# State of Wisconsin
# Department of Transportation

# BIENNIAL REPORT
# 2015-2017

| Scott Walker | Dave Ross | Office of the Secretary |
|---|---|---|
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October 16, 2017

The Honorable Scott Walker
Governor, State of Wisconsin
Room 117 East, State Capitol
Madison, WI 53702

Wisconsin State Legislators
State Capitol Building
Madison, WI 53702

Dear Governor Walker, Members of the Legislature, and Residents of Wisconsin:

It is my pleasure to submit the 2015-2017 Biennial Report for the Wisconsin Department of Transportation (WisDOT). We continue to emphasize cooperation with our local, federal, and industry partners to focus on economic development throughout Wisconsin. Through these strong partnerships we have been able to support and improve Wisconsin's transportation network.

We remain focused on providing leadership in the development and operation of a safe and efficient transportation system to meet the needs of Wisconsin and its communities. During the 2017-2019 biennium, WisDOT will continue to focus on the effective use of resources, cost savings opportunities, and performance improvement. Mobility, accountability, preservation, safety and service remain our top priorities and we look forward to sharing our progress with you in these areas.

Sincerely,

Dave Ross
Secretary

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# WisDOT's Strategic Direction

The Wisconsin Department of Transportation's (WisDOT) mission, vision, and values provide the strategic foundation for the department.

**Mission:** Provide leadership in the development and operation of a safe and efficient transportation system.

**Vision:** Dedicated people creating transportation solutions through innovation and exceptional service.

**Values:**
*Accountability*. Being individually and collectively responsible for the impact of our actions on resources, the people we serve, and each other.

*Attitude*. Being positive, supportive, and proactive in our words and actions.

*Communication*. Creating a culture in which people listen and information is shared openly, clearly, and timely - both internally and externally.

*Excellence*. Providing quality products and services that exceed our customers' expectations by being professional and the best in all we do.

*Improvement*. Finding innovative and visionary ways to provide better products and services and measure our success.

*Integrity*. Building trust and confidence in all of our relationships through honesty, commitment, and the courage to do what is right.

*Respect*. Creating a culture where we recognize and value the uniqueness of all our customers and each member of our diverse organization through tolerance, compassion, care, and courtesy to all.

*Teamwork*. Creating lasting partnerships and working together to achieve mutual goals.

The department's MAPSS Performance Improvement program focuses on the five core goals and associated performance measures that guide WisDOT in achieving the mission:

Mobility - delivering transportation choices that result in efficient trips and no unexpected delays.

Accountability - the continuous effort to use public dollars in the most efficient and cost-effective way.

Preservation - protecting, maintaining, and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure while protecting our natural environment.

Safety - moving toward zero deaths and injuries on our roadways.

Service - excellent service for our customers means high quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.

Establishing goals and measuring results is essential to running a successful organization, achieving its mission, and meeting public expectations. It helps the department be more transparent about the performance of the state's transportation system and be a data-driven agency.

MAPSS Scorecard measures are those that have been deemed of highest importance to our customers to show the current state of Wisconsin's transportation system. Some measures are important in demonstrating transparency and accountability but do not rise to the level of the Scorecard. The progress of these measures is reported publicly under the category of "additional measures."

In addition to the measures we report externally, we also track measures internally that are important for the smooth operations of the department and support other important performance outcomes; these measures are reported to department managers and staff. More information about MAPSS can be found at: http://wisconsindot.gov/Pages/about-wisdot/performance/mapss/default.aspx

The department's Lean Government Initiative is fully integrated with and supports the MAPSS effort. Since 2012, department staff have participated in more than 500 process improvement and Lean Six Sigma training opportunities. To date, department staff have completed 53 projects aimed at improving customer service. These projects save time and taxpayer dollars. Eighteen projects are in progress. More information about Lean can be found at:  http://wisconsindot.gov/Pages/about-wisdot/performance/lean-gvmt/leangovt-practice.aspx

# Department Organization and Schedules

Established in 1967, WisDOT supports all forms of transportation across Wisconsin. WisDOT works closely with other state, federal, and local agencies to meet changing and growing travel needs and to provide the safest, most efficient, and highest quality transportation services to the state, its citizens, and its many visitors.

The department is organized to include three executive offices and five program divisions that report to the Office of the Secretary:
- Executive Offices
    - Office of General Counsel
    - Office of Public Affairs
    - Office of Policy, Finance and Improvement
- Division of Business Management
- Division of Motor Vehicles
- Division of State Patrol
- Division of Transportation System Development
- Division of Transportation Investment Management

WisDOT's main office is located in Madison, but the department maintains regional offices throughout the state as a way to preserve a local approach to transportation development and better serve customer needs.

More information on the department's organization including current organization charts and regional office locations is available at http://www.dot.wisconsin.gov/about/index.htm

The department has 3,501.81 authorized full-time equivalent (FTE). According to June 30th payroll records, 3,218.34 of this is filled FTE, including permanent, project, and unclassified positions. The FTE of these positions ranges from 0.23 to 1.00 FTE, in addition the department has 287 limited-term employees. Based on operational needs and division-specific policies, employees may have the ability to work alternative work schedules while still meeting the business needs of internal and external customers.

# Division Update:  Executive Offices

The Executive Offices oversee department-wide operations and set overall policy direction for the agency.

*Office of the Secretary*
The Office of the Secretary directs and coordinates WisDOT programs, submits the department's biennial budget request to the Governor, plans the legislative agenda, and develops long-range plans for transportation development and maintenance.

*Office of General Counsel (OGC)*
OGC provides legal counsel and advice to the Secretary, division administrators, staff, the Governor, and other government officials in matters relating to transportation programs. The office also assists the Secretary in identifying needs and formulating the department's legislative and administrative rule making program. Additionally, OGC coordinates legal affairs with the Governor's Office, the Department of Justice, the Department of Administration, and other local, state, and federal offices in matters involving government regulation and transportation business.

*Office of Public Affairs (OPA)*
OPA provides communication expertise and services to increase public understanding and awareness of WisDOT's programs, policies, and services. The office works in partnership with program staff to inform and educate the public and WisDOT employees about department programs and services. OPA coordinates media relations, communications support, graphic design services, employee communication, and Web communication.

*Office of Policy, Finance and Improvement (OPFI)*
OPFI supports the department in developing sound and innovative transportation, financial, and management strategies. Working under the direction of the Secretary's Office, OPFI provides:
- Budget development services for the department's biennial and operating budgets.
- Transportation Fund management and revenue bonding for major highway programs.
- Policy, program, and financial services.
- Financial reporting, data collection, and assurance to WisDOT and key stakeholders.
- Budget and policy information to WisDOT and key stakeholders.
- Performance improvement coordination across divisions.
- Research and library services to meet department-wide needs.

# Division Update: Division of Business Management

The Division of Business Management (DBM) provides reliable and cost-effective business support services to the Department. DBM consists of three bureaus:

- **The Bureau of Human Resource Services (BHRS)** administers the Department's personnel, employment relations, employee assistance, payroll and benefits functions, diversity, medical coordination, reasonable accommodations, and training and development programs. The Bureau also participates in the planning and implementation of various statewide human resource initiatives.

- **The Bureau of Information Technology Services (BITS)** creates and maintains information solutions that enable the Department of Transportation to provide quality, efficient and effective services for its customers.

- **The Bureau of Business Services (BBS)** provides a wide array of services including centralized purchasing, fiscal services (expenditure, revenue and project accounting), privacy program, risk, safety, fleet, facilities, and records and form management services.

## 2015-17 Accomplishments

*Division-Wide*

- *STAR-PeopleSoft Implementation*:  DBM actively worked with other program areas of the department and the Department of Administration to effectively implement the STAR-PeopleSoft HCM, Finance, and Procurement modules. DBM developed agency-specific job aids, provided in-person training for employees, and held open houses for employees to guide them through using PeopleSoft.

- *New Mission and Vision:* In late FY17, DBM adopted new mission and vision statements focused on developing a culture of continuous improvement, efficiency, and effective decision-making through the utilization of data.

*Human Resource Management*

- *Wisconsin Act 150 Implementation*: BHRS had experts on many Act 150 committees, including lead roles on the steering team and the recruitment/selection team. BHRS updated all agency policies and procedures to be ready for implementation in July 2016, including administering the new State of Wisconsin work rules and civil service assessment processes. BHRS also continued partnerships with the Division of Personnel Management on the HR Shared Services analysis and implementation.

- *Customer Satisfaction Survey*: BHRS continued to implement a customer satisfaction survey that was sent to all supervisors and HR/payroll coordinators. The results from the surveys implemented in 2015 and 2016 were compared to previous years and were measured against internally set performance goals. The survey measured satisfaction from business partners in some general Performance Evaluation Planning and Development (PEPED) areas, interaction with BHRS staff and change efforts. BHRS plans to administer the survey each year to compare results and track improvements.

- *Employee Engagement*: BHRS worked with the Secretary's Office and the Executive Leadership Team to implement an agency-wide Employee Satisfaction Survey in February 2016. This was a follow-up from the

survey implemented in February 2015. Each division and executive office reviewed their specific results and developed action plans to address opportunity areas.

- *Training and Development*: BHRS continued to update the WisDOT LearnCenter (Cornerstone) by implementing several enhancements to assist with training and development across the Department. BHRS used Cornerstone to deploy required training for employees, including IT Security Awareness, diversity training and Title VI training modules. BHRS also populated the WisDOT LearnCenter with hundreds of relevant online courses provided by Lynda.com. BHRS worked with Divisions to continue to develop online training modules to provide cost-effective and just-in-time training for employees. This included a three-part online Lean Government curriculum. BHRS also deployed several new classroom training opportunities including Myers-Briggs Type Indicator (MBTI), communication, leadership, and team effectiveness courses.

