358	726
Safe Routes to School funding	SS	41	41	9	-	-	48	139	23
Federal funds from the above and/or other sources	F	5,829	1,869	6,867	-	50	-	14,615	2,436
subtotal Federal		18,013	11,976	13,938	4,629	10,273	45,533	104,362	17,394
State Funding Sources									
Illinois for Transit	ILt	116	236	75	250	275	283	1,235	206
Illinois for Roads	ILr	2,970	1,530	-	300	-	4,820	9,620	1,603
Wisconsin for Transit	Wlt	538	557	600	600	618	637	3,550	592
Wisconsin for Roads	Wlr	810	606	8,188	260	13,081	81	23,026	3,838
subtotal State		3,624	2,929	8,863	1,410	13,974	5,821	36,621	6,103
Local Funding Sources									
Beloit Transit System	BTS	952	716	930	800	872	1,002	5,272	879
City of Beloit	CBel	4,161	4,101	4,661	1,214	4,033	928	19,098	3,183
Rock County	RCo	2,201	113	-	247	270	-	2,831	472
City of South Beloit	SBel	267	111	114	114	114	117	837	140
Staseline Mass Transit District	SMTD	20	100	140	125	24	25	434	72
Town of Beloit	TBel	181	111	117	114	117	120	760	127
Rockton Township	TRktn	250	260	270	270	275	280	1,605	268
Town of Turtle	TTrtl	86	89	92	95	95	98	555	93
Village of Rockton	VRktn	524	524	27	220	220	228	1,743	291
Winnebago County	WC	3,100	3,045	165	-	-	-	6,310	1,052
subtotal Local		11,742	9,170	6,516	3,199	6,020	2,798	39,445	6,574
		33,379	24,075	29,317	9,238	30,267	54,152	180,428	30,071



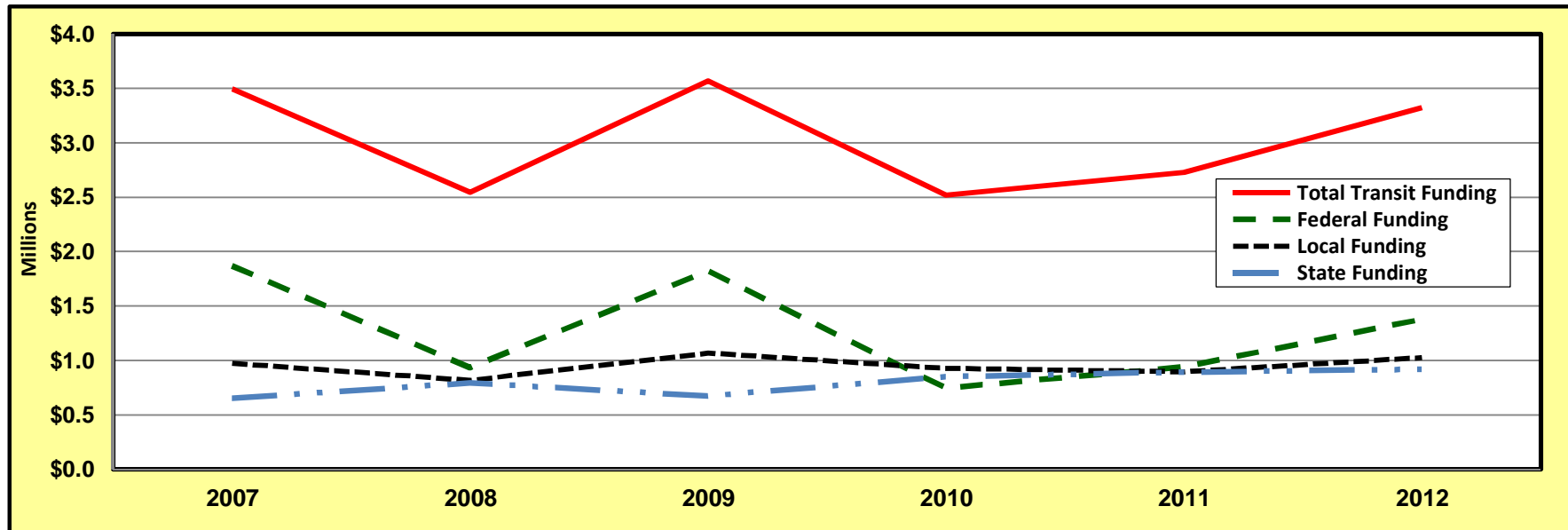
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Annual Programmed Expenditures for <u>ROADS</u> by Funding Source							(\$1,000)		Table 1b	
Source	Abbrv.	2007	2008	2009	2010	2011	2012	Sum	avg	
Federal Funding Sources										
American Recovery & Reinvestment Act	AR	-	-	1,212	3,083	3,153	-		1,241	
Federal or State bridge funds	BR	-	305	-	-	-	120		71	
Special demonstration funds	D	375	375	-	431	1,469	-		442	
Federal enhancement funds	EN	2,643	2,200	420	304	125	-		949	
Congressional determined high priority projects	HP	-	215	-	-	-	-		36	
Interstate maintenance	IM	-	-	-	66	-	-		11	
Intelligent Transportation System funds	IT	-	-	-	-	-	-		-	
NHS, National Highway System funds	NH	4,835	4,200	-	-	1,980	43,380		9,066	
Funds for railroad-related and railroad safety work	RR	410	525	-	-	-	-		156	
Safety funds	SA	-	135	-	-	-	513		108	
Surface Transportation Program (STP) - Flexible funds	SF	460	800	-	-	2,378	96		622	
Surface Transportation Program (STP) - Rural funds	SR	1,174	-	-	-	180	-		226	
Surface Transportation Program (STP) - Urban funds	SU	376	376	3,606	-	-	-	4,358	726	
Safe Routes to School funding	SS	41	41	9	-	-	48	139	23	
Federal funds from the above and/or other sources	F	5,829	1,869	6,867	-	50	-	14,615	2,436	
subtotal Federal		16,142	11,041	12,114	3,884	9,335	44,157	96,674	16,112	
State Funding Sources										
Illinois for Roads	ILr	2,970	1,530	-	300	-	4,820	9,620	1,603	
Wisconsin for Roads	Wlr	810	606	8,188	260	13,081	81	23,026	3,838	
subtotal State		2,970	2,136	8,188	560	13,081	4,901	31,836	5,306	
Local Funding Sources										
City of Beloit	CBel	4,161	4,101	4,661	1,214	4,033	928	19,098	3,183	
Rock County	RCo	2,201	113	-	247	270	-	2,831	472	
City of South Beloit	SBel	267	111	114	114	114	117	837	140	
Town of Beloit	TBel	181	111	117	114	117	120	760	127	
Rockton Township	TRktn	250	260	270	270	275	280	1,605	268	
Town of Turtle	TTrtl	86	89	92	95	95	98	555	93	
Village of Rockton	VRktn	524	524	27	220	220	228	1,743	291	
Winnebago County	WC	3,100	3,045	165	-	-	-	6,310	1,052	
subtotal Local		10,770	8,354	5,446	2,274	5,124	1,771	33,739	5,623	
		29,883	21,531	25,748	6,718	27,540	50,829	162,249	27,041	



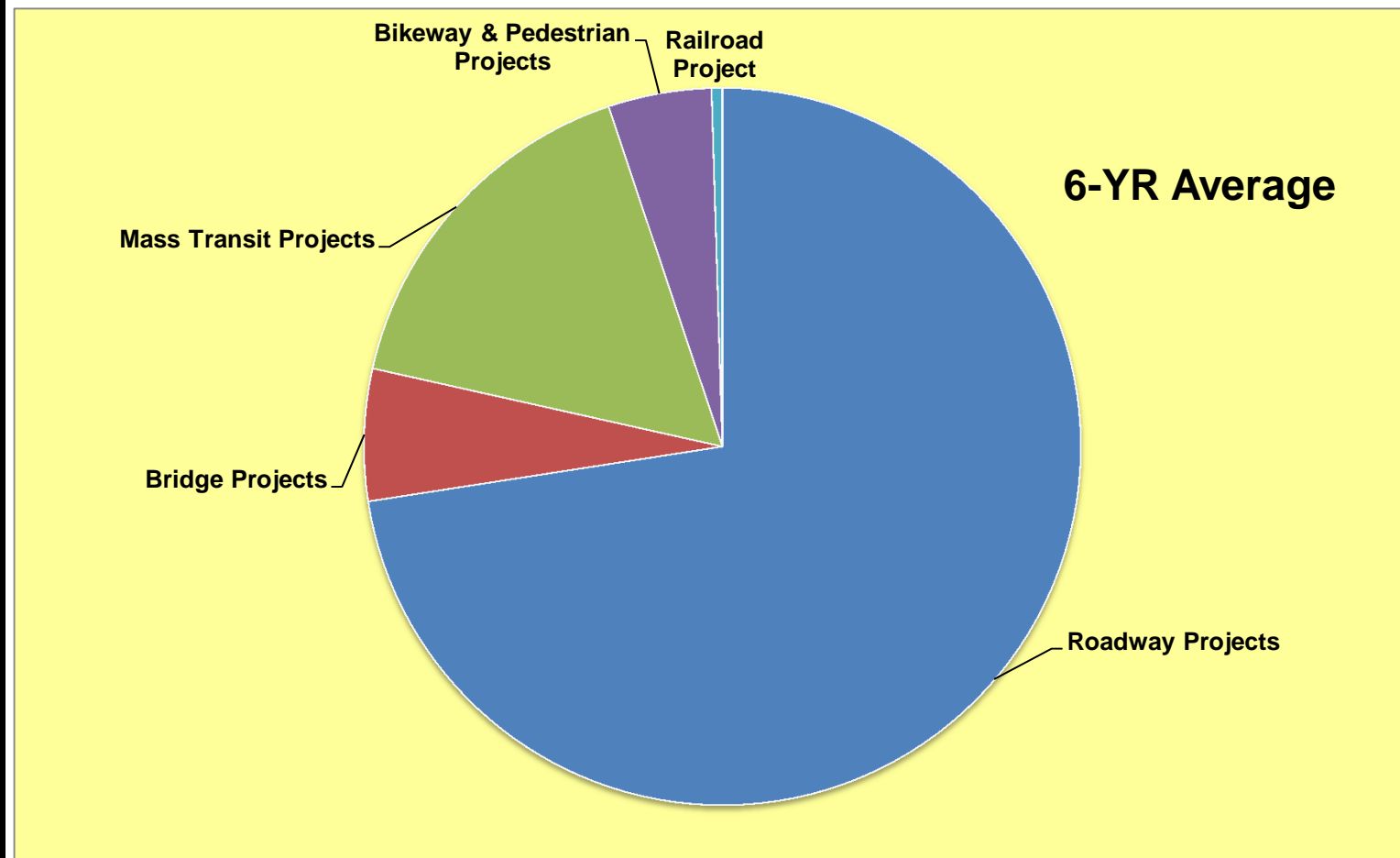
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Annual Programmed Expenditures for Transit by Funding Source							(\$1,000)	Table 1c	
Source	Abbrv.	2007	2008	2009	2010	2011	2012	Sum	avg
Federal Funding									
FTA Section 7	7	835	875	754	745	745	768	4,722	787
FTA Section 9	9	1,036	-	1,070	-	193	608	2,907	485
FTA Section 10	10	-	60	-	-	-	-	-	10
subtotal Federal		1,871	935	1,824	745	938	1,376	7,689	1,281
State Funding									
Illinois for Transit	ILt	116	236	75	250	275	283	1,235	206
Wisconsin for Transit	Wit	538	557	600	600	618	637	3,550	592
subtotal State		654	793	675	850	893	920	4,785	797
Local Funding									
Beloit Transit System	BTS	952	716	930	800	872	1,002	5,272	879
Stateline Mass Transit District	SMTD	20	100	140	125	24	25	434	72
subtotal Local		972	816	1,070	925	896	1,027	5,706	951
Total for TRANSIT		3,496	2,544	3,569	2,520	2,727	3,323	18,179	3,030



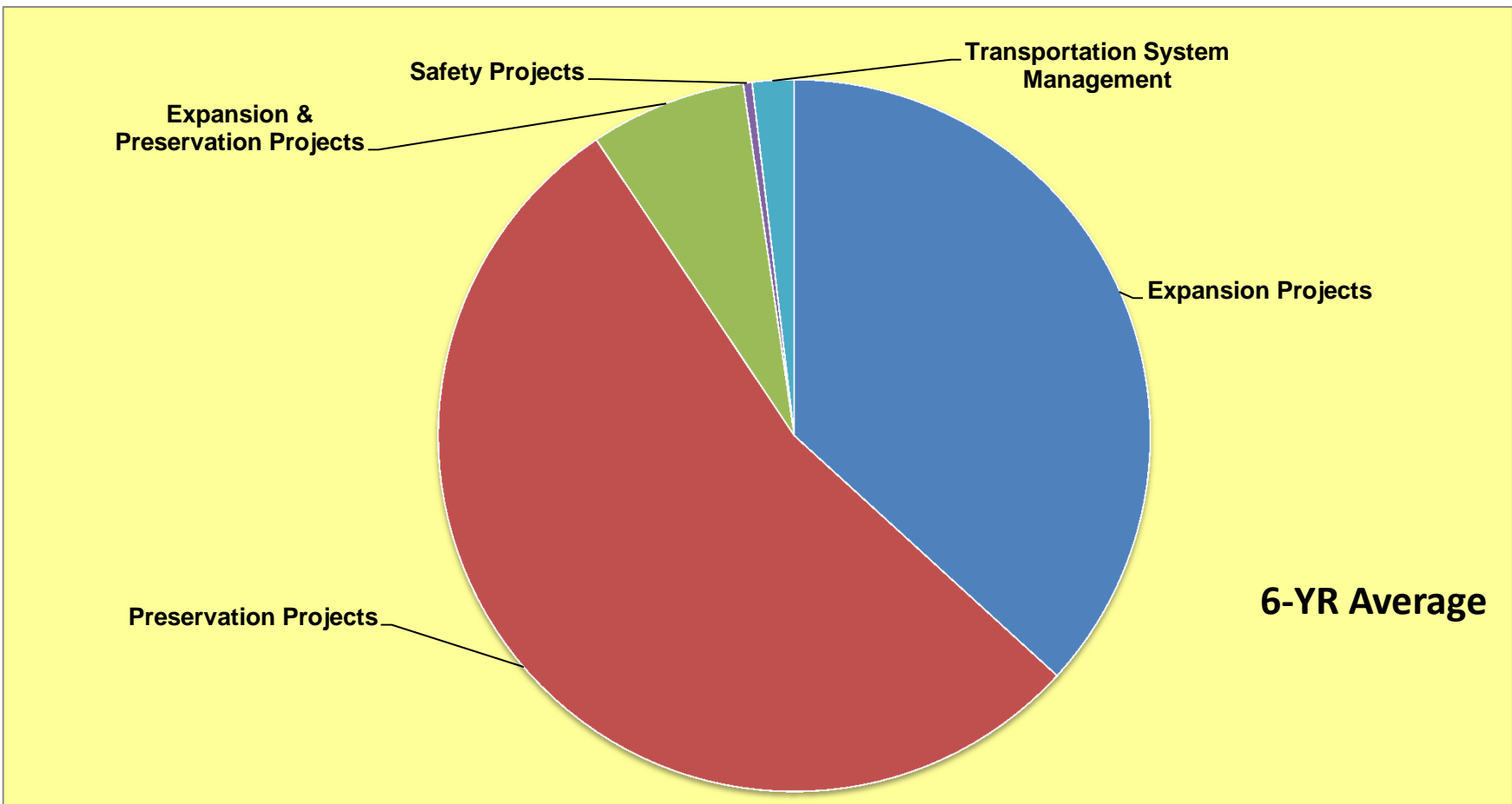
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All Annual Programmed Expenditures by Mode							Table 2a
	2007	2008	2009	2010	2011	2012	AVG
Roadway Projects	65%	72%	83%	58%	63%	94%	72.55%
Bridge Projects	0%	2%	1%	6%	26%	0%	5.94%
Mass Transit Projects	27%	11%	13%	31%	10%	6%	16.36%
Bikeway & Pedestrian Projects	8%	12%	2%	6%	1%	0%	4.66%
Railroad Project	0%	3%	0%	0%	0%	0%	0.48%
Total	100%	100%	100%	100%	100%	100%	100%

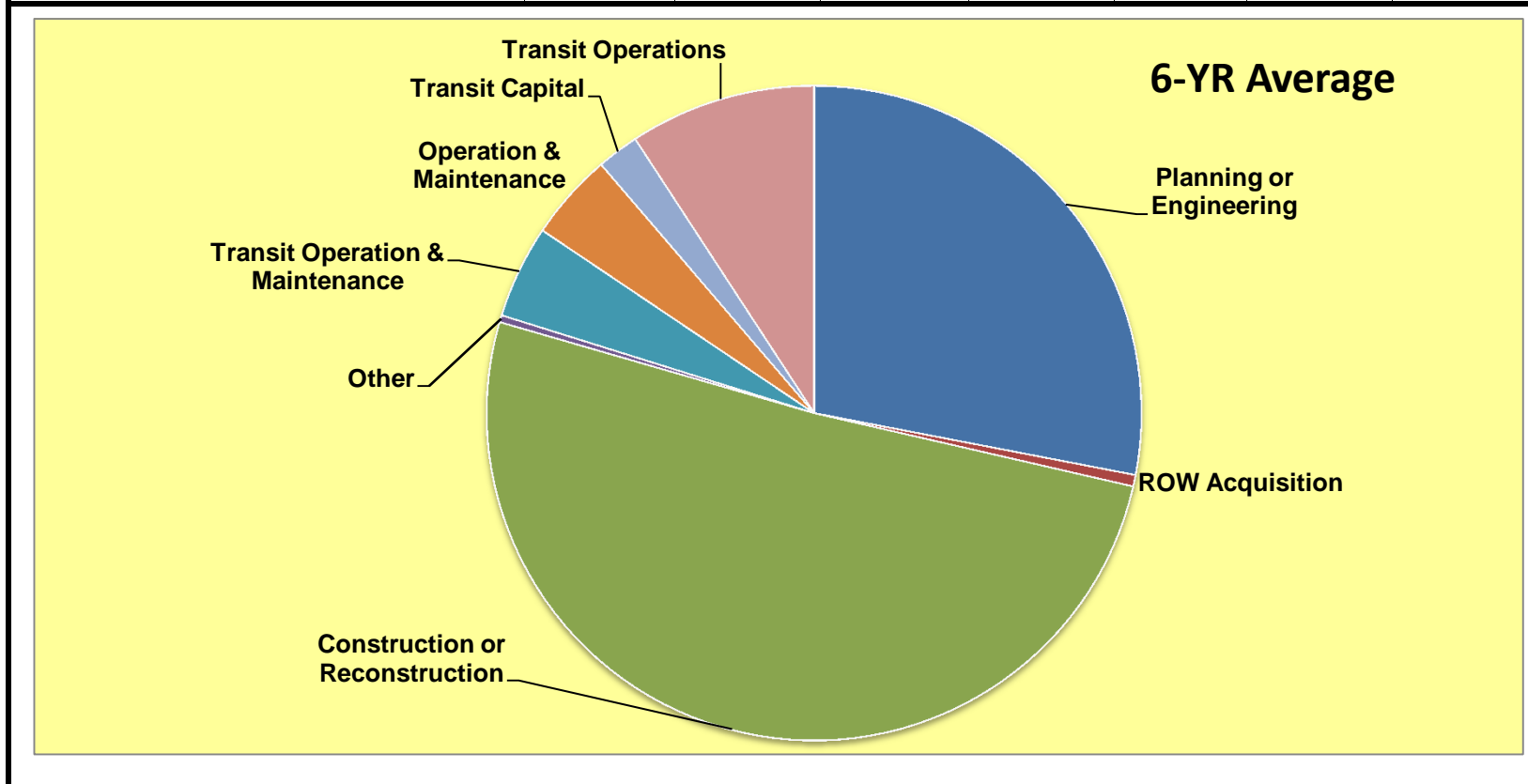


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All Annual Programmed Expenditures by Purpose							Table 2b
	2007	2008	2009	2010	2011	2012	AVG
Expansion Projects	39%	15%	36%	18%	23%	89%	37%
Preservation Projects	61%	61%	64%	77%	50%	11%	54%
Expansion & Preservation Projects	0%	10%	0%	6%	27%	0%	7%
Safety Projects	0%	2%	0%	0%	0%	0%	0%
Transportation System Management	0%	11%	0%	0%	0%	0%	2%
Total	100%	100%	100%	100%	100%	100%	100%



All Annual Programmed Expenditures by Phase							Table 2c
	2007	2008	2009	2010	2011	2012	AVG
Planning or Engineering	6%	11%	1%	16%	44%	90%	28%
ROW Acquisition	1%	1%	2%	0%	0%	0%	1%
Construction or Reconstruction	63%	76%	81%	42%	42%	2%	51%
Other	1%	1%	0%	0%	0%	0%	0%
Transit Operation & Maintenance	27%	0%	0%	0%	0%	0%	5%
Operation & Maintenance	2%	3%	3%	12%	4%	2%	4%
Transit Capital	0%	0%	5%	3%	2%	1%	2%
Transit Operations	0%	8%	7%	27%	8%	5%	9%
Total	100%	100%	100%	100%	100%	100%	100%



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Major Roadway Projects Completed Since 2006							Table 3							
Lead	TIP#s	Name	Location	Description	Mode	Purpose	Fed	*	State	*	Local	*	Total	Status
CBel	291-05-013	Gateway Blvd	Eagle's Rdg to Hart Rd & I-43 & to Co-X	New const, expand	RD	E	2,946	SU	-		737	cb	3,683	Completed
CBel	291-05-013	Gateway Blvd	Eagle's Rdg to Hart Rd & I-43 & to Co-X	New const, expand	RD	E	3,654	F	-		914	cb	4,568	Completed
CBel	291-03-016	Turtle Creek BiKe Trail	Connect existing segments	New const, expand	B&P	E	285	EN	-		211	cb	496	Completed
CBel	291-04-017	Riverside Dr (US-51)	Emerson to Henry Av	Reconst w/Indscap	RD	P	2,084	SF	926	wi	-		3,010	Completed
CBel	291-04-017	US-51 B&P	Bushnell to Henry	New bike/ped	B&P	E	601	EN	-		519	cb	1,120	Completed
CBel	291-06-003	Freeman Prkwy	WI-81 to Hart Rd	Reconst	RD	P	-		-		1,605	cb	1,605	Completed
CBel	291-06-004	Milwaukee Rd	I-90 to Lee Ln	Reconst	RD	P	-		-		500	cb	500	Completed
Cbel		Murphy Woods Rd	Prairie Av to Shopiere Rd	Pulverized & pave	RD	P	-		-		285	cb	285	Completed
IL		IL-75	Rock River to IL-2 in Rockton		RD	P	4,200	NH	1,500		-		5,700	Completed
IL	291-03-008, WIS-18-93	Westside ByPass	Around west sides of Beloit / S.Beloit	Multi agency study	RD	E	-		-		-		-	Study terminated, concept abandoned on Il-side
RCo	SLA-07-008	Co-H Bridge	WI-81 to WI-213, Raccoon Crk Brdg & Appr	Reconst	Brdg	P	400	AR	-		-		400	Completed
RCo		Co-S	I-90 to east limits of Shopiere	Reconst	RD	P	579	SR	-		144	rc	723	Completed
RCo		Co-S	Murphy to Hart & Bridge	Reconst	RD	P	2,112	BR	-		520	rc	2,632	Completed
Rco		Shopiere	Hart to 1-39	Reconst	RD	P	1,129	SR	-		282	rc	1,411	Completed
TBel	291-09-012	Inman Parkway	US-51 to Co-G (0.3 mi)	Pavement replacement, 1.4 mi. & installation of rail crossing warning device	RD	P	670	AR	-		3	tb	673	Completed
TBel	291-09-012	Inman Parkway	US-51 to Co-G (0.3 mi)	Pavement replacement, 1.4 mi. & installation of rail crossing warning device	RD	P	168	SU	-		42	tb	210	Completed
TBel	291-09-013	Cranston Rd	US-51 to Dewey	Resurface & concrete repair, 0.68 mi	RD	P	129	AR	-		1	tb	130	Completed

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Major Roadway Projects Completed Since 2006							Table 3							
Lead	TIP#s	Name	Location	Description	Mode	Purpose	Fed	*	State	*	Local	*	Total	Status
TTrtl	291-09-014	Townline Rd	Co-J to Co-G (2 mi)	Resurface	RD	P	200	AR	-	-	-	-	200	Completed
VRktn	VR-09-01	Union Street	IL-2 to IL-75	Resurface	RD	P	498	AR	-	-	27	vn	525	Completed
VRktn	02-09-003	Radar Speed Signage Trailer			B&P	P	9	SS	-	-	-	-	9	Completed
VRktn		Main St	IL-2 to Bridge St	Reconst	RD	P	346	SU	-	-	87	vn	433	Completed
VRktn		Race St	Union St to Main St	Reconst	RD	P	376	SU	-	-	94	vn	470	Completed
WCo	02-10-003	Hononegah Rd	McCurry Road to Door Rd	Reconst/widen to 3-Lns	RD	EP	360	SU	-	-	90	wc	450	Completed
WCo	02-10-004	Hononegah Rd	Door Rd to east of IL-2, west of river bridge	Reconst/widen to 3-Lns	RD	EP	1,200	SU	-	-	300	wc	1,500	Completed
WCo		Hononegah Rd	Checkerberry to West End	Const	RD	E	-	-	-	-	2,200	wc	2,200	Completed
WCo	WC-09-01	Prairie Hill Rd	Willowbrook to IL-251	Resurface	RD	P	600	SU	-	-	165	wc	765	Completed
WCo		Willowbrook at Prairie Hill	Intersection	Const	RD	P	-	-	-	-	2,400	wc	2,400	Completed
WI	291-07-001	I-43	I-39 to WI-140	Resurface	RD	P	3,213	F	6,750	wi	-	-	9,963	Completed
WI		WI-67	Gateway Blvd to WI-140	Mill & overlay	RD	P	-	-	1,400	wi	-	-	1,400	Completed
WI	291-09-001	WI-81	Co K to Paddock Rd	Mill & overlay 6.37 mi.	RD	P	1,346	NH	337	wi	-	-	1,683	Completed
WI	371-04-008, 291-09-015	I-39/90 Overpasses	(1) N- & S-bound US-14 & WI-26 Overpass & CoH brdg	Mill & replace asphaltic bridge deck overlay	Brdg	P	336	F	95	wi	-	-	431	Completed
WI		WI-81 W-side ByPass	PE & ROW only		RD	E	-	-	-	-	-	-	-	Completed
CBel		Pavement/Facility Maintenance	Community-wide	As needed at sites determined locally	RD	P	-	-	-	-	4,016	cb	4,016	Completed
Sbel		"	"	"	RD	P	-	-	-	-	524	sb	524	Completed
VRktn		"	"	"	RD	P	-	-	-	-	1,011	vr	1,011	Completed
TTrtl		"	"	"	RD	P	-	-	-	-	437	tt	437	Completed
TRktn		"	"	"	RD	P	-	-	-	-	1,264	tr	1,264	Completed
RCo		"	"	"	RD	P	-	-	-	-	3,367	rc	3,367	Completed
WCo		"	"	"	RD	P	-	-	-	-	1,928	wc	1,928	Completed
WI		"	"	"	RD	P	-	-	-	-	3,067	wi	3,067	Completed
IL		"	"	"	RD	P	-	-	-	-	1,534	il	1,534	Completed

Major Roadway Projects Programmed 2011 thru 2015													Table 4			
Lead	TIP#s	ID#s	Name	Location	Description	Total \$	Mode	Purpose	Phase	Fed	State	Local	Total	Comments		
CBel	291-06-002		Wisconsin Av	Woodward to White	Reconst	\$1.3+M L	RD	P	CON	-	-	1,400	cb	1,400	Const moved to 2012	
CBel	291-06-008		Willowbrook Rd	Stateline to Colley Rd	New const, expand	\$1M L	RD	E	PE	-	-	70	cb	70	Project moved to 2014	
							RD	E	CON	-	-	918	cb	918		
CBel	291-06-009		Willowbrook Rd	Colley Rd to Milwaukee Rd	New const, expand	\$1.2M L	RD	E	PE	-	-	105	cb	105	Project moved to 2014	
							RD	E	CON	-	-	1,164	cb	1,164		
CBel	291-06-010		Shopiere Rd	Henry Av to Prairie Av & Royce	Reconst	\$1M+ L	RD	P	PE	-	-	165	cb	165	Project moved to 2014	
							RD	P	CON	-	-	810	cb	810		
CBel	291-12-003	5989-01-08	Lenigan Crk Brdg	At Fourth St in City of Beloit	Replacement	\$150K known at this time	RD	P	PE	120	BR	-	30	cb	150	Design may be delayed to 2013-2014. Construction possible in 2014.
CBel							RD	P	ROW	-	-	-	-	-		
CBel							RD	P	CON	-	-	-	-	-		
RCo	291-06-007	5989-05-21	Inman Prky (Rock Co lead w/ City Beloit part)	Prairie Ave to Shopiere Rd	Engineering for new const, expansion	\$8.025M	RD	E	PE	431	D	-	247	rc	678	Part of design obliggated in 2007 (additional in 2011 from locals), contine thru 2012. ROW acq in 2014. ROW may to increase to \$800K Construction not yet programmed. Rock Co is seeking \$163K SU additional funding from 2013-2016 Local Program Cycle.
							RD	E	PE	-	-	-	122	cb	122	
							RD	E	PE	-	-	-	149	rc	149	
							RD	E	PE	-	-	-	77	cb	77	
							RD	E	ROW	-	-	-	-	-		
							RD	E	ROW	-	-	-	67	rc	67	
							RD	E	ROW	-	-	-	33	cb	33	
RCo	291-08-001; 371-09-008;	5966-00-00	Co-G / Townline Rd Intersection (with Janeville MPA)	DESIGN for the reconstruction & improvement of the intersection including turn lanes, approaches & signalization		\$225K	RD	EP	PE	180	SR	-	45	rc	225	No change, design obligated in 2011, const not yet programmed.
WCo	WC-12-01	02-12-001	Old River Road	Rosco Rd to IL-75	Widen & resurf	\$1.50M FL	RD	TSM	CON	1,600	F	-	400	wc	2,000	Funding programmed in 2013
IL	02-12-001	2-10060-0100 2-10060-0107	IL-75	Rock River to IL-2 in Rockton	Resurface (3R), Curb & Gutter Storm sewer (new), Drainage, RR Insurance, RR flagger	\$9.035M FS	RD	P	CON	7,200	SU	1,800	il	-	9,000	
							RD	P	CON	28	SU	7	il	-	35	
IL	02-10-002	2-13330-000	Prairie Hill Rd Bridge	Over Rock R iver	PE Phase I	\$7+M FS	Brdg	EP	PE	-	-	300	il	-	300	Design underway, Construction programmed in 2014.
							Brdg	EP	PE	-	-	-	-	-	-	
							Brdg	EP	CON	3,130	BR	783	il	-	3,913	
IL	IL-06-001 291-03-004	02-06-001 2-97290-0200	I-39 / 90	Rockton Rd to IL/WI Stateline	Reconstruct w/ additional lanes and brdg replcmnt	\$48.2M F&S	RD	E	PE	43,380	NH	4,820	il	-	48,200	Project includes additional lanes, bridge replacement, reconstruction, ramp repair & culvert replacement. Construction programmed in 2012
							RD	E	CON	-	-	-	-	-	-	
IL			Hazard Elimination and RR Safety Projects	Projects determined by criteria	Extent by criteria					618	SA	69	wi	-	687	Assume 5% of funding listed for entire IDOT District in 2012-2015 TIP will be spent in StateLine MPA.
WI	291-06-016	5989-03-0070/72	Henry Avenue Bridge	over Rock River	Reconst / expansion	\$7.821M FSL	Brdg	EP	PE	-	-	231	wi	-	231	Design obligated in 2005 & underway, Const \$ obligated in 2011. Const continuing thru 2012. Additional \$ added for water main. Funding mix & total increased in 2011.
				over Rock River	Reconst / expansion		Brdg	EP	CON	1,469	D	2,178	wi	1,796	7,821	
				over Rock River	Reconst / expansion		Brdg	EP	CON	2,378	SF	-	-	-	-	
WI	291-06-016	5989-02-92/93	Beloit Riverwalk Path (Bridg Segment)	Off street bike/ped path ow/ Henry Av Brdg	New	\$212K FL	B&P	E	PE	19	Z	-	5	wi	24	Design obligated in 2009 & underway, Const \$ obligated in 2011. Const continuing thru 2012.
					New		B&P	E	CON	125	EN	-	63	cb	188	
WI	291-10-002 291-10-002	1001-07-01/71	I-39/90	Various locations	Guardrail upgrades	\$643K F&S	RD	P	PE	66	IM	7	wi	-	73	Design continuing thru 2012. Construction costs decrease slightly for 2012 (from \$837K to \$570K). Construction programmed in 2012.
				Various locations	Guardrail upgrades	643	RD	P	CON	513	SA	57	wi	-	570	

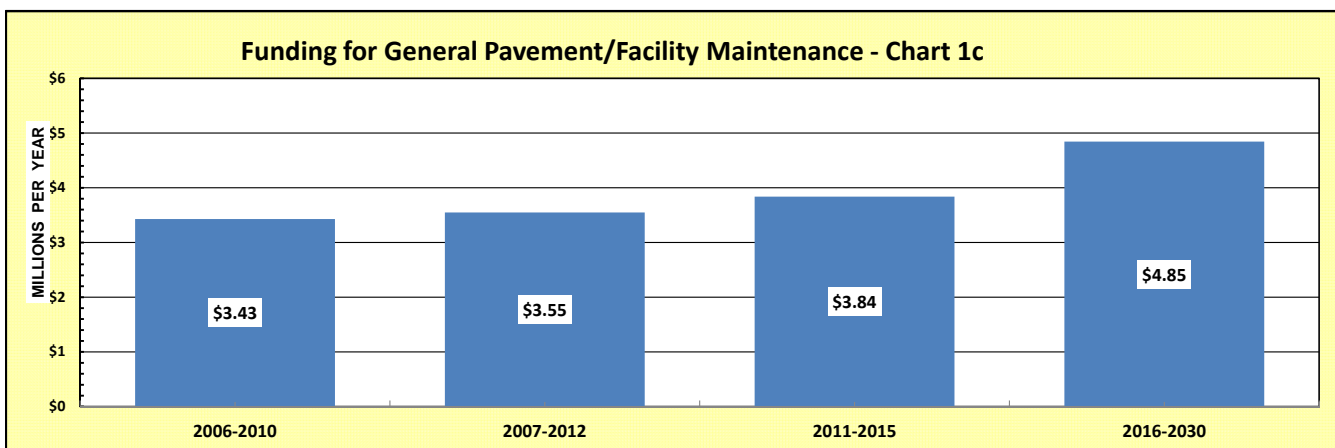
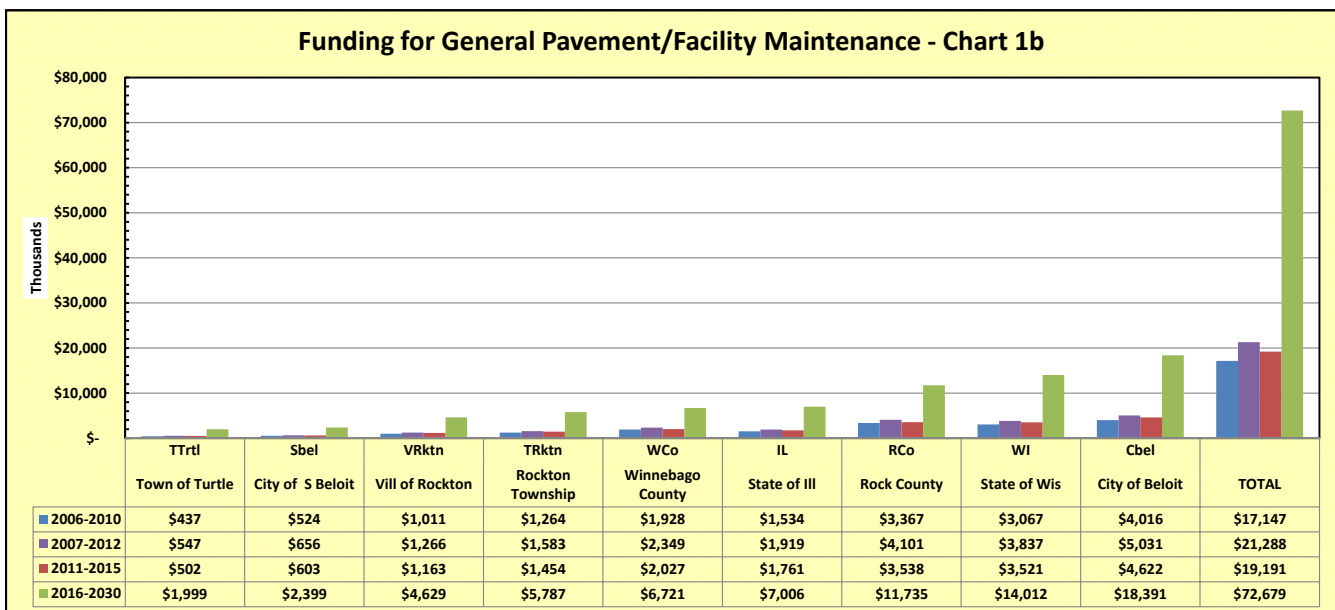
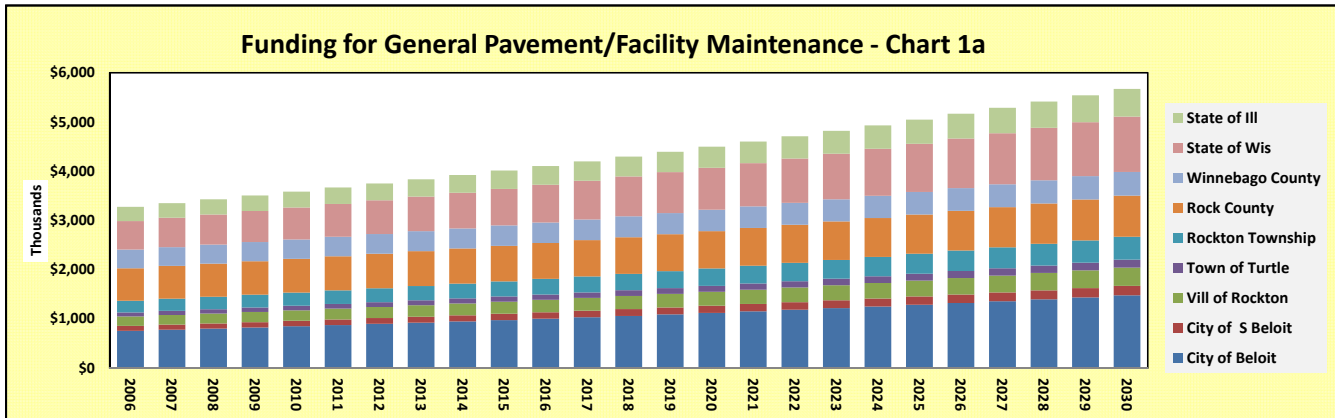
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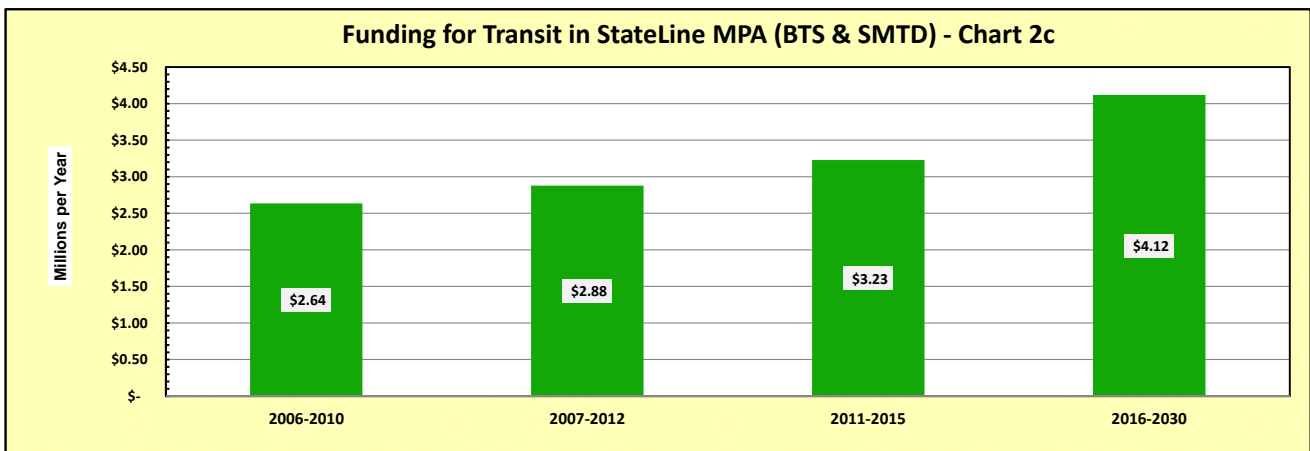
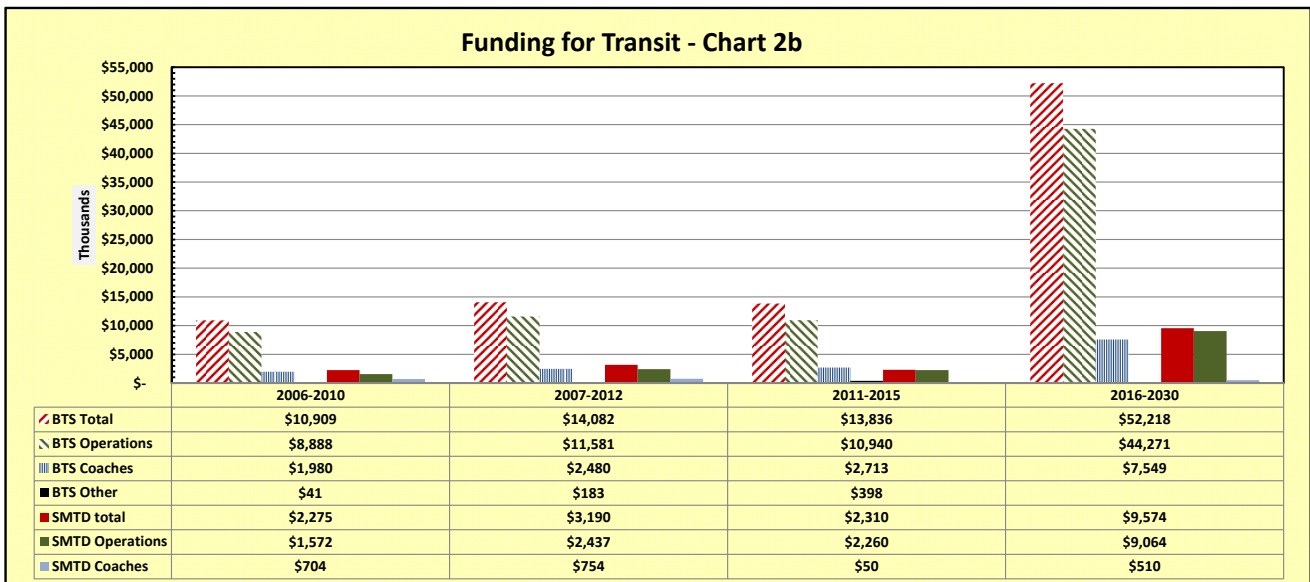
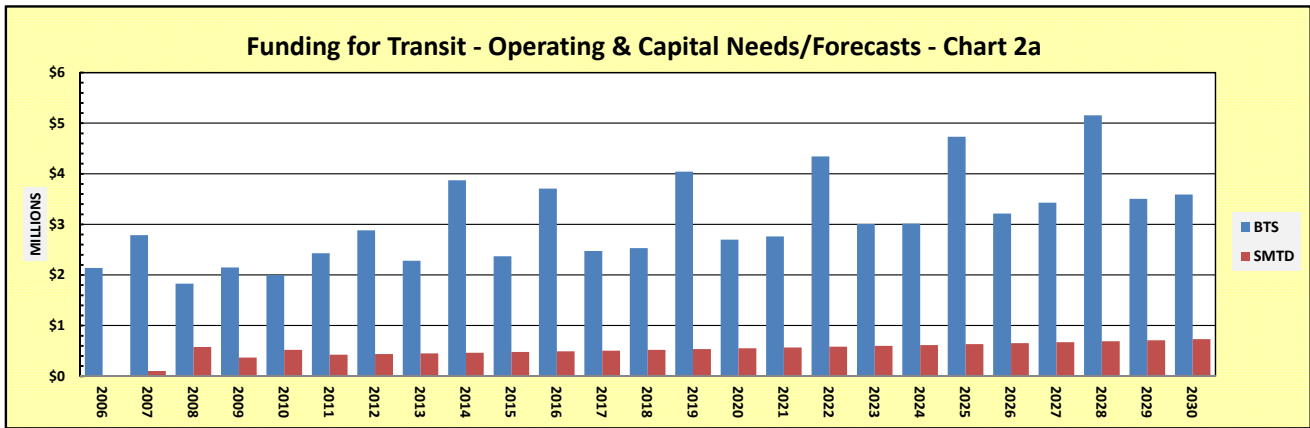
Major Roadway Projects Programmed 2011 thru 2015														Table 4		
Lead	TIP#s	ID#s	Name	Location	Description	Total \$	Mode	Purpose	Phase	Fed	State	Local	Total	Comments		
WI	291-10-003	1001-03-06/76	I-39	Colley Road to CMSTPP (Chicago Milwaukee, St. Paul, Pacific Railroad)	Bridge Maintenance - epoxy deck overlay to four bridges (B-53-0048,0051,0216,0217)	tbd	Brdg	P	PE	-	22	wi	-	22	Design underway. Construction programmed in 2013.	
	291-10-002					Milwaukee, St. Paul, Pacific Railroad)	Guardrail upgrades	\$279K	RD	P	CON	251	SA	28		wi
WI	291-11-001	1001-10-01	I-39/90	IL State Line to US 12/18	Program Control	\$12.2M	RD	P	PE	-	12,200	wi	-	12,200	Increased funding from \$3,240 to \$5,600 in 2011, and from \$3,240 to \$6,600 in 2013. Design will be phased thru 2019; Also in Janesville MPA. Construction funding assured but not yet programmed.	
	291-11-001															
WI	291-11-002	1003-10-01/21	I-39/90	IL State Line to Co O	Reconst & expand from 4 to 6 lanes	23.7M	RD	E	PE	4,410	NH	10,290	wi	-	14,700	Increased PE funding from \$1,620 (NH) & \$3,780 (wi) to \$1,980 & \$4,620 in 2011. Moved 2012 PE funding to 2013 and increased slightly. Design is phased and ongoing thru 2016. Added funding for ROW in 2013.
	291-11-002						RD	E	ROW	-	-	9,000	wi	-	9,000	
	291-11-002						RD	E	CON	-	-	-	-	-	-	
WI	291-02-001	1001-01-32/62 1001-02-93	I-39	IL State Line to Kennedy Road	Mill & overlay existing pavement (17.38 mi)	\$375K known at this time	RD	P	PE	-	-	375	wi	-	375	Design in 2013. Construction in 2016, on possible advancement list. Also in Janesville MPA.
							RD	P	ROW	-	-	-	-	-		
							RD	P	CON	-	-	-	-	-		
WI	291-12-001	5340-00-31/61	WI-81	WI-11 to Willow Crk Brdg & Paddock Rd to Beloit City limit	Replace or improve pavement surface and overlay bridge decks, B-53-0101 & 0102 (4.52 mi)	\$5.005M F&S	RD	P	PE	-	683	IL	-	683	Design obligated in 2011, Construction in 2013.	
							RD	P	ROW	-	-	-	-	-		
							RD	P	CON	3,705	NH	1,300	wi	-		5,005
WI	291-12-002	5350-00-04	US-51	Cranston Rd Intersection	Reconstruct, add left turn lane	\$120K known at this time	RD	E	PE	96	SF	24	wi	-	120	Design in 2012, possibly thru 2014. Construction not yet programmed.
							RD		ROW	-	-	-	-	-		
							RD		CON	-	-	-	-	-		
WI			Hazard Elimination and RR Safety Projects	Projects determined by criteria	Extent by criteria					618	SA	69	wi	-	687	Assume amts similar to that calcd in IL will be spent by WI in Stateline MPA.
SBel	291-10-001		Rood Av	S. Bluff St to Moore St	Resurfacing	\$228K	RD	P	CON	28	AR	-	-	28	Construction underway in 2011, continue to 2012 possible.	
TBel	291-11-001	5989-00-11/12	Sidewalk on Inman Prky	Riverside to Prairie	New Safe Routes to School	347K	B&P	E	PE	48	SS	-	-	48	Design obligated for 2012. Const moved to 2013.	
										CON	48	SS	-	-		48
CBel			Pavement/Facility Maintenance	Community-wide	As needed at sites determined locally		RD	P	CON	-	-	4,622	cb	4,622		
Sbel			"	"	"		RD	P	CON	-	-	603	sb	603		
VRktn			"	"	"		RD	P	CON	-	-	1,163	vr	1,163		
TTrtl			"	"	"		RD	P	CON	-	-	502	tt	502		
TRktn			"	"	"		RD	P	CON	-	-	1,454	tr	1,454		
RCo			"	"	"		RD	P	CON	-	-	3,538	rc	3,538		
WCo			"	"	"		RD	P	CON	-	-	2,027	wc	2,027		
WI			"	"	"		RD	P	CON	-	-	3,521	wi	3,521		
IL			"	"	"		RD	P	CON	-	-	1,761	il	1,761		
													141,559	Sum (1,000s)		
													142	Sum (\$ Millions)		
													28	Per yr over 2011-2015 (\$M)		

ILLUSTRATIVE PROJECTS					TABLE 5
Lead Agency	Project Name	Extent	Description	Estimated cost	
CBel	Cranston Rd	Dewey Av to Prairie Av	Concrete Joint Repair	\$ 800,000	
CBel	Creek Rd	Shopiere Rd to Huebbe Pkwy	2" Overlay	\$ 87,000	
CBel	Lathers Rd Bridge	over I-43	Expansion project	\$ 4,500,000	
CBel	McKinley Ave	Co-Q to Burton St	Reconditioning	\$ 1,250,000	
CBel	McKinley Ave	Burton St to Shirland Av	Reconditioning	\$ 3,975,000	
CBel	Milwaukee Rd	White Av to East Ridge	Concrete Joint Repair	\$ 100,000	
CBel	Milwaukee Rd	East Ridge to Willowbrook	Concrete Joint Repair	\$ 100,000	
CBel	Milwaukee Rd	Willowbrook Rd to Lee Ln	Concrete Joint Repair	\$ 100,000	
CBel	Milwaukee Rd	Lee Ln to Cranston Rd	Concrete Joint Repair	\$ 100,000	
CBel	Milwaukee Rd	Cranston St to Ford St	Concrete Joint Repair	\$ 100,000	
CBel	Prairie Av	Cranston Av to Elmwood Av	Concrete pavement repair	\$ 400,000	
CBel	Prairie Av	Elmwood Av to Huebbe Pkwy	Concrete pavement repair	\$ 300,000	
IL	IL-2	Latham to Rockton	Expand to 4 lanes	\$ 20,000,000	
IL	Safety Projects	As determined by criteria	Assume 5% of amts programmed by IDOT for entire District (2011 to 2015) and continue as this rate to 2030.	\$ 2,574,563	
RCo	Co-G / Townline Rd Intersection	Intersection reconstruction & improvement (w/ Janesville MPA)	ROW, approaches, turn lanes & signalization	\$ 300,000	
RCo	Inman Pkwy	Prairie Ave to Shopiere Rd (w/ City of Beloit)	High priority expansion / construction project	\$ 7,200,000	
TBel	Bartells Drive	Huebbe Pkwy to Inman Pkwy	2" Mill & overlay	\$ 94,000	
TBel	Huebbe Pky	Bartells Dr to Prairie Av	2" Mill & overlay	\$ 141,000	
TTrtl	Hart Rd	Suburban Dr to Lathers Rd	2" Mill & overlay	\$ 174,000	
TTrtl	Hart Rd	Lathers Rd to Clinic Rd	2" Mill & overlay	\$ 121,000	
TTrtl	Huebbe Pkwy	Ehle Dr to Creek Rd	2" Mill & overlay	\$ 104,000	
WI	I-39 / 90	State Line to Townline Rd	Expand to 6 lanes	\$ 30,000,000	
WI	I-39/90 & I-43	Interchange	Reconstruction	\$ 25,000,000	
WI	Safety Projects	As determined by criteria	Assume WisDOT spends similar amount as IDOT.	\$ 2,574,563	
varies	B&P work area-wide	See Table 5a for abbreviated projects list and "SLATS 2010 B&P Plan", page 59-61 for more details	On-Street Facilities	\$ 2,057,270	
varies			Off-Street Paths	\$ 7,293,273	
varies			Intersection Improvements	\$ 291,108	
varies			Sidewalks & Pathways	\$ 516,879	
varies			Under/Overpasses & Others	\$ 509,000	
TTrtl	General Pavement & Facility Maintenance	As determined locally	As determined locally	\$ 1,999	
Sbel				\$ 2,399	
VRktn				\$ 4,629	
TRktn				\$ 5,787	
WCo				\$ 6,721	
IL				\$ 7,006	
RCo				\$ 11,735	
WI				\$ 14,012	
Cbel				\$ 18,391	
BTS	Operating Expenses	2016 to 2030	2016 to 2030	\$ 44,270,800	
BTS	Admin/Maint Facility	Strip/seal/repair concrete floor		\$ 70,000	
BTS	Admin/Maint Facility	Replace/rehab HVAC		\$ 70,000	
BTS	Vehicle replcmnts	35 ft Coaches	2016 to 2030	\$ 7,663,900	
BTS	Other maintence needs	2016 to 2030	2016 to 2030	\$ 283,300	
SMTD	Operating Expenses	2016 to 2030	2016 to 2030	\$ 9,064,400	
SMTD	Vehicle replcmnts	Paratransit Coaches	2016 to 2030	\$ 510,000	
SMTD	New vehicles	35 ft Coaches	# TBD	\$ -	
		All Projects	100.0%	\$ 172,767,734	
		Roadway Projects	56.5%	\$ 97,593,242	
		Bike & Pedestrian Projects	6.2%	\$ 10,667,530	
		Transit Projects	35.85%	\$ 61,932,400	

First Priority Bicycle and Pedestrian Facilities		Table 5a
Source: Stalene Area Bike and Pedestrian System Plan, 2010 Update Final, 12/31/2010, Pages 59-61.		
On-Street Facilities		
E Hart Rd		262,108
Inman Prky		tbd
W Hart Rd Option A*		5,946
Madison Rd		303,600
Murphy Woods Rd Option A*		7,084
Roscoe Av		2,530
S Beloit / Wheeler Av Connector		5,060
Shopiere Rd		204,930
W Colley Rd		1,260,952
W Rock River Route		5,060
Subtotal		\$ 2,057,270
Off-Street Paths		
Afton Rd Path		770,385
Big Hill Park Trail		416,185
Janesville/Beloit Regional Path		1,113,200
Park Av Option B Path*		726,110
S Beloit / Rock River Connector Path		446,460
Rockton Rd Path		549,010
Rockton Central Trail 1		469,315
Rockton Central Trail 2		398,475
Rockton Central Trail 3		398,475
Rockton Central Trail 4		566,720
S Beloit City Park Connector		177,100
Turtle Creek Path		863,363
Hart-to-Athletic Fields Path		398,475
Subtotal		\$ 7,293,273
Intersection Improvements		
Belvidere Rd & Applegate Rd		1,961
Cranston Rd & Shopiere Rd		1,898
Dorr Rd & Prairie Hill Rd		3,163
Door Rd & Rockton Rd		6,163
Gardner Av & IL-251		68,184
Gardner Av & Wheeler Av		4,428
Milwaukee Rd & Cranston Rd		68,690
Stone Bridge Trail & Rockton Rd Crossing		5,693
US-51 & RR crossing near Trutle Creek		130,928
Subtotal		\$ 291,108
Sidewalks & Pathways		
Burton St		132,066
Cranston Rd		95,634
Gardner Av		118,404
Inman Prky (US-51 to Prairie Rd)		170,775
Inman Prky (Prairie Rd to Creek Rd)		tbd
Subtotal		\$ 516,879
Under/Overpasses & Others		
Wheeler Bridge		134,000
Turtle Creek & Milwaukee Rd		300,000
Turtle Creek & Spring Brook		75,000
Roscoe Rd & Rock River		tbd
Yale Bridge		tbd
Subtotal		\$ 509,000
TOTAL		\$ 10,667,530

* A lower cost, but less effective option, is listed (see source).





All Annual Programmed Expenditures							Table 6		
	2007	2008	2009	2010	2011	2012	AVG	AVG	
Part A -Mode	\$ Thousands \$							\$ Millions \$	per Year
Roadway Projects	27,264	17,437	24,475	5,345	19,111	50,781	24,069	\$ 24.07	
Bridge Projects	43	541	438	553	7,821	-	1,566	\$ 1.57	
Railroad Project	-	700	-	-	-	-	117	\$ 0.12	
All Road Projects								\$ 25.75	
Mass Transit Projects (See Note 1)	2,892	2,409	2,519	2,520	2,856	3,323	2,753	\$ 2.75	
Bikeway & Pedestrian Projects	3,386	2,837	535	520	188	48	1,252	\$ 1.25	
Total	33,584	23,924	27,967	8,938	29,976	54,152	29,757	\$ 29.76	
Part B - Purpose									
Expansion Projects	16,603	3,666	10,536	1,620	7,063	48,368	14,643	\$ 14.64	
Preservation Projects	25,586	14,632	18,781	7,087	15,158	5,784	14,505	\$ 14.50	
Expansion & Preservation Projects	-	2,461	-	531	8,046	-	1,840	\$ 1.84	
Safety Projects	-	579	-	-	-	-	97	\$ 0.10	
Transportation System Management	-	2,737	-	-	-	-	456	\$ 0.46	
Total	42,189	24,075	29,317	9,238	30,267	54,152	31,540	\$ 31.54	
Part C - Phase									
Planning or Engineering	26,531	18,200	23,760	3,856	12,677	1,169	14,365	\$ 14.37	
ROW Acquisition	800	825	859	1,096	1,094	1,126	967	\$ 0.97	
Construction or Reconstruction	341	300	-	-	-	-	107	\$ 0.11	
Other	2,713	2,585	419	1,466	13,349	48,534	11,511	\$ 11.51	
Transit Operation & Maintenance	-	-	-	-	-	21	4	\$ 0.00	
Operation & Maintenance (Roads & facilities)	3,351	3,427	3,505	3,586	3,668	3,751	3,548	\$ 3.55	
Transit Capital (Vehs)	1,095	300	350	50	370	740	484	\$ 0.48	
Transit Operations	1,594	2,347	2,199	2,320	2,426	2,499	2,231	\$ 2.23	
Total	36,424	27,984	31,093	12,374	33,584	57,840	33,216	\$ 33.22	

Note 1: Costs of new BTS downtown transfer center not included to better forecast average costs per year.

Note 2: Totals in each part not equal because of minor coding discrepancies and aspects related to Note 1.

D:\Files from Cubs on 8_13_11\SLATS LRP Update FINANCIAL ASPECTS\2007-2012 Funding history by Purpose

Comparisons of 2006 Forecasts with Current 6-Yr Averages

Table 7

Part A		Avg 2007-2012 from TIPs		Forecast in 2006 Plan		Differences	
	\$ Millions \$ per Year	Source & Comments	\$ Millions \$ per Year	Source & Comments		Source & Comments	
1	All Road Projects	\$ 25.75	This does not include roadway O&M.	\$ 21.00	Chart 7-1, A	\$ 4.75	Ahead of forecasts due to major projects authorized in area, use of stimulus funding & other fortuitous funding situations.
2	Mass Transit Projects	\$ 2.75	Not including the new BTS downtown transfer center.	\$ 2.71	Chart 7-1, A	\$ 0.05	Startup of SMTD raised expenditures in this category. Future expenditures likely to be closer to Plan forecasts.
3	Bikeway & Pedestrian Projects	\$ 1.25		\$ 0.42	Chart 7-1, A	\$ 0.83	Ahead of schedule due to fortuitous funding situations.
4	Total	\$ 29.76		\$ 24.13		\$ 5.63	
5	Operation & Maintenance (Roads & facilities)	\$ 3.55	Low because many participants do not or do not fully report programmed expenditures in the category.	\$ 7.08	Charts 7-1, A & 6-25; included nearly all entities plus and inflation factor of 0.5-1% annually.	\$ (3.53)	Accurate assessment of O&M not possible until all agencies begin reporting expenditures and State agencies begin more thorough reporting of Level of Effort projects that are seldom itemized in the annual TIP or even reported at the end of the year in the progress reports.

Part B - Prospectus

Total Funded/Projects Since 2006	\$ 94,413,350	First four years on Table 6.	2007 thru 2010
Projects Programmed 2011-2015	\$ 141,559,100	Implementable as programmed.	See Table 4 of this Update & 2012 TIP.
Rates of Project Funding in the StateLine Area		Recent Rates (Per Year) \$ 29,756,892	Forecasted Rate in 2006 (Per Year) \$ 24,129,000
Projects Listed in Illustrative Projects Table	\$ 172,767,734	5.81	7.16
Funding Remaining after all Illustrative Projects are Implemented		9.19	7.84
	\$ 273,585,641	\$ 189,167,266	Higher rate will persist if Federal stimulus efforts continue; 2006 rate or lower will apply if efforts to cut Federal spending prevail.
			Years to implement (assuming all projects determined eligible).
			Years of funding that will remain after projects implemented.
			Amounts of funding potentially remaining available through 2030.

SLATS
State Line Area Transportation Study

**TRANSPORTATION SYSTEM
PERFORMANCE INDICATORS**

**AS PART OF THE
SLATS LONG-RANGE TRANSPORTATION PLAN UPDATE TO
2040**

Version dated: April 13, 2011

This document identifies System Performance Indicators useful for evaluating the areas transportation systems. This is an ongoing effort that will be periodically update as new and more relevant data becomes available.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following:

Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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**THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THIS
REPORT ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES**

Questions or comments pertaining to this document or any other SLATS activities
should be directed to the SLATS Coordinator at 608-364-6702

System Performance Indicators -- Chart List			
Chart #	Main Title	Secondary Title	
1a 1b 1c 1d 1e	Pavement Condition Ratings & Changes 2003 thru 2009	All SLATS Cities & Towns in Wisconsin City of Beloit Town of Beloit Town of Turtle Town of Rock	
2 3	Roadway Pavement Age at Year of Assessment (SLATS) Roadway Pavement Type at Year of Assessment (SLATS)	City of Beloit & Surrounding Wisconsin Towns only City of Beloit & Surrounding Wisconsin Towns only	
4 5 6	Charts to be added at later date	Bridge / Structure Ages Bridge / Structure Conditions	
7 8 9	Total Crashes Recorded Severity of Damage to Vehicles Involved in Crashes Special Vehicles, Persons, or Elements Involved in Crashes	in City of Beloit & Surrounding Wis Towns in City of Beloit & Surrounding Wis Towns in City of Beloit & Surrounding Wis Towns	
10a 10b	Cars & Utility Trucks Involved in Crashes Other Vehicle Types Involved in Crashes	in City of Beloit & Surrounding Wis Towns (including Bikes) in City of Beloit & Surrounding Wis Towns	
11a 11b	Injury Severity in Crashes Injury Severity by % of all Crashes	in City of Beloit & Surrounding Wis Towns in City of Beloit & Surrounding Wis Towns	
12 12a 12b 12c 12d 12e 12f	Crashes By Year, Month, & Alcohol Crashes by Year Alcohol Related Crashes by Year % Alcohol Related by Year Crashes by Month Alcohol Related Crashes by Month of Year % Alcohol Related by Month	All Crashes in City of Beloit & Surrounding Wis Towns	
13 13a 13b 13c 13d 13e 13f	Crashes By Day, Hour, & Alcohol Crashes by Day of Week Alcohol Related Crashes by Day of Week % Alcohol Related by Day of Week Crashes by Hour of Day Alcohol Related Crashes by Hour of Day % Alcohol Related by Hour	All Crashes in City of Beloit & Surrounding Wis Towns	
14	Crashes, Injuries, Alcohol, & Fatalities by Hour	City of Beloit & Surrounding Towns in Wis (5 Yrs of data)	
15 15a 15b 15c 15d 15e 15f	Crashes by Other Factors Lighting Condition Weather Condition Road Conditions Crash Severity Direction of Travel Road Alignment	City of Beloit & Surrounding Towns in Wis (5 Yrs of data)	
16 17	Crashes vs Citations Issued Crashes with Bikes or Pedestrians Involved	in City of Beloit & Surrounding Wis Towns City of Beloit & Surrounding Towns in Wisconsin	
18 19	Chart to be added at later date		
20	Beloit Transit System Performance Statistics		
21a 21b 21c 21d 21e 21f	BTS Fixed Route Service	Annual Passenger Miles Annual Vehicle Revenue Miles Annual Unlinked Passenger Trips Annual Vehicle Revenue Hours Operating Expense / Veh Revenue Mile Operating Expense / Veh Revenue Hour	
21g 21h 21i		Operating Expense / Passenger Mile Operating Expense / Unlinked Pass Trip Unlinked Pass Trips / Veh Rev Mile	
21j 21k 21l		Unlinked Pass Trips / Veh Rev Hour Average Fleet Age (Yrs) Active Vehicles	
22a 22b 22c 22d 22e 22f		BTS Demand Response Service	Annual Passenger Miles Annual Vehicle Revenue Miles Annual Unlinked Passenger Trips Annual Vehicle Revenue Hours Operating Expense / Veh Revenue Mile Operating Expense / Veh Revenue Hour
22g 22h 22i			Operating Expense / Passenger Mile Operating Expense / Unlinked Pass Trip Unlinked Pass Trips / Veh Rev Mile
22j 22k 22l			Unlinked Pass Trips / Veh Rev Hour Average Fleet Age (Yrs) Active Vehicles
23	BTS Sources of Operating Funds		
24	BTS Sources of Capital Funds		

Introduction

The purpose of this document is to provide and discuss Transportation **System Performance Indicators (SPIs)** for the area under the planning jurisdiction of the **StateLine Area Transportation Study (SLATS)**¹. This document will also serve as part of the required **5-Year Update of the Long-Range Transportation Plan for the StateLine Metropolitan Planning Area**.

System Performance Indicators (SPIs) are simply numerical statistics that (1) summarize the transportation facilities or services in the area, (2) describe how those services or facilities are changing over time, and (3) attempt to evaluate the effectiveness or efficiency of the services or facilities in serving the transportation needs of the community. The first two aspects involve relatively simple data gathering, reporting, and illustrating. The third aspect, however, is highly subjective due to complex economic, environmental, moral consideration, and political considerations that weigh on such evaluations.

The SPIs documented herein are intended to evaluate five aspects of the transportation system in the StateLine Area.

1. The physical condition of the roadway system.
2. Safety aspects of the transportation system.
3. The extent, effectiveness and efficiency of the area's public transit services.
4. The effects of transportation on the environment.
5. The extent and availability of transportation alternatives to motorized travel.

Because the Wisconsin-side of the SLATS Metropolitan Planning Area (MPA) provides slightly easier access to performance data, this first SPI report will focus on the Wisconsin-side. However, because of the homogenous nature of the communities within SLATS, both north and south of the State Line, we suspect that the data and conditions south of the State Line will not be dissimilar to the conditions on the Wisconsin-side. In addition, in 2012, SLATS Staff will make an effort to research similar statistics on the Illinois-side and better assess the situation and the assumption of homogeneity. As time permits, additional statistics will be gathered and analyzed throughout the MPA.

¹ The StateLine Area Transportation Study (SLATS) refers to both a planning entity and an ongoing, continual planning process. As an entity, SLATS is comprised a Policy Committee consisting of top officials from State and local governments, a Technical Committee consisting of representatives from Federal, State, and local governments and other transportation stakeholders, and a permanent full-time staff funded by a combination of Federal, State and local funds. The geographic jurisdiction of SLATS centers around the "Beloit IL-WI urbanized area," as defined by the US Census Bureau, but expanded by the SLATS officials to include the surrounding lands forecasted to become urbanized within the next five years (the Adjusted Urbanized Area or AUA) and further expanded to include the lands expected to become urbanized in the next 20-25 years (Metropolitan Planning Area or MPS). Entities like SLATS have been created in all densely populated urban areas across the country. They are referred to as Metropolitan Planning Organizations or MPOs. The SLATS MPO does transportation planning for all of the City of Beloit and all or most all of the Towns of Beloit and Turtle, the City of South Beloit, and the Village of Rockton and other parts of Winnebago County (IL), and the Townships of Rockton and Roscoe. The ongoing planning process includes the development and maintenance of a comprehensive long-range transportation plan. This document is updated every five years. The process also includes the annual development of a planning work program and a project-specific list of fundable transportation improvements both prepared in concurrence with a well-defined public involvement process. This document of Transportation Performance Indicators (TPIs) is a required part of the planning process and the Long-Range Transportation Plan (LRTP).

Note that the boundaries of the areas for which SPI statistics are available are not exactly coterminous with the boundaries of the SLATS MPA. For example, only a small part of the Town of Rock is within the SLATS MPA. These minor boundary incongruities are not considered significant enough to invalid the picture presented by the SPIs herein documented.

The System Performance Indicators derived for this report are presented in a lengthy series of graphs and charts following the brief technical explanations starting below.

Roadway Conditions

The Wisconsin Department of Transportation (WisDOT) maintains an extensive database documenting the extent and condition of the all public roads in the State: the Wisconsin Information System for Local Roads (WISLR). Access to this database via the WISLR website (<https://trust.dot.state.wi.us/wislr/>) is provided to local governments to assist in the transportation planning and decision-making process.

Among the many data fields in WISLR is data that rates roadways in accordance with the Pavement Surface Evaluation and Rating System (PASER). The PASER System rates roadway surface conditions from worst to best on a scale of 1 to 10. For our purposes we have condensed the scale from ten to five groups as follows:

- Rated 1-2. Failed or very poor condition. Need reconstruction and/or extensive base repair.
- Rated 3-4. Poor to fair condition. Need patching, major overlay and/or complete recycling.
- Rated 5-6. Fair to good condition. In need of sealcoat or non-structural overlay.
- Rated 7-8. Good to Very Good condition. Need routine crack filling and/or little work.
- Rated 9-10. Excellent condition. Like new or new. No serious maintenance needed.

Charts 1a thru 1e present the **pavement condition ratings** for the Wisconsin communities within or partially within the SLATS MPA. **Chart 1a** displays the data for all the communities combined. **Charts 1b thru 1e** display the data separately for the City of Beloit and the Towns of Beloit, Turtle, and Rock, respectively. Note that PASER data is generally compiled in the odd-numbered years. The data for our analysis was available for 2003, 2005, 2007, and 2009.

From **Chart 1a** it can be seen that roads in the best condition tended to hold steady in the 2003-2009 period; peaking slightly in 2005 but then slowly declining thru 2009. Roads in the worst condition tended to rise steadily from 2003 thru 2007 and then considerably more by 2009. In the middle, roads in fair to good condition (5-6) rose steadily in total mileage, from 80.3 mile in 2003 to 123.6 miles in 2009; their percentage of total road mileage evaluated also rose but not quite as dramatically. Roads in the good to very good category changed over time in a pattern similar to the best roads (up in 2005 but then declining) but slightly more emphatically.

All in all, it would appear that road conditions in the Wisconsin parts of SLATS are on a very slight downward trend. The above said, we caution that this interpretation should not be taken too seriously for the simple reason that the databases for the respective years are not entirely comparable. In 2003 there were 81 miles of roadway that were not rated. By 2005, unrated roadways had dropped roughly 11 and by there was less than a tenth of a mile of unrated roadway. In other words, nearly 25% of the roadways existing in 2003 were not rated while those roadways and more were rated in 2007 and 2009. However, as time goes on, the interpretation of trends in PASER data will become more reasonable because the annual rating will be more inclusive and comprehensive.

Roadway Age

Chart 2 was developed from WISLR data and illustrates **pavement age of roadways** in the City of Beloit and the Towns of Beloit, Turtle, and Rock. Pavement age is more comparable from year to year than PASER condition data because nearly all the roads in all the years were given a pavement age. Still it is difficult to draw any firm conclusions. Both the mileage of younger roads (0-9 years) and that of the older roads (40 years or more) appear to be increasing. Recent emphasis on the construction of new roads in developing areas accompanied by less concentration on the reconstruction of old existing roads is a likely explanation but this may be simply a cyclical condition that will soon reverse.

Roadway Surface Type

Although not really a performance indicator, the **roadway pavement type** was looked at because the data was readily available (see **Chart 3**). As expected the mileage of gravel or unimproved roads and cold mix asphalt is continuing to decline. The other types, especially concrete are more durable and the increase use of those materials is likely a good thing for the region.

Transportation Safety – Crash Data and Related Statistics

Crash data is available from the Wisconsin Traffic Operations and Safety Laboratory (TOPS) via the following website: (<http://transportal.cee.wisc.edu/services/crash-data/>). Data was provided for the City of Beloit and the Towns of Beloit, Turtle, and Rock for the Years 2006 thru 2010. A total of 8,671 crashes were reported in that 5-year time span with an average of 1,734, a low of 1,493 in 2009 and a high of 2,019 in 2007. These statistics are illustrated in **Chart 7**. There appears to be a slight downward trend in total crashes for the time span tabulated.

Chart 8 illustrates data on the **severity of damage to the vehicles** involved in crashes. The trends shown by this data are inconclusive: rising for all categories where damage occurred, falling though 2008 and 2009, but rising slightly again in 2010.

In **Chart 9** we illustrated the occurrence of crashes with **special types of vehicles, compared to pedestrian involvement and other situations** (construction zones and the involvement of alcohol. For discussion purposes we plotted linear trend lines on a second graph below the graph of actual data. The fluctuations over the year in crashes involving pedestrians and buses are so large and inconsistent that we suspect they are the result of chance. Crashes involving bike may be equally haphazard. Crashes involving motor cycles and alcohol appear to have a downward trend. On the other hand, crashes in construction zones appear to be rising sharply; but this may be because there may have been more construction in 2009 and 2010, the construction may have been on some very heavily traveled routes, or a number of other factors that may have created data anomalies for the years of crash increase (or chance). In short much more analysis would be needed to draw conclusive opinions on cause and effect.

Charts 10a and 10b illustrate the physical **types of vehicles involved** in crashes in more detail. **Chart 10a** illustrates the two primary types involved, cars and utility trucks. All other motorized vehicles combined are only a small part of the total crashes. Generally there is a downward trend in crashes but mostly in car crashes. **Chart 10b** looks at the other vehicle types in more detail and also includes non-motorized bikes. Linear trends are less discernable in these diverse types of vehicles.

Charts 11a and 11b illustrate **injury severity** in crashes. Again, the data is difficult to interpret. Linear trend lines show downward trends in the categories of “Possible Injuries,” “Non-incapacitation Injuries,” and “Person Killed”. However, injuries that are “Incapacitating” appear to be slightly on the rise. Overall, this is certainly a better picture than if all categories were shown to be on the rise. Hopefully, the downward trends are the result of new or increasing safety features in either automobiles or the improvements we have made in our transportation infrastructure but we can’t be certain.

The top tier of graphs in **Chart 12** single out all crashes, as compared to **alcohol-related crashes**, in the 5-year period. Alcohol-related crashes appear to be on the decline. Because the data was available alcohol-related crashes were plotted by the month of the year in which they occurred (total crashes in the 5-year period – bottom tier). More alcohol-related crashes occur in December and January than in any of the other months. However as a percentage of the total monthly crashes, more alcohol crashes occur in the month of April and August.

Chart 13 displays alcohol-related crashes by the day of the week and by the hour of the day compared to total crashes by those units. Friday is by far the highest day for total crashes. Saturday and Sunday have the highest numbers of alcohol-related crashes (early morning Saturday, late night Saturday, and early morning Sunday).

Chart 14 takes another look at **crashes by the hour of the day** compared to crashes involving injuries, alcohol, and fatalities. Between 1 to 5 AM, those hours have, as expected, the smallest numbers of total crashes, but the very high percentages of crashes with injuries and alcohol involved.

Again, because the data was readily available we took a quick look at some other aspects. This information is illustrated in **Chart 15**.

Because the data was available, we tabulated the total number of **traffic citations** issued and compared those annual numbers to the total crashes recorded (see **Chart 16**). As expected, citations closely parallel total crashes. Interestingly, however, the number of citations was slightly and consistently lower than the number of annual crashes in the year 2006 thru 2009. In 2010, citations exceeded the number of crashes indicating that when two or more vehicles were involved, more often both vehicles were cited.

Although crashes that involved **pedestrian or bicycles** were miniscule when compared to total crashes, **Chart 17** illustrates the numbers of these crashes. The trend in both appeared to be on the decline until 2010 but the numbers are so small that it is hard to say that there is any significant trend change.

Public Transit Performance

Public transit performance is document in an extensive database (the National Transit Database) compiled annually by the Federal Transit Administration (FTA) and located at: (www.ntdprogram.gov/).

Definitions Pertinent to Transit Performance Indicators
<u>Active Vehicles.</u> The vehicles available to operate in revenue service, including: spares and vehicles temporarily out of service for routine maintenance and minor repairs.
<u>Actual Vehicle Hours.</u> The hours that vehicles travel while in revenue service plus deadhead hours. Actual vehicle hours exclude: hours for charter service, school bus service, operator training, and vehicle maintenance testing.
<u>Actual Vehicle Miles.</u> The miles that vehicles travel while in revenue service (actual vehicle revenue miles (VRM)) plus deadhead miles. Actual vehicle miles exclude: miles for charter service, school bus service, operator training, and vehicle maintenance testing.
<u>Actual Vehicle Revenue Hours (VRH).</u> The hours that vehicles travel while in revenue service. Vehicle revenue hours (VRH) include layover / recovery time but exclude: deadhead, operator training, maintenance testing, as well as school bus and charter services.
<u>Actual Vehicle Revenue Miles (VRM).</u> The miles that vehicles travel while in revenue service. Vehicle revenue miles (VRM) include layover / recovery time but exclude: deadhead, operator training and maintenance testing, as well as school bus and charter services.
<u>Complementary Paratransit Services.</u> Transportation service required by the Americans with Disabilities Act (ADA) for individuals with disabilities who are unable to use fixed route transportation systems. This service must be comparable to the level of service provided to individuals without disabilities who use the fixed route system and meet the requirements specified in Sections 37.123-137.133 of Transportation Services for Individuals with Disabilities (Part 37), Code of Federal Regulations, Title 49, Volume 1. The complementary services must be origin-to-destination service (demand response (DR)) or on-call demand response (DR) service to an accessible fixed route where such service enables the individual to use the fixed route bus (MB) system for his or her trip.
<u>Deadhead (Miles and Hours).</u> The miles and hours that a vehicle travels when out of revenue service. Deadhead includes: leaving or returning to the garage or yard facility, changing routes, times when there is no expectation of carrying revenue passengers. However, deadhead does not include: charter service, school bus service, operator training, and maintenance training.
<u>Demand Response (DR).</u> A transit mode comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response (DR) operation is characterized by the following:
a) The vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need, and
b) Typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. The following types of operations fall under the above definitions provided they are not on a scheduled fixed route basis:
<ul style="list-style-type: none"> • Many origins - many destinations • Many origins - one destination • One origin - many destinations, and • One origin - one destination.
<u>Demand Response Service.</u> Shared use transit service operating in response to calls from passengers or their agents to the transit operator, who schedules a vehicle to pick up the passengers to transport them to their destinations.

Fixed Route Services. Services provided on a repetitive, fixed schedule basis along a specific route with vehicles stopping to pickup and deliver passengers to specific locations; each fixed route trip serves the same origins and destinations, such as rail and bus (MB); unlike demand responsive (DR) and vanpool (VP) services.

Flexible Funding Programs. Federal Highway Administration (FHWA) programs that allow the transfer of funds to the FTA Urbanized Area Formula Program (UAF) to be used for transit projects including the:

- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- National Highway System (NHS).

Operating Assistance. Financial funding to help cover the operating costs of providing transit services. Operating costs are classified by function or activity and the goods and services purchased. The basic functions and object classes are detailed in the Operating Expenses form (F-30) and are defined in Section 5.2 and 6.2 of the Uniform System of Accounts (USOA).

Operating Expenses (OE). The expenses associated with the operation of the transit agency, and classified by function or activity, and the goods and services purchased. The basic functions and object classes are defined in Section 5.2 and 6.2 of the Uniform System of Accounts (USOA). These are consumable items with a useful life of less than one year or an acquisition cost which equals the lesser of: the capitalization level established by the government unit for financial statement purposes, or \$5,000.

Passenger. An individual on board, boarding, or alighting from a revenue transit vehicle. Excludes operators, transit employees and contractors.

Passenger Car. A unit of rolling rail equipment that provides transportation and seating and standing room for the general public. It includes self-propelled cars.

Passenger Car Hour. The hours that passenger cars are scheduled to or actually travel while in revenue service (actual passenger car revenue hours) plus deadhead hours. Actual passenger car hours include layover / recovery time but exclude: hours for charter services, operator training, and vehicle maintenance testing.

Passenger Car Miles. The hours that passenger cars are scheduled to or actually travel while in revenue service.

Passenger Car Revenue Hours. The hours that passenger cars are scheduled to or actually travel while in revenue service. Passenger car revenue hours include layover / recovery time, but exclude: deadhead, operator training, charter services, and vehicle maintenance tests.

Passenger Car Revenue Miles. The miles that passenger cars are scheduled to or actually travel while in revenue service. Passenger car revenue miles exclude: deadhead, operator training, vehicle maintenance tests, and charter services.

Passenger Cars in Operation. The maximum number of passenger cars actually operated to provide service on an average weekday, average Saturday and average Sunday.

Unlinked Passenger Trips (UPT). The number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Source: <http://www.ntdprogram.gov/ntdprogram/Glossary.htm#F>

Transit definitions.xls (not linked)

Data from the National Transit Database was extracted analyzed. This information is given numerically in **Chart 20 and illustrated in Charts 21 a thru L, Charts 22 a thru L, and Charts 23 and 24**. The series in Chart 16 focuses on the fixed-route services of the Beloit Transit System. The series in Chart 17 focus on the demand-response services provided by the Beloit Transit System via a contractual arrangement with Rock County. The following are brief comment on these Charts and sub-charts.

Fixed-Route Service by BTS

1. **Chart 21a** shows that Passenger Miles, the hours that BTS buses are scheduled to travel while in revenue service (i.e., service where they are serving fare paying riders) appears to be increasing in a general linear trend between 2002 and 2009. This statistic peaked in 2008, and then dropped slightly in 2009.
2. **Chart 21b** shows that Vehicle Revenue miles, the miles that buses travel while serving fare-paying passengers, followed a similar trend as the previous statistic.
3. **Chart 21c** shows that Unlinked Passenger Trips, the number of people boarding BTS fixed-route buses has been increasing quite steadily from slightly more that 260K trips in 2002 to over 310K trips in 2009. There were drops in 2005 and 2007, but all other years show increases.
4. **Chart 21d** shows that Vehicle Revenue Hours increase t a peak in 2005 and since, have held steady.
5. Although the previous charts indicated better service to transit patrons, **Chart 21e** shows that this has not been without increases in operating costs. Operating cost per Vehicle Revenue Mile increased steadily from 2002 (slightly over \$4.00) thru 2008 (roughly \$5.50). But because these cost were not adjusted for inflation, these increase are less significant than they may seem. And, the statistic actually declined in 2009.
6. **Chart 21f**, Operating Expense / Vehicle Revenue Hour is similar to Chart 21e.
7. **Charts 21g and 21h** appear to show slight decreases in cost effectiveness when looking at the linear trend lines, but in the more recent years those statistics have shown declines, indicating more cost effective service.
8. **Charts 21i and 21j**, the illustration of Unlinked Passenger Trips per Vehicle Revenue Mile and Vehicle Revenue Hour, good estimators of service effectiveness show flat linear trends. This indicates steady effective service. As the miles and hours traveled by of BTS have increased, the number of riders have increase proportionately.

Demand-Response Service by BTS

1. **Chart 22a** shows that Passenger Miles of BTS Demand-Response service has increased substantially between 2002 and 2009 -- from roughly 2000 miles to nearly 16,000 miles.
2. Similarly, **Chart 22 b** shows a dramatic increase in Vehicle Revenue Miles.
3. **Chart 22c**, however, shows that Passenger Trips peaked in 2008 but declined in the following years. It appears that slightly fewer passengers were riding but those passengers were traveling slightly farther. The indications are similar with Chart 22d; a peak in 2008, then a decline, but another rise in 2009.
4. All of the other **Chart 22** sub-charts show encouraging trends – the Operating Expense declines or hold relatively steady compared to miles traveled, hours traveled, passengers miles, passenger trips, revenue miles, revenue hours, and most important trips per mile and trips per hour (**Charts 22i and j**).

The Transit Fleets

Chart 21k shows the average fleet age of BTS fixed-route buses. The Chart shows a peak fleet age of slightly over 10 years in 2005 and a low of slightly over 4 years in 2007. Although communities in arid climate zones can nurse many more years out of heavy-duty transit vehicles, communities like Beloit,

with harsh winters and heavily salted roads, are hard pressed to sustain vehicles much beyond 10 years. Statistics for vehicle age of the demand-response vehicles were lacking beyond 2004. Note, the smaller, lighter-weight demand-response vehicles are much less durable than the fixed-route buses.

Fleet Sizes

Chart 21L shows that the BTS fixed-route fleet has remained steady in the 8-year time period. BTS has made more intensive and effective use of their equipment resources. On the demand-response side, **Chart 22L**, the number of vehicles required to provide the service has increase from two vehicles in 2002 to seven vehicles in 2009. Given the other indicators or increase in service in the demand-response area, this is not surprising. The encouraging thing is that even though more vehicles are needed, the number of trips per mile and hour are decreasing. This means that the vehicles are being used more effectively.