*Information Technology Management*

- *Division of Enterprise Technology(DET) IT Consolidation:* Accomplished additional infrastructure consolidation by migrating to DET enterprise-provided technologies for network security (firewalls) and internet access. The enterprise internet solution provides secure web browsing through better threat detection, address filtering, and advanced malware analysis.

- *E-Government Initiatives:* Implemented the Local Road Improvement Program (LRIP) External web application for DTIM, which allows 1,950 external business partners to apply for Local Road Improvement Program (LRIP) funds and for program managers to manage the life cycle of LRIP projects.

- *Data-Driven Management:* Completed 130 IT projects in FY2016, with 72 percent delivered on-time. Completed 147 IT projects in FY2017, with 73 percent delivered on-time.

- *Enterprise Collaboration:* Participated in the DOA DET Optimization Advisory Group to identify efficiency metrics to drive down IT infrastructure costs, provide more reliable IT services, and ensure agencies are engaged in the entire lifecycle of each service.

- *Reform and Innovation:* The Self-Reported Crash application was implemented to allow a driver to self-report a crash electronically, eliminating paper reporting and associated handling. As of September 30, 2017, 7,849 crashes had been self-reported using the new streamlined system.

- *Cost Savings and Efficiency:* On behalf of the Division of Transportation System Development (DTSD), implemented the Traffic Impact Analysis (TIA)/ Project Traffic Studies (PTS) application to streamline business process on how data for these studies is collected, analyzed, and shared. Time to complete a TIA has been reduced from hours to minutes.

- WisDOT IT Service Desk:  The WisDOT IT Service Desk averaged 49,000 interactions per fiscal year while maintaining a first call resolution rate of 65 percent. First call resolution means the customer had their need met with the first contact. Incidents accounted for 70 percent of the interactions, with the remaining being IT Service Requests.

- Microsoft Office 365 Migration:  Planning for migration to DOA enterprise Microsoft Office 365 services was completed and multiple projects are in progress.

- Cherwell Tool: WisDOT adopted the enterprise IT Service Management tool (Cherwell). This included changes to incident management, service requests, change management, and IT assets. Process improvements were made for Project Management, Small Tools Requests, Change Management, and Architecture Review.

- MV4000 Crash Database and Resolve System: Participated in the development and implementation of the MV4000 Crash Database and Resolve System. This new system allows law enforcement to report on a crash and for those reports to be maintained and analyzed to determine if roadway conditions are contributing to crashes. As of September 30, 2017, 99,831 crashes had been processed in the new system.

- Customer Flow Management Software: Implemented Customer Flow Management software to facilitate the efficient movement of customers to all areas of service needed when visiting a DMV customer service center while enhancing the customer experience and reducing wait times.

- DMV Card Production: Implemented new DMV Card Production services which provided an enhanced solution for the central issuance of a new, secure Driver's License ID credential, continued compliance with the federal Real ID Act, validation of applicant identity, and protection of customer's personal data.

- DMV Application Modification: Modified DMV applications to comply with legislative mandates:
  o Wheel tax activity for overlapping tax districts in December 2014 led to the creation of another fee code to accommodate both county wheel tax and municipal wheel tax for the same community.
  o 2015 Act 389 marked the beginning of a new type of penalty for OWI convictions – a Sobriety Program.
  o Act 261 required the Wisconsin Elections Commission to create an online voter registration system that utilizes DOT driver license and identification card verification to prove residency.

- Regular and Commercial Driver Licenses and Identification Cards Guide: In conjunction with the Wisconsin Interactive Network (WIN), produced an interactive guide that provides information on the application process for Regular and Commercial driver licenses and Identification cards.

- AASHTOWare Preconstruction: Implemented the AASHTOWare Preconstruction web-based software replacing the legacy client/server application. This software supports business activities that take place prior to actual construction work, like plans, specifications and estimates submittal and contract bid letting. This was the first step towards the eConstruction/paperless goals established for the DTSD, Bureau of Project Development.

*Bureau of Business Services(BBS)*

- *Data-Driven Decisions:* BBS is finalizing the implementation of the Accruent Integrated Workplace Management System (IWMS). Lease and service contract process workflows have been streamlined, and the appropriate process documents are being updated. BBS is also cross-training four new IWMS administrators to ensure continuity into the future.

- *Effective Customer Service:* Facilities Section overall customer satisfaction exceeded the FY15 customer satisfaction score of 85 percent. With a goal of 95 percent satisfaction, the score for FY16 was 97.5 percent and in FY17 96.2 percent. In addition, the 2017 Hill Farms Motor Pool survey results improved over 2015 and 2016 in all categories. Motor Pool customer satisfaction scores included:
  o Vehicle readiness - 100 percent
  o Vehicle satisfaction -- 98.2 percent

- o Overall satisfaction – 98.4 percent

- *Cost Savings:* Employee travel in state owned and privately owned vehicles decreased by 11 percent from FY15 to FY16. The total decrease was over 750,000 miles for an estimated cost savings of $283,970.

- *Reform and Innovation:* BBS worked with the STAR team to create a unique approval workflow that reduces the number of approvals on contract items.

- *Contract File Project:* The Contract File project in Purchasing is nearing completion. Files were reviewed to ensure that they met the criteria of a complete bid and contract file. In addition, all files exceeding the six-year records retention/disposition authorization (RDA) have been purged. All expired contract files that are still within their RDA have been prepared for shipment to the State Records Center. All files retained are current, active contracts, and have been refiled by contract number.

**2017-2019 Goals**

*Division-Wide*

- *Data-Driven Decision-Making:* DBM will develop and improve systems of analyzing the amount of labor needed to perform the division's functions efficiently. This data will assist DBM in making hiring decisions based upon customer need and assist in creating individual employee performance metrics. Also, DBM will develop visual performance dashboards for key functions for division managers.

- *Cost Savings and Innovation:* In FY17, each DBM employee will recommend at least one cost savings measure and one process improvement.

- *Reform and Innovation:* DBM will complete nine Lean projects in FY17, and will continue to utilize Lean projects to drive process improvement and efficiency in FY18. DBM will also complete an inventory of key assets and IT applications to strategically plan for future needs and streamline the number of IT applications. In addition, DBM will partner with DOA-DET to implement Voice over Internet Protocol (VoIP) technology in the new Hill Farms State Office Building and WisDOT locations statewide.

- *Effective Customer Service:* DBM will establish better lines of communication by increasing face-to-face interaction with our customers at WisDOT field offices. DBM will also develop a customer-facing performance dashboard that broadcasts the division's key performance indicators.

- *Investing in our Workforce:* DBM will establish a plan for individual training and professional growth for each employee in FY17 utilizing WisDOT's LearnCenter training resource. DBM will also present each newly-hired employee with a six-month training plan.

- *Business Continuity Management:* DBM will create and update standard operating procedures to ensure proper documentation of critical division processes.

- *PeopleSoft Maximization:* While increasing DBM knowledge and efficiency in PeopleSoft, assist the other WisDOT divisions in becoming more proficient with the new system, implementation of prioritized functional and technical improvements, and taking full advantage of its functionality.

*Human Resource Management*

- *HR Shared Services*: DBM-BHRS will actively participate in the HR Shared Services effort by partnering with the Division of Personnel Management (DPM) on implementation efforts. BHRS will analyze and implement HR/Payroll centralization efforts within WisDOT in preparation, including developing an effective internal organizational structure and partnering with divisions on service level expectations. BHRS will also actively engage with other agencies moving into the new Hill Farms building complex in 2018 to perform the full range of HR services for those agencies that are part of the initiative.

- *Reform and Innovation*: BHRS will analyze workflow and processes to create efficiencies. This includes completing at least two Lean Government projects and reducing/eliminating unneeded paper documents. BHRS will challenge bureau staff to create process improvements and cost-savings measures for the bureau/division.

- *Data Driven Decision-Making*: BHRS will develop bureau-specific metrics to highlight workload and service accomplishments.

- *Training and Development*: BHRS will update the online training modules for new employee orientation and new supervisory development training and will revise the classroom session of new supervisory development training. BHRS will also create new resources to help supervisors on challenging employee issues, work with divisions to create leader development programs, and provide leadership coaching to management teams. BHRS will also work on projects to develop uniform on- and off-boarding processes for employees/contractors.

*Information Technology Management*

- *Technology Management:*
    - Complete the inventory and assessment of applications used within WisDOT.
    - Establish the application portfolio process to make data-driven decisions on application life-cycle management.
    - Identify and prioritize IT projects to actively remove "retired" and "sunsetted" technologies.
    - Continue to focus on DET service optimization efforts to reduce IT costs for WisDOT business divisions.
    - Continue a proactive approach to the adoption of suitable technologies in response to customer needs.

- *IT Service Management*:
    - Continue strengthening working relationships through a Business Relationship Management focus.
    - Align technology and IT services through completion of an IT Strategic Planning effort.
    - Improve delivery and support of IT services through implementation of Configuration Management and Knowledge Management interfaces and processes.

- *Security and Continuity of Operations*:
    - Partner with DOA-DET to plan and implement prioritized security improvements.
    - Define a strategic workforce plan to align with organizational business needs.
    - Partner with DOA, WisDOT divisions, and business partners to refine current business continuity requirements with the goal of providing input to DET service disaster recovery plans.