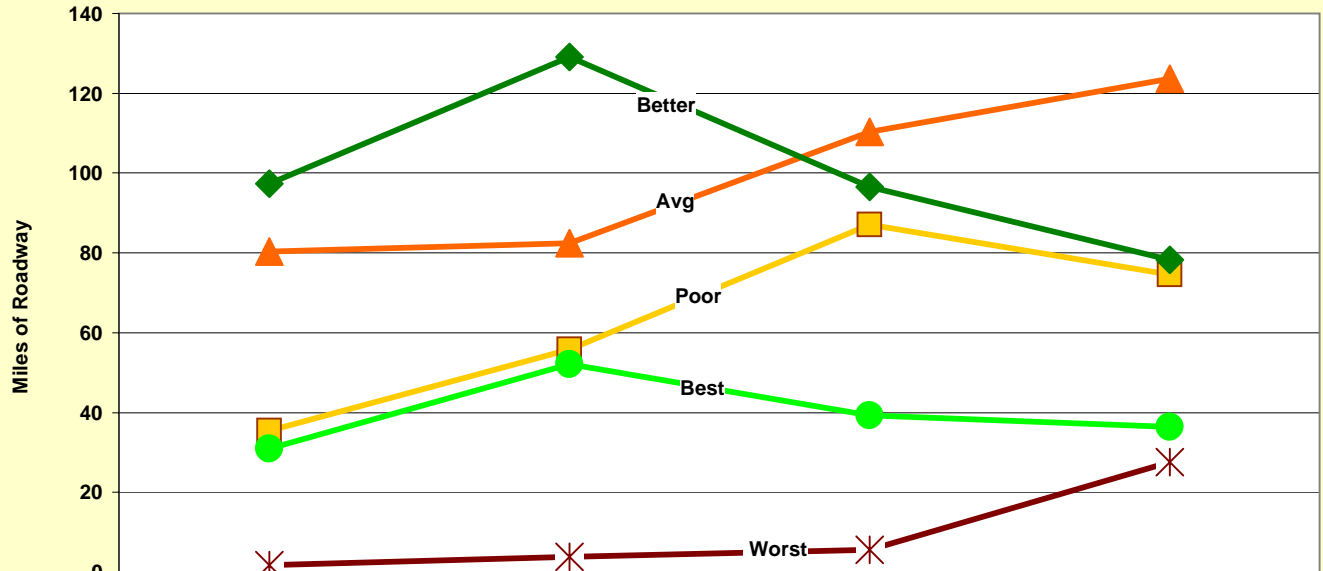
Transit Operation & Funding

Charts 23 and 24 show a high degree of cooperation between the various agencies funding public transit in the Beloit area. Public transit expenses cannot be covered by farebox revenues alone. Fares alone can cover on an eighth of the total cost of operating public transit without pricing the service out of the reach of the persons who need the service the most. Public (general taxpayer) support is needed and this is provided through a combination of Federal, State and local revenues / grants to BTS.

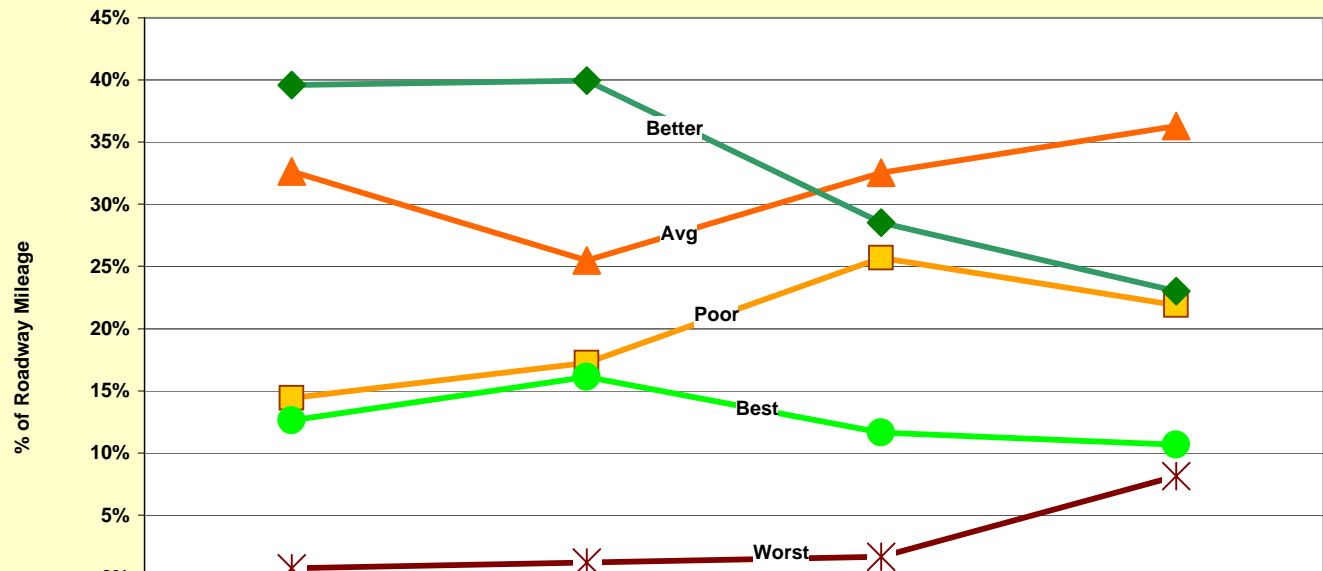
Future Performance Indicator Efforts

Current conflicting work program time commitments prohibit more detailed performance indicator development and analysis. This work will be resumed in 2012 and will concentrate on the development of similar indicators and analysis on the Illinois-side of the SLATS MPA. Bridge age and condition data will also be gathered for both sides of the MPA.

CHART 1a - Pavement Condition Ratings & Changes 2003 thru 2009
All SLATS Cities & Towns in Wisconsin

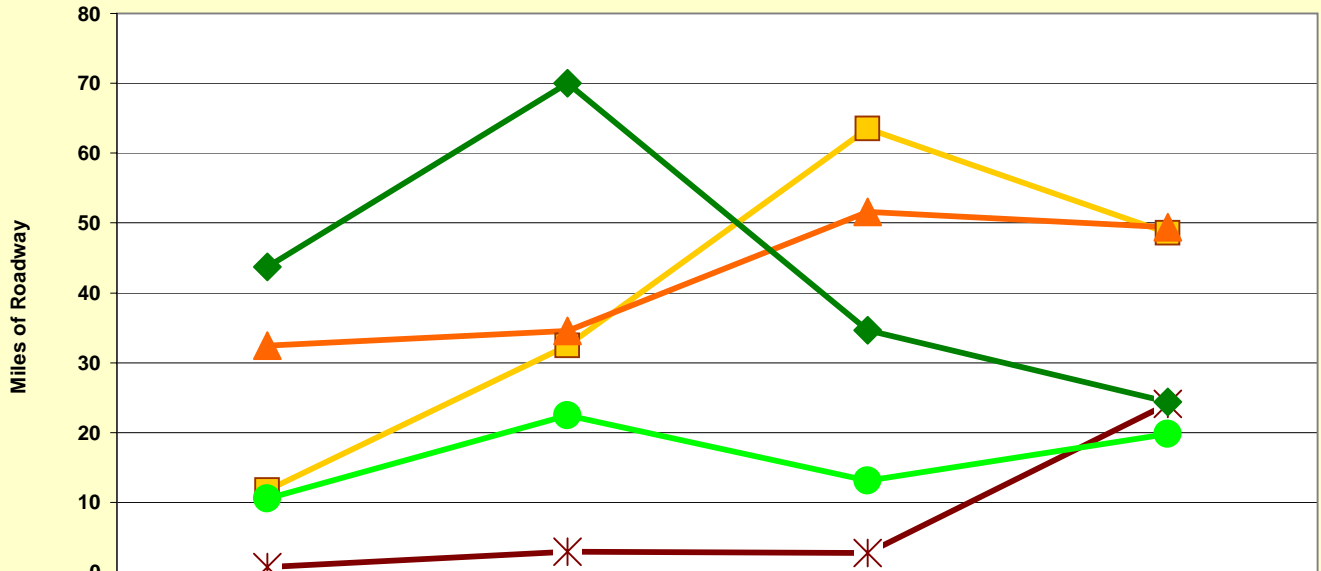


	2003	2005	2007	2009
1-2 Worst	1.8	3.8	5.5	27.6
3-4 Poor	35.5	55.7	87.1	74.5
5-6 Avg	80.3	82.5	110.3	123.6
7-8 Better	97.4	129.1	96.6	78.3
9-10 Best	31.0	52.1	39.4	36.4

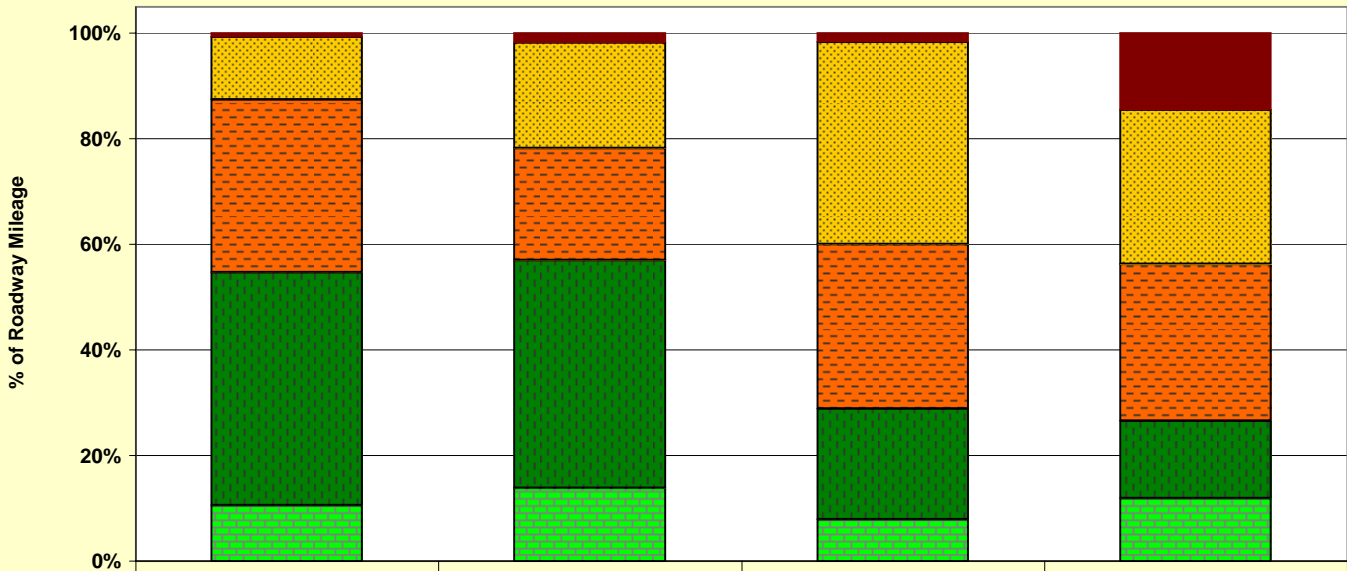


	2003	2005	2007	2009
1-2 Worst	0.7%	1.2%	1.6%	8.1%
3-4 Poor	14.4%	17.2%	25.7%	21.9%
5-6 Avg	32.6%	25.5%	32.5%	36.3%
7-8 Better	39.6%	39.9%	28.5%	23.0%
9-10 Best	12.6%	16.1%	11.6%	10.7%

CHART 1b - Pavement Condition Ratings & Changes 2003 thru 2009
CITY of BELOIT

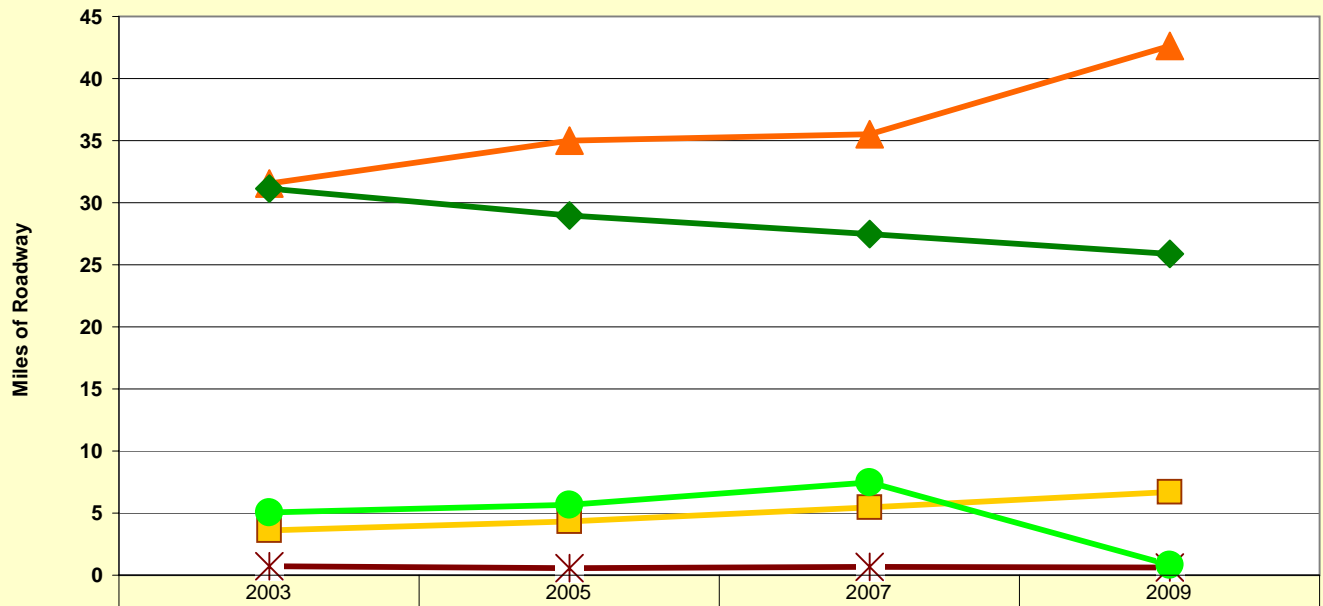


	2003	2005	2007	2009
1-2 Worst	0.7	3.0	2.8	24.1
3-4	11.8	32.4	63.5	48.6
5-6	32.4	34.6	51.6	49.4
7-8	43.8	70.1	34.6	24.4
9-10 Best	10.5	22.5	13.1	19.8

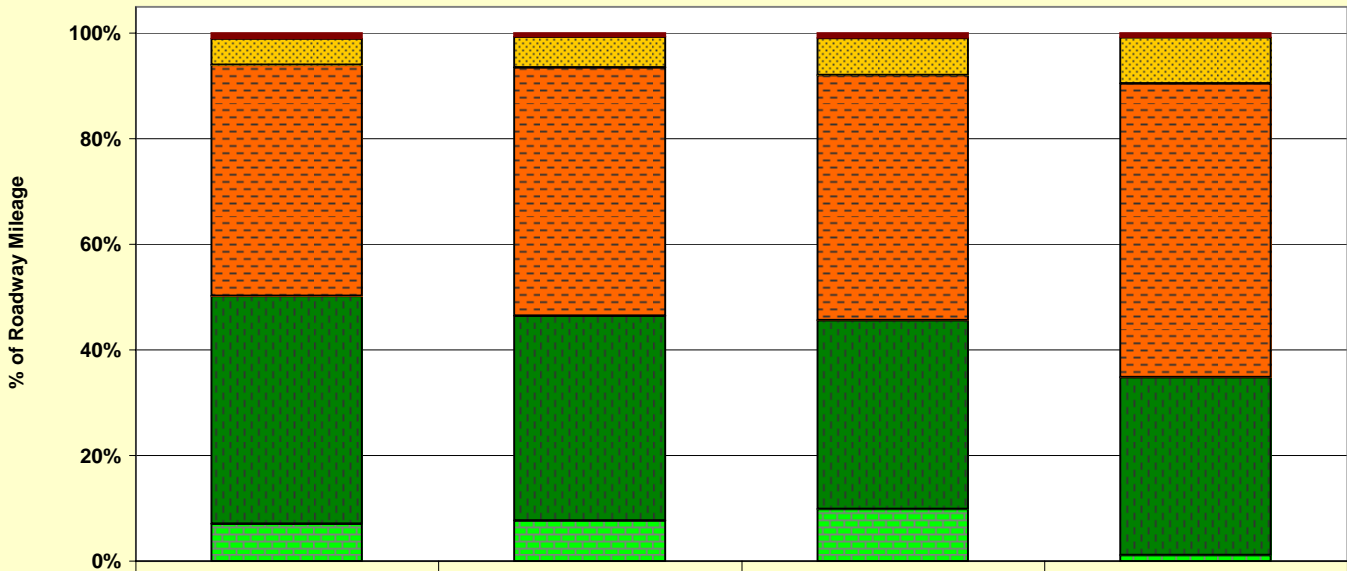


	2003	2005	2007	2009
1-2 Worst	1%	2%	2%	15%
3-4	12%	20%	38%	29%
5-6	33%	21%	31%	30%
7-8	44%	43%	21%	15%
9-10 Best	11%	14%	8%	12%

CHART 1c - Pavement Condition Ratings & Changes 2003 thru 2009
TOWN of BELOIT

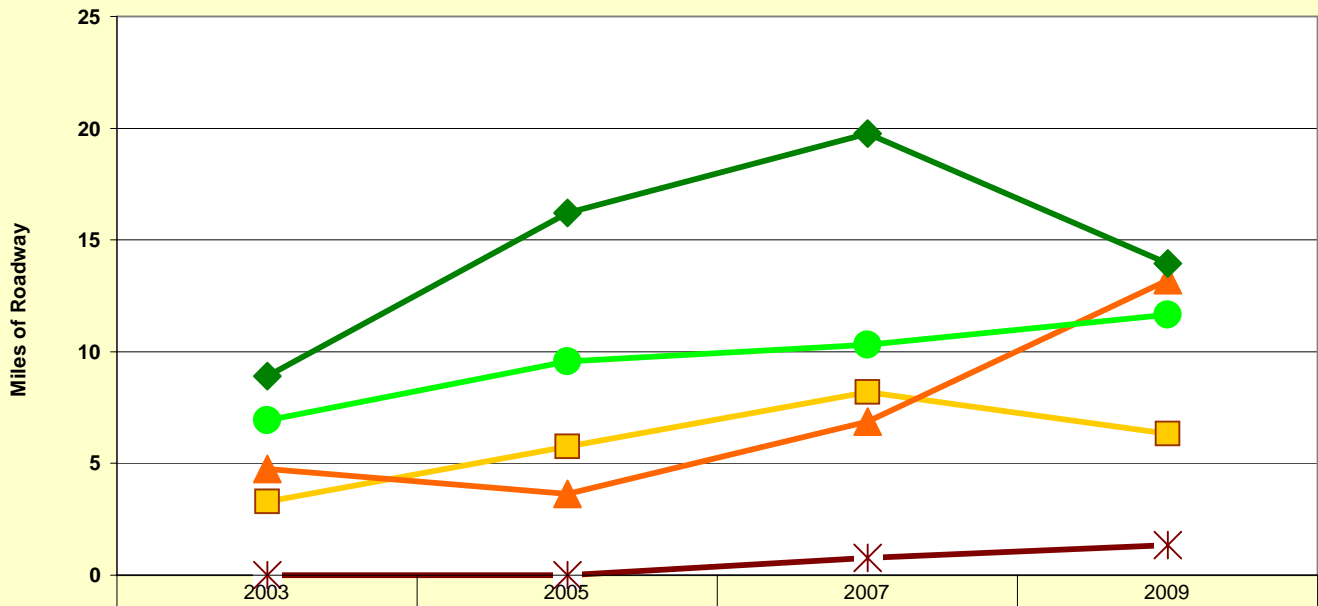


	2003	2005	2007	2009
1-2 Worst	0.7	0.6	0.7	0.6
3-4	3.6	4.3	5.4	6.7
5-6	31.6	35.0	35.5	42.6
7-8	31.2	29.0	27.5	25.9
9-10 Best	5.1	5.7	7.5	0.8

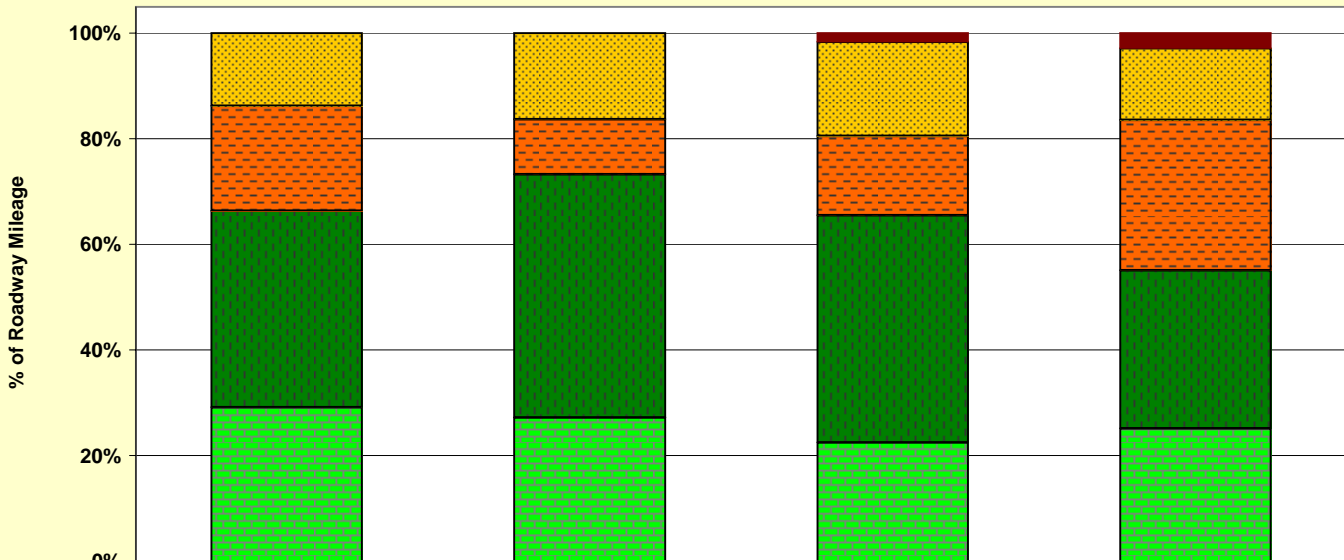


	2003	2005	2007	2009
1-2 Worst	1%	1%	1%	1%
3-4	5%	6%	7%	9%
5-6	44%	47%	46%	56%
7-8	43%	39%	36%	34%
9-10 Best	7%	8%	10%	1%

CHART 1d - Pavement Condition Ratings & Changes 2003 thru 2009
TOWN of TURTLE

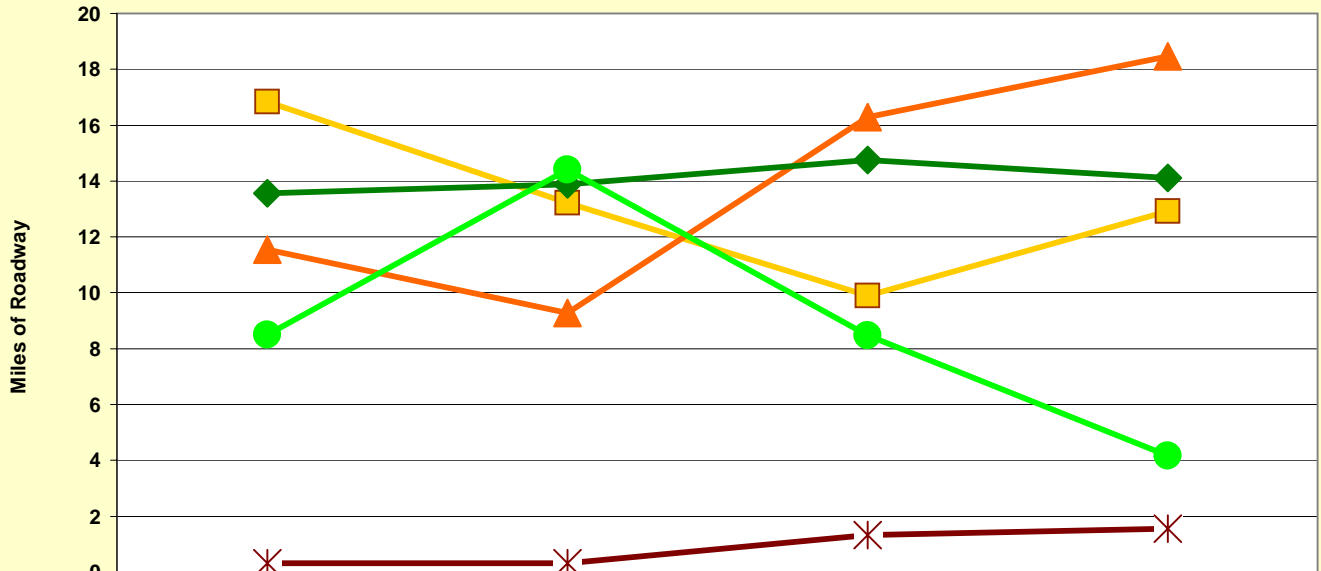


✕ 1-2 Worst	0.0	0.0	0.8	1.3
□ 3-4	3.3	5.8	8.2	6.3
▲ 5-6	4.7	3.6	6.9	13.2
◆ 7-8	8.9	16.2	19.8	13.9
● 9-10 Best	6.9	9.6	10.3	11.6

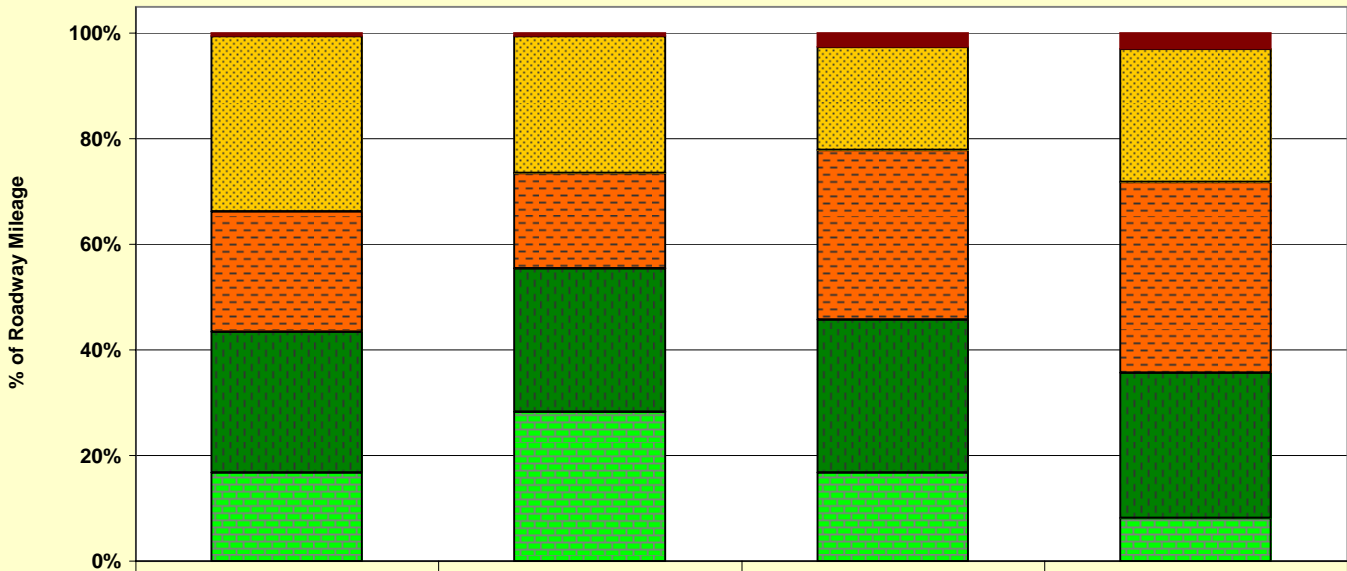


■ 1-2 Worst	0%	0%	2%	3%
▨ 3-4	14%	16%	18%	14%
▤ 5-6	20%	10%	15%	28%
■ 7-8	37%	46%	43%	30%
▨ 9-10 Best	29%	27%	22%	25%

CHART 1e - Pavement Condition Ratings & Changes 2003 thru 2009
TOWN of ROCK



	2003	2005	2007	2009
1-2 Worst	0.3	0.3	1.3	1.6
3-4	16.8	13.2	9.9	12.9
5-6	11.5	9.3	16.3	18.5
7-8	13.6	13.9	14.7	14.1
9-10 Best	8.5	14.4	8.5	4.2



	2003	2005	2007	2009
1-2 Worst	1%	1%	3%	3%
3-4	33%	26%	20%	25%
5-6	23%	18%	32%	36%
7-8	27%	27%	29%	28%
9-10 Best	17%	28%	17%	8%

CHART 2 - Roadway Pavement Age at Year of Assesment (SLATS)
City of Beloit & Surrounding Wisconsin Towns only

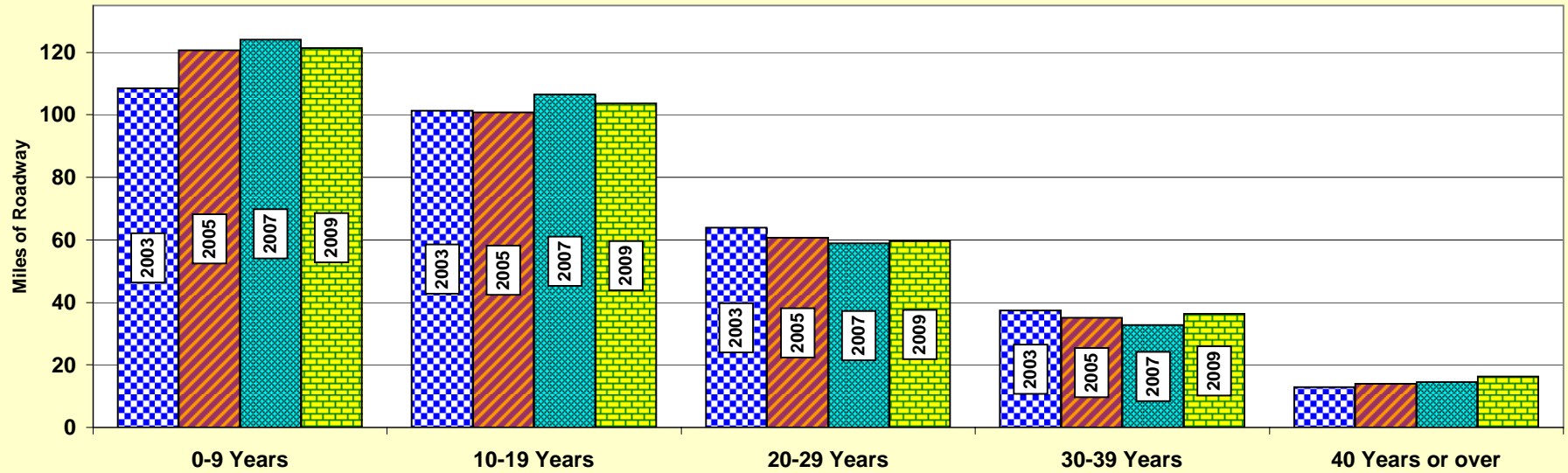


CHART 3 - Roadway Pavement Type at Year of Assesment (SLATS)
City of Beloit & Surrounding Wisconsin Towns only

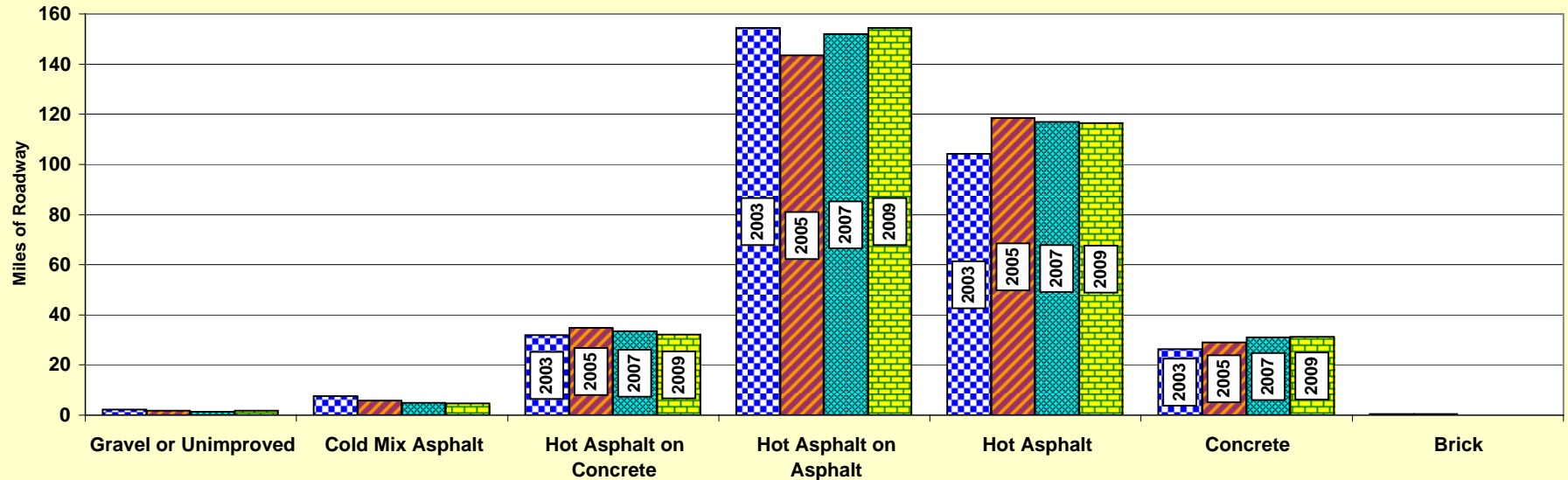


CHART 7 - Total Crashes Recorded
in City of Beloit & Surrounding Wis Towns

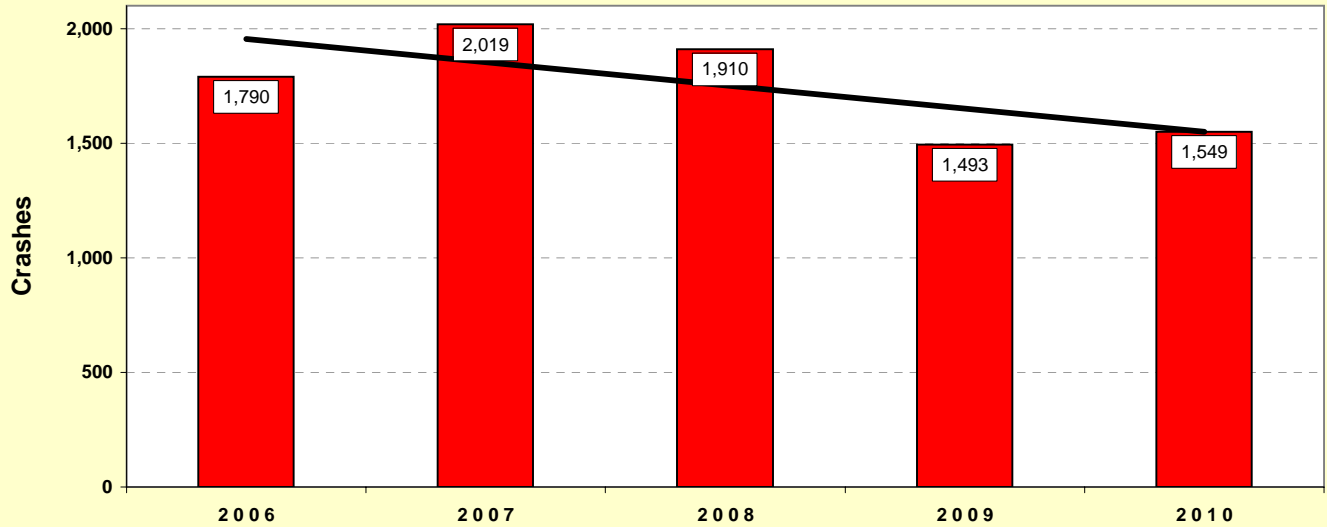
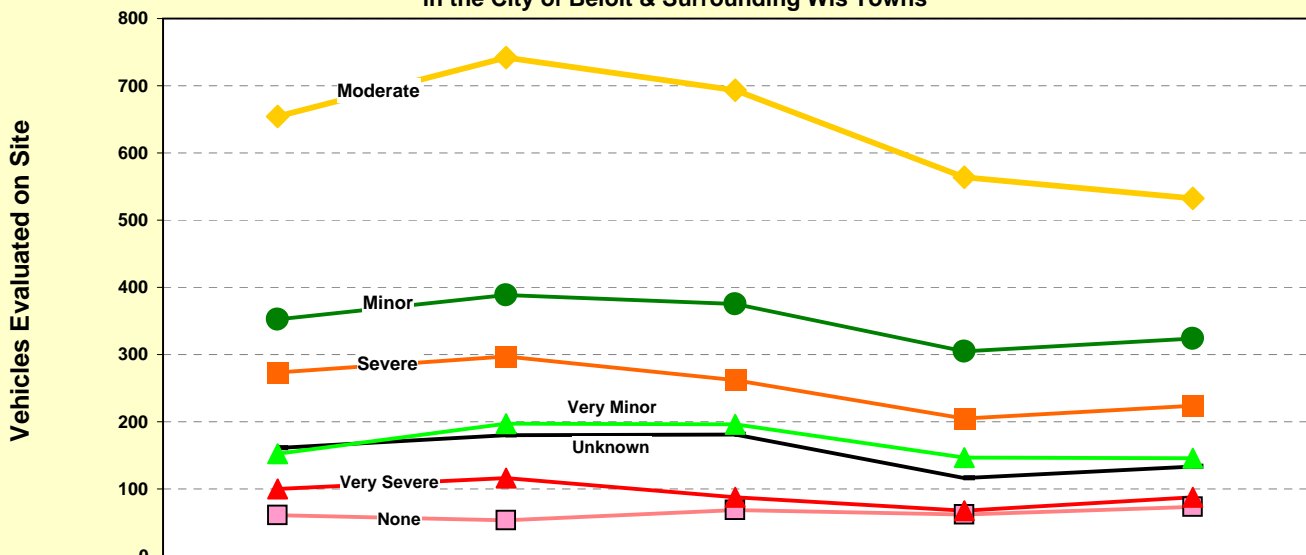
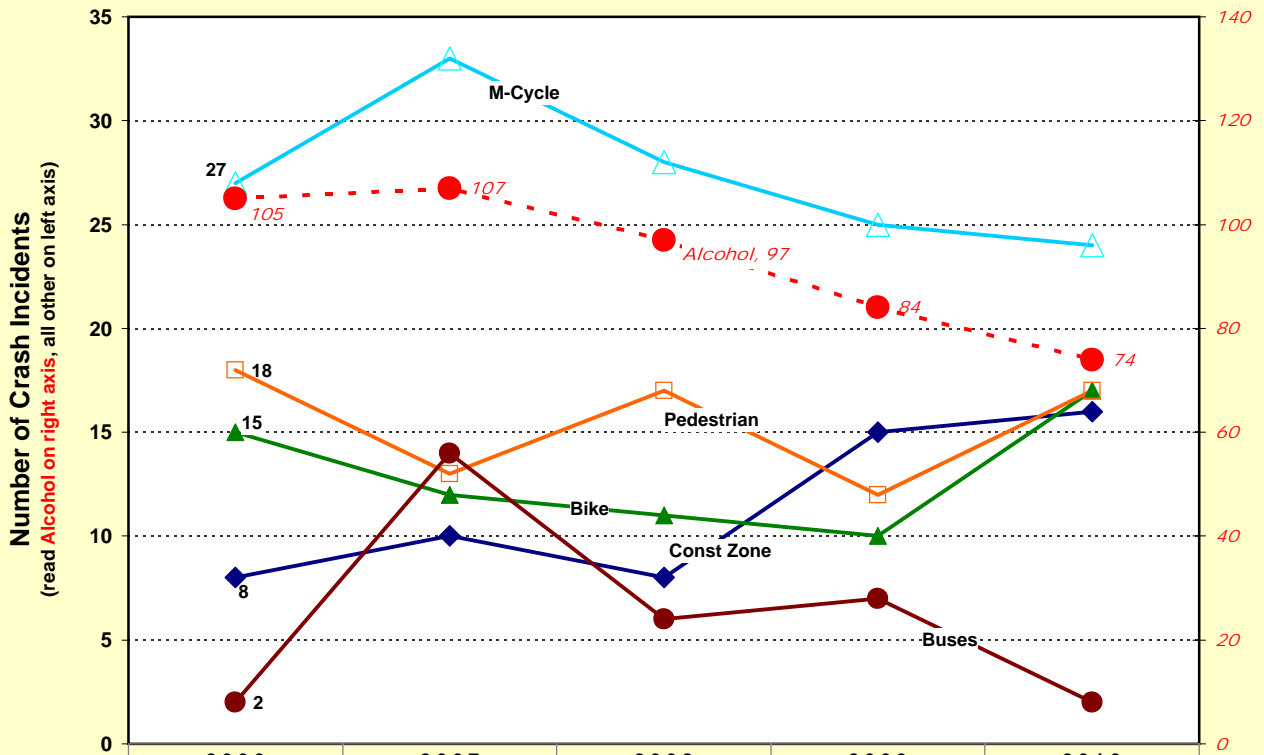


CHART 8 - Severity of Damage to Vehicles Involved in Crashes
in the City of Beloit & Surrounding Wis Towns



	2006	2007	2008	2009	2010
Unknown	161	180	181	116	133
None	61	53	69	62	73
Very Minor	152	197	196	147	146
Minor	352	389	375	305	324
Moderate	654	742	693	564	532
Severe	273	297	262	205	224
Very Severe	100	116	88	68	88

CHART 9 - Special Vehicles, Persons, or Elements Involved in Crashes
in the City of Beloit & Surrounding Wis Towns



◆ Const Zone	8	10	8	15	16
▲ Bike	15	12	11	10	17
▲ M-Cycle	27	33	28	25	24
□ Pedestrian	18	13	17	12	17
● Buses	2	14	6	7	2
- - Alcohol	105	107	97	84	74

Linear Trendlines

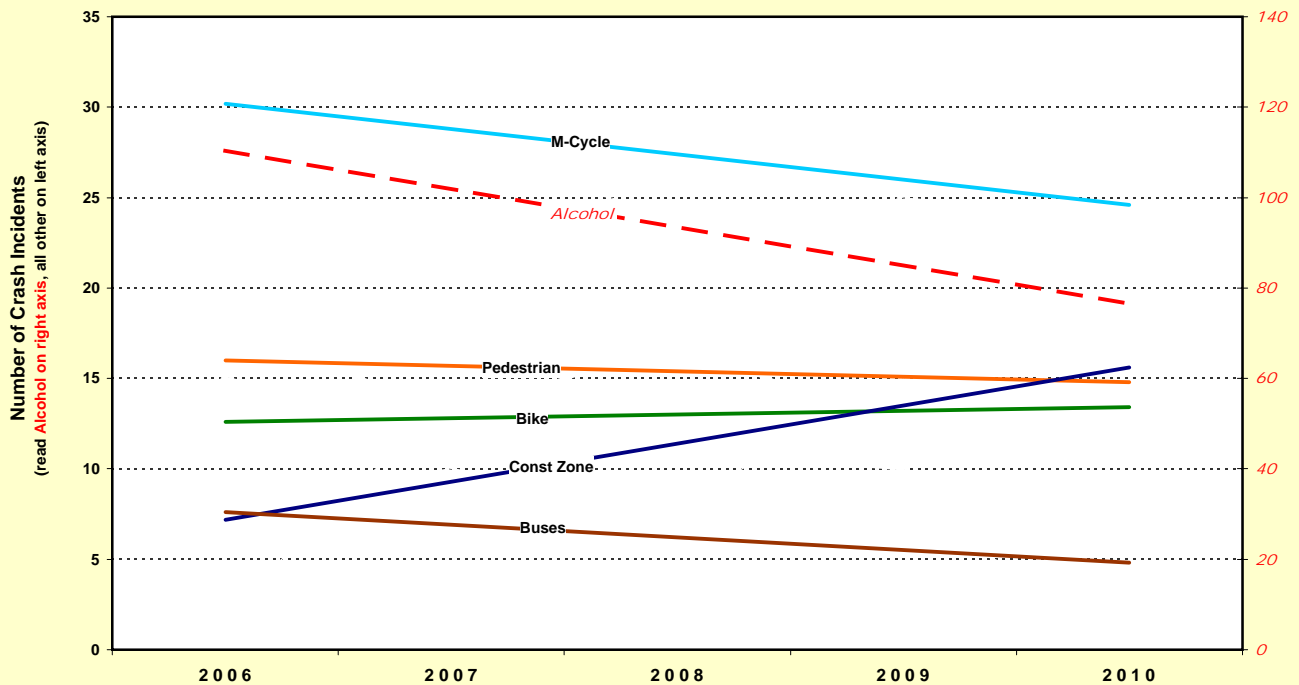


CHART 10a - Cars & Utility Trucks Involved in Crashes
in City of Beloit & Surrounding Wis Towns