- *Metrics and LEAN*:
  - o Continue to prioritize LEAN projects for inclusion in the IT project portfolio.
  - o Identify and implement IT key performance indicators that align to the WisDOT Performance Improvement Program (MAPSS).
  - o Identify and implement metrics to inform decisions around workforce, workload, and spending.
- *Project and Portfolio Management:*
  - o Continue the innovative approach of the Project and Portfolio Management Office (PPMO) responding to advancements in business, technology, and resources.
  - o Implement an Agile Project Management framework that accommodates changes in business, people, and resources.
  - o Provide decision-making information on management of authorized programs and projects utilizing a portfolio management tool that provides perspective and predictions.

*Business Services*

- *Data-Driven Decision-Making:* Develop customized reports and dashboards in IWMS using BI PRO as well as cleansing and fixing the schedules and procedures of many automated preventive maintenance work orders. Complete the creation of space data and uploading Cad drawings for WisDOT-owned buildings and discuss the merits of doing the same for 100+ leased buildings.

- *Cost Savings:* Continue to track performance measures within the Workers Compensation Program, and focus on reducing lost time incident rates. Through communications and awareness, WC injuries have decreased and injury reporting has improved.

- *Reform and Innovation:* Complete and implement a series of four Lean projects in BBS. Also, analyze the WisDOT administrative facility footprint to determine potential efficiencies and cost savings through consolidation.

- *Effective Customer Service:* Increase on-site visits to WisDOT field offices by BBS staff to ensure proper facility maintenance and enhance direct customer interaction.

Currently, WisDOT has 3,218.34 filled permanent positions. Of those positions, 114 are permanent part-time positions. Part-time positions range from .5 to .88 positions and are located throughout the state. Employees may have the ability to work alternative work schedules based upon the operational needs of the organization.

# Division Update:  Division of Motor Vehicles

Wisconsin DMV Mission: "Together we save lives through superior service, security and innovation."
DMV is the "front door" of WisDOT, with over 11 million public contacts each year. More information about DMV services can be found at http://wisconsindmv.gov . DMV office and service locations can be found at http://wisconsindot.gov/Pages/online-srvcs/find-dmv/default.aspx .

## 2015-2017 Accomplishments

### *New Driver License/Identification Card*
DMV awarded a new driver license/identification card production contract which included the implementation of updated photo equipment, modernized software, and a redesigned credential with improved security features. The new card design, implemented in fall 2015, is constructed of 100 percent polycarbonate and includes banknote-grade laser engraved printing that meets all federal security standards. DMV processes approximately 1.3 million credentials per year which are printed and mailed from a highly secure print facility.

### *Document Management and Workflow*
DMV began implementation of a new document management system in November 2015 and completed the project in May 2016. The implementation focused on incoming title and registration applications, as well as the digital archiving of applications processed by DMV's third party partners. In addition to scanning millions of incoming documents, the new system automatically deposits check payments, workflows applications for processing by work type, and offers an interface to easily retrieve stored documents. During the summer of 2016, the system was expanded for use by DMV field services staff, which has allowed for remote processing of centrally mailed title applications. This modern and efficient system eliminated the need to mail paper applications to DMV service centers throughout the state, which not only has reduced the time customers wait for their title, but allows for more effective resource allocation.

### *Private Seller Notification System*
2015 Wisconsin Act 60, relating to constructing a sports and entertainment arena, included statutory language requiring individuals who sell their motor vehicle to another individual (private sale) to report to the Department of Transportation the identification number of the vehicle and the identity of the individual buyer within 30 days of the sale. The act required the department to accept this information in an electronic format beginning January 1, 2016. DMV successfully implemented the act (referred to as seller notification) as planned on January 1, 2016. As part of the implementation, DMV partnered with WIN (Wisconsin Interactive Network) to build an online application, which allows customers to report their private vehicle sale to DMV. Between January 1, 2016 and June 30, 2017, 39,760 customers reported the sale of their vehicle to the Department. Out of the 39,760 notifications, 34,064 customers reported the sale using the online application, while 5,696 mailed a paper form to the Department for DMV processing.

### *Expansion of DMV Saturday Service Hours*
DMV's goal of expanding Saturday service to the Madison East, La Crosse, Eau Claire, Wausau and Appleton Customer Service Centers was accomplished in January 2016. These increased service hours have been achieved without an increase in DMV staff or customer wait times using alternative scheduling methods. More than 1,500 customers per week take advantage of Saturday service hours, demonstrating the fact that customers appreciate having flexible alternatives during non-traditional business hours.

*Registration and Titling Counter Service at Part-Time Service Centers*
DMV's goal of expanding registration and titling counter service to all permanent DMV Customer Service Centers was accomplished on schedule in December 2015. The result is that customers now have additional in-person options to title and register vehicles. While all vehicle services can be done online, by mail and/or via third party partners (such as dealers, banks, grocery stores, etc.), expanding service to the 51 permanent part-time DMV offices without increasing staff is a benefit for customers.

*Improved Service Delivery Alternatives via the Wisconsin Portal Project*
DMV continues to work to improve the DMV website and provide easier navigation and additional service alternatives for its customers. Recent accomplishments include adding Identification (ID) card information to the online Driver's License Guide in June, 2016.

*Improved Service Delivery Alternatives via WisDOT systems*
- Expansion of DMV's "eNotify" email notification service to include driver license and identification card renewal notifications, as well as additional correspondence.
- Expansion of eNotify to include fraud alert and account activity notifications for driver license or ID card issuance activities and address changes.
- Development and implementation of the Wisconsin Elections Commission's "Electronic Registration Information Center" (ERIC) voter information project. (2015 Wisconsin Act 261)
- Development and implementation of the Wisconsin Elections Commission's "Online Voter Registration" (OVR) system. (2015 Wisconsin Act 261)

*Compliance with Federal Programs, Implementation of National "Best Practices"*
- Wisconsin DMV received certification of compliance with the Federal Motor Carrier Safety Administration's (FMCSA) "Commercial Driver's License Testing and Commercial Learner's Permit Standards" in April 2016.
- Wisconsin became the first state in the nation to implement the "State to State" verification service. This system helps ensure Wisconsin's conformity with the "one driver, one license" goal maintained by state driver licensing agencies, and helps maintain compliance with federal REAL ID standards.

*System Enhancements for Customer Safety and Convenience:*
- Implementation of Over 65 non-expiring ID card. Wisconsin residents, age 65 and older, may obtain a Wisconsin ID card which never expires. Qualifying applicants with an existing driver license or ID card may use one of DMV's online services to complete this process without having to visit a DMV Customer Service Center (2015 Wisconsin Act 55).

*New License Plate Designs*
DMV released six new specialty plates during the last biennium pursuant to the enactment of statutory changes. The new license plates include:

- "Milwaukee Bucks," released in October 2016. DMV has issued 643 Milwaukee Bucks License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. The contribution goes toward the construction costs of the sports and entertainment arena facilities in the Milwaukee entertainment district and the Milwaukee Bucks Foundation.

- "Rocky Mountain Elk Foundation, "released in January 2017. DMV has issued 141 Rocky Mountain Elk Foundation License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. The contribution goes to the [Rocky Mountain Elk Foundation](#) in their efforts of habitat conservation and the future of elk and other wildlife.

- "Whitetails Unlimited," released in January 2017. DMV has issued 213 Whitetails Unlimited License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. The contribution goes to [Whitetails Unlimited.](#)

- "Help Cure Childhood Cancer," released in April 2017. DMV has issued 167 Help Cure Childhood Cancer License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. The contribution goes to the [MACC Fund](#) which is dedicated to funding childhood cancer and related blood disorder research.

- "Nurses Change Lives," released in April 2017. DMV has issued 330 Nurses Change Lives License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. The donations go to the [Wisconsin Organization of Nurse Executives, Inc.](#) and provide a funding source for professional development, education and scholarships for Wisconsin nurses.

- "Scouting Alumni," released in April 2017. This plate provides an option to Wisconsin motorists to choose either a standard scouting emblem or the Eagle Scout Badge that is displayed on the left side of the plate. DMV has issued 147 Scouting Alumni License Plates to date. Each license plate issued has an annual donation of $25 in addition to the regular registration renewal fee. These contributions go to the non-profit [Boy Scouts of America National Foundation](#) and are distributed to local Wisconsin councils.

### *Authorized Special Group Process*
In the past, special interest groups petitioned their local legislators to introduce a bill to authorize issuance of special group license plates. 2015 Wisconsin Act 227 changed the process to require groups requesting authorization for a special group plate to apply directly to DMV.

DMV successfully implemented the new request process on October 1, 2016. Two group plate applications have been authorized through this process to date: Choose Life Wisconsin and Children's Hospital of Wisconsin Foundation. A third group, 4-H Foundation, recently submitted their application and is currently available online for public review.

### *Safe at Home Program*
The Wisconsin Department of Justice was mandated by statute to implement a statewide address confidentiality program that provides victims of actual or threatened domestic abuse, child abuse, sexual abuse, stalking, trafficking, or those who simply fear for their physical safety with a legal substitute address to be used for both public and private purposes. Enrollment in the Safe at Home program allows participants to use and receive mail at an assigned address in lieu of their actual address. DMV worked collaboratively with the Department of Justice to implement the program timely and accurately, making sure that DMV correspondence is routed through this alternate process to ensure a victim's identity is kept confidential. As of October 2017, DMV has assisted in protecting 33 identities.