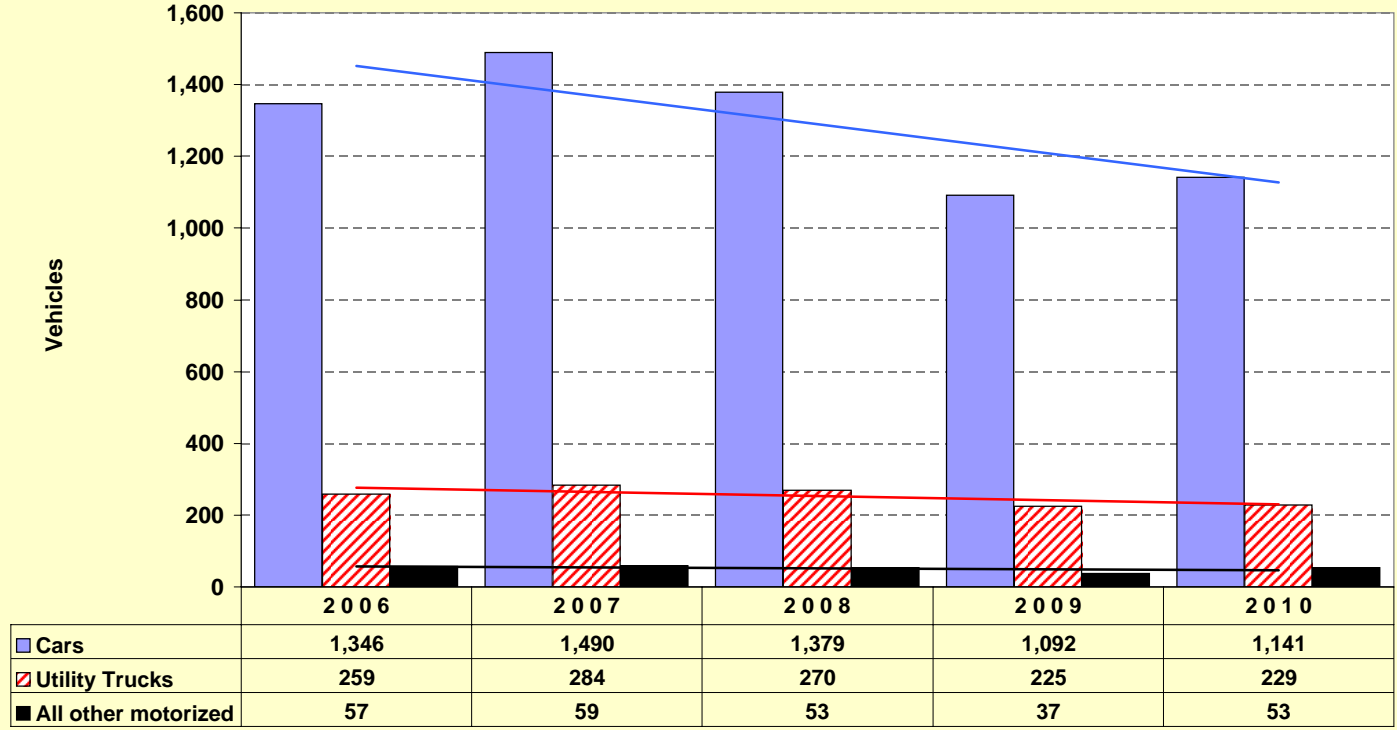


CHART 10b - Other Vehicle Types Involved in Crashes
(including Bikes) in the City of Beloit & Surrounding Wis Towns

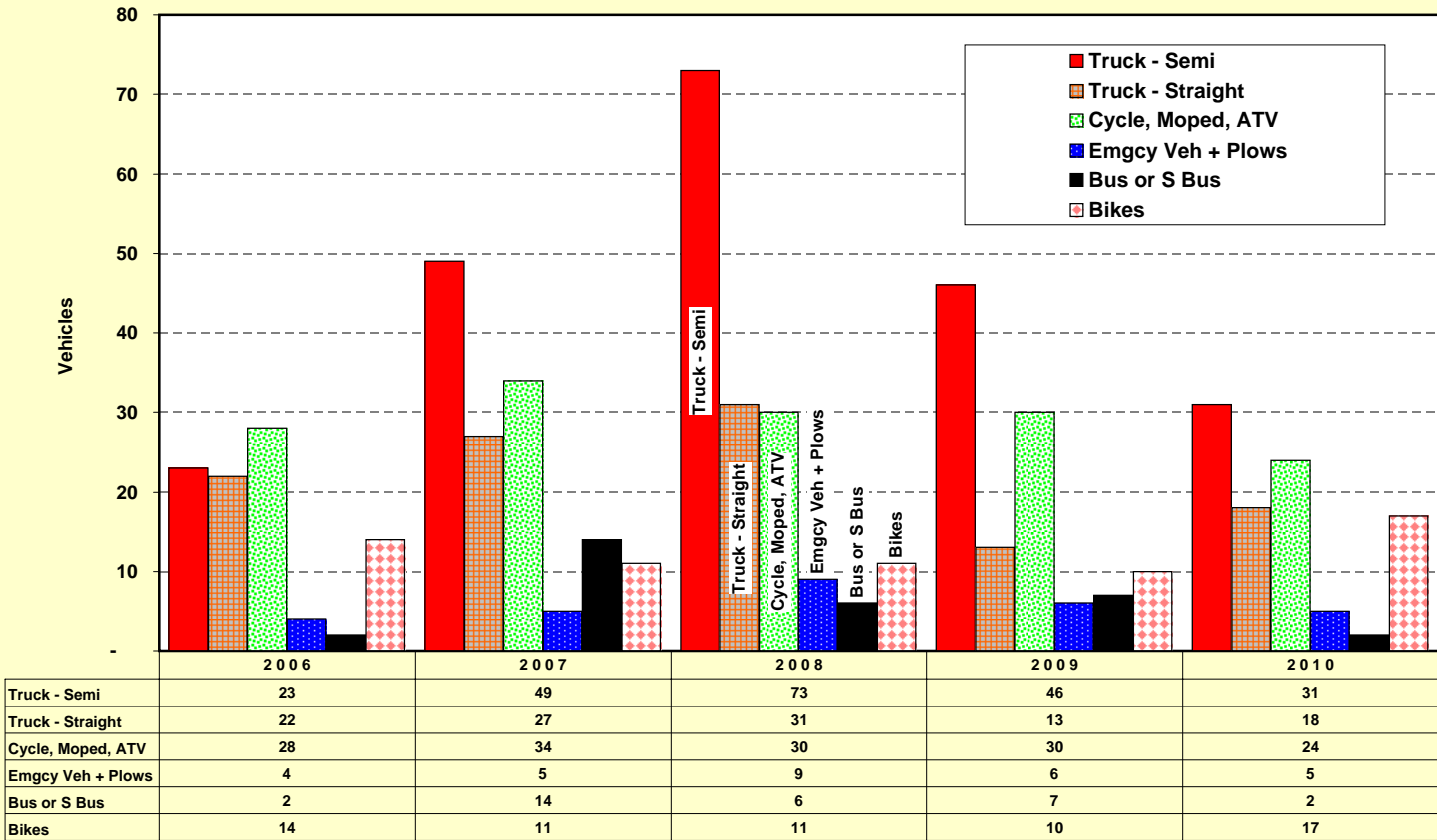
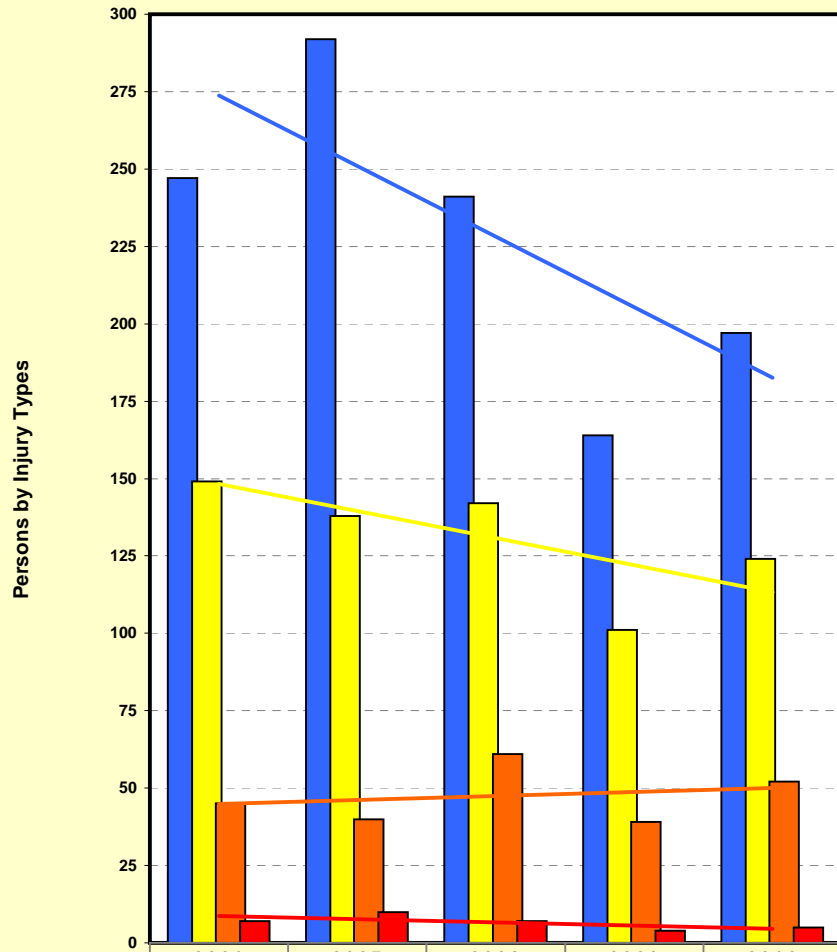
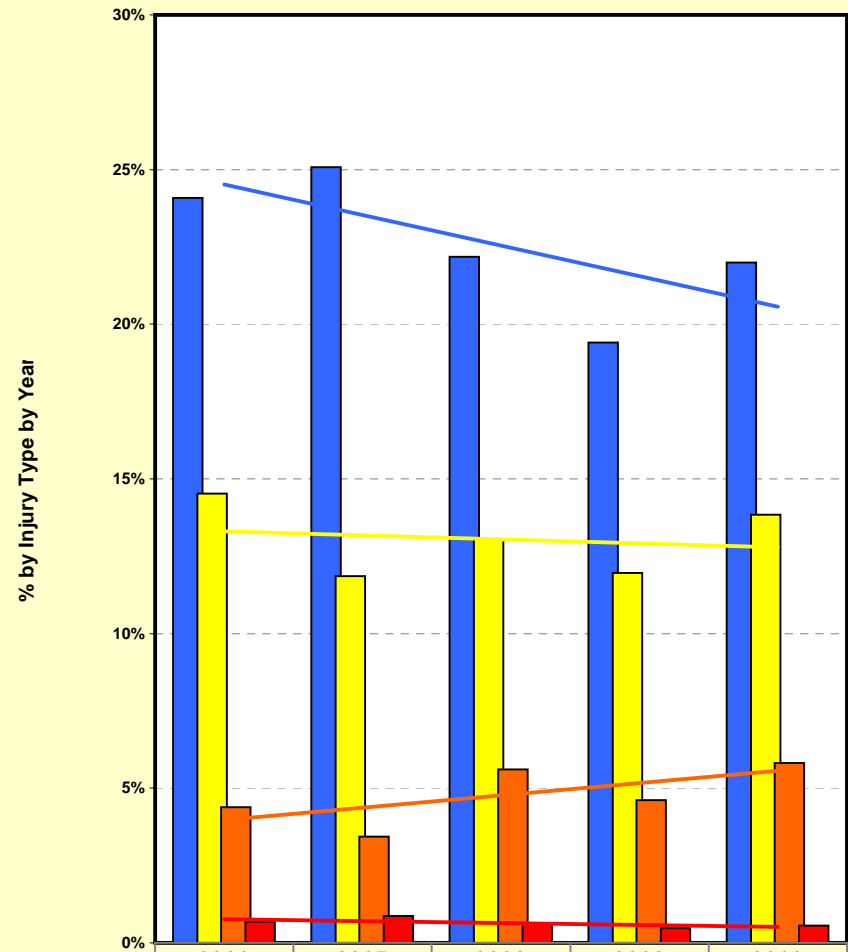


CHART 11a - Injury Severity in Crashes
in the City of Beloit & Surrounding Wis Towns



■ Possible ?	247	292	241	164	197
■ Non-Incapacitating	149	138	142	101	124
■ Incapacitating	45	40	61	39	52
■ Killed	7	10	7	4	5

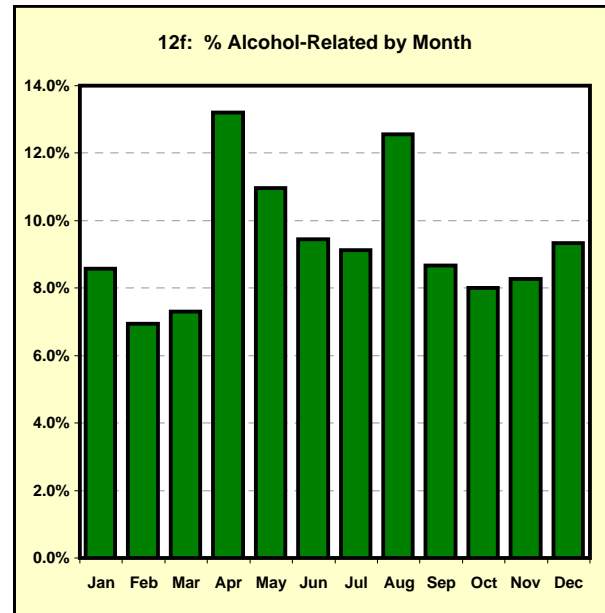
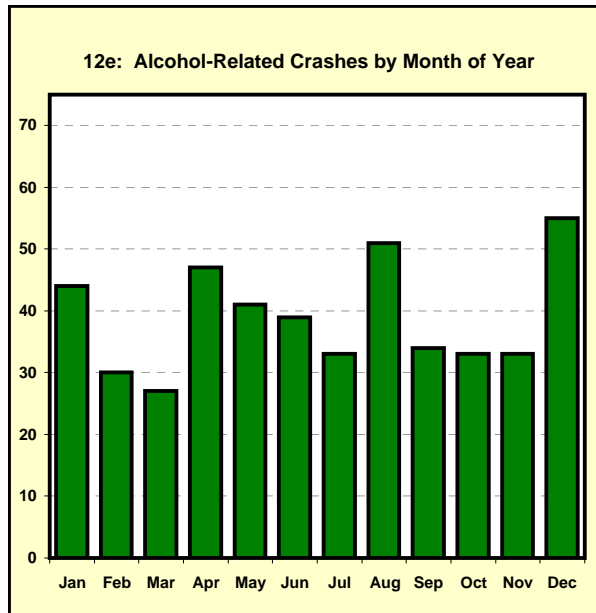
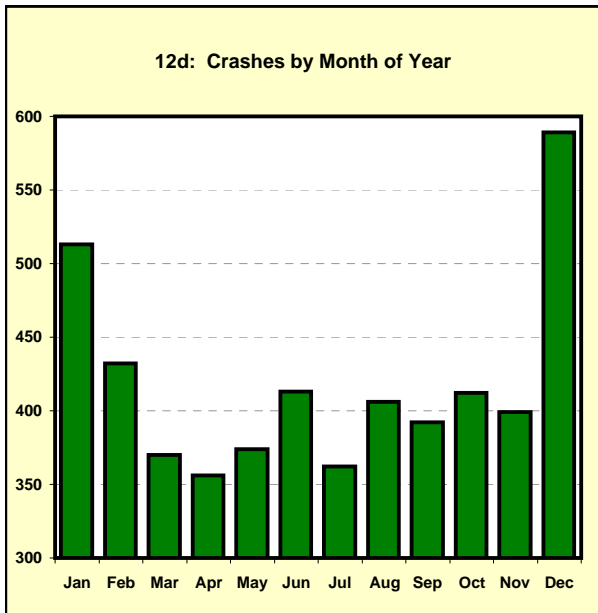
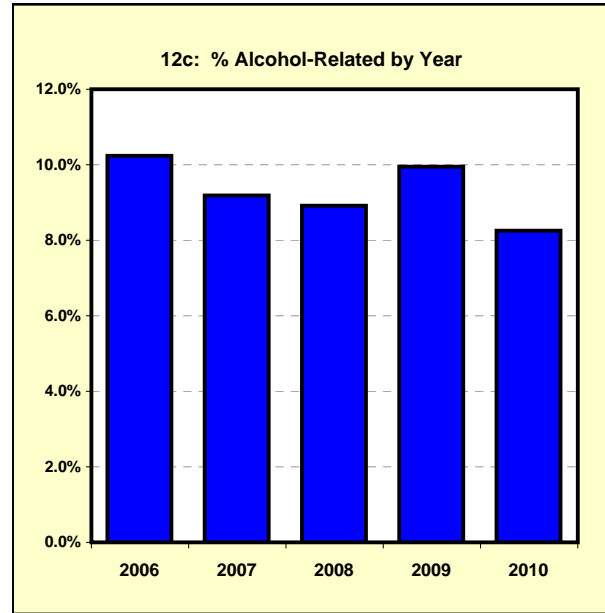
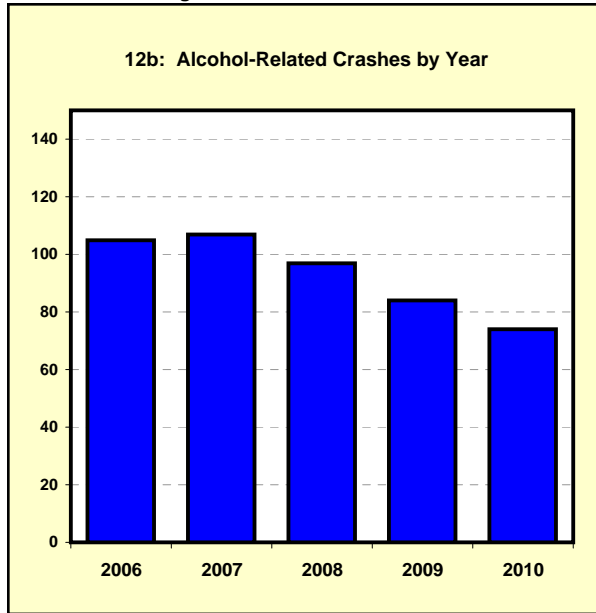
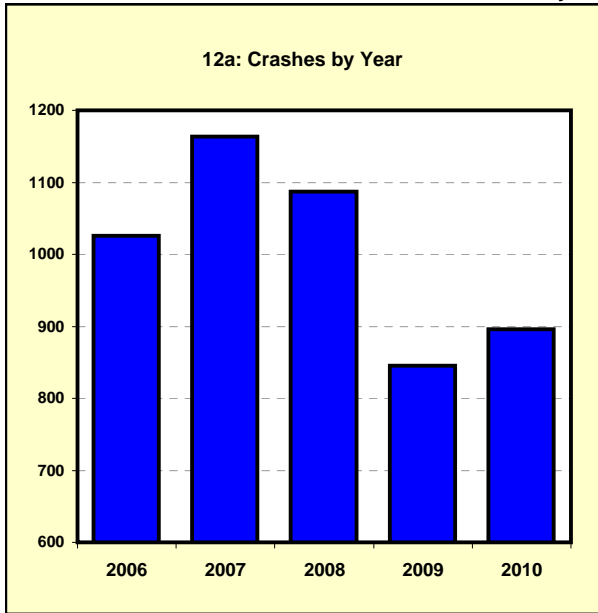
CHART 11b - Injury Severity by % of all Crashes
in the City of Beloit & Surrounding Wis Towns



■ Possible ?	24%	25%	22%	19%	22%
■ Non-Incapacitating	15%	12%	13%	12%	14%
■ Incapacitating	4%	3%	6%	5%	6%
■ Killed	1%	1%	1%	0%	1%

Crashes by Year, Month, & Alcohol
All Crashes in the City of Beloit & Surrounding Wis Towns

CHART 12



Crashes by Day, Hour, & Alcohol

All Crashes in the City of Beloit & Surrounding Wis Towns

CHART 13

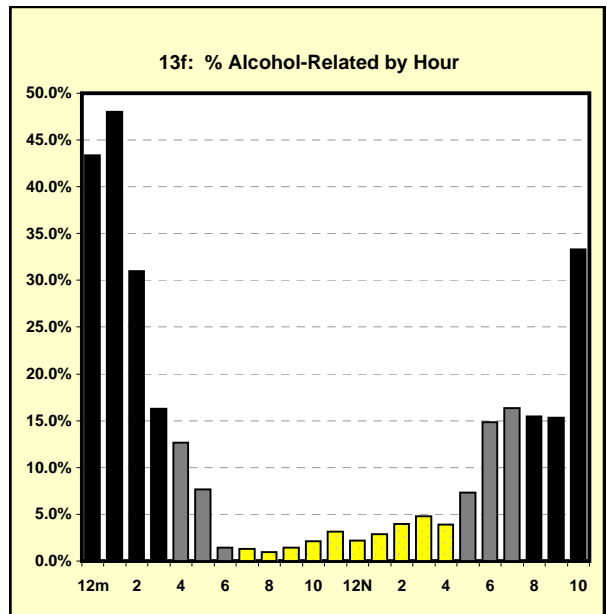
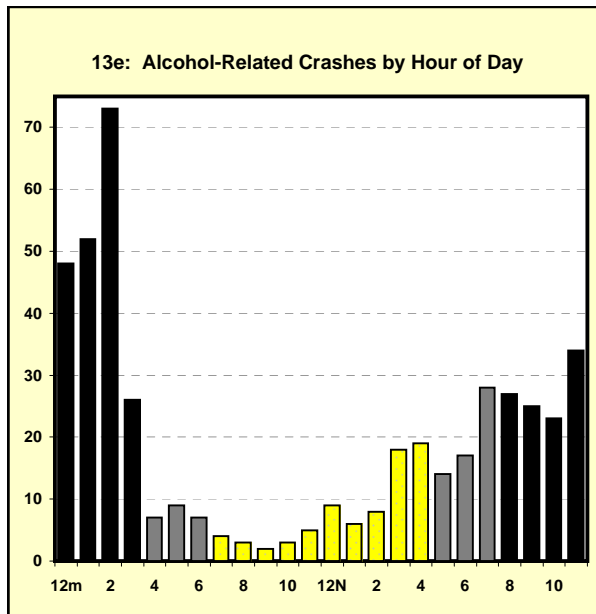
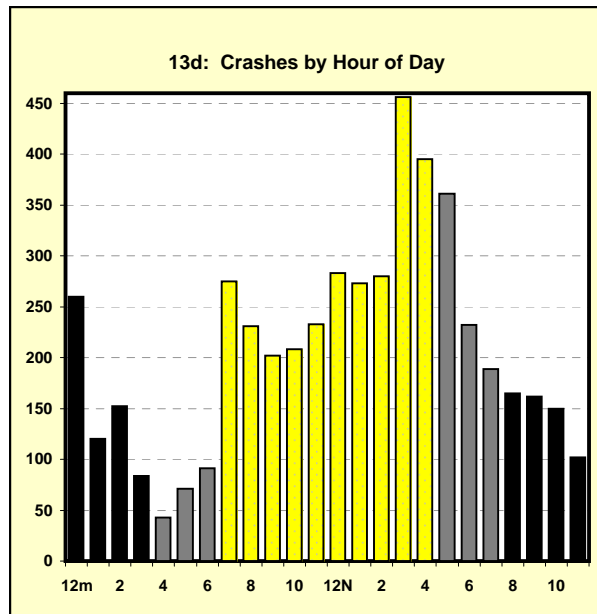
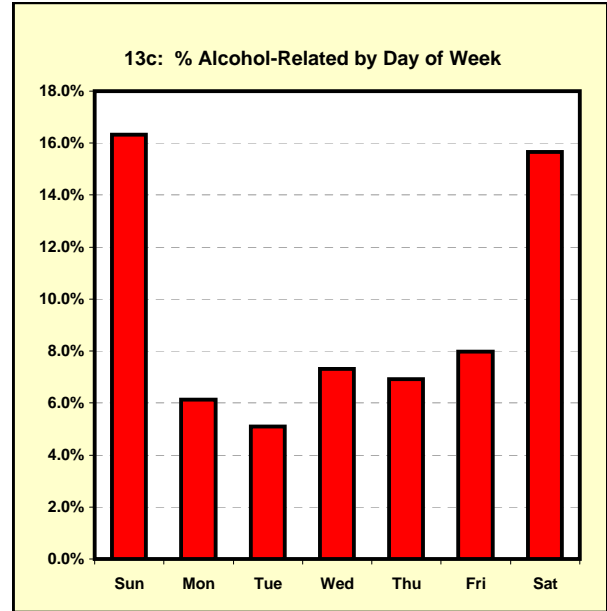
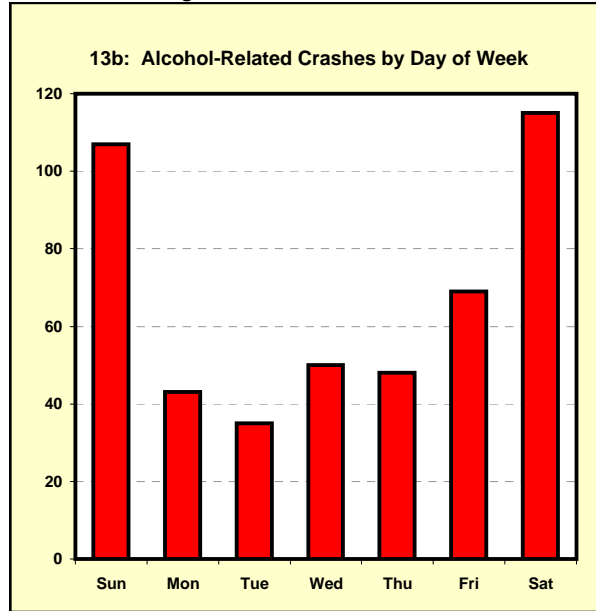
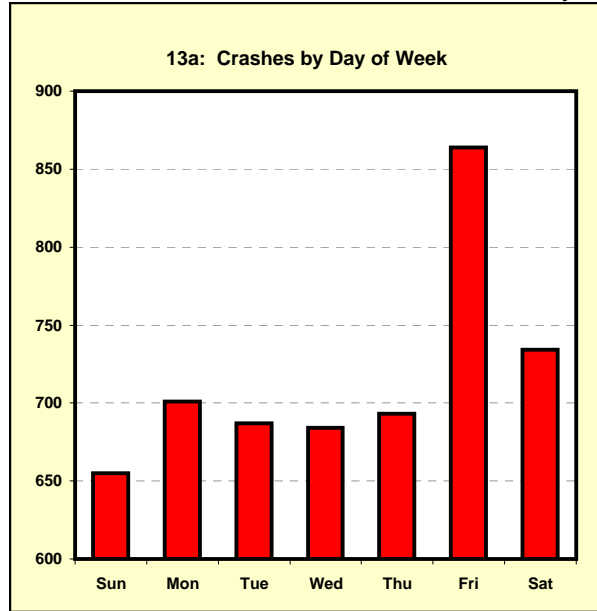
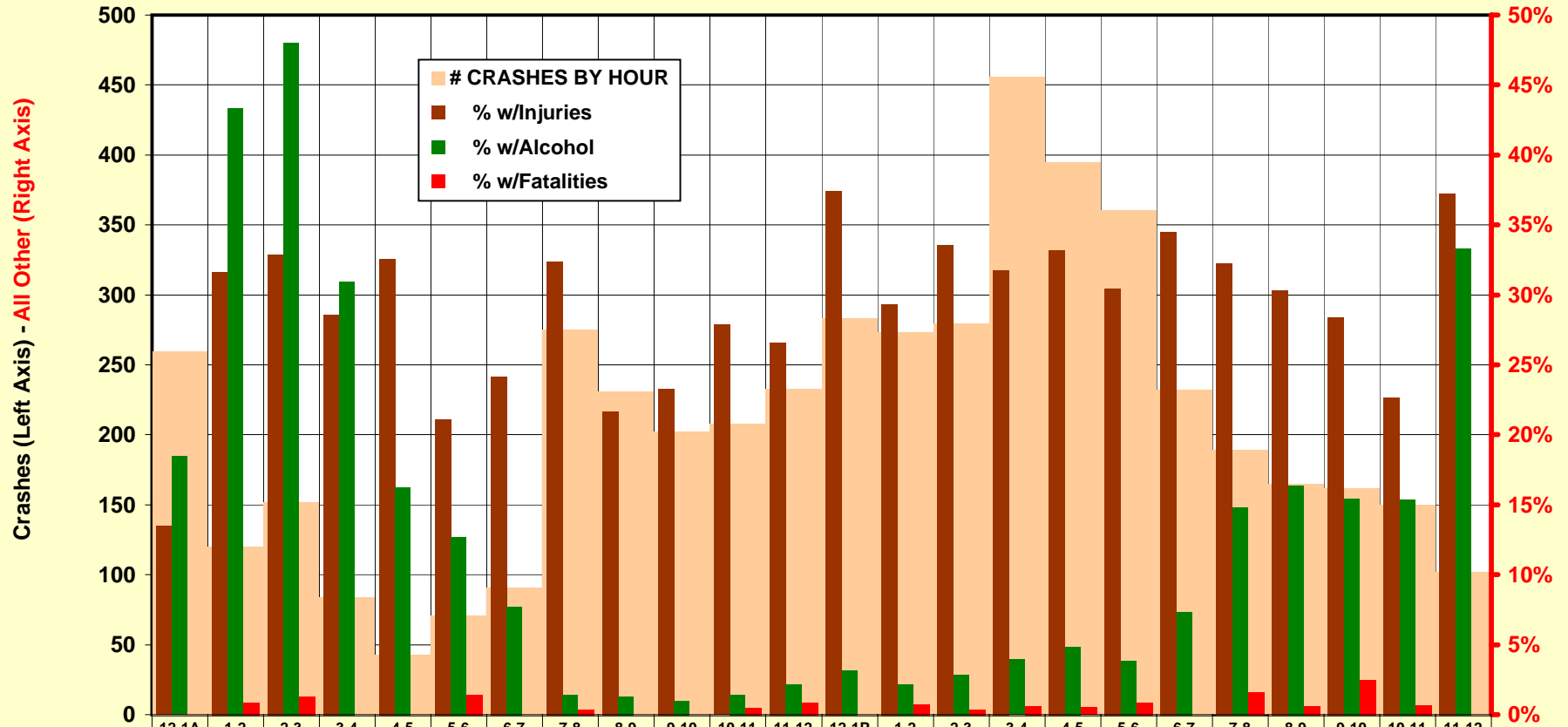


CHART 14 - Crashes, Injuries, Alcohol, & Fatalities by Hour

All Crashes in the City of Beloit & Surrounding Wis Towns (5-Yrs of Data)

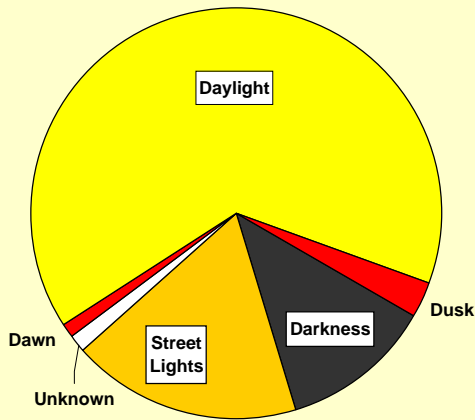


	12-1A	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-1P	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
# CRASHES BY HOUR	260	120	152	84	43	71	91	275	231	202	208	233	283	273	280	456	395	361	232	189	165	162	150	102
% w/Injuries	13%	32%	33%	29%	33%	21%	24%	32%	22%	23%	28%	27%	37%	29%	34%	32%	33%	30%	34%	32%	30%	28%	23%	37%
% w/Alcohol	18.5%	43.3%	48.0%	31.0%	16.3%	12.7%	7.7%	1.5%	1.3%	1.0%	1.4%	2.1%	3.2%	2.2%	2.9%	3.9%	4.8%	3.9%	7.3%	14.8%	16.4%	15.4%	15.3%	33.3%
% w/Fatalities	0.0%	0.8%	1.3%	0.0%	0.0%	1.4%	0.0%	0.4%	0.0%	0.0%	0.5%	0.9%	0.0%	0.7%	0.4%	0.7%	0.5%	0.8%	0.0%	1.6%	0.6%	2.5%	0.7%	0.0%

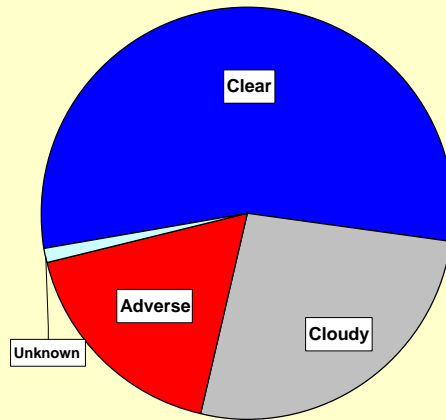
Crashes by Other Factors -- All Crashes in Beloit & Surrounding Wis Towns (5 Yrs of data)

CHART 15

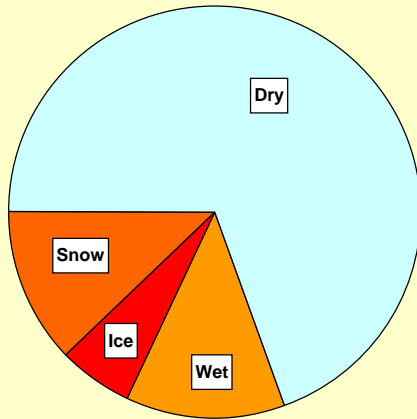
15a: Lighting Conditions



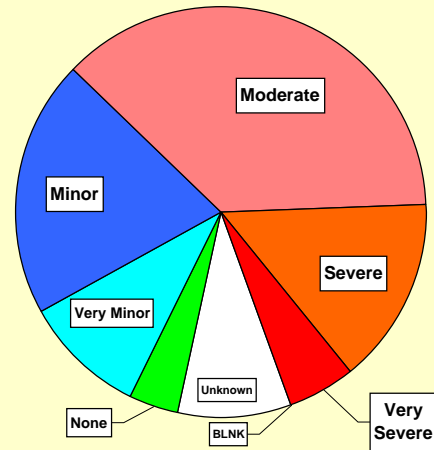
15b: Weather Conditions



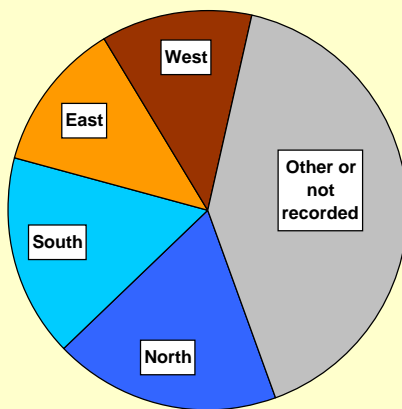
15c: Road Conditions



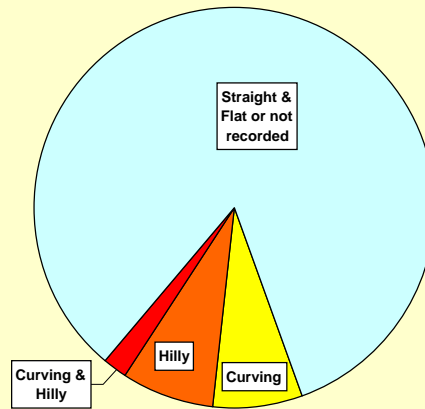
15d: Crash Severity

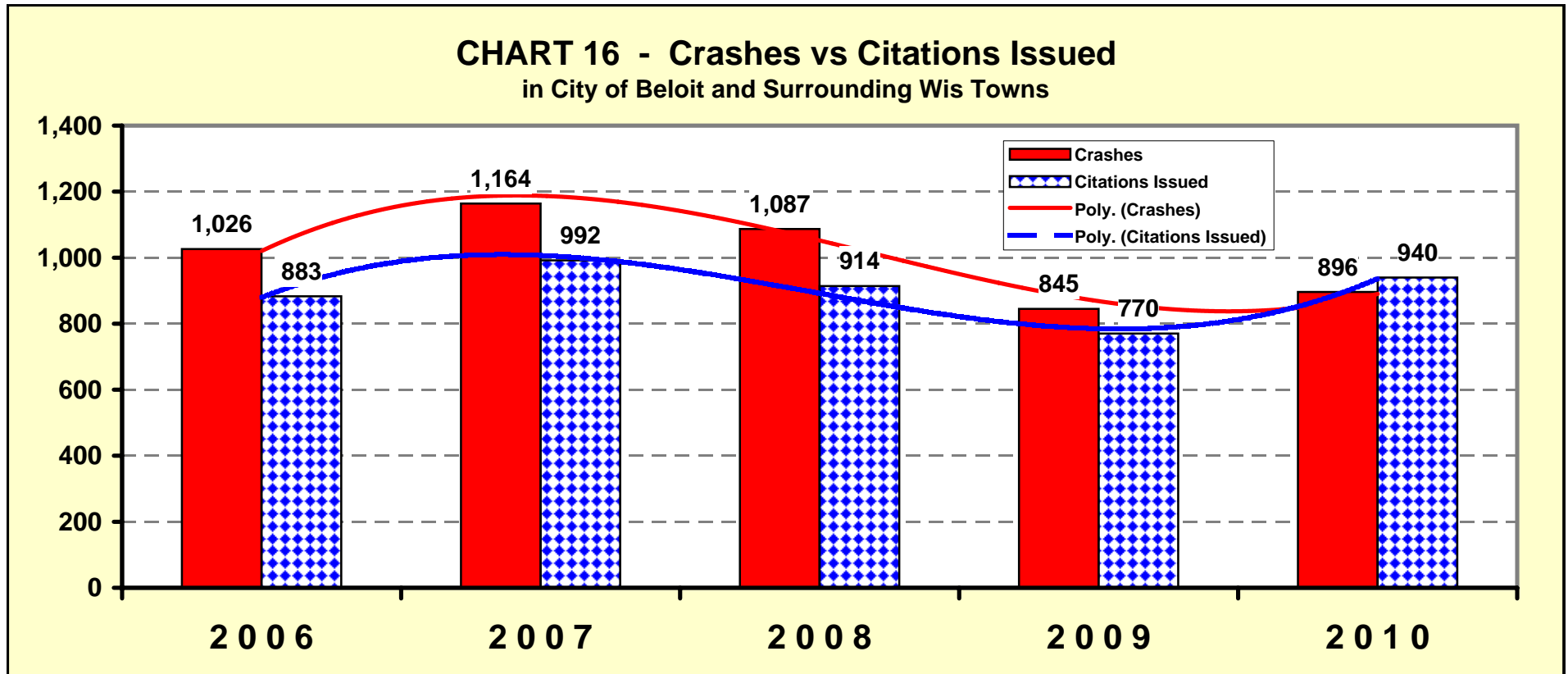


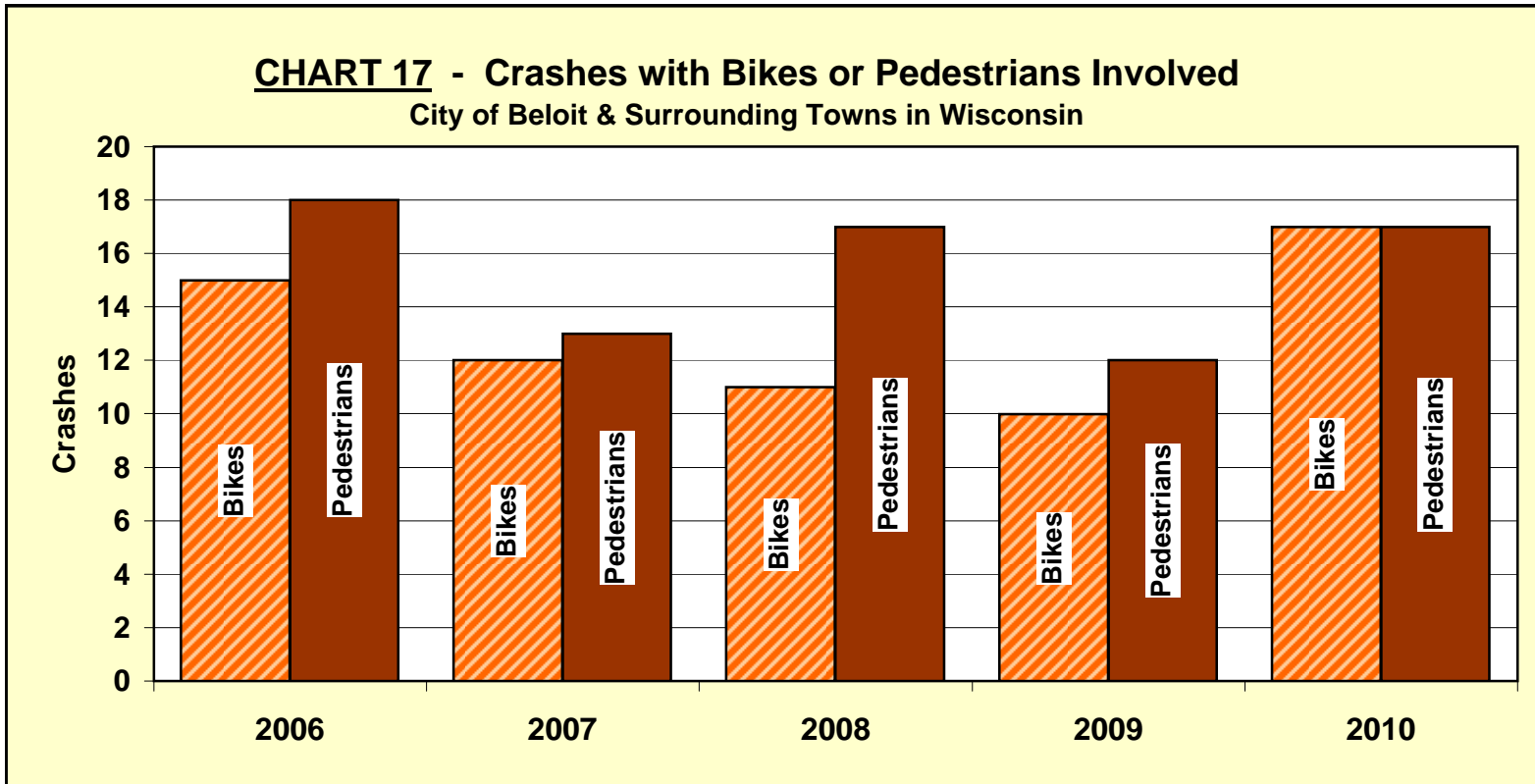
15e: Direction of Travel



15f: Road Alignment

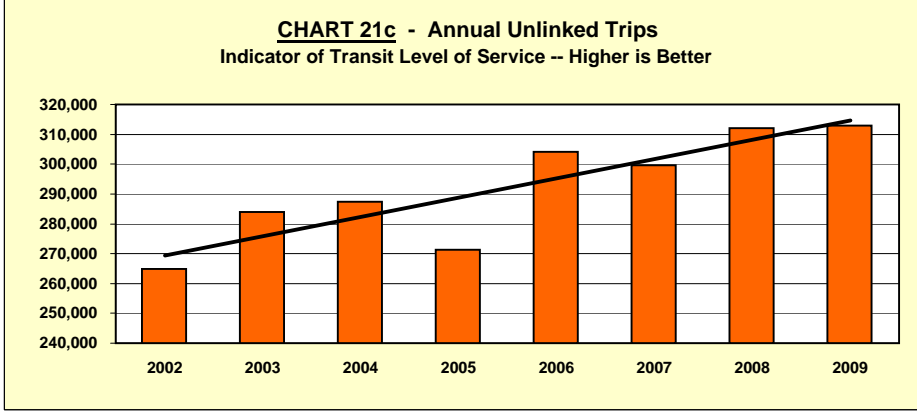
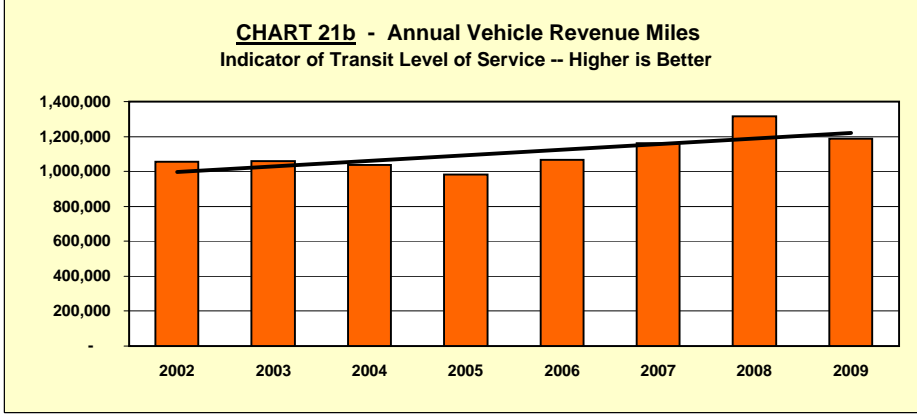
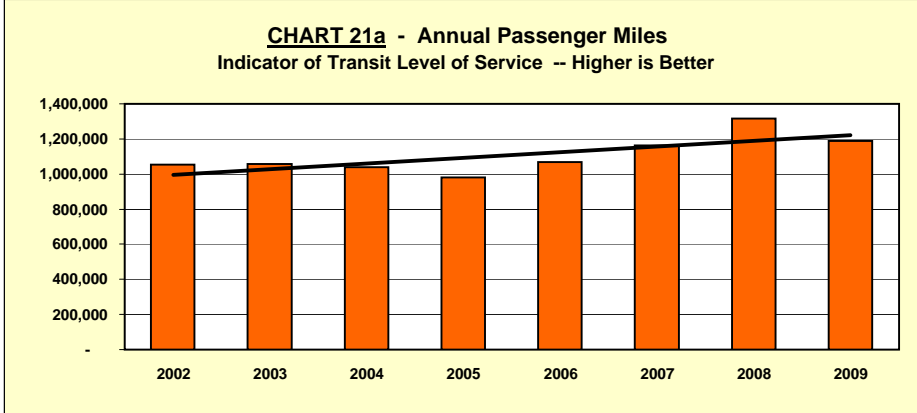