**2017-2019 Goals**

*Implementation of Hybrid/Electric Vehicle Fee*
2017 Wisconsin Act 59 (17-19 Biennial Budget) created surcharges of $75 and $100 for the annual registration of hybrid and electric vehicles. The Division will prepare registration renewal notices and assess the new fees effective 1/1/18, as mandated by the Act.

*Issuance of REAL ID Diver Licenses and Identification Cards*
DMV has offered both REAL ID compliant and non-compliant driver licenses and identification cards since January 2013. For the first few years of issuance, only about 20 percent of customers chose to enroll and obtain a compliant product. The Department of Homeland Security's phased implementation plan to require federally-compliant credentials for certain purposes will complete on October 1, 2020. As of this date, a REAL-ID compliant product will be required to board federally regulated commercial aircraft. Recognizing this requirement will have widespread impacts on Wisconsin customers, WisDMV will continue its efforts to encourage REAL-ID enrollment during initial issuance or renewal to avoid the need for a return trip to a DMV office to enroll and pay for a duplicate product. In calendar year 2017, the percentage of compliant products has increased to nearly 31 percent.

*Update Third Party Processing System*
Wisconsin law requires motor vehicle dealers and lien holders to electronically process title applications for their consumers. The current systems and interfaces are outdated and the process to onboard additional vendors to service dealerships is cumbersome and costly. DMV is partnering with Wisconsin Interactive Network to create two methods for electronic submission of the applications:
- An all-inclusive vehicle title and registration system for use by approved motor vehicle dealers, auctions, financial institutions, fleet companies, and third party processing agents.
- A real-time title and registration processing system using modernized technologies from third party vendors providing services directly to automobile dealerships.

The fully implemented systems will offer efficiencies by reducing system maintenance and support costs. Users will be offered an accessible service with a modern interface, enhanced features, and 24x7 support services.

*Implement Geocoding for Vehicle Kept in Location*
DMV is required to capture vehicle location information (county, municipality name, and municipality type) for every vehicle titled or registered in the state of Wisconsin. The location may identify a vehicle as being subject to an emissions inspection, or a specific tax such as county, sales, use and/or wheel tax. Historically, DMV systems have made use of a product that was designed to provide the best postal services delivery address, but does not provide the true vehicle location (geographical coordinates) and requires manual intervention when the location is not correct. In late 2017, DMV will implement a new geocoding solution that will consistently identify the correct county, municipality and municipality type based upon the customer's primary residence address.

*Improved Service Delivery Alternatives*
DMV continues to work to improve the DMV website and provide easier navigation and additional service alternatives for its customers. Upcoming goals include:

- Creation of an on-line application which will allow customers to order vehicle registration replacement stickers on-line. This self-service system will allow customers the option to request this product at their convenience, reducing the need for DMV to fulfill these requests via telephone, email or in-person.
- Electronic transmission of third-party Commercial Driver License (CDL) skills test results from AAMVA's (American Association of Motor Vehicle Administrator's) federally required Commercial Skills Test Information Management System (CSTIMS) database to Wisconsin DMV's driver license issuance systems.
- Integration with AAMVA and FMCSA's "National Registry II" medical examiner certificate system.
- Development of paperless application process for driver training schools and third party CDL examiners licensed by DMV.

# Division Update:  Division of State Patrol

The Division of State Patrol (DSP) promotes highway and public safety by providing and supporting law enforcement and traffic safety services. In addition to statewide law enforcement, DSP's public safety services include:

- Patrolling Wisconsin's state highways;
- Conducting motor carrier safety inspections and weight enforcement;
- Supporting mobile data communications with MACH for 180 agencies and over 4,300 users;
- Providing training and instrumentation for alcohol testing of drivers;
- Coordinating research, funding and outreach for traffic safety programs; and
- Providing specialized law enforcement services like technical reconstruction, air support, drug or bomb-detection canines (K-9s), dignitary protection and training facilities at the State Patrol Academy.

Each of the five DSP regions has a post (headquarters) with a communications center for dispatching troopers and inspectors. The geographically large southwest and northwest regions each have two posts. An overview of DSP's mission and structure can be found at: http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dsp/dsp.aspx

**2015-2017 Accomplishments**

*Highway Safety and Law Enforcement*
- There were 588 traffic fatalities in 2016 in Wisconsin. DSP has continued to use intensified enforcement and effective traffic safety education to reduce fatalities and serious injuries from traffic crashes. The average number of fatalities per year from 2010 to 2014 was 551, whereas the average number of traffic fatalities per year from 2012 to 2016 was 554, a 0.5 percent increase in the rolling five-year traffic fatality average. The number of people injured in traffic crashes has increased steadily from 39,369 in 2012 to 43,669 in 2016, an 11 percent increase. The number of reported traffic crashes also increased. In 2015, the traffic crash rate was 195.71 crashes per 100 million vehicle miles traveled, which is two percent above the prior five-year rolling average. Fortunately, safety belt usage in 2016 reached an all-time high of 89.4 percent.

- In partnership with the National Highway Traffic Safety Administration and law enforcement agencies throughout the state, the Bureau of Transportation Safety organized successful mobilizations backed by extensive public education messages in the media to increase safety belt use and decrease alcohol-impaired driving. In 2016, 281 agencies around the state participated in the Click It or Ticket campaign, 176 agencies participated in the Drive Sober or Get Pulled Over-Labor Day impaired driving mobilization and 215 agencies participated in the Drive Sober or Get Pulled Over-Winter Holidays effort. Wisconsin continues to deploy its own media campaign to demonstrate how simple changes to driver behavior can prevent crashes. See DOT's "Zero in Wisconsin" website for more details: http://www.zeroinwisconsin.gov/

- DSP emphasized training and enforcement efforts focused on highway criminal interdiction while maintaining its traffic enforcement efforts statewide. In 2016, DSP issued more than 53,138 speed citations, 269,755 traffic warnings, 2,723 drug and alcohol related traffic citations, 20,460 safety belt citations and made more than 226,905 traffic stops. DSP personnel also provided 39,352 motorist assists in 2016 and 36,150 motorist assists in 2015 on roadways throughout Wisconsin. The Division of State Patrol's Air Support Unit (ASU) provided a consistent air enforcement presence in 2016, completing 49 aerial traffic enforcement details. More information can be found at: http://wisconsindot.gov/Pages/safety/enforcement/default.aspx

*Motor Carrier Safety and Enforcement*
- The Motor Carrier Safety Assistance Program (MCSAP) continued to advance the safe operation of commercial motor vehicles and drivers through safety inspections and traffic enforcement efforts. The program also includes audits and reviews of carriers to assure that they are meeting regulatory requirements. DSP trained a number of local, county and tribal law enforcement agencies to conduct size and weight and MCSAP inspections in their areas. Wisconsin's efforts to reduce Commercial Motor Vehicle (CMV) related fatalities have reduced the number of large truck fatalities from 111 in 2004 to 52 in 2016. In addition, Wisconsin has experienced an 11 percent reduction in large truck crashes from 2,729 in 2009 to 2,411 in 2016.

- The Size and Weight Program ensures that commercial vehicles operate within permitted size and weight limitations. Combined with MCSAP, more vehicles and drivers are subject to more intensive safety checks. In addition to checking more than 36,000 vehicles and/or drivers for compliance with state/federal regulations in FFY 2017, DSP weighed over 3.4 million vehicles in CY 2016 using Weigh-in-Motion (WIM) technology and nearly 350,000 vehicles at WisDOT owned Safety and Weight Enforcement Facilities (SWEFs) located throughout the state. Additionally, more than 2,600 CMVs were weighed by DSP using portable scales. More about DSP's promotion of safe trucking can be found at: http://wisconsindot.gov/Pages/dmv/com-drv-vehs/mtr-car-trkr/mc-safety/mcsap.aspx

*Wireless Communications Networks*
- The WISCOM (Wisconsin Interoperable System for Communications) is a statewide system which allows emergency responders from different communities to communicate with one another during a large-scale incident. Initial build-out was designed to provide at least 95 percent statewide mobile radio coverage using 80 existing and future antenna towers and other infrastructure as the framework. DSP transitioned to the WISCOM system for their daily communications in July 2017. The transition was successful, and the daily use has been constant since the transition date. Sharing of statewide infrastructure has resulted in long-term cost savings, avoided equipment duplication and helped extend coverage capacity to meet local needs. The WISCOM system has now grown to 125 sites on the air statewide, and more are being added soon—this makes it the largest VHF trunking system in the U.S. This system has now added six 800 MHz sites in the Milwaukee, Madison and Fox Valley areas. These sites are seamlessly interoperable with the main VHF system, making it a "hybrid" network. There are currently over 27,000 subscribers to the WISCOM system statewide for interoperable use. There are currently seven counties and two municipalities that use the system for all of their daily communications needs. The Wisconsin Department of Natural Resources, Department of Justice, US Federal Bureau of Investigation and other agencies have agreements in place to utilize the WISCOM system for event specific interoperable communications. The WISCOM system continues to be the interoperable communications choice during Wisconsin Badger football games in Madison between all participating agencies.

- Major improvements were also made to tower infrastructure, including building new towers at Grand View, Phelps and Port Washington, and occupying additional county or privately owned towers at strategic locations across the state, including Dunn, Douglas, Florence, Sawyer, Iowa, Taylor and Kewaunee counties.

- The Bureau of Support Services upgraded their Mobile Architecture Handling (MACH) software to add new functionality including new sub-statuses that allow for increased accuracy of work activities, a command prompt to allow dispatchers more efficient call handling and improved map markers for dispatched events that provide greater detail and efficient call management. MACH is currently utilized by 180 agencies with

over 4,300 users. More on the DSP's communications system can be found at:
http://www.dot.wisconsin.gov/statepatrol/services/communications.htm

*Academy*
In addition to being the primary source of training for Division of State Patrol sworn staff, the State Patrol Academy offers training and education to municipal, county, state and federal law enforcement related personnel. Examples include:

- Essential skill topics such as leadership; supervisory and management; instructor development; traffic law; motor carrier enforcement; crash reconstruction; canine; chemical testing; and law enforcement dispatching.
- Tactical skills training such as firearms; defensive and arrest tactics; emergency vehicle operations; vehicle contacts; and professional communications.
- Specialized training includes: Interdiction for the Protection of Children, Canine Officer Training, Krav Maga, Salvage Vehicle Inspection, (ABATE) Safe Rider, White Collar Crime and Evidence Technician training.

The Academy serves as a residential training facility and provides meals, lodging and facility space for partner agencies such as the: Federal Bureau of Investigation (FBI), National Insurance Crime Bureau (NICB), Department of Justice, Department of Natural Resources, Department of Corrections, Madison Police Department, Capitol Police, Wisconsin National Guard and Minnesota law enforcement agencies. The facility is used for meetings, classes, workshops, conferences and driver training. The Academy trained 6,111 students in FY 16 and 6,567 students in FY 17. In July 2016, the Academy graduated 38 members of the 61st State Patrol Recruit Class. The Academy also graduated 41 members of the 62nd State Patrol Recruit Class in April 2017. More information about the Academy can be found at: http://wisconsindot.gov/Pages/about-wisdot/careers/patrol/academy.aspx

**Law Enforcement Pursuit Data Collection**

| Year | Total Pursuits | Reason | Outcome | Average Top Speed | Average Distance | Injuries | Deaths |
|------|----------------|--------|---------|-------------------|------------------|----------|--------|
| 2015 | 1,494 | 804 traffic offense 349 criminal offense 73 warrants/wanted 268 other | 550 apprehended 673 terminated 225 eluded 46 other | 75 mph | 3.63 miles | 95 | 5 |
| 2016 | 1,778 | 974 traffic offense 582 criminal offense 70 warrants/wanted 152 other | 680 apprehended 848 terminated 198 eluded 52 other | 78 mph | 3.55 miles | 182 | 6 |

**2017-2019 Goals**

## Reduce Fatalities and Improve Traffic Safety

- WisDOT MAPSS has set a goal for 2016-17 to reduce the number of fatal, serious injury and property damage crashes by five-percent from the previous five-year average. DSP's goal is to use all available resources, including federal funding, to increase safety belt use in Wisconsin from 89.4 percent in 2016 to 92.0 percent by 2020. The Air Support Unit has planned 80 aerial traffic enforcement details in 2017 to effectively enforce speed and aggressive driving laws.

- Aside from its partnerships with law enforcement agencies, DSP will continue to meet statutory requirements of providing outreach to each county Traffic Safety Commission. DSP will also continue to provide public information and education materials, safety training for citizens and professionals, equipment to local units of government for conducting ongoing high-visibility enforcement activities and research on new and emerging highway safety issues. DSP will continue to distribute and manage safety programming grants (currently about 750 grants annually, the clear majority to local governments) to address behavioral highway safety crashes in their localities. DSP will develop motorcycle awareness programming to heighten motorists' awareness of motorcyclists on our roadways and to encourage motorists to always look twice for motorcycles.

## Maintain Chemical Testing Services and Training

The Chemical Testing Section will train and certify approximately 500 law enforcement personnel on the operation of the evidential breath test (EBT) instrument as well as the operation and calibration of Preliminary Breath Test (PBT) instruments approved by the section. The section will recertify approximately 6,000 current EBT operators and maintain and certify the 240 evidential breath test instruments throughout the state. The section will perform Ignition Interlock Device (IID), PBT and EBT evaluations and approvals as required, and respond to IID operational complaints. The section will also provide expert testimony, and public, prosecutorial and judicial training as requested. More information can be found at: http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dsp/spec-svcs/chemtest.aspx

## Promote Motor Carrier Safety and Enforcement Activities

The Division of State Patrol's Motor Carrier Enforcement Section will incorporate the Federal Motor Carrier Safety Administration's (FMCSA) Compliance, Safety and Accountability (CSA) model to help meet DSP's compliance and enforcement goals. This will:

- Increase highway safety and reduce large truck-related crashes;
- Protect the state's highway infrastructure through inspection, enforcement and enhanced regulatory coordination and administration;
- Provide efficient service to the motor carrier industry and the driving public; and
- Implement new technologies to improve highway safety and preserve highway infrastructure.

The Section will also use complete, timely and accurate data to effectively implement policy and operational development. The division is required to report SWEF hours of operation and the number of vehicles weighed to the Federal Highway Administration (FHWA) as part of its annual recertification. The number of inspections is reported to the Federal Motor Carrier Safety Administration on a quarterly and annual basis. The State Patrol performance targets for safety and enforcement efforts are to ensure that SWEFs are operated 17,205 hours and to increase the number of inspections to 33,000 in FFY 18.

*Enhance Field Operation Activities*
The Division of State Patrol is committed to developing a predictive analytics tool designed to merge various data sets together with a goal of predicting times and locations where law enforcement resources would be deployed to best enhance safety. Data will be shared with other law enforcement partners.

Our agency is committed to identifying and removing impaired drivers from our highways. Impairment is not only caused by alcohol but also by other prescribed and illicit drugs. The Division of State Patrol intends to train all sworn officers in Advanced Roadside Impaired Driving Enforcement to better detect impairment.

The Division of State Patrol continues to combat crime and terrorism. All sworn officers will be equipped with the necessary tactical equipment to safely handle all threats. Our services will be expanded to include the development of Quick Response Teams (QRT) and specialized tactical teams. The agency has and will continue to support Homeland Security initiatives. All sworn officers will be trained as Threat Liaison Officers to protect our citizens and improve our ability to share information with other law enforcement partners.

*Improve Interoperable Communications and Data Collection*
High bandwidth secure wireless access points continue to be established and will be maintained at post facilities, WisDOT rest areas along interstate highways, and at SWEFs, allowing officers to wirelessly transfer electronic citations, crashes and criminal reports from the mobile data computers in their squad cars to the DSP servers. The Bureau of Support Services continues to build out the statewide WISCOM system installing digital narrowband voice base stations that incorporate the national P25 standard, enhancing interoperability and providing more secure voice transmission of sensitive information. Major network improvements were made to the DSP network infrastructure that added storage capacity, processing efficiency and network reliability. The WISCOM system continues to add sites, users and updates to the system as it grows. Adding additional sites to the "layer" of 800 MHz sites in the Milwaukee, Madison and Fox River Valley areas will continue to improve interoperability in those metro areas.

Wireless Communications Networks
In FY 2018, the Bureau of Support Services will consult with the Department of Military Affairs on the effective use of staff at WisDOT for the ongoing maintenance of a statewide public safety interoperable communication system.

*Academy*
The DSP Academy will:
- Recruit, select and train members of the 63rd and 64th Recruit Classes.
- Partner with the Wisconsin Department of Justice in order to facilitate Division of Criminal Investigation, Physical Fitness and Officer Wellness training and education.
- Facilitate the Training and Standards Bureau Law Enforcement Command College.
- Improve the educational experience of our participants in the classroom and dormitory through the technological enhancements of additional smart boards and increased wireless capability.
- Provide small meeting space using underutilized areas and improved furnishings.
- Partner with the Wisconsin Department of Natural Resources in providing additional training facilities, canine accommodation and pavilion space.
- Partner with the Wisconsin Department of Corrections in the facilitation of their entry level and management training.
- Create efficiencies that make the Academy more cost effective.

- Provide value-added training to Wisconsin's law enforcement community.

# Division Update: Division of Transportation System Development

The Division of Transportation System Development (DTSD) provides leadership in the planning, development, and operation of safe, reliable and efficient transportation systems. The division is headquartered in Madison with field offices in Rhinelander, Wisconsin Rapids, Green Bay, Eau Claire, Superior, Waukesha, La Crosse, and Madison. More information about the regional field offices can be found at:
http://wisconsindot.gov/Pages/about-wisdot/who-we-are/dtsd/dtsd-region-offices.aspx.

*Improvement Projects and Studies by Region*

*North Central Region*

### WIS 29, US 51 – Business 51, Wausau – Wittenberg, Marathon County:
The construction of this $19 million project was completed in 2016 seven months ahead of schedule. This project replaced the bridge decks and approaches on the WIS 29 bridges over the Wisconsin River and Business 51. The bridges also were widened near the Business 51 interchange to provide improved safety and operations for exiting and entering traffic onto WIS 29.

### WIS 22, Main Street, City of Clintonville, Waupaca County:
Two projects were completed in 2015 and 2017 to reconstruct WIS 22 in the City of Clintonville. This $7 million urban project included reconstruction of the Pigeon River Bridge and one mile of WIS 22.

### US 51, Rocky Run Road – Oneida County Y and Bearskin Trail Structure, Tomahawk – Minocqua, Oneida County:
These two $11.2 million projects reconstructed 6 miles of US 51 and replaced the Bearskin Trail structure over US 51. The six-mile rural reconstruction project was completed two months ahead of schedule and improved safety and operations by improving the roadway profile and extended passing lanes. The replacement of the Bearskin Trail structure eliminated a significant height restriction on US 51, so that taller vehicles can safely pass and avoid losing time navigating around the area.