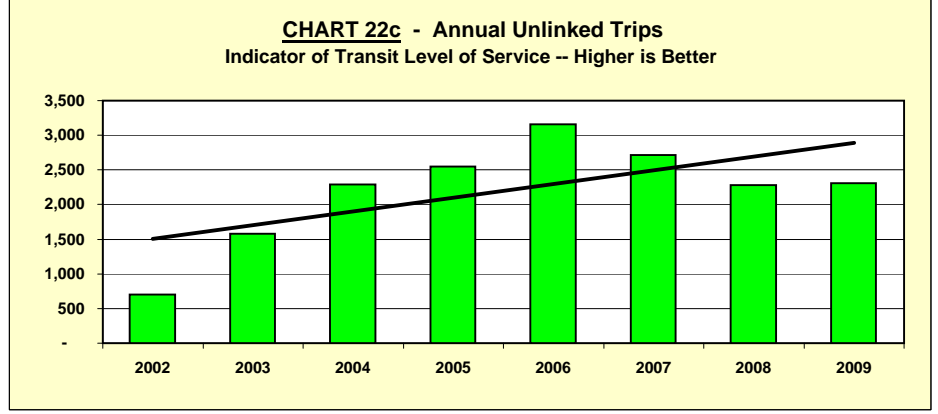
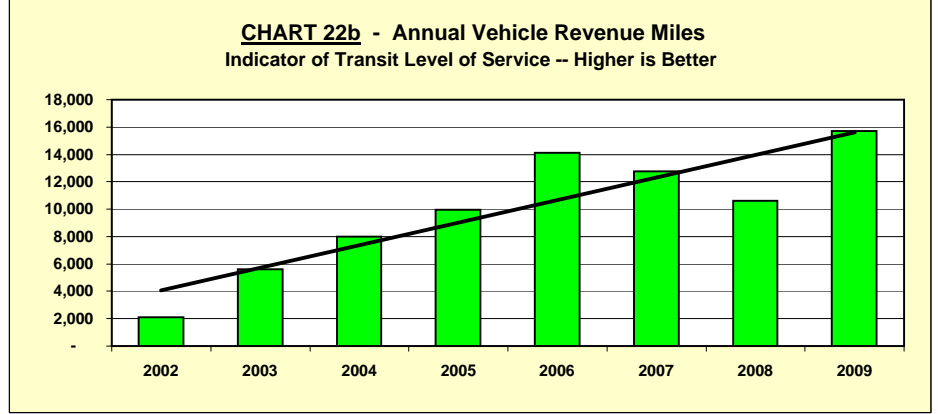
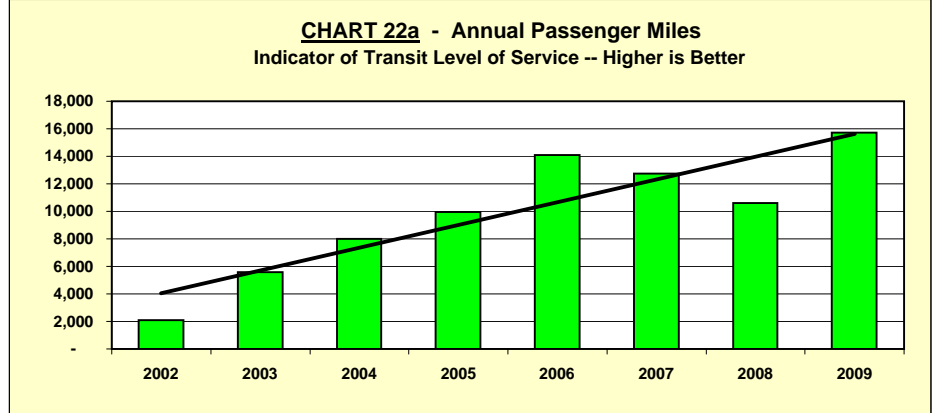


Beloit Transit System Performance Statistics										Chart 20		
Fixed-Route Services		2002	2003	2004	2005	2006	2007	2008	2009	Avg	Avg Annual Change	Avg Annual Change %
1	Annual Passenger Miles	1,054,686	1,057,852	1,038,786	981,487	1,066,545	1,162,358	1,315,987	1,188,004	1,108,213	19,045	1.7%
2	Annual Vehicle Revenue Miles	293,135	292,699	294,137	342,986	328,384	329,954	323,787	326,023	316,388	4,698	1.5%
3	Annual Unlinked Trips	264,930	283,987	287,434	271,279	304,119	299,529	312,067	312,832	292,022	6,843	2.3%
4	Annual Vehicle Revenue Hours	18,289	18,329	18,426	21,195	20,981	21,094	20,842	20,885	20,005	371	1.9%
5	Annual Vehicle for Maximum Service	12	12	12	12	12	12	12	12			
6	Average Fleet Age (Years)	7.3	8.3	9.3	10.3	7.6	4.3	5.3	6.3			
7	Vehicle Operated in Maximum Service	9	9	9	9	9	9	9	9			
8	Peak to bus ratio	1.8	1.8	1.8	1.5	1.5	1.5	1.5	1.5			
9	Percent Spares	33%	33%	33%	33%	33%	33%	33%	33%			
10	OPERATING EXPENSES	\$ 1,222,973	\$ 1,349,559	\$ 1,419,678	\$ 1,634,394	\$ 1,687,893	\$ 1,844,748	\$ 1,833,061	\$ 1,742,661	1,591,871	74,241	4.7%
OPERATING EXPENSE per:												
11	Vehicle Revenue Mile	\$ 4.18	\$ 4.61	\$ 4.83	\$ 4.77	\$ 5.14	\$ 5.59	\$ 5.66	\$ 5.35	5.02	0.17	3.3%
12	Vehicle Revenue Hour	\$ 67.06	\$ 73.63	\$ 77.05	\$ 77.11	\$ 80.45	\$ 87.45	\$ 87.95	\$ 83.44	79.27	2.34	3.0%
13	Passenger Mile	\$ 1.16	\$ 1.28	\$ 1.37	\$ 1.67	\$ 1.58	\$ 1.59	\$ 1.39	\$ 1.47	1.44	0.04	3.1%
14	Unlinked Passenger Trip	\$ 4.62	\$ 4.75	\$ 4.94	\$ 6.02	\$ 5.55	\$ 6.16	\$ 5.87	\$ 5.57	5.44	0.14	2.5%
UNLINKED PASSENGER TRIPS per:												
15	Vehicle Revenue Mile	0.91	0.97	0.98	0.79	0.93	0.91	0.96	0.96	0.93	0.01	0.8%
16	Vehicle Revenue Hour	14.53	15.49	15.80	12.80	14.49	14.2	14.97	14.98	14.66	0.06	0.4%
Demand Response Services												
1	Annual Passenger Miles	2,092	5,589	7,977	9,946	14,097	12,765	10,601	15,700	9,846	1,944	19.7%
2	Annual Vehicle Revenue Miles	2,092	5,589	7,977	9,946	14,097	12,765	10,601	15,700	9,846	1,944	19.7%
3	Annual Unlinked Trips	701	1,577	2,291	2,549	3,155	2,713	2,279	2,309	2,197	230	10.5%
4	Annual Vehicle Revenue Hours	177	378	537	635	863	733	622	822	596	92	15.5%
5	Annual Vehicle for Maximum Service	2	2	3	4	6	6	7	7			
6	Average Fleet Age (Years)	5.0	5.5	3.0	-	-	-	-	-			
7	Vehicle Operated in Maximum Service	1	1	1	1	2	2	2	2			
8	Peak to bus ratio											
9	Percent Spares	100%	100%	200%	300%	200%	200%	250%	250%			
10	OPERATING EXPENSES	\$ 11,954	\$ 12,292	\$ 17,155	\$ 19,626	\$ 24,352	\$ 21,105	\$ 19,055	\$ 21,400	18,367	1,349	7.3%
OPERATING EXPENSE per:												
11	Vehicle Revenue Mile	\$ 5.71	\$ 2.20	\$ 2.15	\$ 1.97	\$ 1.73	\$ 1.65	\$ 1.80	\$ 1.36	2.32	(0.62)	-26.8%
12	Vehicle Revenue Hour	\$ 67.54	\$ 32.52	\$ 31.95	\$ 30.91	\$ 28.22	\$ 28.79	\$ 30.64	\$ 26.03	34.58	(5.93)	-17.2%
13	Passenger Mile	\$ 5.71	\$ 2.20	\$ 2.15	\$ 1.97	\$ 1.73	\$ 1.65	\$ 1.80	\$ 1.36	2.32	(0.62)	-26.8%
14	Unlinked Passenger Trip	\$ 17.05	\$ 7.79	\$ 7.49	\$ 7.70	\$ 7.72	\$ 7.78	\$ 8.36	\$ 9.27	9.15	(1.11)	-12.2%
UNLINKED PASSENGER TRIPS per:												
15	Vehicle Revenue Mile	0.34	0.28	0.29	0.26	0.22	0.21	0.21	0.15	0.25	(0.03)	-11.1%
16	Vehicle Revenue Hour	3.96	4.17	4.27	4.01	3.68	3.7	3.66	2.81	3.78	(0.16)	-4.3%
TOTAL EXPENSES & SOURCE OPERATING												
		2002	2003	2004	2005	2006	2007	2008	2009	Average	Avg Annual Change	Avg Annual Change %
17	Fare Revenues	\$ 145,738	\$ 153,545	\$ 158,752	\$ 156,151	\$ 184,924	\$ 212,756	\$ 217,786	\$ 203,860	179,189	8,303	4.6%
18	Local Funds	\$ 220,817	\$ 364,721	\$ 327,389	\$ 398,923	\$ 445,118	\$ 552,065	\$ 506,578	\$ 401,993	402,201	25,882	6.4%
19	State Funds	\$ 403,917	\$ 421,532	\$ 456,093	\$ 457,291	\$ 445,984	\$ 462,960	\$ 493,203	\$ 436,122	447,138	4,601	1.0%
20	Federal Assistance	\$ 356,613	\$ 337,845	\$ 406,844	\$ 546,701	\$ 567,072	\$ 576,587	\$ 541,587	\$ 632,772	495,753	39,451	8.0%
21	Other Funds	\$ 119,902	\$ 94,327	\$ 96,486	\$ 114,357	\$ 107,612	\$ 113,499	\$ 132,766	\$ 124,739	112,961	691	0.6%
	Total	\$ 1,246,987	\$ 1,371,970	\$ 1,445,564	\$ 1,673,423	\$ 1,750,710	\$ 1,917,867	\$ 1,891,920	\$ 1,799,486	1,637,241	78,928	4.8%
CAPITAL												
22	State Funds	\$ 1,079,379	\$ 23,320	\$ 73,414	\$ -	\$ -	\$ -	\$ -	\$ 463,320	204,929	(88,008)	-42.9%
23	Local Funds		\$ 4,888	\$ 18,364	\$ 22,508	\$ 136,220	\$ 235,407	\$ -	\$ -	59,627	-	0.0%
24	Federal Assistance			\$ 89,837	\$ 89,837	\$ 604,723	\$ 757,405	\$ 95,510	\$ 535,360	416,567	76,480	18.4%
	Total	\$ 1,079,379	\$ 28,208	\$ 91,778	\$ 112,345	\$ 740,943	\$ 992,812	\$ 95,510	\$ 998,680	517,457	(11,528)	-2.2%

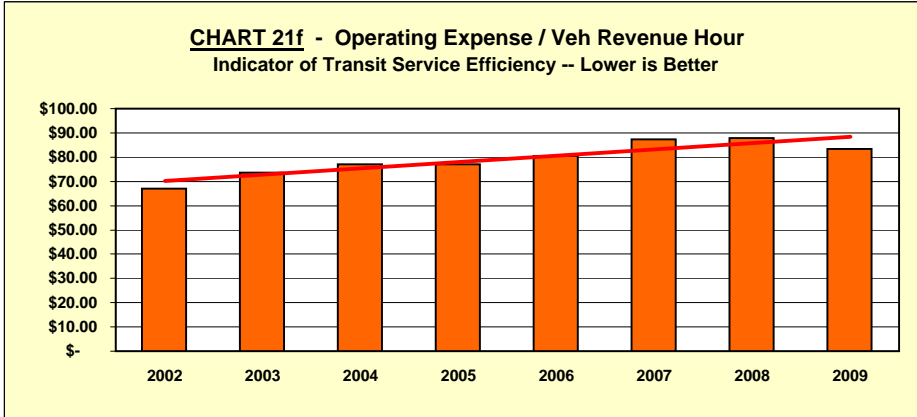
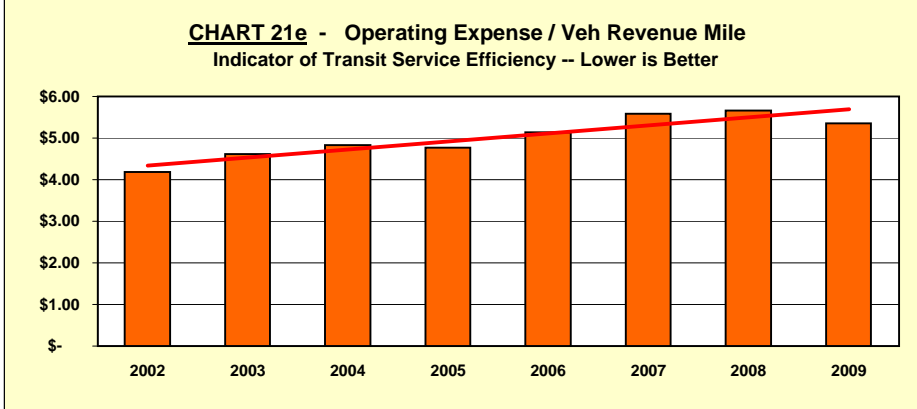
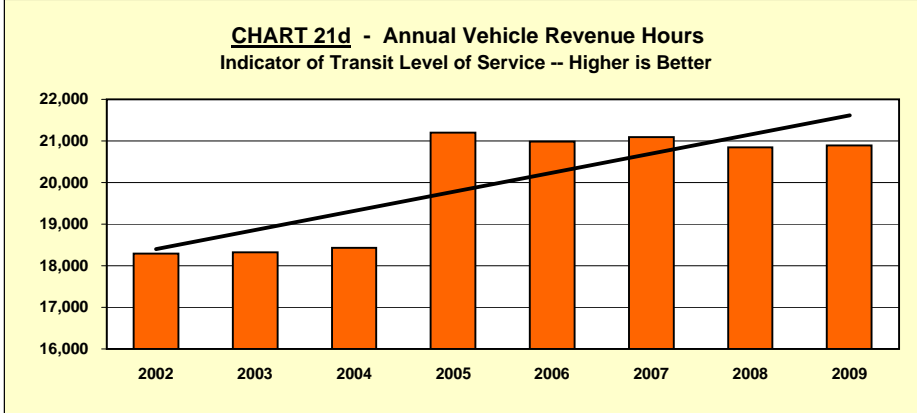
CHARTS 21 a - c **BTS FIXED ROUTE SERVICE**



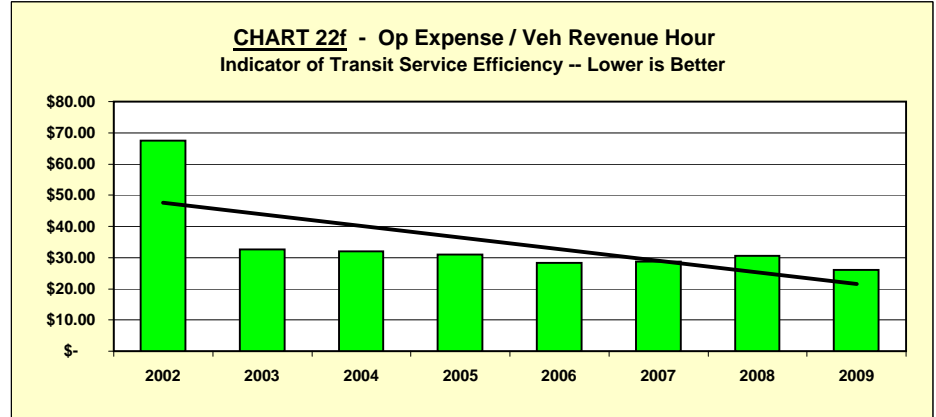
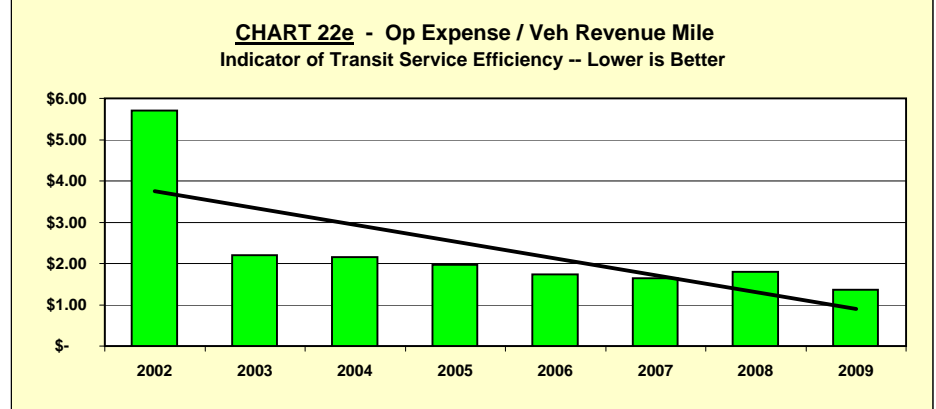
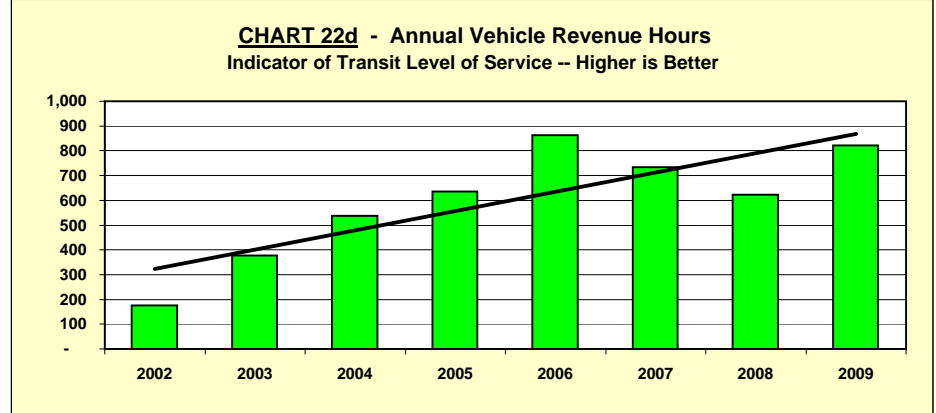
CHARTS 22 a - c **BTS DEMAND RESPONSE SERVICE**



CHARTS 21 d - f **BTS FIXED ROUTE SERVICE**



CHARTS 22 d - f **BTS DEMAND RESPONSE SERVICE**



CHARTS 21 g - i **BTS FIXED ROUTE SERVICE**

CHARTS 22 g - i **BTS DEMAND RESPONSE SERVICE**

CHART 21g - Op Expense / Passenger Mile
Indicator of Cost Effectiveness -- Lower is Better

CHART 22g - Op Expense / Passenger Mile
Indicator of Cost Effectiveness -- Lower is Better

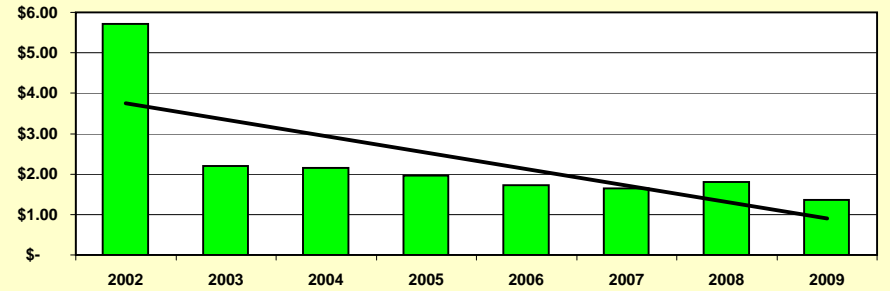
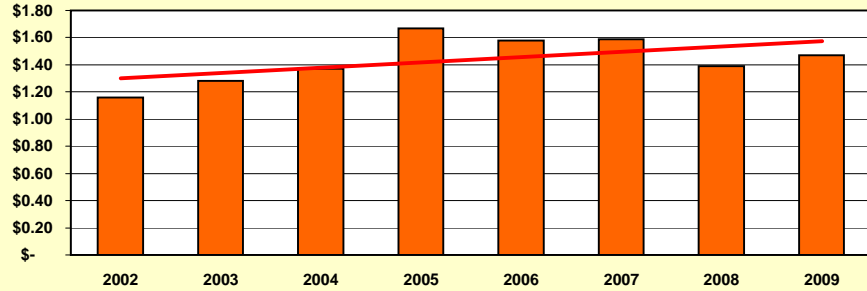


CHART 21h - Op Expense / Unlinked Pass Trip
Indicator of Cost Effectiveness -- Lower is Better

CHART 22h - Op Expense / Unlinked Pass Trip
Indicator of Cost Effectiveness -- Lower is Better

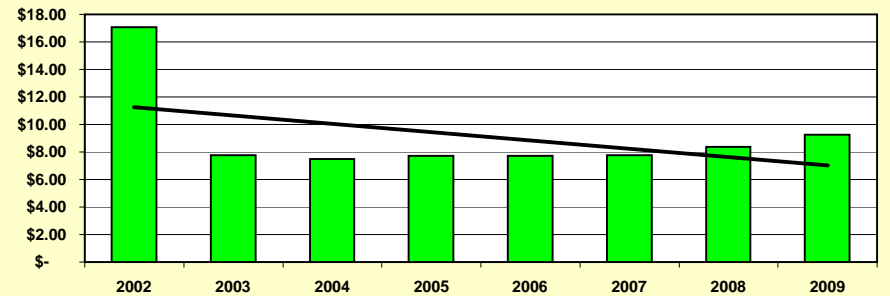
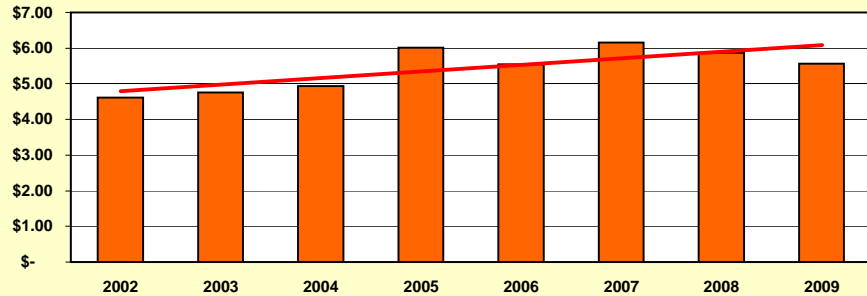
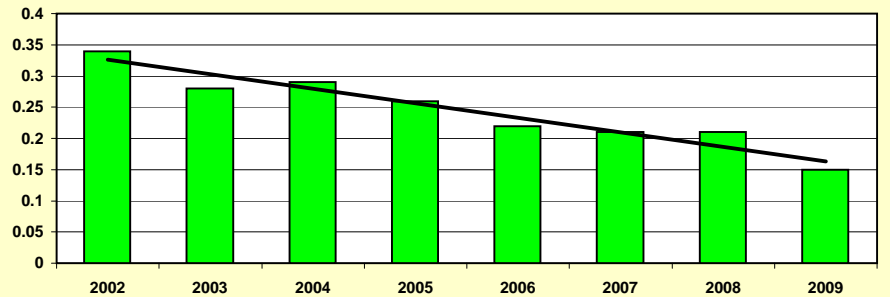
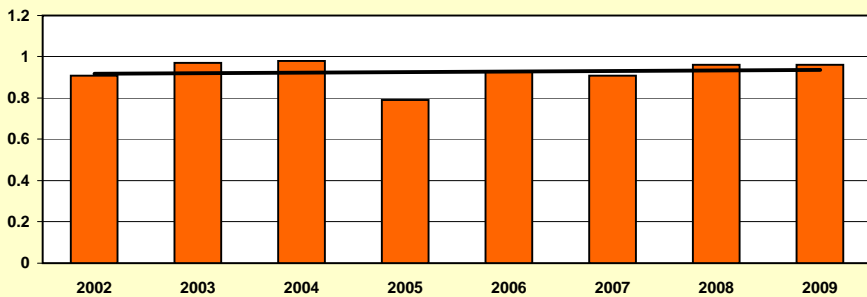
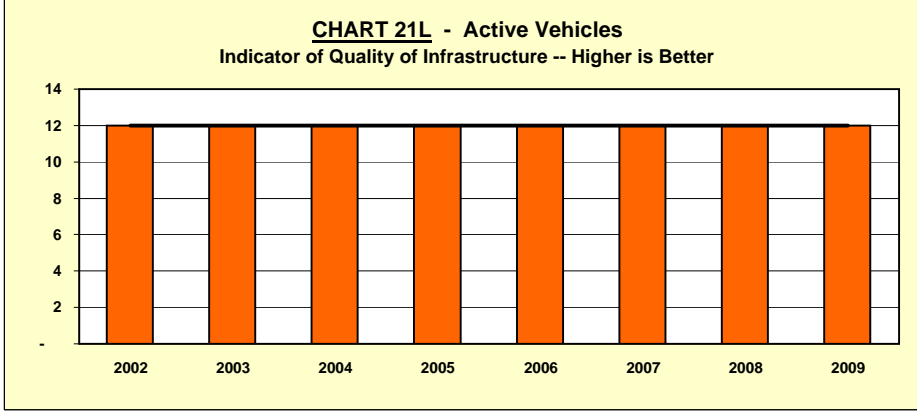
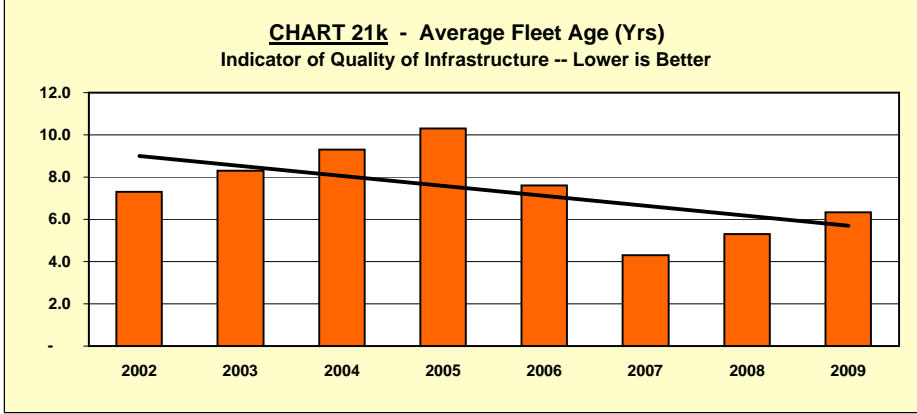
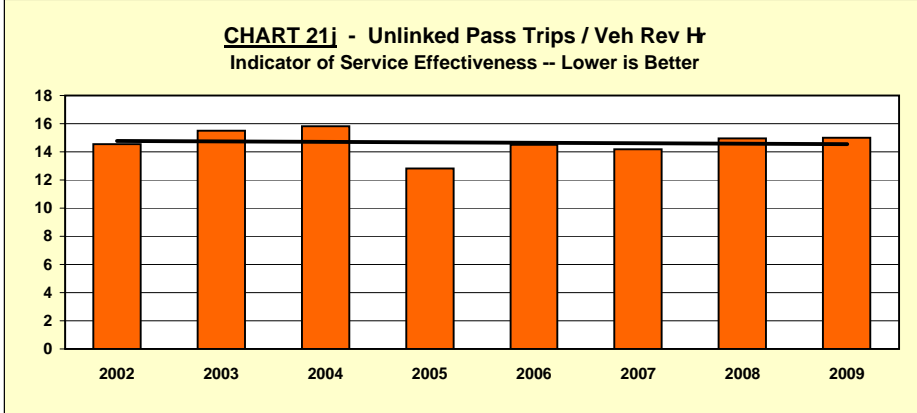


CHART 21i - Unlinked Pass Trips / Veh Rev Mi
Indicator of Service Effectiveness -- Lower is Better

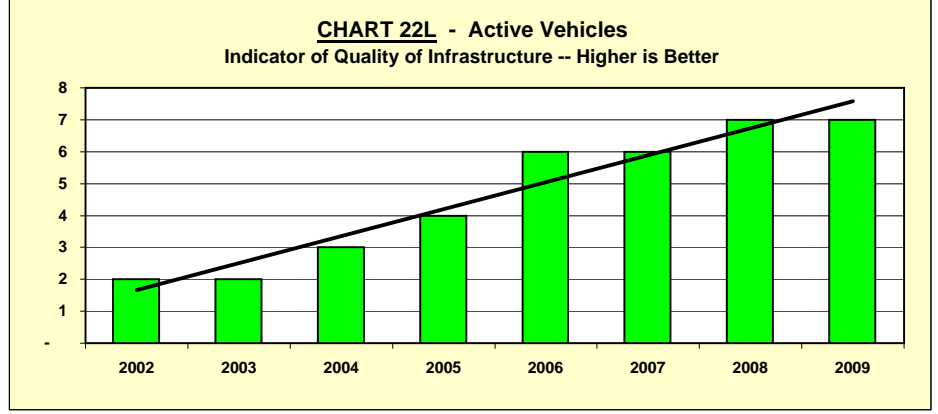
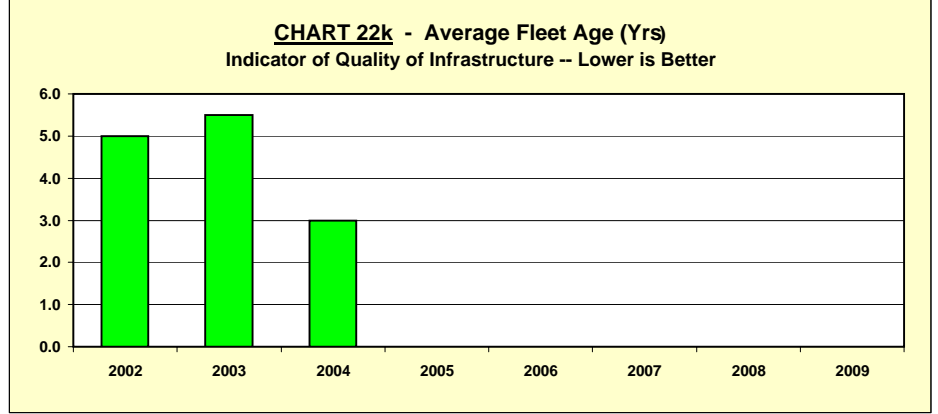
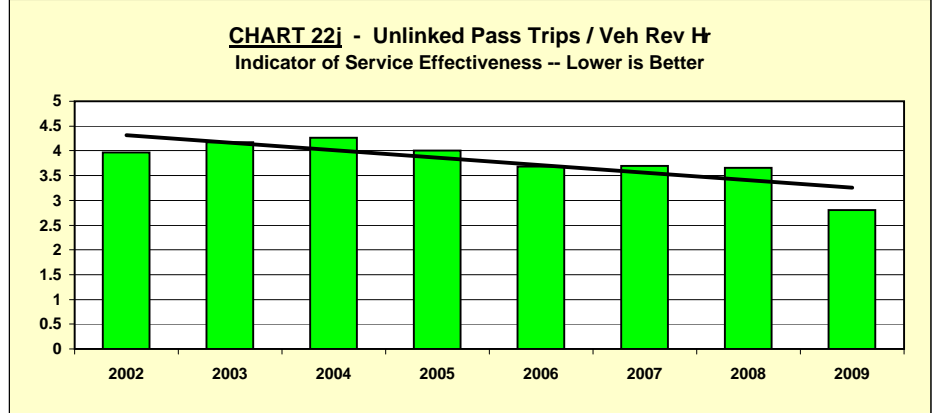
CHART 22i - Unlinked Pass Trips / Veh Rev Mi
Indicator of Service Effectiveness -- Lower is Better

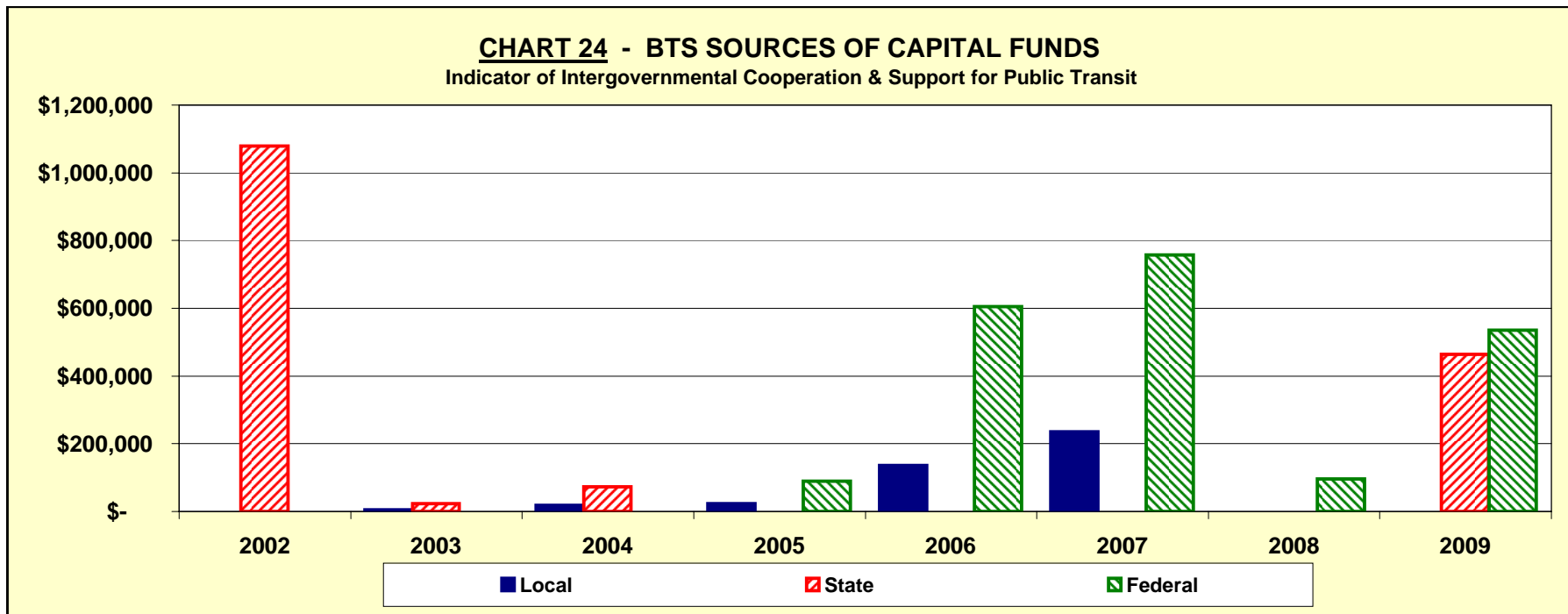
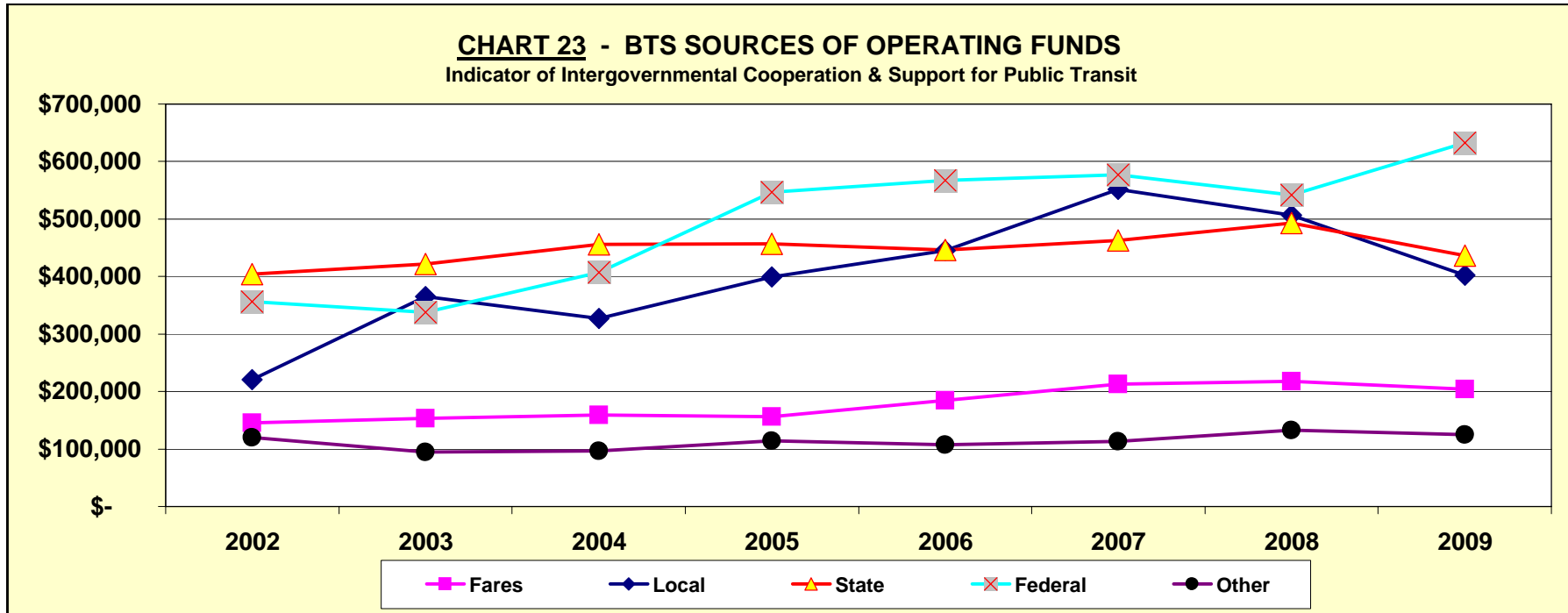


CHARTS 21 j - L BTS FIXED ROUTE SERVICE



CHARTS 22 j - L BTS DEMAND RESPONSE SERVICE





SLATS
StateLine Area Transportation Study

**ENVIRONMENTAL CONSULTATION /
MITIGATION PROCESS**

**Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 9, 2011**

This document Summarizes the SLATS efforts and approaches to environmental considerations, consultations, and mitigations since 2006 when the LRTP was first adopted.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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**THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THIS
REPORT ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES**

**Questions or comments pertaining to this document or any other SLATS activities
should be directed to the SLATS Coordinator at 608-364-6702**

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this 2011 Update Memo is to reaffirm the Environmental Consultation Process used by SLATS as part of the overall transportation planning process. Pages 208-209 of the 2035 LRTP (9/11/2006) set forth the initial Environmental Mitigation strategies of SLATS. SLATS remains committed to address environmental quality, quality of life, and sustainability issues at the Federal, State, and local level. The following discussion augments those statements and strategies.

SLATS ENVIRONMENTAL CONSULTATION / MITIGATION PROCESS

I. Environmental Consultation/Mitigation equals Public Involvement

As an introduction to the process it should be emphasized that the Stateline Area Transportation Study (SLATS)) consults continually with local elected and appointed officials, business owners and representatives, charitable organizations, association directors, neighboring area colleagues, and citizens in general about the SLATS plans, programs, and policies. SLATS representatives work hard to consult, gather, share information, and provide opinions and suggestions to others as well.

This is done to address FHWA, WisDOT, IDOT, and local regulations, rules, and policies about public outreach and “environmental consultation.” This continuing, cooperative and comprehensive (3-C) process is built on the long-standing and entrenched tradition as outlined by FHWA, the State agencies, and the local MPO (Metropolitan Planning Organization) planning process.

in recent years, SLATS has largely implemented the environmental consultation process by following the SLATS Public Involvement Plan. That Plan, dated March 14, 2005, is included as part of this LRTP 2011 Update, by reference. It

remains, as originally written and approved, an integral part of the SLATS Transportation Planning Process.

By following Public Involvement Plan, SLATS has been very successful in consulting with agencies and governments at all levels as well as with the general public. Two recent and excellent examples of this are: (1) the termination of the West Side Bypass Feasibility Study, and (2) the Update to the Bicycle and Pedestrian Plan.

The **West-Side Bypass Feasibility Study** was sponsored by the Wisconsin and Illinois DOTs and initiated over nine years ago. When the first phases of the study were completed and a bypass alignment proposed, a “not-in-my-backyard” reaction by numerous potentially affected property owners put a halt to deliberations. Public regard for the concept continued to be negative and the Study lapsed into a state of hiatus. In 2010, the State DOTs solicited help from SLATS to determine whether the project should be continued or dismissed. Specifically, IDOT asked SLATS to assume the lead for the study and, if indeed there was not public and political support, expedite the technical process of terminating the study.