### Business 51 (Post Road), Green Drive – Springville Drive, Village of Plover, Portage County:
This $9 million project reconstructed 1.2 miles of Business 51 (Post Road) in the Village of Plover to replace the deteriorated facility to meet the current needs of this important urban corridor in the Stevens Point area.

### Old US 10/Wood County A, Village of Auburndale, Wood County:
Construction of this $5.5 million project on the local road system in the Village of Auburndale resulted in closure of four railroad crossings on a very active Canadian National railroad line. Significant safety concerns were addressed with this project, as most of the properties accessed by the crossings had no other access prior to the project, resulting in a high potential for crossings being blocked for emergency service access. This was the last project of the US 10 majors corridor between Marshfield and Stevens Point.

*Northeast Region*

### US 41 Interstate Conversion
US 41, from the Wisconsin state line to Green Bay, officially was added to the interstate system in 2015. The federal government identified the 142 miles of US 41 for inclusion in the interstate highway system in 2005. Planning for the conversion began in 2007, with a long-term planning study finished in 2014. In fall of 2012, AASHTO approved the I-41 route number. FHWA approved the Formal Conversion Request Package and I-41 was

added to the Interstate Highway System on April 7, 2015. http://wisconsindot.gov/Pages/projects/by-region/ne/us41interstate/default.aspx

*US 10 and WIS 441 Tri-County Project*
WIS 441 Tri-County Project will reconstruct and expand approximately six miles of US 10 / WIS 441 from four lanes to six lanes between Cold Spring Road (near County CB) and Oneida Street (US 10) in Winnebago, Outagamie and Calumet counties. Construction began in 2014. The project reconstructs five interchanges and the Roland Kampo Bridge. A second parallel bridge over Little Lake Butte des Morts was completed in 2016, and the reconditioning of the existing bridge will be completed in 2018. Little Lake Butte des Morts Bridges will have four lanes and full-width shoulders for added capacity and safety. In addition, the I-41 US 10 System Interchange restores two ramp movements to provide traffic flow for west side of I-41, including large manufacturing and trucking companies. The system interchange will also open in 2018. The Oneida Street Interchange will have the first Diverging Diamond Interchange (DDI) in the Northeast Region. WIS 441 mainline will provide a 70 mph design speed. The Tri-County Project is scheduled to be completed in fall 2020.
http://projects.511wi.gov/wis441/

*US 41 (now I-41) Mega Project, Winnebago and Brown counties*
All major construction on the US 41 (now I-41) Mega Project in Brown County finished on time with the opening of the new I-43/I-41 system-to-system flyover ramps in November 2016 and final landscaping/local road work in 2017. The $1.4 billion project expanded capacity on 14 miles of I-41 in Brown County and 17 miles of I-41 in Winnebago County. The project reconstructed 13 interchanges, improved three interchanges, created 40 roundabouts, and installed 1,186 concrete girders, 244 steel tub girders and 182 steel I-girders. Work began in Brown County in 2010. Work began in Winnebago County in 2009 and finished in 2014.

*WIS 116/Wolf River Bridge replacement, Winnebago County*
The WIS 116/Wolf River Bridge replacement began in September 2017 in downtown Winneconne. The existing lift bridge over the Wolf River is being replaced with a fixed span bridge just south of the existing alignment. The $11.4 million bridge replacement project is expected to be complete in November 2018. Due to its regional importance, the current bridge will remain open to local traffic and emergency vehicles until the new bridge opens. https://projects.511wi.gov/wis116/

*Northwest Region*

*WIS 64 St. Croix Crossing, St. Croix County*
The long-awaited St. Croix Crossing opened to traffic on Aug. 2, 2017, following a community celebration attended by thousands including Wisconsin Gov. Scott Walker and Minnesota Gov. Mark Dayton. The state-of-the-art bridge connects St. Joseph, Wisconsin and Oak Park Heights, Minnesota, replacing the old Stillwater Lift Bridge. The joint MnDOT/ WisDOT project began in 2013. Wisconsin has begun the final phase of the project, construction of The Loop Trail, a nearly 5 mile bike/ped trail connecting the two states while bringing new life to the old Lift Bridge. The Loop Trail is expected to be completed in 2019.
http://www.dot.state.mn.us/stcroixcrossing/

*Minnesota Highway 63, Red Wing, MN Bridge*
Minnesota DOT and Wisconsin DOT have begun construction to replace the old Eisenhower Bridge connecting Hager City, Wisconsin, and Red Wing, Minnesota, across the Mississippi River. The two-lane, 1,631-foot long bridge has stood since 1960. Its replacement is scheduled for completion in 2020.
http://www.dot.state.mn.us/d6/projects/redwing-bridge/index.html

*US 2 (Belknap Street)-Superior, Douglas County*
WisDOT, in coordination with the City of Superior and Superior Water, Light and Power, began construction on this important Wisconsin/Minnesota connection in March 2017. The 1.4 mile improvement project includes replacement of the roadway, upgrade to the storm sewer system, and safety enhancements. The construction project cost is estimated at approximately $23 million. Construction is scheduled to be complete in 2019.
https://projects.511wi.gov/belknap/

*US 8/ US 63 Turtle Lake, Barron County*
Construction on the US 8 improvement project began in May 2017 and is scheduled for completion late 2017, depending on weather. The project replaces the intersections of US 8 and US 63 North and US 8 and Barron County Highway K with roundabouts as part of the federal Highway Safety Improvement Program (HSIP). Safety improvements have become necessary because both intersections have a history of high crash rates.
https://projects.511wi.gov/turtlelakeroundabouts/

*Southeast Region*

*I-94 North-South Mega Project, Milwaukee, Racine and Kenosha Counties*
The I-94 North-South Freeway project will address safety, congestion, and long-term pavement needs. Construction began in 2009. Milestones met in the biennium include letting the County K Crossroads project as well as a friction application on the Plainfield Curve pavement. A renewed effort to update design for remaining projects in the I-94 North-South Freeway project occurred in the last few months of the biennium.
http://projects.511wi.gov/i94northsouth/

*Zoo Interchange, Milwaukee County*
Construction continued to rebuild the state's busiest interchange and vital economic corridor. Work concentrated on the core of the interchange, with the majority of the construction taking place while open to traffic. More than $300 million in construction work was let in the last biennium.
http://projects.511wi.gov/web/zoo-interchange-project

*I-794/Hoan Bridge*
Reconstruction and repainting work on the Interstate 794 Daniel Hoan Bridge concluded in December 2015. The project incorporated several technical and material innovations designed to reduce traffic impacts and complete the work as quickly as possible, including moveable concrete barrier and use of Light Detection and Ranging (LiDAR) to minimize traffic disruption during data collection. The project was honored for "Best Use of Innovation" by the American Association of State Highway and Transportation Officials.

*Lakefront Gateway*
A collaborative effort among the State of Wisconsin, City of Milwaukee and Milwaukee County, the Lakefront Gateway was designed to improve connectivity for downtown, the lakefront and the Historic Third Ward while improving safety and traffic flow. Roadway realignment created in the plan helped to free up land for commercial development, as well. As the bridge is located in an area popular for festivals and events, WisDOT worked closely with organizations and stakeholders to help minimize impacts of project work. Work took shape throughout the last biennium and finished in mid-2017.

*Bucks Arena, Utility Relocation*
As part of the state's commitment to a new Milwaukee Bucks arena, work was accomplished along McKinley Avenue including utility relocation to help establish the work zone.

*Southwest Region*

### I-39/90 Project, Dane & Rock County
Project design, real estate efforts and utility relocations are ongoing. In 2016, WisDOT was successful in securing a $40 million federal FASTLANE grant to help accelerate I-39/90 construction work in the Janesville area. In 2016, Wisconsin's first Diverging Diamond Interchange opened at the WIS 11 (Avalon Road) interchange south of Janesville. Over the last several years, construction work has improved alternate routes along I-39/90 as well as several interchanges reconfigured in the corridor. All overpass structures have been replaced to accommodate the Interstate expansion to three lanes in each direction. Interstate reconstruction and expansion began in spring 2017 and will continue along the corridor for the next four years. The I-39/90 project is anticipated to be completed in 2022. www.i39-90.wi.gov

### US 18/151 (Verona Road) Project, Dane County
The first of two stages in the major reconstruction project in Madison and Fitchburg was completed in November 2016. Project design for Stage 2 of Verona Road, from Raymond Road south to County PD (McKee Road) in Fitchburg will be complete in 2018. Stage 2 construction began in fall 2016 and the entire Verona Road Project is currently scheduled to be completed in fall 2020. Project staff continue to receive positive feedback from residents, businesses and public about the newly completed portions of the project. The Verona Road Project has also received several awards for design and innovation. A partnership is ongoing with the local business coalition to keep everyone informed and involved on the Verona Road Project. www.VeronaRoadProject.wi.gov

### I-90 and Exit 3 Reconstruction, La Crosse County
Begun in 2013, this $70 million project performed the reconstruction of I-90 between the Minnesota/Wisconsin state line and La Crosse/Onalaska in 2015-16, and is currently working on the final stage of the project, the reconstruction of the Exit 3 interchange in La Crosse. Completion is expected in fall 2017. http://projects.511wi.gov/i-90reconstruction/

### US 12 Baraboo Bypass Project, Sauk County
The south segment of the project - the new 6.1-mile highway alignment around West Baraboo and Baraboo - began construction in 2015 and was completed in fall 2017. (The north segment between Baraboo and Lake Delton was completed in 2011.) Information on this project can be found at http://www.dot.wisconsin.gov/projects/swregion/12/index.htm.