In close coordination with officials from Illinois, Wisconsin, and the Federal Highway Administration, SLATS held two public meetings to determine if public support for the Study and the concept, particularly on the Illinois-side, could be rekindled. All the local units of government were heavily involved in the meetings. At the conclusion, the consensus of opinion was to terminate the study. SLATS then assisted in filing the necessary formal requests to terminate the study. Subsequently, the study was terminated (as officially documented by publication in the Federal Register).

The second example is the **2010 Update to the SLATS Bike Plan**. The initial plan of 2004 was in need of validation and update. The 2010 Bike Plan Update involved a very active out-reach effort to: not-for-profit State Bicycle Association memberships from both States, local and state units of government, and the general public. Over 55 people participated and collaborated in preparing the Update. This approach was in close compliance with the “complete streets and greenway planning philosophies” of the Federal and State DOTs, as well as SLATS. The Bike Plan Update is now an integral part of the SLATS 2035 Long-Range Transportation Plan, 2011 Update.

II. Environmental Consultation Meetings

Other SLATS efforts have been more directly tied to the Federal requirement to include non-transportation stakeholders in the planning and design of transportation improvements. Specifically, SLATS participates in WisDOT- and IDOT-sponsored **Environmental Consultation Meetings**. Invited to these meetings are: (1) local, State, and Federal agencies involved in environmental protection, conservation, and preservation; (2) agencies responsible for air, water and wildlife protection; and (3) agencies responsible for land use management, historic preservation and natural resource management. SLATS recently participated in the March 12, 2010 meeting organized by WisDOT, and is collaborating with a similar IDOT- organized process.

Currently, the only significant project in the StateLine MPA relevant to environmental consultation is the Inman Extension Project on the Wisconsin-side. Currently and in

the near future, the Illinois-side has no major projects in need of environmental consultation or mitigation efforts.

III. SLATS Strives for Sustainability

It is the SLATS philosophy to engage all segments of the community to meet mobility, environmental, and community needs, and to minimize duplication of effort. It is largely through environmental consultation that SLATS addresses the **Six Principles of Sustainability**, as follows:

- ❖ Support multiple transportation choices,
- ❖ Promote equitable planning for all sectors of the community,
- ❖ Encourage economic competitiveness and growth,
- ❖ Support existing communities,
- ❖ Leverage Federal and State resources, and
- ❖ Show value for neighborhoods and communities.

IV. SLATS Concurs with Beloit Sustainability Principles

Further bolstering the SLATS commitment to recognize and consider environmental factors is its adherence to **City of Beloit Sustainability Principles**. The City of Beloit provides office space, vehicles, and administrative services to SLATS. In return, the City requires all SLATS contracts, such as the SLATS inter-governmental agreements, to address the City's Sustainability Principles, as follows:

- ❖ Reduce dependence upon fossil fuels,
- ❖ Reduce dependence on chemicals and other manufacturing substances that accumulate in nature,
- ❖ Reduce dependence on activities that harm life sustaining eco-systems, and
- ❖ Meet the hierarchy of present and future human needs fairly and efficiently.

V. SLATS Participates in the Rockford Sustainability Project

In addition, SLATS is an active member of the **Rockford Sustainability Project**. The Project is a three year effort to develop a plan for all of Boone and Winnebago County, including the SLATS portion of Winnebago County. The Project was jointly funded by the USDOT and the US Department of Housing in the amount of \$600,000. SLATS participation is required as an overlapping agency for the target area. SLATS will request inclusion in the steering committee that will focus selectively on several of the following Regional Sustainability Indicators:

Regional Stability Indicators	
Food	Land
Housing	Biodiversity
Education	Energy
Economic Development	Waste Management
Technology	Safety
Transportation	Civic Vitality
Built Infrastructure	Cultural Life
Water	Health and Wellness

SLATS
State Line Area Transportation Study

TRAFFIC SIMULATION MODELING

**Part of the 2011 Update of the
2035 Long-Range Transportation Plan**

Version dated: July 12, 2011

This document reports on the progress of traffic simulation modeling for the SLATS Metropolitan Planning Area.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS EXPRESSED IN THIS REPORT ARE NOT NECESSARILY THOSE OF THE ABOVE AGENCIES.

Questions or comments pertaining to this document or any other SLATS activities should be directed to the SLATS Coordinator at 608-364-6702

MODELING PROCESS FOR TRANSPORTATION PLANNING

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to provide a progress report / update pertaining to the computerized traffic simulation modeling process ongoing in the Metropolitan Planning Area. This document is part of the 2011 Update of the 2035 LRTP.

Pages of 121 thru 142 of the SLATS 2035 LRTP as adopted in 2006 discuss several aspects of traffic simulation modeling pertaining to SLATS. Much of the material in these pages remains relevant today and the information presented in this update memo is intended to supplement that material. For those less familiar with traffic simulation models and their uses in transportation planning, a review of those pages may be helpful.

Suffice to say here, the traffic simulation modeling technique used in the SLATS MPA estimates the volume of future traffic on the roadways based on: (1) forecasts of the location/distribution of dwelling units, jobs and other destinations in the area and (2) data that represents the existing and future size, length, and connectivity of the roadway network that ties the dwelling units and the jobs together. The rationale behind this is as follows:

1. Significant prior data analysis by transportation professionals over the last 50 years has shown that the primary purpose of travel is from home to places of employment and other and back. Note, places of employment are also places of service, commerce, or entertainment. Whether people travel for the purpose of going to work or to acquire some service is not important when it comes to travel forecasting. People mostly travel from places where they live to places where people work.
2. In most areas, there is reasonably accurate and available data on the location of existing dwelling units, existing jobs, and current traffic on the important segments of area roadways. Such data is essential to the modeling technique used in the SLATS' models.
3. When the Metro Area is divided into small zones and dwelling units and jobs are known for those zones, mathematical equations can then be developed that represent the potential travel between those zones.

4. The potential travel is then routed over a mathematical representation of the existing road network. This results in a mathematical model of the travel.
5. The various equations in the model are adjusted until the “modeled traffic” is the same (or nearly the same) as the known traffic on the roadways, as determined by actual ground counts. The model is then said to be calibrated, which simply means that it is a realistic mathematical representation of the travel on the existing roadways.
6. Travel forecasting can then be done based on either forecasted changes in dwelling units, jobs and other destinations, proposed changes to the roadway network, or both.

All of this is facilitated by modern high-speed computers that accomplish the staggering number of computations needed in a matter of a few minutes or hours (hand calculations for any sizable area would take days) and by graphical / database interfaces on these computers that ease data entry and provide meaningful visualizations of the model outputs. A more technical outline of the model development procedure is presented below¹.

The accuracy of this forecasting method depends on a number of factors, including:

- a) the skill of the technician developing the model,
- b) the diligence and accuracy of the database construction,
- c) the accuracy of the basic data itself (number of dwelling units, jobs, characteristics of the existing roadways, and existing vehicular traffic),

¹ Outline of Procedure for Traffic Simulation Model Development

- 1) Data Gathering. Using:
 - a. Census Information
 - b. Census Transportation Planning Package
 - c. Wisconsin and Illinois Workforce Development Information
- 2) Trip Generation. Using:
 - a. Population, Employment, and Household Information are Inputs
 - b. Creation of Trips Based on current Land Use (households, jobs) etc.
 - c. Trips Based on Purpose are Outputs
 - d. Method Used Cross Classifying Process based on Vehicle Occupancy by Household Size
- 3) Trip Distribution. Using:
 - a. Trip Production and Attractions from Generation are Inputs
 - b. Trip Tables are Outputs
 - c. Each Trip Cell Contains No. of trips Between Traffic Analysis Zones
 - d. Method Uses a Gravity Model (The Bigger the Attraction the More Trips Made to That Zone)
- 4) Traffic Assignment. Using:
 - a. Results are Vehicle Flows for a Given Year
 - b. Method used is a Stochastic (Uses Random Variables) Equilibrium (Numbers Must Balance) Method
- 5) Calibration. Which:
 - a. Makes Sure the Numbers Balance
 - b. Makes Sure the Input and Output Results Make Sense using Human Perception and Understanding
- 6) Run the Model. : Use various scenarios, as needed
 - a. Alternative Dwelling and Job forecasts
 - b. Alternative roadway network configurations
- 7) System Must be Maintained Regularly requiring Significant Staff Work

- d) the number zones the area is divided into, and
- e) the accuracy or reasonableness of the forecasts of dwelling units and jobs.

The last factor is of paramount importance. Moreover, the key to accurate dwelling unit and job forecasting is the development and adherence to a land use plan by the area's communities. Through a detailed land use plan, the communities can direct growth in housing and employment to specific areas, as well as the density of that growth. Although the timing of said growth is more difficult to direct and forecast, the timing of roadway improvements can be adjusted to compensate for changes in the former.

When the SLATS LRTP was adopted in 2006, two transportation simulation models had been developed for use in estimating future roadway needs in the Stateline Metropolitan Planning Area. The first was a cooperative venture of SLATS and the Rockford Area Transportation Study (now called the Rockford Metropolitan Agency for Planning). The second was developed in conjunction with WisDOT. Both models produced somewhat similar results with some minor differences. Although this may seem redundant, the development of two models provided a useful accuracy check of this complicated technical tool. Enclosed in this update is the result of a more recent run of the WisDOT model. More recent runs of the RATS (now RMAP) / SLATS model are under development and will be presented at a later time.

WisDOT / SLATS MODEL RUNS 2005 AND 2011

Over the last several years, WisDOT modeling has been expanded to cover the entire State of Wisconsin. Work on the WisDOT / SLATS model continues to be a joint effort of WisDOT and SLATS staff. WisDOT continues to contract with HNTB Corporation for assistance in the effort. SLATS receives assistance from the City of Beloit Transportation Engineer. Recently, SLATS has been working with the Janesville Area Metropolitan Planning Organization (JAMPO) and has been revising basic model input data. In particular, staff has refined the boundaries of the Traffic Analysis Districts and Traffic Analysis Zones (the basic spatial units used in the simulation model) throughout Rock County. Although full Year 2010 Census data was not available, staff used local knowledge of where development has occurred over the last several years to refine those boundaries. Copies of the new TAD (Transportation Analysis District) and TAZ (Transportation Analysis Zone) maps are included in this update as **Maps 1a, 1b, 2a, and 2b**.

Maps 3 and 4 are the result of computerized model runs simulating the SLATS Metropolitan Area road conditions in 2035². Both of these runs are based upon dwelling unit and

² Note that the model simulates trips by motorized vehicles. Trips made by walking, biking, and transit are not integrated into the model because they are a tiny fraction of the overall trips. This is not meant to imply that non-motorized and transit trips are unimportant. In fact, other parts of the SLATS LRTP encourage travel by these other modes; for many persons, the other modes are their only means of access to work, education, critical health care, and connection to the greater community.

employment forecasts that were developed in the previous decade. New forecasts await the full release of 2010 Census data and will also take into account changes in area land use plans and recent land use changes. These new forecasts will be developed by SLATS as soon as possible, but not likely before 2013. Both maps represent traffic conditions in 2035. The essential difference in the two runs is: **Map 3** illustrates the network of roadways that exist and are committed to construction (called the E & C Network) at the present time, 2011. **Map 4**, for comparison, illustrates the network of roadways that existed or was committed in 2005. Obviously, between 2005 and 2011, additional roads or lanes were added to the E & C Network, thereby improving some traffic conditions.

RELEVANCE OF WISDOT / SLATS 2011 MODEL RUN

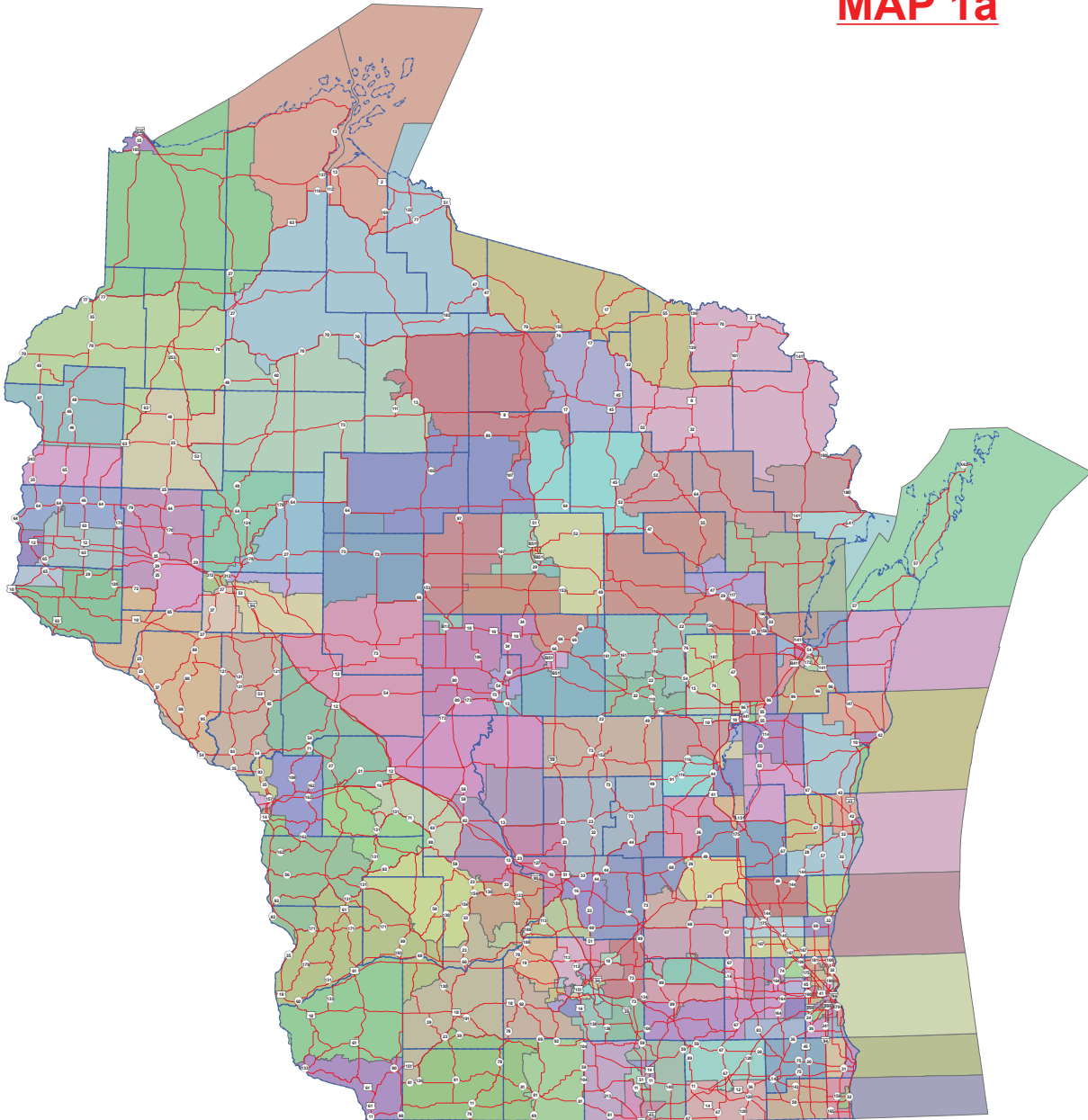
There is another significant aspect of the WisDOT / SLATS model runs, discussed above, and the original WisDOT / SLATS model that was developed and run for the 2035 LRTP adopted in 2006. Specifically, as mentioned, WisDOT altered the model to encompass all of the State of Wisconsin. To do this, but still keep the model manageable and valid, the number of traffic analysis zones had to be reduced. This was accomplished by consolidating the traffic analysis zones in the Metro Areas. On the upside, this change made the development of a state-wide traffic model feasible and, thereby, useful in evaluating future traffic conditions on the major roads that traverse Wisconsin. On the downside, this change has had the effect of “dumbing-down” the model with respect to roads within the Metro Areas. A comparison of **Map 2b** and **Map 5** of this update (Map 6-3 of the 2006 Plan) will show that the number of traffic analysis zones in the Stateline Metropolitan Area has changed significantly. This change means that the traffic on fewer roads or road segments in the Stateline Area can be effectively evaluated and forecasted.

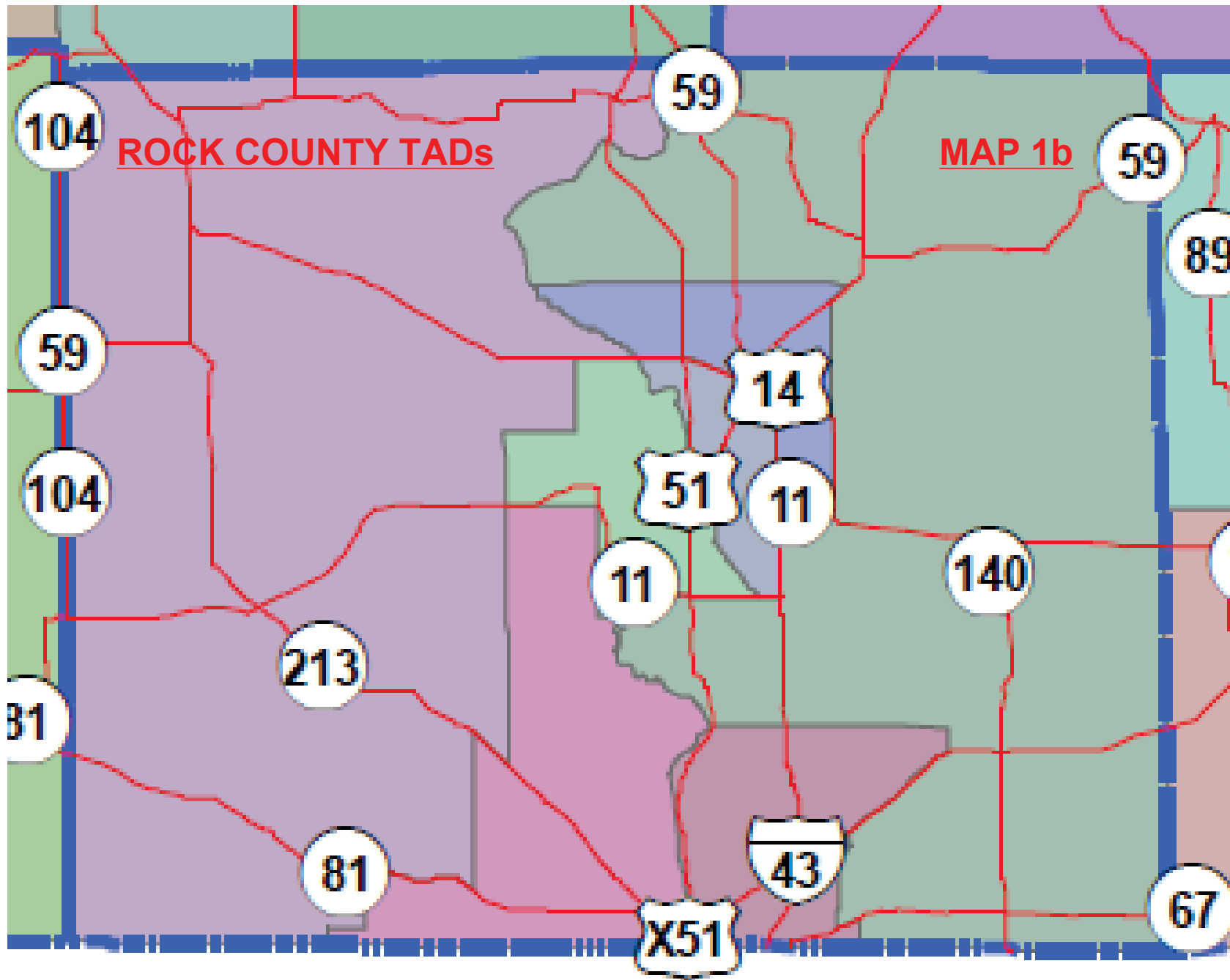
Therefore, in accepting **Map 3** as part of this SLATS 2035 LRTP Update, it needs to be kept in mind that this map should be considered valid primarily for evaluating the major roadways traversing the Stateline MPA. It is less than ideal for evaluating the area’s minor arterials and collectors. Stated more distinctly, the results shown in **Map 3** should be taken as reliable for evaluating the area’s most significant principal arterials, the Interstates and the State Major Trunk Highways, but may not be valid for evaluating and forecasting traffic on the roads serving travel needs within the Metro Area.

Fortunately for SLATS, the RMAP / SLATS model is still being maintained. SLATS staff expects that this more micro-specific model should do an improved job of forecasting traffic on minor arterial and collector roadways within the area. SLATS will continue to work with RMAP in this effort. It is hoped that new RMAP model outputs will become available to compare to the WisDOT model outputs.

Wisconsin Statewide TADs Submitted to Census Bureau June 2011

MAP 1a

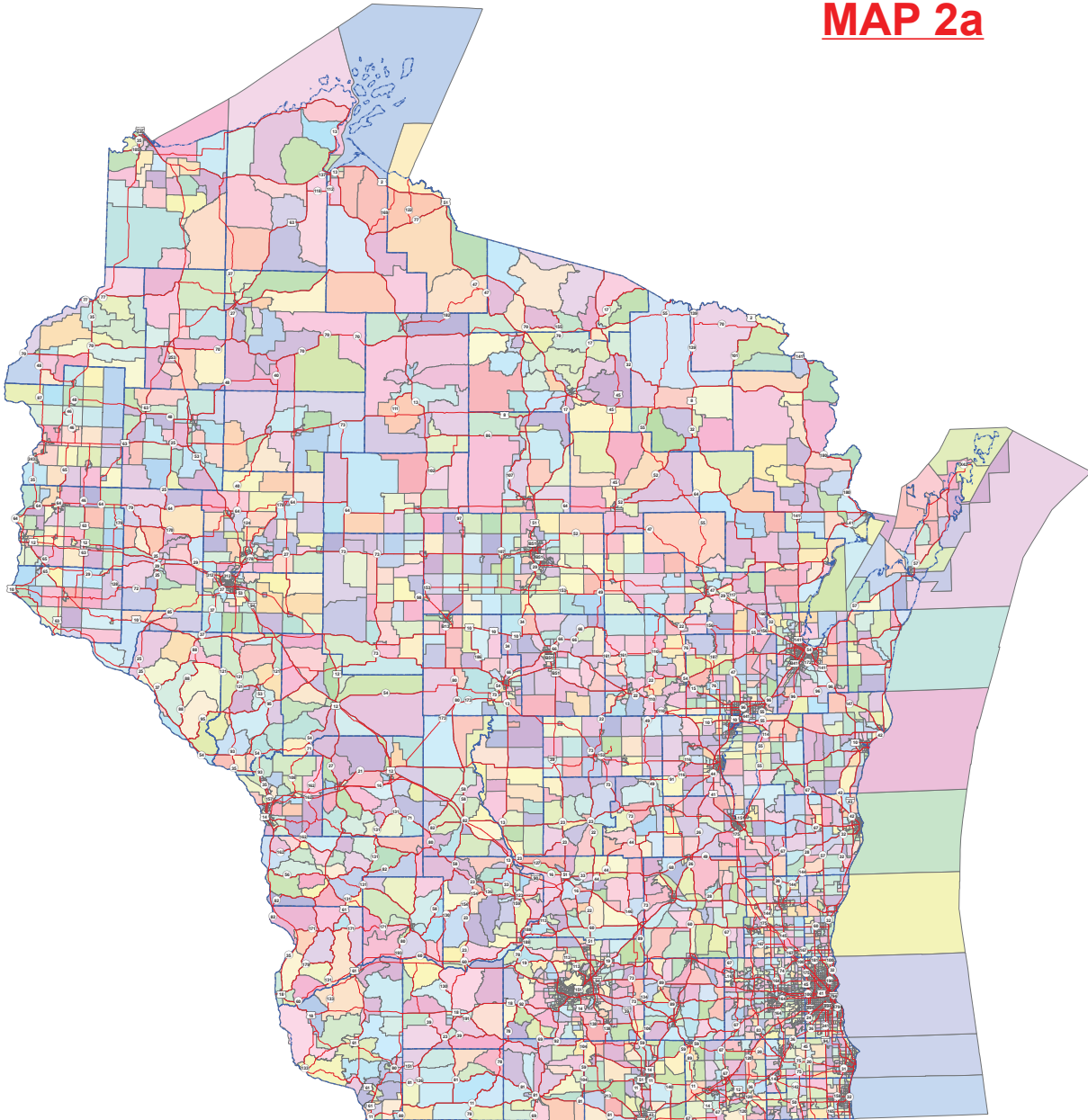


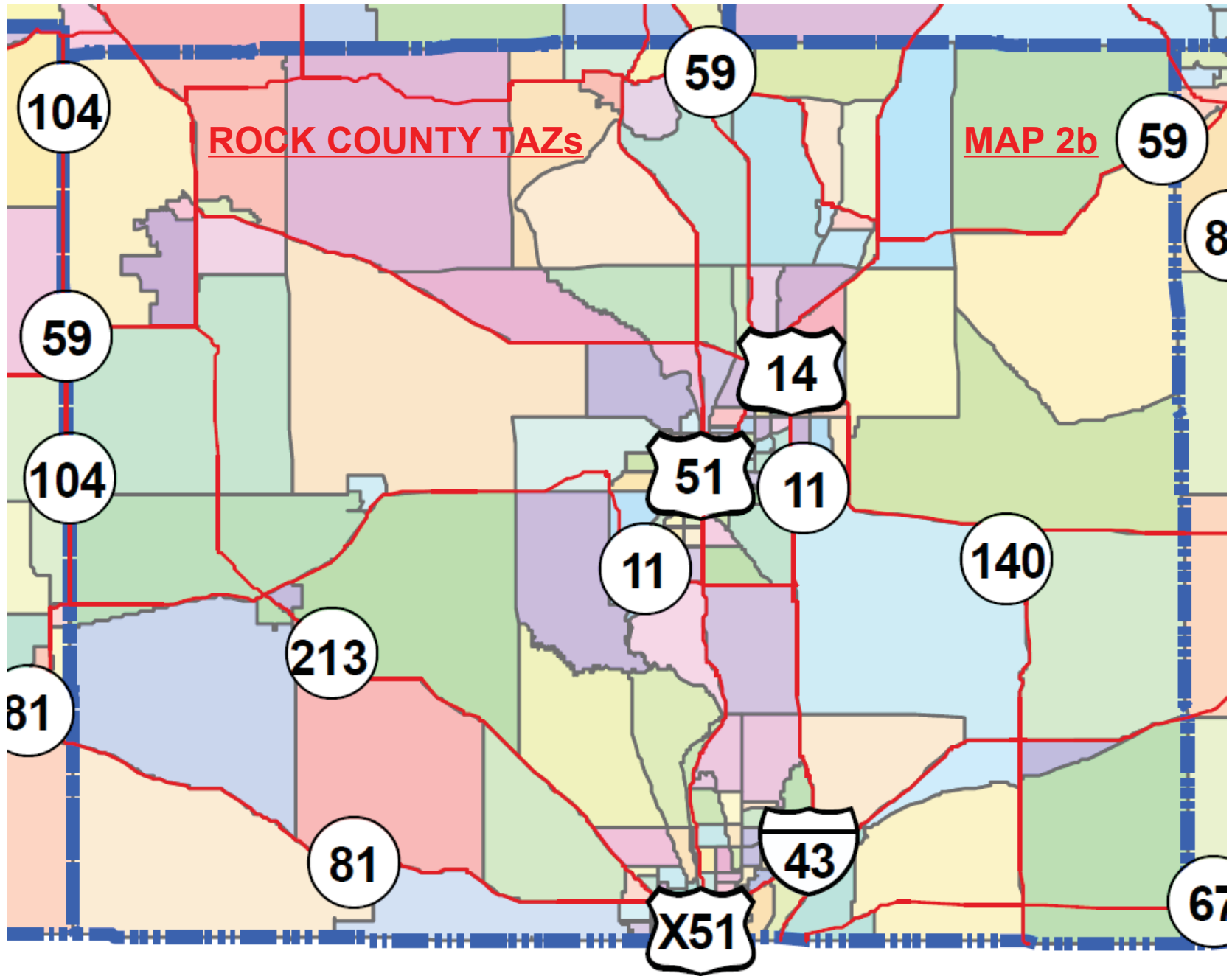


Wisconsin Statewide TAZs

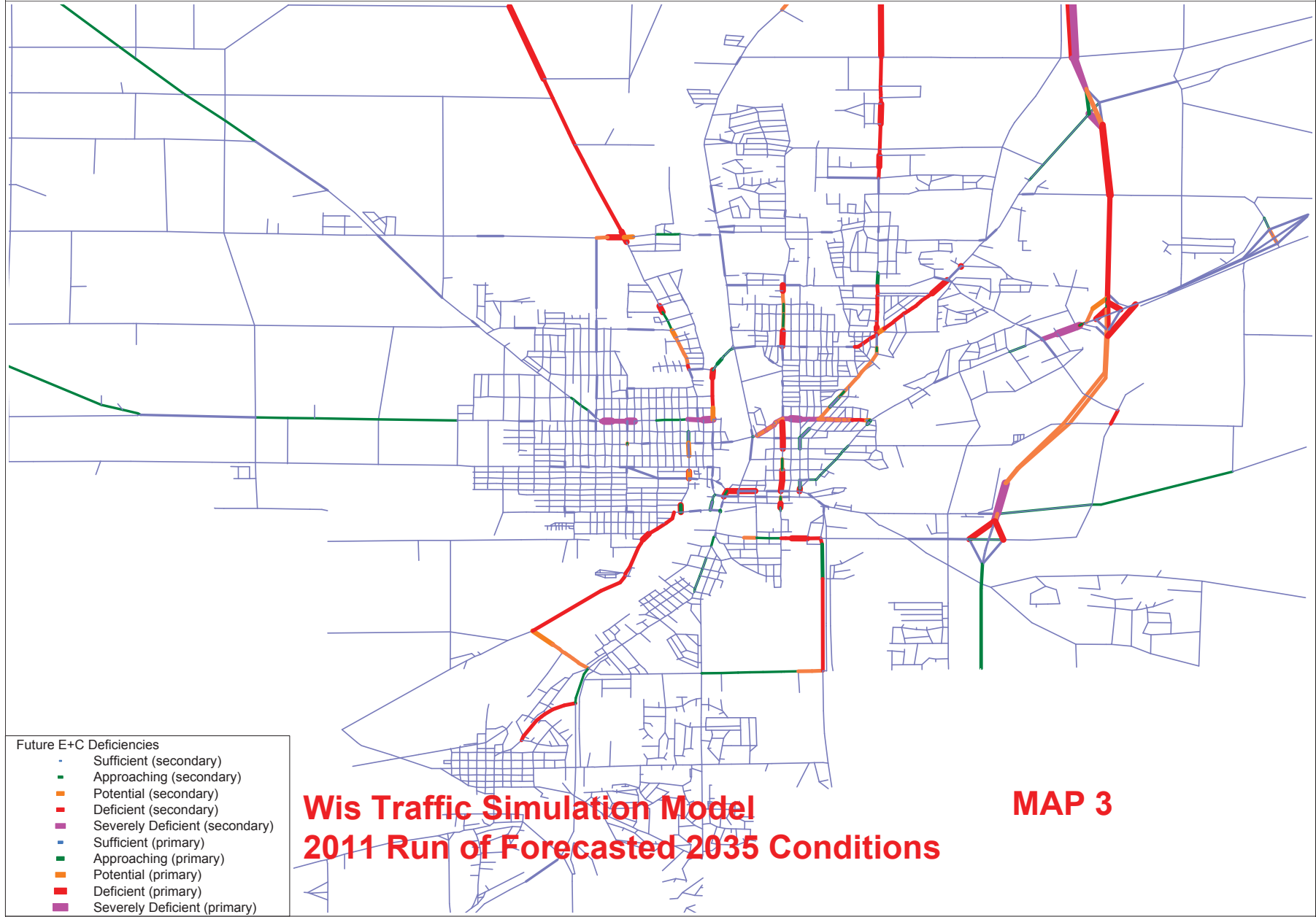
Submitted to Census Bureau June 2011

MAP 2a





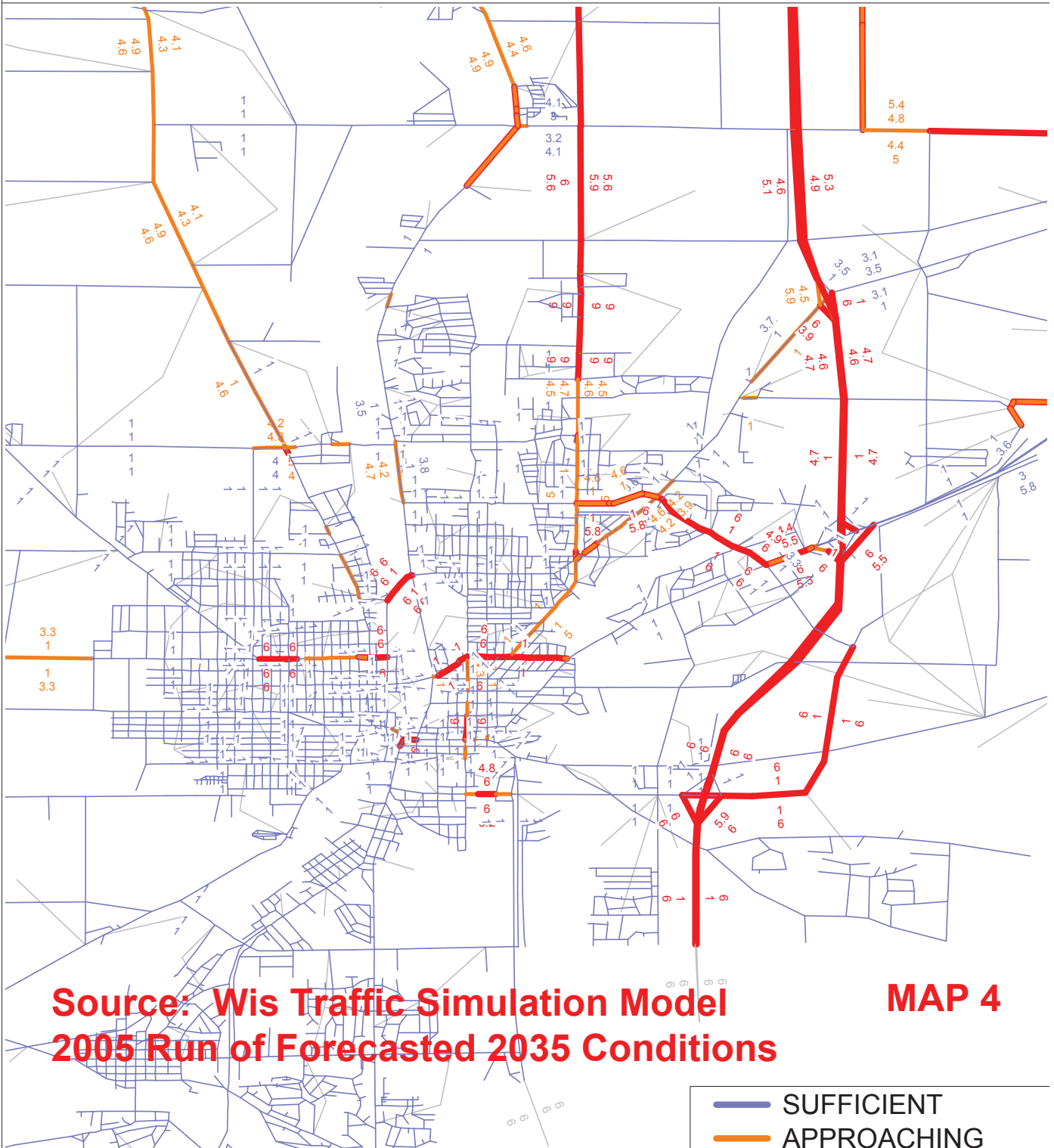
**Rock County MPO Travel Demand Model
Future Existing plus Committed Network - Future Deficiencies**



**Wis Traffic Simulation Model
2011 Run of Forecasted 2035 Conditions**

MAP 3

BELOIT 2035 LOS CAPACITY DEFICIENCIES E + C Network



**Source: Wis Traffic Simulation Model
2005 Run of Forecasted 2035 Conditions**

MAP 4

LOS Primary Posted on Link
LOS Secondary posted next

- SUFFICIENT
- APPROACHING
- DEFICIENT
- Centroid Connectors

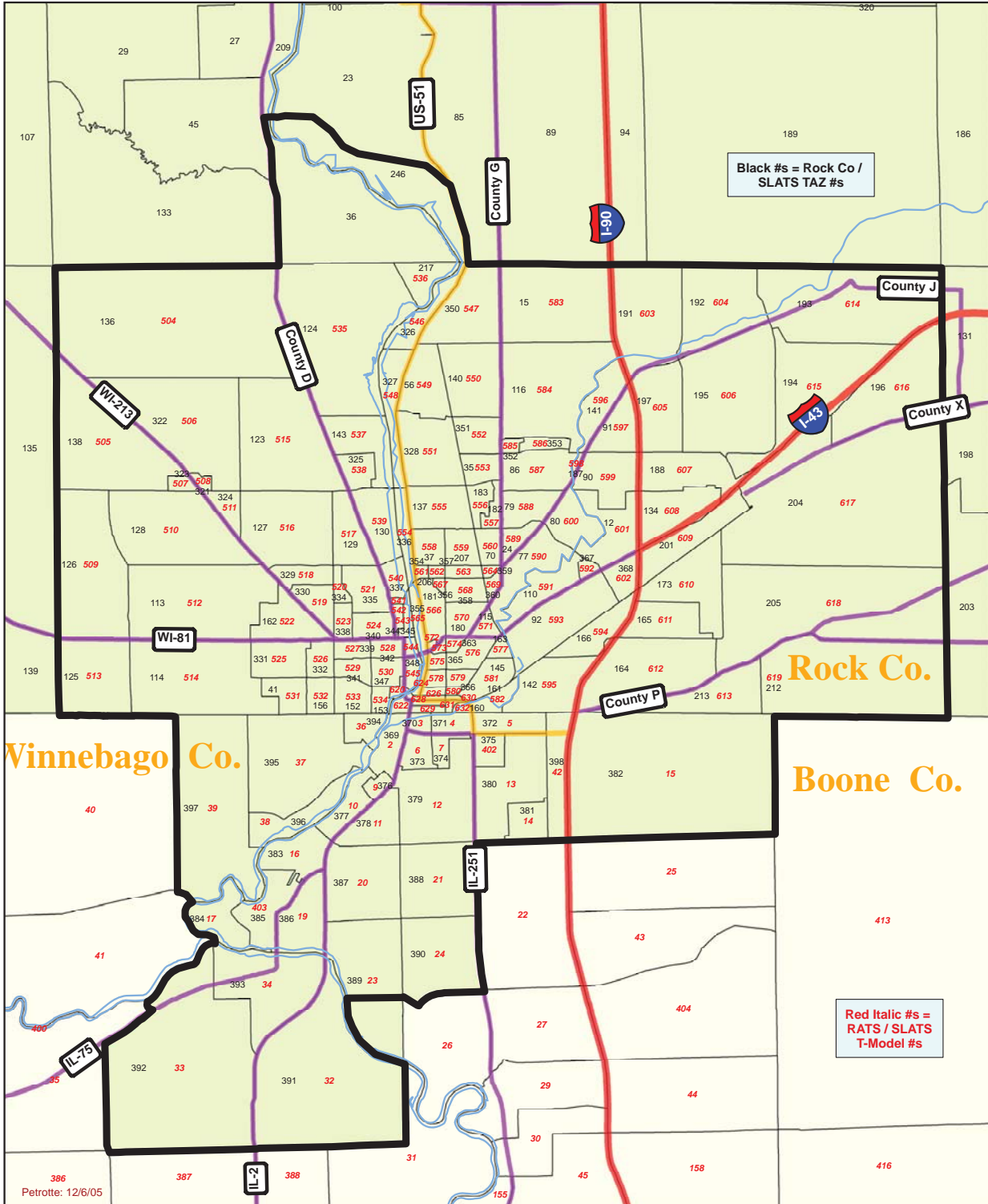


Licensed to Wisconsin Department of Transportation

MAP 6-3
SLATS / RATS
Traffic Analysis Zones

MAP 5

StateLine Area
 Transportation Study
2035 PLAN



SLATS
StateLine Area Transportation Study

LRTP
RAIL & FREIGHT UPDATE
Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 8, 2011

This document update the rail and freight planning activities at SLATS since 2006 when the LRTP was first adopted.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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**THE CONTENTS, VIEWS, POLICIES AND CONCLUSIONS
EXPRESSED IN THIS REPORT ARE NOT NECESSARILY THOSE OF
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Questions or comments pertaining to this document or any other
SLATS activities should be directed to the SLATS Coordinator at
608-364-6702

INTRODUCTION

Federal law requires that Metropolitan Planning Areas establish a comprehensive, cooperative, and continuing planning process. Such a process has existed in and around the City of Beloit (in parts of both Wisconsin and Illinois) for many years. That process, referred to as the Stateline Area Transportation Study (SLATS), is conducted by duly appointed Policy and Technical Committees comprised of government officials and transportation stakeholders. Federal law requires, among other things, that a Long-Range Transportation Plan (LRTP) be developed for the Metropolitan Planning Area (the area designated as urbanized by the most recent US Census, plus those lands expected to become urbanized in the next 20 years). The LRTP must be officially re-evaluated and updated every five years. SLATS last adopted a LRTP on September 11, 2006.

Specifically, the purpose of this document is to summarize rail and freight planning that has occurred since the LRTP was adopted in 2006. Three documents are pertinent in this regard: They are described and summarized below. This material and the documents referenced herein are made an official part of the 2011 Update of the SLATS 2035 Long-Range Transportation Plan:

I. SOUTH CENTRAL WISCONSIN COMMUTER TRANSPORTATION STUDY

The study started in November 2006 was an enhanced feasibility study for potential South Central Wisconsin commuter connections to North East Illinois with emphasis on the Harvard Metra Station. It was broadened to include Dane County, Wisconsin as part of the study area with an emphasis on Madison and Cities in Winnebago County, Illinois. It was determined there are greater commuter trips from Rock County to and from the Madison area and Winnebago County than there are to North East Illinois. The study was funded with \$248,600 consisting of \$198,880 in federal transportation funds and \$49,720 in WisDOT state funds. The government members of the Steering Committee were Beloit, Janesville, the Villages of Sharon and Clinton, Rock County, WisDOT, SLATS, and the Janesville MPO called JAMPO for the Janesville Area Metropolitan Planning Organization. Also, State Senator Judy Robson and the renowned Beloit-area entrepreneur, Ken Hendricks, were also members. EarthTech, now AECOM, was selected as the consulting firm which because of its extensive experience in this work.