### WIS 16 Reconstruction, La Crosse County
The reconstruction of WIS 16 between Onalaska and West Salem was completed in fall 2016. The $12.75 million project was designed to address safety and operations along a segment of WIS 16 used by an average of 14,450 vehicles daily.

### WIS 26 Reconstruction, Rock, Jefferson and Dodge County
The $470 million project to reconstruct WIS 26, begun in 2008, was completed as scheduled in the fall of 2015. The project expanded capacity and improved safety along a 48-mile stretch of highway between I-90 in Janesville and the WIS 60 east intersection north of Watertown.

**2015-2017 Accomplishments**

**Cost Savings**

- Under the direction of Secretary Ross, a review of the Six Year Program was conducted for projects that emphasized reconstruction, expansion, new alignment, interchanges, and overpasses. Results of the effort will free-up funding in excess of $100 million by applying the proper treatment to improve and extend the life of road ways. This funding will create room to advance the construction of other needed improvements.

- The department led a total of 714 projects over the biennium, with contract costs of $2,225 million, which improved 1,147 miles and 751 bridges across the state.

- The department worked closely with consultants and took advantage of favorable fuel costs to generate nearly $240 million in let program savings in FY16 and FY17. These savings help to move other projects into production sooner than expected.

- Saved $1.3 million in winter maintenance costs by advancing liquid de-icing strategies with salt brine. Research has shown that direct application of salt brine, as opposed to granular salt, can help minimize necessary post-storm cleanup.

- Launched route optimization efforts, incorporating mapping technology to help snow plow drivers cover more ground in less time. Brown and Dane counties have implemented route optimization plans with great success, and other counties are now in planning phases. Savings estimated at $1.2 million were created in Brown County because of reduced equipment costs. The department has determined that annual savings of $85,000, per route, are generated whenever routes can be absorbed into larger routes through optimization.

- Set new policy to transition from the use of private consultants to manage local transportation improvement projects. Keeping this work in house will generate annual savings of $3 million after the existing contracts end Dec. 31, 2018.

- Developed a confidential bidder policy, giving contractors the option to ask to keep their intent to bid hidden from public view until all bids are opened together on letting day. Confidential bidding helps to build a deeper sense of competition in an effort to drive down costs.

- Saved more than $300,000 in material costs for Performance Based Maintenance (PbM) bridge projects by buying larger quantities at the state level in order to provide lower unit costs at the local level. The four-year PbM pilot program is in its fourth and final year. The department is working with the Wisconsin County Highway Association to evaluate best practices and improvements.

- Saved $1.4 million by using cold in place recycling on four projects in 2016, totaling 28.47 centerline miles of roadway. Cold-in-place recycling mills the existing asphalt road surface and processes the material on-site for reuse by way of a convoy of equipment that crushes, adds new liquid asphalt and paves simultaneously.

- Finalized nine Value Engineering studies, resulting in 27 recommendations approved for an estimated $36 million in cost avoidance. Additionally, one Value Planning study and two Cost-Risk analysis

workshops were held, and Cost Reduction Incentives continue to encourage contractors to look for cost-reducing innovations.

- Estimated $600,000 in savings in the next three to five years by changing the valuation process on surplus lands considered to be of very limited to no marketable value. The new process relies on comparative tax assessment data in lieu of more costly appraisals on lands expected to be valued at no more than $15,000.

- Saved $500,000 by incorporating Pile Driver Analyzer technology to pinpoint capacity measurements in structural projects. Total savings have exceeded $3 million since the department started using the equipment.

- Saved $1.6 million through significant Hot Mix Asphalt (HMA) specification changes to improve the quality of HMA and increase the service life of our roadways. The new specifications have included adding more asphalt to the mixes, and increasing the amount of compaction during construction. Both of these changes will increase the life of the pavement by more than 10 percent. Additionally, the division is piloting a "Percent Within Limits" specification that looks to improve the consistency of the materials being placed and the placement methods, which should also lead to better pavement performance.

- Unveiled the new Wisconsin DOT State Farm Safety Patrol, a first of its kind sponsorship for the department that enables service delivery at less cost to taxpayers. The Safety Patrol operates in major Wisconsin work zones to help clear breakdowns and move disabled vehicles out of traffic, reducing the possibility of secondary crashes. First year of the sponsorship generated $225,000 to offset costs.

**Efficiency**

- Launched Performance Based Practical Design, a data-driven approach to assist in planning and scoping to benefit long-term pavement health and system preservation. Performance Based Practical Design focuses on performance improvements that benefit both project and system needs by scrutinizing scope elements relative to value, need and urgency without eliminating safety standards or regulatory requirements.

- Completed seven Lean continuous improvement projects.

- Launched the Work Share Marketplace to help create work agreements across functional, region and bureau boundaries. The program helps employees to develop skills while optimizing use of division resources.

- Began participating in the fourth round of the federal Every Day Counts (EDC) program. The division has taken part in 38 of the 50 offerings since the inception of the program. EDC has helped the department achieve efficiency in eConstruction, automated traffic signal performance measures, community connections, data-driven safety analysis and pavement preservation and advanced hydraulic modelling.

- Secured more than $17 million in federal aid to aid in response and repair efforts after major storms and flooding throughout the summer of 2016. The department worked closely with local, state and federal officials to establish detours, relay timely information to the traveling public and make repairs to

damages on a number of roadways involving but not limited to portions of US 2, 53, and 63 as well as WIS 13, 27, 77, 122, 137 and 169.

- Established region-based Local Innovation Teams to help develop best practices and cost savings opportunities based on the unique issues each region faces in the delivery of highway improvements. The division's full Innovation Review Committee and State Transportation Innovation Council continue to foster ideas and discussion for efficiency. The Federal Highway Administration has encouraged other DOTs to create similar programs.

- Expanded use of Area Wide Service Providers (AWSPs) in which county maintenance teams work together across home boundaries to more efficiently handle tasks such as winter maintenance.

- Launched a new Project Management Plan module to ensure a public outreach strategy is developed early in the project delivery process. The new module better enables communication and project staff to work together to custom-fit a cost effective public involvement plan to engage and inform stakeholders.

- Increased use of auto-issue for oversize/overweight (OSOW) permits by expanding permit criteria. The total number of single-trip permits auto-issued went from 30 percent to 40 percent and multi-trip permits went from 40 percent to 48 percent. Auto-issue benefits the trucking community because it's a 24/7 service, and it creates efficiency by reducing oversight needs.

- Working with the University of Wisconsin – Milwaukee on a cost effective interagency agreement to migrate the single-trip permit database for approximately 10 years (400k permits) into a web- and GIS based tool.

- Used data-driven approaches to identify an over-height corridor, as well as the highways most often used by OSOW permits in an effort to produce leaner OSOW routes that will be used to help determine scope and need of improvement projects.

- Began centralized testing process to manage real estate sale packets and documentation electronically to help reduce the costs of duplication, paper and courier fees.

- Completed the Local Public Agency guidance manual, using a $100,000 federal State Transportation Innovation Council grant to assist Local Public Agencies, Metropolitan Planning Organizations (MPOs), Regional Planning Commissions (RPCs), design consultants and WisDOT staff to navigate through local program processes. The manual will speed up delivery of local program projects, confirm accuracy of and resolve any policy or procedural discrepancies, and develop a unique cross-agency vantage point about how local program projects are administered and implemented.

- DTSD's mobile device program is saving field staff (Project Delivery and Structures Inspection) four to eight hours a week by streamlining an assortment of duties including data collection, inspection reports and searching of content within lengthy, traditionally paper documents such as the Facilities Development Manual. The division continues to review how devices can address other initiatives such as asset management and GPS-assisted field verification.

- Advanced use of Geosynthetic Reinforced Soil (GRS) Integrated Bridge System (IBS) technology to replace two structurally deficient bridges in Dodge County. The method uses earthwork techniques that

can be constructed without the need for specialized equipment. Further development of this method will help boost competition and drive down costs over time.

- Built five structures along the Interstate 39/90 corridor with the help of a $350,000 federal SHRP 2 grant as a lead adaptor to use pre-fabricated bridge elements. Because the pre-fabricated elements are built under controlled environmental conditions, the influence of weather related impacts is eliminated and improvements in product quality and long-term durability can be better achieved.

- Continued implementation of Autodesk Civil 3D to begin incorporating models that can accommodate Automated Machine Guidance (AMG) to help reduce costs and improve quality.

- Continued focus for overall e-project delivery by proceeding with a combined AASHTOWare Project (AWP) and Masterworks (MW) software systems implementation for e-Construction. Project management and e-contracting can streamline information to help manage scope, schedule, budget, risk, change, resources, stakeholders, procurement, and quality.

- Implemented the Contract Administration and Reporting System (CARS), a web application to process consultant contract invoicing and contract administration. The system is integrated with PeopleSoft. E-invoicing has improved processing of payments to consultants from 30 days on average to five days, and eliminated costly paper needs.

- Continued building on the e-signature project to include bureau spending requests, IT Hardware requests, travel, real estate and others. E-signatures allow for tracking and auditing of signatures (who signed, when, where), and can download actual data for use elsewhere provides data for performance dashboards. The process automates signature work flow which allows for approvals to be routed person by person or to everyone at once. Overall, there has been a reduction in document approval turnaround.