A. The initial specific work items were:

1. A **Stakeholder Survey Report** done in final form which was designed to determine the perception of area stakeholders. The report addressed: improving regional transit links, enhancing regional transit versus other transportation investments, evaluating the quality of current regional transportation services, and determining the maximum acceptable commuting distances and travel times. It was determined there is support for regional transit including:
 - a. the fact that current regional transit is considered inadequate,
 - b. there is interest in expanding regional transit to Madison and Chicago especially to enhance economic development,
 - c. there is a high use of transit to reach external destinations,
 - d. there is a great deal of interest in improving connections to Madison and Rockford for job related purposes with Chicago being relatively less important,

- e. the fact that employers want access to the Madison and Rockford labor markets with Chicago being relatively less important,
 - f. there is a desire to improve connections to Madison and Chicago for recreational purposes with Rockford being relatively less important, and
 - g. the fact that elected officials and business leaders view transit as less important than other groups.
2. A **Preliminary Transportation Inventory Report** was done in final form. It identified and described the current rail, bus, and major roadway elements as well as certain new proposed facilities such as the State Line Mass Transit District, the Beloit and Rockford Transit Transfer Centers, the capacity expansion on I-39/90, the North Central Illinois Transit Initiative, and the proposal to provide Amtrak service to Rockford. There are significant current resources that need to be considered when analyzing transit feasibility. Potential expansions to the roadway and transit systems further complicate the analysis while consideration must also be given to the fact that many of the new capacity expansion proposals may never be funded.
 3. A **Market Analysis** was subcontracted by EarthTech to Cambridge Systematics who developed a technical computer based model of the study area. The model described current travel flows within in the corridor between traffic zones defined largely on a county-wide basis. Additional work could be done on a more refined level within the study area to examine trips on a more detailed basis and to further quantify corridor travel demands. The modeling data was primarily derived from journey to work data, and may in the future be further refined to take into account special attractors such as major entertainment and shopping locations, largely as reflected in weekend non-work related trips.
 4. A **Purpose and Needs Statement** was initiated that compares current and future transportation demands with the inventory of current and future transportation resources and facilities. The Stakeholder Survey Report and Market Analysis are viewed as representing the demand side for services and the Transportation Inventory Report viewed as the supply side of the equation. The outcome of the demand and supply balance is the Purpose and Needs Statement and it must be technically sound and reasonable.
 5. Two **Pivotal Summit Workshops** were held where the participants were advised of all the findings, and decisions. A fairly comprehensive list of criteria was identified for analyzing the alternatives. Through these pivotal workshops and using the criteria a list of almost thirty alternative options for improved transportation improvements was reduced to six options. These were studied more closely with the funds remaining and possibly analyzed in the future through further study possibly including an Alternatives Analysis Study. Certain early steps of the Alternatives Analysis process were carried out with the remaining resources available in this phase of the study process.

The Technical Pivot meeting was held on August 17, 2007. The main purpose of this meeting was to screen the long list according to technical criteria. The Policy Pivot Meeting was held on September 14, 2007. The main purpose of this meeting was to have a larger group of community leaders and regional transportation stakeholders review the progress made to date by the steering committee at the Technical Pivot Meeting and identify a final list of alternatives for study.

At the Policy Pivot meeting the list of alternatives that were agreed upon for further study included:

- Madison-Rockford via Milton (rail) and Madison-Rockford via Evansville (rail) combined,
- Madison-NW Cook County BRT (bus rapid transit),
- Madison-Rockford Express Bus (express bus),
- Madison-Chicago Introduce Discounted Commuter Fares,

- Subscription Buses (specialized transit) and Van Pools (specialized transit) combined,
 - Beloit/Janesville-Harvard Feeder Buses (feeder bus), and
 - Janesville/Beloit commuter rail connection to Harvard
6. At the meeting on January 11, 2008 the five **Most Viable Rail Segments and General Areas for Station Locations** were discussed for the purpose of estimating capital costs. The six potential rail corridors are:
- Madison-Evansville-Janesville, M-E-J,
 - Madison-Milton-Janesville, M-M-J,
 - Janesville-Rockford, J-R,
 - Janesville-Harvard, J-R, and
 - Beloit-Clinton, B-C

B. The Final Phases:

The following summarizes the activities conducted by EarthTech in the final phase of the study as directed by the Steering Committee. These activities led to the five Final Recommendations summarized in Section C:

1. **Recommend Rail Station Locations** – An initial set of recommended locations were presented at the January 11, 2008 meeting. Based on feedback at the meeting and subsequent input received, a report was prepared. The specific station locations were eliminated from the work product and a generalized area-wide approach for station locations was implemented for the report. Suggested generalized locations are offered primarily to guide land use planning and development decisions.
2. **Refine Commuter Rail Alternatives & Est. Costs** – As follow-up to the discussion at the January 11th meeting, the consultant Team prepared a Discussion Paper on possible future rail scenarios that was the basis for determining infrastructure requirements and capital costs to implement commuter rail service on the five short-listed corridors.
3. **Develop Express Bus Service Plan & Costs** – An overall route between Rockford and Madison, directly serving the downtowns of communities in the corridor (e.g., Beloit, Janesville, Edgerton and Stoughton), was proposed. An operating plan was prepared, suggesting logical segments of the overall route to be run as independent, but coordinated routes. One of the underlying objectives for the proposed service was to design a service that could mitigate traffic congestion during the I-90 reconstruction project. A summary of the task objectives and status of work to date was presented.
4. **Research on Discounted Regional Commuter Bus Fares** – As part of the research to enhance and expand regional transit options in South Central Wisconsin, an investigation of the economics of offering a discounted fare for commuters on an existing intercity bus service was proposed. Unlike other options being considered, requiring significant financial resources, minimal funding is needed to initiate and sustain this program. Issues associated with access, service levels, and marketing were also discussed. This proposed program was started in the fall of 2008 promoted by the City of Janesville in conjunction with the Van Galder/Coach USA Bus Company.
5. **Investigate Vanpools in Rock County** – Research and documentation work on this topic was completed. Vanpool information was provided on the SCWCTS project web site.

6. **Public Open House** - A Public meeting was held on June 18, 2008 at Blackhawk Technical College. State Senator Judy Robson welcomed the participants and Gary Foyle from EarthTech made the presentation summarizing the findings of the Study. Thirty-seven public participants attended. A survey of the participants indicated they were interested primarily in commuting to Madison (26 out of 37). There was a 47% interest in commuter rail and a 22% interest in Commuter bus service. There was a 16% interest in commuting to Rockford and a general feeling was conveyed that existing commuter connections are poor. The highest level of interest overall was expressed in: 1) Commuter rail between Madison and Janesville, Janesville and Beloit and Rockford, and Janesville/Beloit and Harvard, 2) Feeder bus to Harvard, 3) Van Galder commuter bus fare discounts, and 4) Express bus service between Beloit, Janesville and Madison.
7. **Final Steering Committee meeting with acceptance of all the consultant's reports including the Purpose and Needs Statement and subsequent preparation of the final report.** There was a review of the Draft Executive Summary revised as directed at the final Steering Committee meeting on July 18, 2008 in Janesville.
8. **Presentation of the Final Executive Summary Report** – This was delivered at a combined meeting of SLATS and the Janesville Area Metropolitan Planning Organization (JAMPO). The meeting took place at 6:30 PM on Wednesday, January 14, 2009 in Room 1400-B, Lower Level also called the North Commons at Blackhawk Technical College, 6004 Prairie Avenue, Janesville.

C. The Final Recommendations. The SLATS MPO's understanding of the final local recommendations derived from the study is as follows:

- ❖ **Representatives of Beloit and Janesville concluded not to pursue an Alternatives Analysis at the cost of \$3 million.** Robert Soltau, Project Manager, having previously received an indication of support that such an amount could be available through a federal "high priority" programming earmark. There was strong feeling that even after an Alternatives Analysis study the rail projects outlined would not qualify for Federal Transit Administration capital or operating support.
- ❖ **The concept of developing commuter rail or bus transportation should be examined again at some time in the future as conditions change.**
- ❖ **The Steering Committee strongly supports the preservation of the rail lines, facilities, and rights of way outlined in the study between Beloit/Janesville and Harvard, Madison via both Milton and Evansville, and Rockford.**
- ❖ **It is appropriate to promote a commuter pricing option by Janesville for Madison trips using the existing Van Galder service.**
- ❖ **There is encouragement for "park and ride" facilities, vanpooling, and ridesharing, as well as the possibility of a north-south commuter bus experiment with a Madison destination when WisDOT reconstructs and widens I-90 in the future.**

II. RESOLUTION ON RAIL PRESERVATION BY SLATS

This is a resolution in response to the third recommendation of the Commuter Transportation Study. It was passed by SLATS on November 17, 2008 and approved jointly by the Jamesville MPO. The action seeks to preserve any future abandoned rail lines so they could be considered for use as passenger or freight lines and it is included by reference.

III. ROCKFORD REGIONAL FREIGHT STUDY

SLATS awaits the full results of the **Rockford Regional Freight Study** scheduled to be released sometime this summer (2011). The Study, underway for the last 18 months under the direction of RMAP, is being conducted by AECOM, a consultant with extensive freight planning and logistics experience. The Executive Summary, recently released for public comment recognizes that the smooth and efficient movement of freight and goods is essential to the region's economic growth, including growth in the aero-space and food industries and all types of manufacturing. Road and rail projects that make it less expensive to move raw materials, components and finished goods can make businesses more profitable and more likely to expand operations and employment. This has become increasingly important in recent years as more and more employers utilize "just-in-time" methods where, rather than warehouse and store raw materials or products, they attempt to use the materials shipped to them the day they arrive, and strive to ship their improved products just as quickly. Avoiding congestion and transportation delays is critical to this "just-in-time" approach. The RMAP study is referenced here as an important part to be added to the SLATS LRTP as more information on its conclusions and recommendations becomes available.

SLATS
StateLine Area Transportation Study

**LRTP HUMAN SERVICE
TRANSPORTATION PLAN
UPDATE**

**Part of the 2011 Update of the
2035 Long-Range Transportation Plan
Version dated: May 8, 2011**

This document Human Services Transportation Plan component of the SLATS 2035 LRTP originally adopted in 2006.

SLATS is the METROPOLITAN PLANNING ORGANIZATION federally recognized to coordinate and conduct transportation planning for the Beloit Urbanized Area as designated by the US Census Bureau. Agencies involved in the SLATS Organization include the following: Beloit Transit System; City of Beloit, Wisconsin; City of South Beloit, Illinois; Federal Highway Administration; Federal Transit Administration; IL Dept. of Transportation; Rock County, Wisconsin; Rockton Township, Illinois; Stateline Mass Transit District; Town of Beloit, Wisconsin; Town of Turtle, Wisconsin; US Dept. of Transportation; Village of Rockton, Illinois; WI Dept. of Transportation; Winnebago County, Illinois.

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INTRODUCTION

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Specifically, the purpose of this document is to provide information to update the Human Services component of the SLATS 2035 Long-Range Transportation Plan. This document is part of the overall 2011 Update of the 2035 LRTP

I. THE SLATS HUMAN SERVICES TRANSPORTATION PLAN

The SLATS Manager participates in three Human Service Transportation Plan (HSTP) committees:

- the Rock County Committee representing all of Rock County, Wisconsin,
- the North-West Illinois Committee representing various counties including rural Winnebago County, and
- the Rockford Metropolitan Agency for Planning (RMAP) Committee representing the RMAP Urbanized Area.

The purpose for the SAFETEA-LU HSTP requirement is to improve the combined efficiency and effectiveness of the various, and sometimes numerous, transit providers and to identify and address gaps in mobility management. Various systems provide rides using Federal, State, and local funding for low-income, elderly, handicapped riders, and riders without personal transportation in general. Trips may be targeted for many purposes including medical, job access, shopping, and general unspecified purposes.

Different Federal and State agencies provide financial support for operational and/or capital expenses. The HSTP planning is designed to improve the efficiency and effectiveness by reducing restrictions on how the funds can be used and for improving coordination. In summary, gaps and unmet needs are identified and resources are identified to address them.

The process identifies resources and services and seeks how they can be better used to fill unmatched needs, some of which are critical to the overall well being of the community, such as getting patients to medical centers for dialysis treatment. SLATS was involved in doing this before the HSTP process even started. For example, SLATS was long-involved in the process that recently resulted in the establishment of the Stateline Area Mass Transit System; a new public transit agency that provides general demand-response transit rides for the people of South Beloit, Roscoe, Rockton and Rockton Township.

SLATS has recently initiated efforts to establish similar services for all of the rural and small municipalities of Winnebago County, Illinois and is working with RMAP and potential providers to fill this gap.

Below SLATS identifies the HSTP committees in which SLATS participates, especially those that affect the SLATS Metropolitan Planning Area. A description of each committee's orientation is

described. These descriptions demonstrate how different approaches can be used to carry out the Federally-required activity. The process for each committee best meets the capabilities and needs of the local area; whether it is very rural, like North-West Illinois; urban, like Rockford; or a mix of rural and urban resources and needs, like Rock County, Wisconsin.

As the discussion below will illustrate, the SLATS Human Services Transportation Plan is a broad and evolving effort. The SLATS approach is to closely monitor and participate in all such efforts in and around the StateLine Area. SLATS seeks to support and bolster the efforts of all entities working to increase the effectiveness and efficiency of public transportation providers and human service agencies with special transportation needs.

II. HSTP Approach for Rock County Including Beloit

The Rock County model is based on the methodology recommended by the Wisconsin Department of Transportation. Transportation services are provided in Wisconsin through a number of programs funded by the state and federal governments in conjunction with local government resources and programs. Transit agencies, county governments, non-profit organizations, and private businesses deliver services to “transportation disadvantaged individuals”¹ and the general public. Human Services “transportation coordination”² seeks to provide more rides to consumers through cooperation, communication, and sharing resources.

Program requirements

The most recent Federal transportation law, **SAFETEA-LU**³, as enacted in 2005, requires that projects funded by three Federal programs . . .

Elderly and Disabled Transportation Capital Assistance⁴ ;

Wisconsin Employment Transportation Assistance Program ⁵; and

New Freedom Program (Section 5317)⁶

. . . be “derived from a locally developed, coordinated public transit-human services transportation plan” and that the plan be “developed through a process that includes representatives of public, private, and nonprofit transportation and human services providers and participation by members of the public.”

¹ *Transportation disadvantaged individuals* are persons who are unable to provide their own transportation as a result of some type of disability. These can be physical disabilities, mental disabilities, age-related conditions, income limitations, legality-related conditions, temporary conditions, or combinations of those factors.

² *Transportation coordination* is a process where human service agencies, transportation providers, consumer groups, and public officials work together to develop and improve services for “transportation disadvantaged” individuals, by ensuring that transportation resources funded by different programs are coordinated. To achieve coordination there must be communication, trust, flexibility, and the willingness to focus on client needs. This approach seeks to:

- Develop and improve transportation options,
- Improve access to the handicapped and other physically or mentally disadvantaged individuals,
- Minimize service duplication, and
- Facilitate appropriate, cost-effective transportation with available resources.

³ [SAFETEA-LU](#)

⁴ [Section 5310, Elderly and Disabled Capital Assistance](#)

⁵ [Section 5316, part of the Wisconsin Employment Transportation Assistance Program](#)

⁶ [Section 5317, New Freedom](#)

Another federal initiative, **United We Ride**⁷, was created to assist states with implementation of this requirement, providing states and communities with an assessment tool to begin the coordination planning process.

Recently, WisDOT developed its **Toolkit: Transportation Coordination Plans**⁸ to assist cities, counties, and multi-county entities with the development and implementation of coordination plans, and to provide information on applying for transportation funding.

Additional supporting information is provided by the WisDOT Interagency **Council on Transportation Coordination**⁹, created in 2005 by the Governor. The Council is a group of personnel from five state agencies working to eliminate barriers to transportation coordination and enhance mobility. The ICTC is a body of transportation consumers, advocates, providers, and partners who advise the ICTC on statewide transportation needs and coordination opportunities. The Stakeholder Advisory Committee also helps educate the public on the benefits of transportation coordination.

WisDOT has also collected a set of **Coordination Resources**¹⁰ available on the Web, from helpful organizations to documents and downloads. The **Coordination model**¹¹ is a framework on which to develop policies and strategies that will foster coordination throughout the state.

III. HSTP Approach for North-West Illinois

The Illinois Department of Transportation (IDOT) contracted with the Illinois Association of Regional Councils (ILARC) to prepare plans that create a comprehensive strategy to improve the coordination and cooperation of transportation providers in the rural, non-urban regions state-wide. The purpose is to identify and overcome barriers that cause gaps in access to services in the rural areas. The plan is one of the requirements set forth within the federal bill reauthorizing the surface transportation act, called SAFETEA-LU. The plan is necessary before any organization within the region can apply and receive funding from the New Freedom Initiative (section 5317), Job Access and Reverse Commute (JARC, section 5316), and Elderly and Disabled Transportation Program (section 5310).

The plan must be developed through a process that includes representatives of public, private, non-profit transportation services, human service providers, and the general public. Agencies and organizations that represent, provide service to, or advocate for individuals who have public or specialized transportation service needs (including elderly and/or persons with disabilities, and/or low income individuals) were contacted and requested to participate in the development of the Human Service Transportation Plan. This was done on a regional scale for areas across the state outside of the northeast region and for all non-urbanized areas with a population of less than 200,000.

ILARC contracted with six member groups across the State. The group contacted in our area was the North Central Illinois Council of Governments (NCICG). In turn, NCICG created a Regional Transportation Committee (RTC) to help guide the plan process. The RTC was made up of a variety of agencies and organizations and the process was delineated by IDOT Division of Public and Intermodal Transportation (DPIT). This uniformity helped bring together plans being conducted throughout the state, while allowing for the unique solutions to the similar needs and gaps found in the various regions across the state in rural areas with a population of less than 200,000.

⁷ http://www.unitedweride.gov/1_3_ENG_HTML.htm

⁸ [on-line toolkit](#)

⁹ [Inter-Agency Council on Transportation Coordination \(ICTC\)](#)

¹⁰ [coordination resources](#)

¹¹ [Wisconsin Model of Coordination](#)

Two primary methods were used to gather information and opinions of stakeholders for this plan. The first method was to conduct a survey that was issued by IDOT/DPIT. This survey was sent to a large number of current transportation providers, agencies, and organizations that have a need for transportation for their clientele/customers.

The other primary method to gain needed information was to hold public meetings of these same businesses, agencies, and organizations. Participants were asked to: 1) Identify specific gaps in service and access to services, 2) Review obstacles and barriers in connecting people to services, 3) Prioritize needs, 4) Find possible local approaches to addressing the identified gaps, and 5) Create potential strategies for answering the gaps on a long term basis.

Both the surveys and the public meetings yielded good results with participation from a good cross-section of transportation service providers, human service agencies, businesses, organizations, and other stakeholders. Each of the five counties in Region One (the Region SLATS is in) has shown a good cross section of representation with providers, government, and citizens. In addition to surveys and public hearings, NCICG is gathering further insight from the regional committees and other recent transportation reports.

The NCICG report includes an inventory section that describes current transportation service providers in Region One. That inventory shows there is at least one provider in each county, except for Carroll County (however there some smaller providers and some who currently service only a single private group).

The inventory also discusses the past and current successes of coordination and cooperation within the region. Many agencies would like to eliminate or reduce their own transportation assets and activities, if there was any significant type of public transportation that could fulfill their needs. The inventory shows that there are many gaps in the public transportation outside of the metropolitan areas.

Section Three of the NCICG report is an assessment of the transportation needs. Particular attention was given to the needs of the elderly, disabled, and low-income persons. Region One spans the northern part of the State and the needs are nearly opposite from west to east. While the western side population has not really changed from the last census, the eastern side has grown by 20 to 30 percent and western stats closer mirror the state averages; the western counties show lower incomes, a much higher elderly population, and proportionally higher population with disabilities. But the entire region has very inadequate transportation in the rural area.

There are numerous transportation needs identified in the plan. For the most part, the survey results and the discussions at the public meetings identified similar findings. Section Three provides a much more thorough description of the gaps and needs in service but some of the more prevalent needs found are:

- There is a need for more service hours. There is a definite need for transportation after 5:00 P.M.
- There is a need for weekend service.
- There is a need for more transportation outside the region for medical purposes.
- There is a need for some type of transit for the low income.
- Additional buses are needed, as are more drivers. In some cases, transportation providers are having problems finding well-qualified professional drivers.

- Additional education is needed for service providers about transportation services available for their clientele/customers.
- There is a shortage of funding available to work on these varied needs.

Meeting the needs of transportation to the rural area in Illinois is the main focus of the NCICG report/plan.

- One strategy is to give MEDICARE providers flexibility in meeting service for long distance travel.
- Special consideration should be to those who live in isolated geographic areas and identifying the needs of this population.
- The use of volunteer drivers is a crucial part of providing rural transportation.

Besides the seeming never ending lack of funds some other things suggested in meetings and from surveys are:

- Better cooperation of current 5310 vehicle recipients,
- Finding easier methods of coordination for providers, and
- Finding ways to decrease operational costs to providers such as more regional mechanics, and consortium purchasing power.

Overall, current public transit providers in the region all provide good service with the limited budgets they have. Increased funding would allow them to help meet some of the needs discussed in this study. However, additional funding is not the only need; they also need coordination and cooperation among current providers. Currently most of the transit systems in this region are at or near capacity for current service. Not only do current operation tactics push the vehicles to the limit, but staff is also stretched as far to their operational limits. If progress is to be achieved in this region there must be a coordinator put in place to concentrate on assisting the providers and agencies in addressing these ends. There will need to be a coordinator on a permanent basis to ensure operations do not slip back into the condition at which they started.

Lastly, continued emphasis is needed at the state level to bring state agencies together to develop methods to lessen barriers and create new incentives to foster transportation coordination. A large part of this will be to regularly review regulations and tune services to better serve the elderly, the disabled, and the low income citizens of rural Illinois and insure improvements to these ends.

IV. HSTP for the Rockford Metropolitan Planning Area

To promote communication and coordination between public transit and human services providers as well as public participation, RMAP has created a Mobility Subcommittee. The RMAP Mobility Subcommittee originated from the Getting to Work in Greater Rockford (GTW) organization, which was part of the larger statewide Work, Welfare and Families coalition. The RMAP Mobility Subcommittee consists of human services and transportation agencies, governmental entities, workforce investment organizations, public and private transit providers, assisted living facilities and ambulance providers. The GTW organization began in 2005 and has met to discuss transportation options for transit dependent populations and is continuing to do so as the new RMAP Mobility Subcommittee. To note, new organizations can be added to the Mobility Subcommittee through the process outlined in the RMAP Cooperative Agreement (2008).

The duties of the Mobility Subcommittee are to facilitate public participation and involvement to identify transportation needs and to work with resource agencies to develop strategies addressing the transportation needs of the public transit dependent populations. The Mobility Subcommittee also advocates for enhancements, expansion and new services that improve the wellbeing of public transportation dependent populations.

While the initial charge of the Mobility Subcommittee is to assist in the creation of the Coordinated Public Transit-Human Services Transportation Plan (HSTP), the subcommittee will also assist in exploring other possible transportation services and mode choices to adjacent areas to RMAP as well as address and act upon associated issues as identified by the RMAP Technical and Policy Committees. The Mobility Subcommittee meets the second Tuesday of each month at 10:00am at the YWCA in Rockford, IL (4990 E. State St.) and all meetings of the Mobility Subcommittee are open to the public for comment and participation. Special meetings of the Mobility Subcommittee are permissible and occur on an as needed basis. Prior to RMAP Mobility Subcommittee meetings, agendas are distributed to members on the RMAP mailing list, posted on the RMAP website and are sent to local media outlets.

It is also important to note that the organizations involved in the Mobility Subcommittee have daily contact with individuals from public transit dependent populations. This interaction is important because it informs the organizations of transportation needs that transit dependent individuals face. Thus, by having these organizations participate in the Mobility Subcommittee, transit dependent population's concerns are represented and expressed at the Mobility Subcommittee meetings. Through this process improvements in transportation services will be better promoted on a consistent basis.

SLATS Long-Range Transportation Plan Update for 2040

Update Memorandum 1

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SLATS Long-Range Transportation Plan Update for 2040

Update Memorandum 1

The SLATS Roadway System Plan

Part 1 - BACKGROUND & SUMMARY

This report will be hereafter referred to as “**Update Memorandum 1**” (**UM1, for short**). UM1 is part of the effort to bring the **SLATS Long-Range Transportation Plan (LRTP)** in compliance with the Federal requirement that such plans be updated every 5 years. This is the first of a series of memos for that purpose.

UM1 addresses significant portions Chapter Six of the SLATS 2035 LRTP. Parts of Chapter Six not affected by UM1 or other subsequent update memos should be assumed to remain in effect and continue to be valid for the new Plan goal year of 2040.

Chapter Six of the LRTP deals with the surface transportation system for motorized vehicles (cars, trucks and buses). Other chapters of the LRTP address the rail, air, pedestrian and bicycle, and financial elements of the overall system and will be addressed in other update memos.

The roadway system as used by motorized vehicles is the most elaborate part of the transportation system in the **StateLine Metropolitan Planning Area (MPA)** and the surrounding vicinity. Over the last 4-6 years, since the SLATS 2035 LRTP was developed and adopted (9/1/06), a number of improvements have been made to the system and considerable new information has been gathered and analyzed. This and subsequent updates will address those changes.

UM1 was first initiated to correct one aspect of the 2035 LRTP that caused some confusion as the LRTP was used to guide transportation improvement decisions over the last five years. Specifically, the **Functionally Classified System (FCS)** of roadways illustrated and adopted as part of the SLATS 2035 LRTP was slightly different than the FCS in use by the **Wisconsin and Illinois Departments of Transportation (WisDOT and IDOT) and the Federal Highway Administration** (the State's FCS, for short). The State's FCS is often referred to as the **5-Yr Functional Classification System (5-Yr FCS)** and is typically updated every five years.

The State's FCS, or the 5-Yr FCS, is important because it determines which roads are eligible for State and Federal funding assistance for construction and maintenance. Generally, only roads that are assigned Collector or some type of Arterial status are eligible for Federal assistance – local roads are not. In 2010, confusion occurred as to whether Federal funding could be used to upgrade a part of Rood Avenue, located just south of the State Line and west of the Rock River. Rood Avenue was not included as a Collector or higher on the SLATS FCS (Map 6-1 of the 2035 LRTP, **Map 7a** in this Update Memo), but was eligible because it is included as a Collector on the State's FCS. In light of this confusion, it was obvious that it would be to SLATS' advantage to have both systems as similar as possible or to, at least, develop an explanation of the differences and the purpose of those differences.

The above situation motivated SLATS staff to look at the roadway functional classification situation in much greater detail. This led to endeavors to improve other aspects of transportation planning in the StateLine MPA.

1. For the first time, a comprehensive and seamless map of the 5-Yr FCS was assembled for the State Line Area.
2. For the first time, a comprehensive and seamless map and data base of vehicular traffic in and around the State Line Area was assembled.
3. Major roadway modifications and additions were incorporated into the above.
4. Utilizing the above, vehicular traffic was comprehensively compared with the existing 5-Yr Functional Classification status of all roadways. Subsequently, system-wide changes were proposed.
5. Further utilizing the above, the medium-range functionally classified roadway network (Map 6-1 of the 2035 LRTP) was evaluated, system-wide, and a comprehensive update was proposed. This work has resulted in a revised 20-Yr Functional Classification proposal that employs the same classification types and criteria as the 5-Yr System. This is still in progress.
6. Finally, the “full-build-out” proposal (Map 6-12 in the 2035 LRTP) was evaluated and initial steps toward a comprehensive update of that ultra-long-range network was started – again using the same classification types and criteria as the 5-Yr and 20-Yr Systems. This is still in progress.

The following is a more detailed explanation of the work.

Part 2 - CURRENT 5-YEAR FUNCTIONAL CLASSIFICATION MAP

State's official 5-Yr FCM divides many roadways in the StateLine MPA into "Rural" and "Urban" groups. This subdivision was only vaguely acknowledged in the SLATS 2035 LRTP and rural classed roads were not included within the MPA on Map 6-1 of the Plan. For the sake of Plan refinement, the distinction between Urban and Rural roads included and elaborated in this Update Memorandum

The first step in eliminating the confusion between the SLATS FCM and the State's / 5-Yr FCM was the creation of a version of both documents that could be easily compared. The SLATS FCM (Map 6-1) was developed in "shapefile" format database using ArcGIS¹. The 5-Yr FCM was available on several separate official maps or map parts maintained by the Illinois and Wisconsin Departments of Transportation and available via the internet, as listed below and attached as **Appendix A**.

1. BELOIT Functional Classification 09/29/2009, WisDOT Bureau of Planning and Economic Development.
2. Janesville Urbanized Area Functional Classification, (October 17, 2005), same WisDOT source.
3. ROCK Functional Classification 7/17/07, same WisDOT source.
4. 5-Year Classification Map, WINNEBAGO COUNTY, ILLINOIS, Illinois Department of Transportation, Office of Planning and Programming, FHWA approval date 2/9/05.
5. 5-Year Classification Map, Rockford & South Beloit Urban Areas, ROCKTON TOWNSHIP, same IDOT source, FHWA approval date 2/9/05.
6. 5-Year Classification Map, Rockford & South Beloit Urban Areas, ROSCOE TOWNSHIP, same IDOT source, FHWA approval date 2/9/05.
7. 5-Year Classification Map, Rockford Urban Area, HARLEM TOWNSHIP, same IDOT source, FHWA approval date 2/9/05.
8. 5-Year Classification Map, Rockford Urban Area, OWEN TOWNSHIP, same IDOT source, FHWA approval date 2/9/05.
9. 5-Year Classification Map, BOONE COUNTY, ILLINOIS, same IDOT source, FHWA approval date 7/30/04.

The specific sources for the above information are the following web pages in at Wisconsin DOT and Illinois DOT, respectively.

- <http://www.dot.wisconsin.gov/projects/planresources/functional.htm>
- <http://www.dot.il.gov/maps/fiveyear/fiveyrmaps.html>

Data from the above sources was manually entered in the same shapefile database containing the SLATS FCM. ArcGIS was then used to develop **Map 1a**, a composite of the State maps. **Enlargements for the Beloit area and the Rockton Area are including on the pages following Map 1a (Map 1b and Map 1c).**

¹ ArcGIS is proprietary software that melds relational database software with geographical data and software that can display the data spatially (in maps) on computer monitors, and subsequently print those maps.

Part 3 – BACKGROUND ON FUNCTIONAL CLASSIFICATION

Some additional background information may be useful to laypersons reading this memo. The **Map 1a** FCM composite was not developed for the 2035 LRTP for two reasons: (1) sufficient staff time was not available for such a refinement at that time, and (2) the functional classification system of the LRTP is not by Federal law required to be the same as the State's 5-Yr system because the two versions serve slight different purpose. The LRTP version is for long-range planning while the State's version serves for shorter-range planning/funding decisions.

The State's 5-Yr FCM is tied to geographic determinations made by the US Census Bureau and to funding eligibility determinations contained the Transportation Acts passed or updated by the US Congress roughly every six years. Every 10 years, the US Census Bureau delineates heavily developed areas across the country and calls them "urbanized areas." If there are more than 50,000 people living in an "urbanized area," the US Department of Transportation declares that the area falls under its jurisdiction (as per various Transportation Acts over the years). US DOT says that every "urbanized area" must set up a Metropolitan Planning Organization (MPO), expand the UA into and Adjusted UA (an area forecasted to become urbanized within the next 5 years) and further expand the Adjusted UA into a Metropolitan Planning Area (the area forecasted to become urbanized in the next 20 years). US DOT then works with the States and the MPOs to determine the most important roadways and classify them by their order of importance or primary usage (functionally classify them). As previously stated, only roadways classified as Collector or higher are eligible for one or more of the numerous categories of Federal funding assistance for roadway improvement. Because the Federal government focuses more on interstate commerce, longer distance travel needs and national security, Federal aid, in turn, is focused more on the higher level roadways.

Consequently, the roadway functional classification system is more than just an academic way of describing roadways or a method to help determine how they should be designed, it is also an instrument that helps the US DOT and the States determine how and where Federal aid for roadway improvements should be divvied.

Currently, the official 5-Yr FCM works in conjunction with the geography of the Metropolitan Planning Area (MPA) to define where two broad categories of Federal aid funds can be applied -- Surface Transportation Program-Urban funds (STP-U) and Surface Transportation Program-Rural funds (STP-R). An MPA and its surroundings lands has four geographic components:

1. The "urbanized area" as defined by the Census Bureau.
2. The Adjusted Urbanized Area (AUA) as defined by the MPO and the States. This includes the "urbanized area" (above) plus the adjacent lands expected to become urbanized within the next 5 years.
3. The Metropolitan Planning Area (MPA) itself as, again, defined by the MPO and the States. This includes the "urbanized area, plus the AUA, plus all adjacent lands expected to become urbanized in the next 20 years.
4. The other areas outside the MPA boundaries and usually referred to as Rural areas.

Within these four areas, Federal aid funds can be expended as follows:

- Within the “urbanized and the AUA (including the boundary roads) – only STP-U funds may be used.
- In the area between the AUA boundary and the MPA Boundary (including the boundary roads) – STP-U or STP-R funds can be used.
- In the Rural area, the area outside the MPA – Only STP-R funds can be used².

Map 2 illustrates this situation. A copy of this map is included annually in the required Transportation Improvement Program (TIP) for the StateLine MPA .

² Inadvertently (or perhaps intentionally?) this funding rule has led to a conundrum in the roadway Functional Classification System. Specifically, roadways within the Metropolitan Planning Area (the area forecasted to become urbanized within 20 years) can still be classified as “Rural” and be eligible for funding from the STP-Rural program. This begs the question: if a roadway is located in an area soon to be urbanized, why should it be eligible for funding in the “rural” funding category? The conundrum is accepted because of the uncertainty regarding what areas are likely to be urbanized in the next twenty years, the propensity of some engineers not to error on the low side (don’t spend a lot of money building roads that won’t hold the traffic), compounded by the propensity of some planners to imply that their “plans” will encourage growth leading to enhanced community prosperity. In addition, some improvements are short-term improvements (simple resurfacing, for example) that might be the most logical remedy on a roadway segment that is unlikely to see large traffic increases associated with urbanization until near the end of the 20-year LRTP cycle.

Part 4 – INCONSISTENCIES NOTED

In the process of entering the 5-Yr FCM information into the shapefile database, a number of inconsistencies were observed among the source maps and from jurisdiction to jurisdiction.

Some of the differences in the State's 5-Yr. source maps are simply semantic. For example, some maps refer to "Interstates" while others don't, some refer to "Other Principal Arterials" and others don't, and some include "Rural Principal Arterials" and others don't.

The way the entities list and describe or refer to Interstates is confusing. With careful study of the legends and the maps it becomes obvious that all Interstates are Principal Arterials. However, on the Janesville map, a part of I-39/90 is classed as Rural Principal Arterial - Interstate and another part as Urban Principal Arterial - Interstate. On the Rock County Map, they are simply called Principal Arterials (assume Rural?). On the Beloit Map, they are again, simply called Principal Arterials (with no distinction between Rural and Urban). On the Winnebago County map, they are classified as Interstates but only the short segment of I-39 at the south tip of the County is identified; the urban areas are left to the Township maps. On the Roscoe and Harlem Township maps, they are designated on the "Urban Legend" as Principal Arterials – Interstates; differentiated from Freeways and Expressways (even though there are none) and Other Principal Arterials. These wording or jargon differences, even though slight to persons in the transportation planning profession, are not conducive to the understanding of the general public.

Another difference is how the entities display the information. In the urban areas of Winnebago County the information is presented on black and white maps broken down by townships. These older style maps are quite readable when one has access to a large format paper print, but are rather cumbersome to use in digital format on a computer monitor. In contrast and to their credit, Winnebago and Rock Counties and the Janesville and the SLATS MPA have made the effort to develop color renditions of their maps. These are much easier to read in either paper form or on a computer display.

In addition, some of the entities differ slightly in the degree of roadway classification or sub-classification. Rock County has five classes of both "existing" and "planned" routes but shows very few planned routes. Winnebago County lists eight classes but appears to use only seven and does not show "planned" routes. Janesville lists seven rural classes and six urban classes in their legend but no planned routes. Beloit lists and uses four classes of existing routes and four classes of planned routes (but uses only one class of planned routes). On the Beloit map all routes inside the Adjusted Urbanized Area are "urban" and routes outside the AUA are apparently rural (this is not apparent from the legend but can be assumed judging by changes in line width).

The composite 5-Yr FCM currently in use shows a number of inconsistencies from jurisdiction to jurisdiction within the MPA and within areas abutting the StateLine MPA (i.e., the Janesville MPA to the north, the RMAP MPA to the south, and some rural areas).

In addition to the semantic and method-of-display differences noted above, a number of other inconsistencies of a more technical or quantitative nature were suspected. Specifically, several roadways classified as local streets or collectors appeared to be carrying traffic volumes similar or higher than some roads classified as arterials.

And finally, a cursory comparison of the composite 5-Yr FCM with maps recently developed (2008) as part of the Beloit Comprehensive Plan (Existing Land Use, Future Land Use, and

Community Facilities) seemed to indicate that some roads may be, now or in the near future, more important than their current functional classification indicates. **(Attached as Appendix C)**

Taken altogether, these questions or inconsistencies led staff to the conclusion that a new, more detailed and comprehensive evaluation of the StateLine FCMs (short- and long-range) was appropriate.

Part 5 – THE CONCEPT OF FUNCTIONAL CLASSIFICATION

Chapter 6 of the 2035 StateLine LRTP provided a brief explanation of the rationale for functionally classifying roadways. Because it was not required that the Plan FCM be identical to the State's official FCMs, the Plan's road classifications were not as rigorously determined or scrutinized as they might have been. Again, for the sake of laypersons reading this document, the following brief reiteration of important aspects of the functional classification of roadways may be helpful.

Functional classification is a long-standing concept that divides roadways into a hierarchy of groups based on the roadway's purpose. In the simplest sense, there are only two types of roadways: (1) Local roads that function to provide access to individual properties, and (2) all other roads that function to provide varying degrees longer-distance, higher-speed travel. In reality, of course, it is not quite that simple. The hierarchy covers a broad spectrum, with many roadways serving both purposes to some degree. Further complicating the issue is the fact that roadways often change in their function, over time, in response to changes in land use and changes in the overall network that alter elements of network connectivity or capacity.

Roadways that merely carry traffic that has originated from or is destined to residences and low-intensity land uses that front on the roadway are classified as **local or neighborhood streets**. Such streets carry low daily volumes (say, less than 2,500 vehicles per day (v/d)) at low speeds (less than 20-25 mph) and are intentionally designed with these conditions in mind. There is little or no access control on local streets. Any and all properties with frontage on a local street are allowed driveway cuts onto the street. Local streets are intended to be "friendly" to motorized traffic as well as pedestrians and non-motorized travelers. Parking is often allowed on one or both sides of local streets. With extremely low-volume local streets, such as residential cul-de-sacs, children often use them for play areas. Sidewalks may not be required or may be required only on one side. Storm drainage may be accomplished with typical curb and gutter but may be via mountable curbs, or even with open ditches in neighborhoods with large lots. The construction of local streets is typically the responsibility of land developers or land subdividers. A small number of local streets remain in private ownership and are maintained privately. A good example is the street system in a privately owned mobile home park or a small "planned unit development." More commonly, however, local streets are turned over to local governments (dedicated) and subsequently maintained by the local government after they are privately constructed in the land subdivision process. Streets that are to be dedicated are required to meet strict standards so as to not burden local governments with unnecessary, early maintenance expenses.

When roadways begin to carry higher volumes of traffic and the traffic originates or is destined for properties or other streets that do not directly front on the street, then the roadway begins to function as more than a local street. These streets are functionally classified as **Collectors**. When constructed, by design these streets are typically wider and allow for slightly higher driving speeds. Sometimes, direct access is limited by spacing requirements, backing out on such streets is discouraged, sidewalks may be required on both sides, and the recreational use by children discouraged. Traffic control devices such as stop or yield signs are often installed on the local streets at the intersection points with the Collectors streets. When Collector streets are thoughtfully designed, they function to allow higher amounts of thru-traffic movement effectively

and safely. Collectors serve to collect traffic from local streets and distribute that traffic to other higher level streets or back to other local streets.

Rising higher on the scale of functionality are **Arterials**. Arterials are designed to carry large volumes of vehicles over long distances at greater speeds than Collectors and local streets. They are typically multi-lane roadways but they vary drastically in their size, length, access control, and the degree of sophistication of traffic control devices employed at their intersection with other roadways. In their most greatly evolved designs, they include elaborate, expensive signalized intersections with multiple turn lanes; vast land-consuming interchanges with grade separations to eliminate intersecting traffic; wide center medians and shoulders to minimize opposing traffic conditions or off-road hazards; and huge, elaborate lighting, signage, and “intelligent” data collection and traffic control measures.

Part 6 – FEDERAL & STATE GUIDANCE

In light of the decision to attempt to make the Plan's system more consistent with the State's system and the desire to more comprehensively evaluate the system in general, staff sought more detailed guidance. Two references were found and consulted:

- WisDOT's “Functional Classification Criteria,” April 2003, located at <http://www.dot.wisconsin.gov/projects/planresources/functional.htm>
- “FHWA Functional Classification Guidelines” as currently posted at <http://www.fhwa.dot.gov/planning/fctoc.htm> .

The above cited references develop the rationale in considerably greater detail but differ somewhat in their emphasis on qualitative versus quantitative methodology. Both rely heavily on qualitative judgments regarding the traffic generating capacity of the various land uses served by or connected by roadways. The WisDOT document considers more quantitative data, specifically ADT levels. However, both claim that traffic levels alone should not be the determining factor.

Chart 1 summarizes the criteria developed in the FHWA document. It is less detailed than the WisDOT guidance, but makes a greater effort to differentiate Principal Arterials: Interstates, Freeways or Expressways, and Other Principal Arterials. Traffic levels are discussed but no specific limits are suggested.

Charts 2a and 2b summarize the WisDOT criteria for counties with high population densities and for urban areas with more than 50,000 persons, respectively. Similar charts are in the guidance itself but are much more complex because they make distinctions based on low densities and populations. The WisDOT guidance is in some ways quite confusing, especially as it pertains to roads that transition from rural to urban areas. Hopefully, Charts 2a and 2b are reasonably accurate renditions of the criteria. Given the fact that there is some much subjective judgment involved, our summaries cannot be significantly erroneous.

The WisDOT guidance is far more detailed than the FHWA guidance. It defines both land use categories and lists specific land uses that qualify roadways for higher level designations (this level of detail is not included in our summaries because even with WisDOT's lists, considerable subjective judgment must be used. However, the WisDOT guidance employs much more specific quantitative criteria – ADT levels, more specific roadway spacing values, and distances to traffic generating land uses.

Chart 3 is a further attempt to simplify and present the WisDOT criteria in a manner more easily understandable. Chart 3 starts with the specified ADT levels and then applies the other more subjective criteria. The Conditions in the upper right portion of Chart 3 summarize the subjective criteria. Essentially, the higher level roads (Collectors and Arterials) connect large population centers, serve large traffic generators, or meet minimum spacing requirements – the Group A Conditions. In addition, the special circumstances in Group B can boost a roadway to a higher level. Factors such as crossing major barriers, providing alternate connections, and the sophistication of traffic control are included.

Even with the more detailed ADT levels specified in the WisDOT guidance, there is wide overlap in the criteria. Chart 4 illustrates this overlap. For example, in urban areas, any roadway carrying more than 2,500 vehicles per day (v/d) but less than 9,000 v/d are candidates for Collector status. Roadways carrying between 4,050 v/d but less than 15,000 v/d are candidates for Minor Arterial status. And roadways carrying more than 9,000 v/d are candidates for Principal Arterial status. Similar overlap is illustrated for rural areas.

Summary of FHWA Roadway Functional Criteria

Chart 1

Rural System (areas outside urbanized areas of 50K persons or more)											
Classification		Spacing	Access Control	Overall Purpose		Length	Speeds	% of System VMT		% of System Miles	
Arterials	Interstates	Wide & varied depending on parts of country	Full	Connect population centers of 50K or more & other strategic locations	Provide for minimal through-movement interference	Intercounty to Interstate / Countrywide	Highest	35 -55 %	45 -75 %	2 - 4 %	6 - 12 %
	Other Principal Arterials	Wide & varied depending on parts of country & pop or commerce densities	Full to partial				High				
	Minor Arterials	As pop & commerce densities indicate	Partial to none	Pop centers of 25K or more / cities & large towns	Moderate to High						
Collectors	Major Collector			Population or commerce centers not connected by Arterials	Enough to provide connectivity	Moderate	20-35%	20-25%			
Minor Collector											
	Local	Sufficient to provide access to all properties	None	Sufficient to provide access to all properties			Low	5-20%	65-75%		
Urban System (in and around urbanized areas of 50K persons or more)											
Classification		Spacing	Access Control	Overall Purpose		Length	Speeds	% of System VMT		% of System Miles	
Arterials	Interstates	Wide & varied depending on parts of country	Full	Connect all major commerce & pop centers & strategic locations in the urban area	Provide for minimal through-movement interference	Varies but across the UA & beyond	Highest	40 - 65 %	65 - 80 %	5 - 10 %	15 - 25 %
	Other Freeways or Expressways	Wide & varied depending on parts of country & pop or commerce densities	Full				High to highest				
	Other Principal Arterials	As pop & commerce densities indicate	Full to partial				Moderate to High				
	Minor Arterials		Partial to none	Large parts of the UA	Moderate						
	Collectors	Not specific (between arterials?)	Partial to none	Access to local streets not connected to arterial & to properties not fronting on locals		Enough to provide connectivity	Moderate to Low	5-10%	5-10%		
	Local	Sufficient to provide access to all properties	None	Sufficient to provide access to all properties not otherwise connected		Short but sufficient to provide access to properties & to collectors & arterials	Low	10-30%	65-80%		
Source: FHWA Functional Classification Guidelines, Revised 1989 -- http://www.fhwa.dot.gov/planning/ftcoc.htm							1/8/2011	FHWA-WisDOT FC Summary sheets.xls			

Summary of WisDOT Roadway Functional Criteria for Counties with HIGH Population Densities Chart 2a

Alternate RURAL Classification Criteria Scenarios																	
		Scenario 1	or	Scenario 2				or	Scenario 3					Desirable % of System Miles			
Classification		ADT greater than or equal to	or	Any 2 conditions below				or	ADT Plus any 2 Conditions listed below								
				Overall purpose	Other Special purposes	Spacing	ADT greater than or equal to		ADT greater than or equal to								
Rural Arterials	Principal			Connects high pop centers	Provides access to major recreation areas or any other high traffic generator (greater than 300K annually)	30 mi max (no min)	6,000	or							2-4%		
	Minor						2,000	or	1,800	+	2	Provides an alternate pop connection	Crosses a Major Rriver	Crosses restrictive topo or barrier			4-8%
Rural Collectors	Major	4,000	or	Provides connections to smaller pop centers or to higher function routes	Serves a significant amount of high traffic generators	10 mi max to nearest Major C or Arterial	1,000	or	800	+	2	Provides an alternate population connection	Crosses a Major river	Crosses restrictive topo or barrier	Interchanges with a Freeway	Parallels a Principal Arterial	5-18%
	Minor	1,600	or	Provides connections to even smaller pop centers or to higher function routes	Serves a significant amount of smaller but still significant traffic generators	10 mi max to nearest Minor C, Major C, or Arterial	400	or	360	+	2						5-10%
Rural Local Roads														All Public Roads not Classified as Arterials or Collectors	65-75%		

WisDOT's "Functional Classification Criteria," April 2003 -- <http://www.dot.wisconsin.gov/projects/planresources/functional.htm> 1/8/2011 FHWA-WisDOT FC Summary sheets.xls

Summary of WisDOT Roadway Functional Criteria for Urban Areas over 50,000 Population Chart 2b

Alternate URBAN Classification Criteria Scenarios																				
Classification		Scenario 1	Scenario 2 & 3				Scenario 4	Scenario 5			Scenario 6					Desirable % of System Miles				
		Automatic Transitions at Urban Boundary	Other Transitions at Urban / Rural Boundaries				High ADT alone	Moderate ADT plus High Intensity Land Uses or Road Spacing			Low ADT plus Any 2 Conditions									
			Min ADT	&	Nearby Land Use	or		Max Spacing	Min ADT	+	2	Condition								
Urban Arterials	Principal	RPAs to UPAs	Scenario 2. Rural or Urban Minor Arterials convert to Urban Principal Arterials when:				≥30,000 & at least 1 mile long	≥9,000	&	Very High Traffic Generating Land Use within 1.0 mi	or	CBD = 1 mi; Other = 3 mi							5-10%	
	Minor	RMAs to UMAs	Scenario 3. Rural Major or Minor Collectors convert to Urban Minor Arterials when:										≥15,000 & at least 0.5 mile long	≥4,500	&	High Traffic Generating Land Use within 0.5 mi	or	CBD = 0.5 mi; Other = 2 mi		≥4,050
Urban Collectors			Rural Major or Minor Collectors convert to Urban Collectors unless they meet Urban Minor Arterial Criteria				≥9,000 & at least 0.25 mi long	≥2,250	&	Moderate Traffic Generating Land Use within 0.25 mi	or	CBD = 0.25 mi; Other = 1 mi	≥2,025	&						5-10%
Urban Local Roads														All public streets not classified as Urban Principal or Minor Arterials or Urban Collectors	65-80%					

WisDOT's "Functional Classification Criteria," April 2003 -- <http://www.dot.wisconsin.gov/projects/planresources/functional.htm> 1/8/2011 FHWA-WisDOT FC Summary sheets.xls

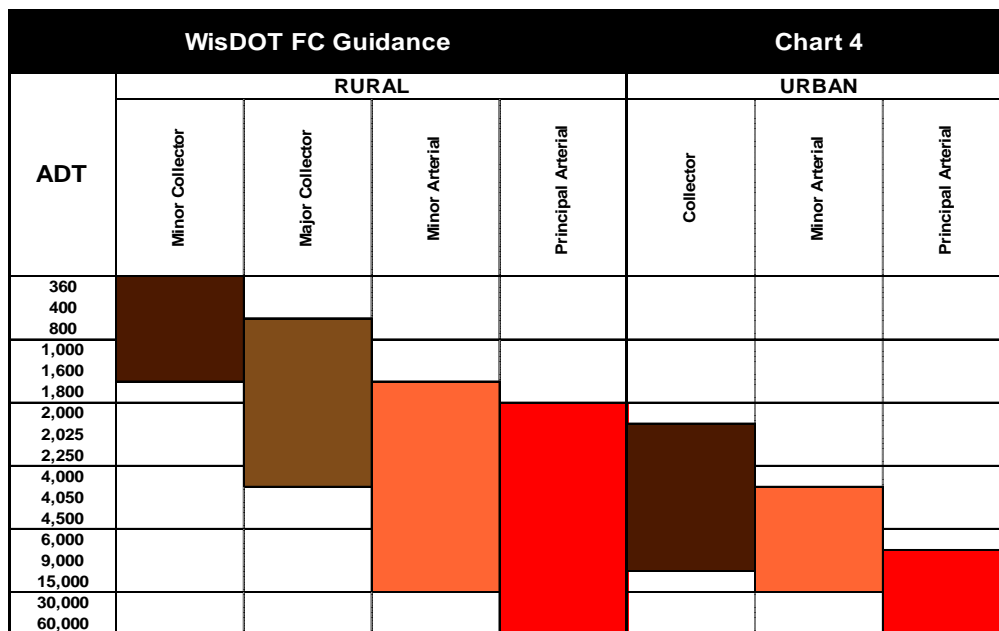
WisDot Requirements for Functional Class Status

Chart 3

Scenario	Min ADT	Other Conditions required	CONDITIONS (rural & urban)
RURAL MINOR COLLECTOR			Group A A Provides connection to HIGH POPULATION CENTERS B Provides connection to MODERATE POPULATION CENTERS C Provides connection to SMALL POPULATION CENTERS
1	360	& Two of Group B	
2	400	& Two of C, F, or G	
3	1,600	No other conditions	D Provides access to HIGH TRAFFIC GENERATORS E Provides access to MODERATE TRAFFIC GENERATORS F Provides access to Significant SMALL TRAFFIC GENERATORS
RURAL MAJOR COLLECTOR			
4	800	& Two of Group B	
5	1,000	& Two of B, E, or G	G Needed to meet MAX SPACING requirement of 10 MILES to nearest higher road H Needed to meet MAX SPACING requirement of 30 MILES to nearest higher road
6	4,000	No other conditions	
RURAL MINOR ARTERIAL			Group B a Provides an ALTERNATE POPULATION CENTER CONNECTION b Crosses a MAJOR RIVER c Crosses a MAJOR BARRIER d Interchanges with a FREEWAY e Parallels a PRINCIPAL ARTERIAL
7	1,800	& Two of a, b, or c	
8	2,000	& Two of A, D, or H	
RURAL PRINCIPAL ARTERIAL			
9	6,000	& Two of A, D, or H	
URBAN COLLECTOR			Functional class ADTs of WisDOT.xls
10	2,025	& Two of Group B	
11a		& F within 0.25 miles	
11b	2,250	& In the CBD & No other equal or higher route within 0.25 miles	
11c		& Outside the CBD & no other equal or higher within 1.0 miles	
12	9,000	& and at least 0.25 miles long	
URBAN MINOR ARTERIAL			
13	4,050	& Two of Group B	
14a		& E within 0.5 miles	
14b	4,500	& In the CBD & No other equal or higher route within 0.5 miles	
14c		& Outside the CBD & no other equal or higher within 2.0 miles	
15	15,000	& and at least 0.5 miles long	
URBAN PRINCIPAL ARTERIAL			
16a		& D within 1.0 miles	
16b	9,000	& In the CBD & No other equal or higher route within 1.0 miles	
16c		& Outside the CBD & no other equal or higher within 3.0 miles	
17	30,000	& and at least 1.0 miles long	

1/11/2011

WisDOT's "Functional Classification Criteria," April 2003 -- <http://www.dot.wisconsin.gov/projects/planresources/functional.htm>



Part 7 – VEHICULAR TRAVEL IN THE STATELINE AREA

Because vehicular traffic is the one quantifiable factor that is both readily available throughout the StateLine Area and closely related to the functional class of roadways, we decided to utilize ADT as the starting point for re-evaluating the area's system. Unfortunately, once again, the data was not available in the same format or database as the functional classification data and **Map 3a** had to be developed (**Map 3b and 3c are enlargements of parts of 3a**).

Map 3a illustrates best estimates of the Average Daily Traffic Volume (ADT) on the most traveled roadways in and around the StateLine Metropolitan Planning Area (StateLine MPA). Data for this map came from a variety of sources in both Illinois and Wisconsin, as calculated from actual traffic counts at hundreds of locations over the last decade. However, even considering the large number of counts made over that lengthy time period, numerous segments of SLATS roadway had not been precisely counted. Estimates of ADT in those uncounted segments were made by interpolation based on planner/cartographer judgment. For the most part, the interpolations were conservative judgments and no attempt was made to inflate older counts. As such, this map should not be used to make site-specific land use decisions, such as where to locate a new retail store or health clinic. Decisions of that site-specific nature should refer to the original data sources (as listed on the map) and, possibly, the collection of additional more current data.

The documents (**Attached as Appendix B**) used to prepare the **Map 3a** composite were:

1. 2007 City of Beloit – West Side, Annual Average Daily Traffic. The map displays ADT statistics prepared in 2007 and earlier (2005 through 2001 and earlier).
2. 2007 City of Beloit – East Side, Annual Average Daily Traffic. The map displays ADT statistics prepared in 2007 and earlier (2005 through 2001 and earlier).
3. 2007 Rock County, Annual Average Daily Traffic. The map displays ADT statistics prepared in 2007 and earlier (2005 through 2001 and earlier).
4. 2007 City of Janesville – West Side, Annual Average Daily Traffic. The map displays ADT statistics prepared in 2007 and earlier (2005 through 2001 and earlier).
5. 2007 City of Janesville– East Side, Annual Average Daily Traffic. The map displays ADT statistics prepared in 2007 and earlier (2005 through 2001 and earlier).
6. ADT statistics presented at the Illinois Department of Transportation web page “GettingAroundIllinois.com”

The specific sources for the above information are the following web pages in at Wisconsin DOT and Illinois DOT, respectively.

- <http://www.dot.wisconsin.gov/travel/counts/rock.htm>
- <http://www.gettingaroundillinois.com/default.aspx?ql=aadt>

Additional traffic counts were made in the Summer of 2010 but this data had not been analyzed and processed into the ADT statistic at the time of this writing. That information will be incorporated when it becomes available.

Map 3a is considered a reasonable approximation of the traffic on the roadways most heavily traveled in the area. Again, a map of this nature was not included in the 2035 LRTP. As now assembled, Maps 3a, b, & c can be used to evaluate and better refine other parts of the street and highway network of the StateLine MPA. SLATS intends to incorporate new data into this

map as it becomes available and, in the future, this map will be compared with other maps and data for the area as an aid to improving short- and long-range transportation decisions. As already noted, this map will be compared with the area's 5-Year Functional Classification Map. In addition but beyond the scope of this first Update Memorandum, are the following:

1. A comparison of Map 3a with Map 6-1 (7b of this Update) of the 2035 LRTP.
2. A comparison of Map 3a with the Designated (and Planned) Truck Routes as illustrated in Map 6-2 of Chapter Six
3. A comparison of Map 3a with the Level of Service Maps as generated by the SLATS and RATS Traffic Simulation Models (Maps 6-7 thru 6-8) in Chapter Six.
4. A comparison of Map 3a with the Traffic Incident Maps (6-9 and 6-10) in Chapter Six as well as more recent traffic incident analysis performed as part of this Update.

Part 8 – PROPOSED 5-YR FUNCTIONAL CLASS CHANGES

Generalization and Commentary

With ADT maps and Functional Classification maps consolidated within the same data base format, SLATS staff was able to make a thorough comparison of ADT and Functional Class in the StateLine MPA. This assessment and the functional classification changes proposed herein will utilize nine classes of roadways, as follows:

- Interstates (no differentiation between urban and rural)³
- Principal Arterials (Urban)
- Minor Arterials (Urban)
- Collectors (Urban)
- Principal Arterials (Rural)
- Minor Arterials (Rural)
- Major Collectors (Rural)
- Minor Collectors (Rural)
- Local roads (no differentiation between urban and rural)

For the most part, roadways located within the Adjusted Urbanized Areas will be classified as Urban and roadways outside the Adjusted Urbanized Areas will be classified as Rural. Exceptions to this rule are major roadways that connect the Janesville, Beloit, or Rockford areas. Because of their importance and the obvious merging of these urbanized areas in recent years, these roadways will be considered urban. On the other hand, there are roadways located in parts of the Metro Area or even the AUA that are not likely to become fully developed until late in the 20-year planning horizon. Because the changes proposed herein are to the 5-Year Map, these roadways will be classified as rural.

Some planners reason that roadway classification must rely heavily on the abutting or nearby land uses. Particularly some maintain that roadways abutting and providing direct access to residences should seldom be classed as arterials. While this is a good rule for large new

³ To avoid confusion, we suggest that they simply be called "Interstates". Further, the distinction between "urban" and "rural" is largely irrelevant with regard to Interstates. All segments are grade separated, median divided, multi-lane and fully access-controlled.

developments, it is not always realistic and can exacerbate problems in legacy situations. Albeit, a roadway's design, construction, and future improvement must consider and accommodate the uses abutting it, but its class in the transportation system depends solely on how important it is in the overall system, which in turn, is mostly determined by the proportion and volume of through-traffic the roadway carries. A roadway carrying a high proportion of externally-generated traffic through a residential area is an arterial, no matter how much the residents living along that street would like it to be a local street or collector. This is not to say, that by all means, transportation planners should explore ways of diverting or channeling the through-traffic away from such residential areas. Unfortunately, in many legacy situations such diversions cannot be efficiently accomplished.

When heavy traffic cannot be diverted special efforts or designs should be considered to mitigate the effects of that traffic on the abutting residential uses. Consideration should be given to measures that reduce traffic speeds, pavement types or buffering to reduce traffic noise, higher curbs and/or barriers or fencing to protect pedestrians, buffers to headlight annoyance, special crosswalks for pedestrians, lowered posted speed limits, special signing, and targeted traffic law enforcement are all examples. A term now in vogue in transportation planning is "context sensitive solutions." The context sensitive approach is critical along arterial and collector roadways where legacy situations present transportation / land use conflicts.

As noted previously, ADT is a useful starting point for evaluating functional class. **Map 4a** displays ADT in the Stateline area in groupings specifically tied to WisDOT guidance for the use of ADT alone as the criteria to determine Urban functional class status. In accordance, any roadway with over 30,000 ADT can be classed as a Principal Arterial; over 15,000 can be a Minor Arterial, and; over 9,000 can be a Collector. Consequently, if ADT alone were the only criteria, as shown on **Map 4a**, there would be very roadways classed as Collector and above.

From another perspective, **Map 4b** displays ADT, in groupings with break points at the minimum levels of ADT for the various road classes. For example, any roadway with a minimum ADT of 2,025 could be classed as a Collector if it also met a number of the other subjective criteria. Similarly, roadway with more than 4,050 can be considered for Minor Arterial status if a number of subjective criteria are also met. Principal Arterial require a minimum of 9,000 ADT plus other factors.

Specific Proposed Changes

All changes proposed herein are, at this point, to be viewed as suggestions and are subject to the review and scrutiny of all transportation stakeholders in all three Metro Areas and the surrounding counties.

The proposed changes are illustrated on two sets of maps: **Maps 5a thru 5d and Maps 6a thru 6d**. The first set illustrate only the section of roads proposed for change: Maps 5a and 5b show the sections under their current classification. Maps 5c and 5d show the same sections under their proposed classification. Maps 6a illustrate the proposed 5-Yr System in its entirety. Maps 6b and 6c are simply enlargements.

Some of these proposed changes do not quite meet the minimum ADT criteria specified in the WisDOT guidance but are proposed regardless for various subjective reasons, as mentioned. It is also important to keep in mind that some upgrades are suggested because of anticipated traffic increases in the near- to medium-range future. Such "early" designation is considered important to show the intent that they roads will become full-fledged collectors or arterials and thereby encourage property owners and developers to consider large setbacks and

consolidated access points. This, it is hoped, will serve to minimize land use / roadway conflicts as traffic increases and the roadways are expanded in the future.

1. **I-39, I-39/90, I-90, I-43.** As previously recommended, to avoid confusion, we suggest that these Principal Arterials be called “Interstates”. Further, the distinction between “urban” and “rural” is largely irrelevant with regard to Interstates. All segments are grade separated, median divided, multi-lane and fully access-controlled. Admittedly, Interstates in more intensely developed areas may have more closely-spaced or intricately-designed interchanges, and more lanes than in rural areas, these facilities are distinctly different than other less complicated arterials.
2. **Prairie Ave.** Prairie Ave reaches all the way from the Beloit central city through Janesville⁴. Currently, the road is multi-classed: south of White Ave it is Minor Arterial, between White and Inman it is Principal Arterial, between Inman and Townline it is Minor Arterial, from Townline to Sunny Lane it is Rural Major Collector, and from Sunny Lane north it is Minor Arterial⁵. With the exception of the two blocks south of White, traffic on the road exceeds 8,000 ADT and in some stretches rises as high as 20,400. As one of the four continuous roads connecting Janesville and Beloit, we recommend that this road be classed as a Principal Arterial at least as far as Kellogg Ave in Janesville and effort should be made to deter additional direct access onto it.
3. **6th St/Afton Rd.** This suggestion, we know, will be controversial because ADT is not high on any segments of this road but the southern parts in Beloit proper. However, this road provides the main north-south connection to the Janesville area on the west side of the Rock River. Many segments are already designated Minor Arterial. Suggest that the entire length from Beloit to Janesville be designated Urban Minor Arterial and efforts be made to control and limit direct access onto it as the area develops.
4. **Bluff St.** The stretch between Liberty Ave and Grand Ave (now a Collector) has traffic in the Minor Arterial range. This route also connects with other high status routes. Suggest upgrading to Minor Arterial status between Liberty and Grand.
5. **Shirland Ave.** The eastern 1/3rd mile of Shirland Ave is currently classified as Minor Arterial and has traffic in the 9,000+ ADT range. However, because the road bridges the Rock River and from there supports traffic feeding from arterials and collectors to the west, south, and north, this short segment might best be upgraded to Principal Arterial. West of Bluff Road, Shirland is now classed as Minor Arterial to its intersection with Hackett St. However, we suggest upgrading Shirland to Minor Arterial slightly farther west, to the point where it intersects the two offset Collectors, Fisher Rd and Townline Ave. From Townline Ave west to Frederick St, we suggest upgrading Shirland to Collector status.
6. **Frederick St. / St Lawrence Av.** If the west 4 blocks of Shirland Ave are upgraded to Collector, the southern 8 blocks of Frederick and the 4 blocks of St Lawrence, east of Frederick can be upgraded to form a continuous square of Collectors in the southwest corner of Beloit.
7. **St Lawrence Av/Rd.** West of Frederick St, St Lawrence should be upgraded to Rural Minor Collector to provide connectivity with the Beckman / Co-H Minor Collector.

⁴ In Janesville, the road is called Beloit Ave. In middle reaches it is Co-G.

⁵ The Rock County 5-Year Functional Classification Map shows the segment between Avalon Rd and Sunny Ln as Rural Major Collector. The Janesville map shows this segment as Minor Arterial.

8. **Frederick St north of Liberty.** Between Liberty Ave and Madison Rd, Frederick Street is fully developed only on its east side. Regardless, of its low ADT, Frederick is a good location for a Collector because of its spacing and connectivity with other important roads. Suggest designating it as a Collector and then encouraging deeper setbacks on lots on the west side as they are developed in the future.
9. **Elmwood Ave / Briar Ln.** Between Riverside Dr and Prairie Ave, Elmwood Ave (including its segment of one-way couple with Briar Ln carries enough traffic to be considered for Minor Arterial status. It links large commercial areas with Riverside Dr and with Newark Rd.
10. **Philhower Rd / Creek Rd.** From Riverside Dr eastward to Patrick Rd, the road should be upgraded to Rural Major Collector. From Patrick Rd to WI-140 upgrade to Rural Minor Collector. Although current traffic is not high, change is suggested for system continuity.
11. **Patrick Rd / S Creek Rd.** Between Philhower and Townline, upgrade to Rural Major Collector. Although current traffic is not known, change is suggested for system continuity.
12. **Lathers Rd.** There are no traffic counts on Lathers Rd but considering road spacing, the fact that it parallels I-39/90, connects with several other collectors and bridges Turtle Creek, we suggest it be upgraded to Rural Minor Collector.
13. **Co-X / Milwaukee St.** The stretch of this road, from where it intersects with Walker Rd to the point (westward) where it connects with Gateway Blvd and intersects Hart Rd, should be upgraded from Collector to Urban Minor Arterial. From Walker Rd to WI-140 in the center of Clinton (Milwaukee St), upgrade to Rural Minor Arterial.
14. **Riverside Dr.** North of Townline Rd, Riverside drive should be upgraded from Rural Minor Arterial to Principal Arterial.
15. **4th St. in Beloit.** This road connects to Rock River bridges at both ends, traverses intensely developed parts of Beloit and serves the largest public school in Beloit. Even though traffic in some segments is low, upgrade to Principal Arterial.
16. **Henry Av.** This road bridges the Rock River and provides access to the high school at its west end, traverses highly developed areas, and connect with Prairie Ave and Shopiere Rd at its east end. Upgrade to Principal Arterial.
17. **Newark Rd.** From McKinley Ave to Riverside Drive this short segment should be considered for upgrading to Principal Arterial because it bridges the Rock River and connects two converging Minor Arterials on the west with a Principal Arterial at its east end.
18. **Southern Park Ave.** Starting in the Central Business District, Park Ave has traffic in excess of 7,000 ADT and approaching 9,000 ADT all the way to Henry Ave. Southward from Henry Ave, Park Ave crosses three major east-west roadways (White Ave, Grand Ave, and Broad St) , bridges Turtle Creek, and connects to Gardner Ave, thereby making a connection between Beloit and South Beloit. Due to the importance of bridging Turtle Creek and connecting the two cities, we suggest upgrading the portion between Gardner Ave and Broad St to Principal Arterial.

19. **Middle Park Ave.** Northward between Broad St and Henry Ave, Park Ave carries traffic ranging between 5,600 to over 8,000 ADT. Those segments are currently classed as Minor Arterial and no change is recommended. Further northward, however, Park Ave is currently classed as a Collector, even though traffic ranges around 4,000 to 5,000 ADT. This level is much higher than numerous other road segments throughout the Metro Area that are currently classed as Minor Arterials. Even though this roadway traverses residential areas and many residences have direct access to it, the roadway also provides access to and connects numerous non-residential traffic generators and other high level roadways. We suggest upgrading the classification status to Minor Arterial between Henry and Elmwood Avenues; with the caveat that extra efforts must be taken as this roadway is maintained and improved to protect the safety of residents living along it and, to the extent possible, minimize the adverse effects of the high traffic volumes. While it might appear desirable to keep the road at Collector status in the interest of protecting the residences, it is more realistic to acknowledge that the road functions as an arterial and then take deliberate steps to slow the travel speeds and minimize other detrimental aspects. (Also see Northern Park Ave in Other Potential Upgrade Candidates, below)
20. **State St and Public Ave.** Currently, south of Broad St, State St is a Principal Arterial. North of Broad St, it transitions to a Local street even though it follows a broad curve directly into Public Ave. Suggest upgrading the segment north of Broad St to at least Collector level and continuing as a Collector on Public Ave eastward to Pleasant St.
21. **Bushnell St.** From Wisconsin Ave westward to Pleasant Street, Bushnell appears to function as a Collector.
22. **Liberty Ave / WI-81.** Liberty Ave is currently classified as a Principal Arterial from 4th St westward. This could be because it is on the National Highway System. Functionally, however, the road carries low traffic volumes west of the point where it intersects with Madison Ave. If our readings of the source maps are correct, ATD is 2,900 and decreases westward. This is quite low considering Wisconsin FC guidelines for ADT alone start at 9,000 for Principal Arterials and 4,500 for Minor Arterials. From the point of that intersection westward, it might be more appropriate to both Liberty (WI-81) as a Minor Arterial.
23. **Madison Rd.** The highest ATD on Madison Rd, between Liberty Ave and the Adjusted Urbanized Area boundary is 6,600. North of Frederick St, ADT levels drop to 2,900 and continue to decline northward. Based on ADT alone, the status of several segments of this route could be dropped, but because it is a State-marked route and it has regional connectivity significance similar to WI-81, we suggest the only change be to reduce the segment of Madison Rd between Burton Rd and Liberty Ave to Minor Arterial. This results in a funneling together of two Minor Arterials (WI-81 and WI-213) into what is an inherent, or at least visually logical, Principal Arterial (i.e., Liberty Ave west of McKinley Ave).
24. **Townline Rd between Prairie Rd and Afton Rd.** Again, this suggestion will be controversial because ADT is low. However, this road bridges the Rock River (it is 3 miles to the next bridge south and 2 miles to the next bridge north) The road provides an important connection between Prairie Ave, Riverside Drive, and Afton Rd. This section also lies on the SLATS or Janesville Metro Area and borders a large part of the SLATS Adjusted Urbanized Area. Suggest upgrading this section to Minor Arterial and

additional direct access onto it should be carefully scrutinized to facilitate its improvement and function as a significant arterial as the area develops around it.

25. **Dorr Rd.** With ADT ranging between 3,300 to 4,600 and considering the intensity of recent development recent in this area, we recommend upgrading Dorr Rd, between Prairie Hill Road and Hononegah Rd, to Minor Arterial.
26. **Roscoe Rd / Bridge St.** The segment between Gleasman Rd and IL-251 contains a vital bridge over the Rock River. Suggest upgrading to Principal Arterial. In the future, Roscoe Rd between Gleasman and IL-2 is likely to have traffic increases and urbanization to render it a candidate for Principal Arterial. Efforts should be made to limit direct access points so as to maximize its effectiveness as an arterial.
27. **Wagon Wheel Rd.** This road is carrying less than 1500 ADT. It does function as a short cut between IL-2 and IL-75 and does improve connections for a limited number of commercial and residential uses located along IL-75. In the short term this road can be downgraded to Collector level with the possibility of upgrading it at a later time if usage increases significantly.
28. **Hononegah Rd / Main St in Rockton.** Although traffic on some segments is less than 8500 ADT, this road directly connects the Village of Rockton with the Village of Roscoe and also connects IL-2 with IL-251. Entire reach between IL-2 and IL-251 should be Principal Arterial. West of IL-2, ADT drops to the 5,000 to 6,000 range; suggest upgrading that segment to Minor Arterial.
29. **Elevator Rd.** Between US-251 and Willowbrook Rd, Elevator Rd carries enough traffic to be classified as Principal Arterial.
30. **Prairie Hill Rd.** Between IL-251 westward to Bluff Rd, upgrade to Principal Arterial even though traffic is somewhat low at present. This road bridges the Rock River on the west and connects through to IL-251. East of IL-251, the road is classed as a Minor Arterial. Retain as a Minor Arterial between IL-251 and Willowbrook Rd. East of Willowbrook Rd traffic drops to only 1,600 ADT – reduce the class to Collector eastward to the County Line.
31. **Rockton Rd.** Although traffic on most of Rockton Rd is below 8500 ADT, the road connects to the Village of Rockton at its west end, traverses dense development in its west-center reaches and connects with both IL-251 and I-39/90 at its east end. Upgrade to Principal Arterial.
32. **Clayton Cir.** This short loop, actually an extension of Main St of Roscoe, has an ADT of 3,000 and is the main access for numerous businesses, a large church, a branch of the North Suburban Library and, north of it, a network of roads that appear to be serving a large apartment or condominium complex. Suggest upgrading Clayton Cir to Collector.
33. **Colley Rd & Turtle Town Hall Rd.** The Beloit Comp Plan calls for intense development of the lands boxed by Colley Rd, Turtle Town Hall Rd, Gateway Blvd, and Millington Rd. This may be several years off. For the 5-Yr Map we suggest updating Colley and Town Hall to Rural Minor Collector status and monitoring traffic growth.
34. **IL-75 through Rockton.** Even though this is a marked State route, IL-75 carries relatively low traffic volumes (most segments in the 4,900 to 5,000 range, only near the

bridge of the Rock River does traffic reach 7,100 ADT). Suggest reducing this to Minor Arterial level.

35. **Old River Rd.** Old River Rd south of Roscoe Rd traverses a fast developing area and though ADT is still low it provides access to the Atwood Golf Course. Suggest upgrading to Collector.
36. **Main St in Roscoe.** Even though ADT ranges from 4,000 to almost 7,000 suggest leaving this road as a Collector unless traffic increases substantially, between McDonald Rd and Elevator Rd.

Other Potential Upgrade Candidates

1. **Swanson Rd.** Possible Minor Arterial.
2. **Shopiere Rd.** The road is currently a Minor Arterial but is a candidate for upgrading because it connects central parts of Beloit with the I-39/90 Interstate. Retain as Minor Arterial on the 5-Yr map but upgrade in the future.
3. **Old River Rd.** From IL-75 southward to Roscoe Rd, and from Roscoe Rd south to IL-2, upgrade to Minor Arterial
4. **Yale Bridge Rd.** The short segment of this road within the SLATS AUA is carrying less than 1,600 ADT. Outside the AUA it is classed Rural Major Collector. In the short term, this could be downgraded to Collector status. However, Winnebago County has recently been considering a realignment of Yale Bridge Rd that would bring it directly into Prairie Hill Rd. This would eliminate the hazardous situation that the off-set intersections with Bluff Rd and would enhance the usefulness of both Yale Bridge and Prairie Hill.
5. **Gateway Blvd.** South of Beloit Rd/Stateline Rd, Gateway Blvd is a Principal Arterial; on the north side it is a Minor Arterial. Perhaps this should be upgraded along with the southeastern segment of Cranston Rd. This would form a complete Principal Arterial loop around the south, east, and north parts of the core of Beloit and it high growth areas.
6. **Hart Rd.** Traversing mostly agricultural lands and not planned for development in the Beloit Comp Plan in the near future, Hart Rd can remain as a Collector unless traffic increases significantly due to the new Gateway connection.
7. **A north-south Rural Collector on the east side of the Metro Areas.** Possibly consisting of Free Church Rd (starting at Hunter Rd) then northward to State Line Rd, then eastward on State Line Rd to Clinton Corners Rd, then northward to Co-X. Another possibility on the Illinois side might be the County Line Rd (Boone / Winnebago).
8. **Manchester Rd / Middle Rd / White School Rd.** Monitor for traffic changes. Possibly upgrade one or all to Collector status.
9. **Manchester Rd** between Willowbrook Rd and Beloit Rd. If this area develops as suggested by the Beloit Comp Plan this road will need to be upgraded to Collector status.
10. **Another N-S Collector between Hanover Rd and Beloit.** Between Hanover Rd and the developed areas of Beloit is nearly 5 miles. Another N-S Collector in this area

seems advisable. Johnson Rd is lengthy and straight but is still quite distant from the urbanized area. Paddock Rd is another possibility. If Nye School Rd is punched through as part of the West-Side By-Pass the spacing aspects would be improved.

11. **Wisconsin Ave.** Many segments of Wisconsin Ave carry traffic in excess of 2,000 ADT. As an alternative to improvements to Park Ave to accommodate its growing traffic, Wisconsin Ave could be improved with n/s traffic movement free-flowed. This would deter some of the traffic from Park Ave. At the extreme, Wisconsin and Park Ave could be converted to a one-way pair. Evaluating the impacts and benefits of such a change is beyond the scope of this endeavor but is suggested for further study.
12. **Northern Park Ave.** North of Elmwood Ave, Year 2003 counts showed Park Ave traffic at 3,500 ADT. This volume is in excess of other roads in the area that are classified as arterial. If more recent traffic counting shows this traffic increasing, we suggest upgrading to Minor Arterial. If not, let the segment remain Collector. (The complexity and conflicts of this situation stem from lack of foresight or faulty forecasting that goes back decades as the northern parts of this roadway and its feeder traffic areas developed. Significant traffic occurs on this road that is not locally generated. A large part of this "through" traffic is the result of its position and connectivity in the network of Beloit-area roads. As development in the northern parts of the Beloit area continues, so too will the traffic on Park Ave increase because of its connectivity to other arterials.)
13. **Milwaukee Rd (south end).** South of White Ave, the only ADT number on Milwaukee Rd is 5,200. The east end of Bushnell is 2,500. If more recent counts verify that traffic has not increased, leave the south end of Milwaukee Rd as a Collector. If significantly higher, upgrading to Minor Arterial may be warranted.
14. **Mc Curry Rd.** Traffic is still relatively low on Mc Curry but should be monitored as development continues in the area. West of IL-251, Mc Curry connects with Willowbrook Rd (a Minor Arterial that also has low traffic and may have been prematurely upgraded) and with the Ledges Golf Course. Possible upgrade in the future.
15. **Ledges Area.** The Ledges Area is a sizable subdivision of large-lot, single-family homes initiated in the early 1970's. The area is bounded by County Line Rd on the east, Mc Curry Rd on the north, Love Rd on the west, and Elevator Rd on the south. From east to west, the area stretches over two miles and, north to south, over a mile. The area is bisected on an east-west axis by a stream that is only bridged in one location. The area also contains a popular public golf course. No collector level roads were planned in the area; possibly, deliberately to discourage through traffic. Further, because the area is very low density, even though it is nearly fully developed, the need for true collectors is low. Still, it might be wise to designate some of the roads as collectors for the sake of contingency or emergency planning. The designated roads might be considered for a slight widening as improvements are made and given priority for snowplowing in severe weather conditions. Shoulder parking might also be discouraged in some choke areas or under adverse conditions. One part of the area, the southeast quadrant, appears to have only one road that accesses an Arterial for over 120 residences (Crockett Rd to Elevation Rd). A stub toward County Line Rd off of Whispering Winds Rd does not appear to have been completed. For those reasons, a low impact collector system is proposed. If the stub off of Whispering Winds is completed, there does not seem to be a compelling reason to bridge the east-west axis creek, thereby prohibiting unnecessary through traffic.

Traffic Count Information Need at Following Locations

1. Bluff St. from Grand Ave to Shirland Ave
2. Bushnell St from Pleasant St to Milwaukee Rd
3. Milwaukee Rd from Bushnell to White Ave
4. Prospect St from Bushnell to the State Line
5. Wheeler Ave from the State Line to Gardner St
6. Mill St in Beloit
7. Woodward Ave between Wisconsin and White
8. Happy Hollow Rd, from Riverside west
9. S Read Rd
10. Sunny Ln between Riverside and Read
11. Bayliss Ave, eastern segments
12. Henderson Ave
13. Frederick St, full reach between Madison Rd and Shirland Ave
14. Lathers Rd.

Existing & Proposed Summary Data & Comments

Chart 5 on the following page summarizes the classification statistics for the existing and proposed 5-Yr Functional Classification Maps.

COMPARISON OF EXISTING & PROPOSED FUNCTIONAL CLASSIFICATION DISTRIBUTIONS BY SLATS GEOGRAPHY													Chart 5		
Field	Segment	Rounded Est ADT Field			Field	% Miles	Field	Segment	Rounded Est ADT Field			Field	% Miles	CHANGE IN MILES	
		Min_ADT9R	Max_ADT9R	Ave_ADT9R					Sum_MILES	Min_ADT9R	Max_ADT9R				Ave_ADT9R
BEL_FCLSS2	Count							5FC_09PR5	Count						
CENSUS UA: 5-Year EXISTING						CENSUS UA: 5-Year PROPOSED									
1	paper	50.0	-	-	-	3.5	0.9%	paper	50.0	-	-	-	3.5	0.9%	-
2	Local	3,320.0	-	2,750.0	34.2	268.3	69.6%	Local	3,267.0	-	2,700.0	21.6	263.1	68.3%	(5.2)
3	Rural Minor C	3.0	-	-	-	0.4	0.1%	Rural Minor C	19.0	-	1,900.0	481.6	1.4	0.4%	0.9
4	Rural Major C	1.0	8,000.0	8,000.0	8,000.0	0.0	0.0%	Rural Major C	5.0	-	830.0	664.0	1.3	0.3%	1.3
5	Rural Minor A														
6	Rural Principal A														
7	Collector	359.0	-	8,400.0	2,632.9	29.4	7.6%	Collector	308.0	-	5,200.0	1,723.7	25.0	6.5%	(4.4)
8	Minor Arterial	466.0	1,150.0	12,000.0	5,132.6	35.8	9.3%	Minor Arterial	466.0	1,150.0	8,800.0	4,383.8	37.6	9.8%	1.8
9	Principal Arterial	542.0	2,850.0	42,800.0	12,573.9	45.9	11.9%	Principal Arterial	578.0	4,300.0	23,900.0	10,277.4	46.5	12.1%	0.7
10	Interstate	3.0	42,800.0	42,800.0	42,800.0	0.3	0.1%	Interstate	51.0	16,700.0	42,800.0	35,392.2	5.2	1.4%	4.9
	Intg Ramp	16.0	-	5,400.0	2,387.5	1.7	0.4%	Intg Ramp	16.0	-	5,400.0	2,387.5	1.7	0.4%	-
		4,760.0				385.3	100.0%		4,760.0				385.3	100.0%	-
	PA, INTS, & ramps	561.0				47.9	12.4%	PA, INTS, & ramps	645.0				53.4	13.9%	5.5
ADJUSTED UA: 5-Year EXISTING						ADJUSTED UA: 5-Year PROPOSED									
1	paper	57.0	-	-	-	5.2	1.0%	paper	57.0	-	-	-	5.2	1.0%	-
2	Local	3,718.0	-	2,750.0	42.7	323.6	63.8%	Local	3,632.0	-	2,700.0	27.8	311.9	61.5%	(11.7)
3	Rural Minor C	9.0	-	780.0	466.7	0.8	0.2%	Rural Minor C	54.0	-	1,900.0	491.9	7.1	1.4%	6.2
4	Rural Major C	16.0	1,700.0	8,000.0	3,212.5	4.4	0.9%	Rural Major C	9.0	-	830.0	553.3	2.5	0.5%	(1.9)
5	Rural Minor A	2.0	1,700.0	1,700.0	1,700.0	0.7	0.1%	Rural Minor A	3.0	1,700.0	2,100.0	1,833.3	1.3	0.3%	0.6
6	Rural Principal A														
7	Collector	410.0	-	8,400.0	2,560.8	38.5	7.6%	Collector	357.0	-	5,200.0	1,724.5	34.3	6.8%	(4.2)
8	Minor Arterial	588.0	1,100.0	12,000.0	4,680.5	53.1	10.5%	Minor Arterial	591.0	1,100.0	8,800.0	3,973.4	57.3	11.3%	4.1
9	Principal Arterial	631.0	1,650.0	48,400.0	13,409.2	66.8	13.2%	Principal Arterial	650.0	1,650.0	23,900.0	10,432.2	58.3	11.5%	(8.5)
10	Interstate	46.0	39,700.0	42,800.0	40,732.6	5.9	1.2%	Interstate	124.0	15,100.0	48,400.0	36,065.3	21.2	4.2%	15.3
	Intg Ramp	45.0	-	5,400.0	2,156.0	7.8	1.5%	Intg Ramp	45.0	-	5,400.0	2,156.0	7.8	1.5%	-
		5,522.0				506.8	100.0%	TOTAL	5,522.0				506.8	100.0%	(0.0)
	PA, INTS, & ramps	722.0				80.5	15.9%	PA, INTS, & ramps	819.0				87.3	17.2%	6.9
METROPOLITAN PLANNING AREA: 5-Year EXISTING						METROPOLITAN PLANNING AREA: 5-Year PROPOSED									
1	paper	57.0	-	-	-	5.2	0.8%	paper	57.0	-	-	-	5.2	0.8%	-
2	Local	4,067.0	-	2,750.0	47.2	402.9	63.7%	Local	3,959.0	-	2,700.0	30.8	381.6	60.3%	(21.3)
3	Rural Minor C	48.0	-	970.0	490.6	13.1	2.1%	Rural Minor C	108.0	-	1,900.0	504.4	26.2	4.1%	13.2
4	Rural Major C	63.0	900.0	8,000.0	2,618.9	17.0	2.7%	Rural Major C	34.0	-	2,300.0	821.8	11.7	1.9%	(5.2)
5	Rural Minor A	20.0	1,200.0	12,600.0	4,282.5	7.8	1.2%	Rural Minor A	29.0	1,200.0	2,900.0	2,401.7	10.9	1.7%	3.2
6	Rural Principal A	26.0	2,600.0	48,400.0	12,934.6	8.1	1.3%							0.0%	(8.1)
7	Collector	437.0	-	11,700.0	2,512.4	42.8	6.8%	Collector	381.0	-	5,200.0	1,653.4	38.4	6.1%	(4.5)
8	Minor Arterial	601.0	1,100.0	12,000.0	4,747.8	54.3	8.6%	Minor Arterial	631.0	1,100.0	8,800.0	4,010.3	63.5	10.0%	9.2
9	Principal Arterial	635.0	1,650.0	48,400.0	13,381.3	67.6	10.7%	Principal Arterial	661.0	1,650.0	23,900.0	10,453.4	59.8	9.5%	(7.8)
10	Interstate	46.0	39,700.0	42,800.0	40,732.6	5.9	0.9%	Interstate	140.0	15,100.0	48,400.0	34,145.0	27.2	4.3%	21.4
	Intg Ramp	45.0	-	5,400.0	2,156.0	7.8	1.2%	Intg Ramp	45.0	-	5,400.0	2,156.0	7.8	1.2%	-
		6,045.0				632.3	100.0%		6,045.0				632.3	100.0%	(0.0)
	PA, INTS, & ramps	726.0				81.3	12.9%	PA, INTS, & ramps	846.0				94.8	15.0%	13.5

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Date: 1/15/11

20-Yr Roadway Network / Functional Classification

This work is still in progress. Following is a reproduction of the 20-Yr Functional System that was adopted as part of the LRPT in 2006 (**Map 7a, previously Map 6-1**). **Map 7b** is a first draft of a new 20-Yr System that will be part of the Plan update