- Implemented two new federal categorical exclusions (projects with less than $5 million in federal funds and projects within the functional right of way) to complete environmental documentation using a Categorical Exclusion Checklist, which does not require FHWA or WisDOT Central Office approval, instead of a Programmatic Environmental Report or Environmental Report. This means quicker completion and approval of environmental documents and allows for essentially concurrent preliminary design. So far, the department has found a 27 percent start-to-approval time savings.

- Centralized Labor Compliance staff as part of ongoing efforts to reduce staffing costs and need for consultants. Also deployed statewide training through a web-based training module to more effectively clarify law changes and other complex labor compliance issues.

- Extensive coordination to facilitate utility permit applications for the Badger Coulee transmission line, a 180-mile overhead transmission line that received Public Service Commission Approval in spring 2015.

**Safety and Mobility**

- Completed a pilot project using Unmanned Arial Vehicles, UAV's, to help perform bridge inspection more effectively and safely while creating a larger amount of documentation and imagery in a shorter amount of time. The pilot project was successful in examining the capabilities of a number of UAV

systems and the collection of various types of data that are used to complete inspection reports for bridges.

- Deployed Queue Warning Systems (QWS) on I-43 in Manitowoc County, I-39 in Stevens Point and I-39/90 near Edgerton. QWS provide information to drivers to help anticipate roadwork related congestion and queuing in an effort to reduce crashes. Overall, feedback was good from the traveling public. A study is underway to determine how well the QWS reduced crashes.

- Completed a pilot study on temporary portable rumble strips (TPRS) showing decreases in speed and increases in braking activity. TPRS are now required for all static flagging operations.

- Increased use of living snow fence to aide in drift control, a cost-effective method to enhance driver safety by reducing the amount of blowing snow on the roadways. More than 40,000 feet of snow fence was installed last year. Estimates on winter related crash reductions are as high as 75 percent, and the department's study on Interstate 39 has seen a reduction of 69 percent in winter-related accidents. Additionally, keeping blowing snow from the roadways reduces the need for plowing.

- Opened first Diverging Diamond Interchange as part of I-39/90 improvements. The interchange is located at Exit 177 (Avalon Road) south of Janesville to help enhance safety and efficiency of left turns, particularly for large trucks. The interchange design improves traffic flow by creating a free flow left turn, which also improves other congestion related issues including the amount of vehicles waiting behind a vehicle making a turn, traffic synchronization and bottlenecks.

- Optimized 511 Wisconsin traveler information website for mobile technology and expanded features for drivers to better understand how traffic, road work and weather might affect the road ahead. Additionally, a host of information for commercial drivers has been added to streamline information on permitting and lane restrictions. There have been more than 15 million visits to 511wi.gov since the site first launched in 2008.

- Entered into a data-sharing partnership with Waze, the free, real-time crowdsourced traffic and navigation app powered by the world's largest community of drivers. Designed as a free, two-way data share of publicly available traffic information, the Connected Citizens Program promotes greater efficiency, deeper insights and safer roads for citizens of Wisconsin. The program helps WisDOT get more information on real-time road activity, empowering partners to harness real-time driver insights to improve congestion and make better informed planning decisions.

- Launched the Truck Parking Information Management System to help provide real-time information to commercial drivers looking for appropriate rest space near the end of service hours without having to waste time or fuel. A $1 million federal safety grant helped to fund the project as part of a larger effort to reduce fatigued driving and unauthorized parking.

- Installed a northern (snow state) pavement marking test deck on southbound Interstate 43, near Darien, to evaluate more than 140 pavement marking products. Goals include motorist safety and product cost effectiveness. The costs of the study are fully reimbursed to the department by AASHTO.

- Reconstructed the La Crosse Rest Area, replacing an obsolete 40-year-old facility. The new facility is fully ADA complainant and features significantly improved truck and RV access/parking. It includes a tourism

staffed desk for the local Convention/Visitors Bureau (CVB) with local/state tourism information and displays.

- Worked with stakeholders to upgrade facilities at Merrimac Wayside (home of the Merrimac ferry). In addition to a DNR grant, the Town of West Point secured a grant to install a fully ADA compliant fishing pier maintained/operated by the town as a new recreational resource for travelers and visitors to the site.

- Conducted a rest area survey that showed overall public satisfaction levels on facility cleanliness was in excess of 95 percent. Wisconsin has a long-standing relationship with numerous state wide work centers who employ cognitively and physically disabled individuals who maintain rest areas and weigh stations.

- Completed (March 2016) comprehensive study of roadside facility assets, including 30 rest areas, 13 truck scale facilities and 68 seasonal waysides, looking at age, condition, and value to the public.

- Targeted OSOW improvements to reduce traffic bottlenecks and also reduce the need for State Patrol escorts along defined corridors, resulting in efficiency for carriers and less delay for traveling public.

- Replaced the Superior Truck Weigh Station with a modern facility to aid the investigative process for overweight vehicles. The new facility includes embedded dynamic brake testing technologies, enclosed inspection bays, oversize truck parking accommodations, and the ability to weigh trucks at full speed on the highway.

- Construction commenced on the Sparta Safety and Weight Enforcement Facility on Interstate 90, which includes training space and significantly larger capacity than the former West Salem facility it's replacing. The facility also has added 23 truck parking stalls with 24/365 driver access to rest rooms/vending as a mainline driver resource and a staging area for OSOW loads. In addition, it has a secure evidence room and interview room, and is equipped to function as an emergency command center with a backup generator and communications system.

- Coordinated the movement of 2,496 wind tower loads with the Wisconsin wind tower industry and neighboring state DOTs.

- Completed a process review with the Federal Highway Administration in 2016 focusing on pedestrian accommodations and made minor revisions to guidance on cost sharing for temporary lighting, published in 2017.

- Implemented a Wisconsin bridge preservation policy for use in identifying structure work needs based on inspection and condition information. Many of the strategies are aimed at applying the appropriate bridge preservation treatments and activities at the proper time resulting in longer service life at an optimal life cycle cost.

- Played a lead role in the "Proposed New AASHTO Load Rating Provisions for Implements of Husbandry," which runs through October 2019. The project creates much-needed national research on the impact of overweight agricultural vehicles on the state's infrastructure.

- Maintained up-to-date load rating and load posting information for all Wisconsin bridges (State and Local) to meet FHWA Metric 13 (Load Rating) and 14 (Load Posting). Integrated in the process is a monitoring of bridge inspection information to ensure that load ratings and postings are updated based on current conditions. There were also significant resources invested in analyzing the Wisconsin bridge inventory for Specialized Hauling Vehicles (SHVs) and load posting as appropriate. A similar effort to evaluate the inventory for emergency vehicles (EVs) and heavy tow vehicles is in the early stages. Analyzing for SHVs, EVs, and heavy tow vehicles are FHWA requirements with specific deadlines for implementation.

**2017-2019 Goals**

System preservation focus
Enhanced use of a data-driven asset management approach for guiding the planning and scoping of highway improvement projects will be emphasized to address key safety and bridge priorities, and to achieve the best long-term pavement health possible. This includes synchronizing asset management data and performance based practical design concepts to streamline project selection and review processes.

Increasing bid competition
The division has taken several steps to boost competitiveness in the bidding process, including an automated question/answer process to supply timely information and the confidential bidder pilot. The average number of bidders per proposal has increased in recent years.

Eliminating prevailing wage requirement from state projects
At the direction of the Legislature and Governor, the department stopped use of prevailing wage on state-funded projects in September 2017. The change in the law presents opportunities to streamline Labor and Compliance oversight on state projects. Staff will be managing the full transition over the next two years as older projects phase out of the system and new projects are developed.

Working with local governments
In an effort to lower project costs and preserve resources, the department will be working closer with local governments to help ensure that local projects can be managed as effectively as possible.

Increase accuracy of engineering estimates
The division is tracking results of estimate accuracy after each letting and annual results are discussed among project chiefs to help determine near- and long-term trends. There are regular meetings among staff who produce the estimates. The department also is using tools for common items such as asphalt, concrete and mobilization to facilitate better cost estimating. The department received a STIC grant to develop and implement an estimating tool, as well, as part of an FY18 project.

Using technology for contracting and project management
A nation-wide focus for state DOTs is the implementation of e-project delivery and e-construction. These business strategies focus on the continued improvement of project related business and technical processes and support paperless and data-driven operations. The division will continue to implement and integrate key IT systems such as AASHTOWare Project, Masterworks and AutoCAD Civil 3D to enhance business workflows, increase access to data used for decision making, and improve the quality of design and construction documentation. Integration with key legacy and financial applications, mobile technology, and engineering support tools will also be a very important activity as part of this goal.

Expanding use of route optimization
There are currently 39 counties interested in route optimization. Brown and Dane counties have already enjoyed great success. There are 10 more counties poised to begin in the 2017-18 winter. The department is learning a lot through the implementation of this program on where efficiencies can be gained, be it through the servicing vehicle fleet, technique or cooperation with adjacent counties. The information gained is being openly shared with each applicant into the program. Over time, more counties will be added and original counties revisited to continuously assist in improving service levels, as well as maximizing efficiency.

*Enhancing safety and mobility*
The department is revisiting the scope of the I-39/90 and US 12/18 (Beltline) interchange project in Dane County. The right-scoping is intended to enable significant savings in the estimated cost of the interchange. This will provide an opportunity to improve safety as it affects Interstate travel through the interchange, while utilizing the remaining life of the infrastructure.

# Division Update:  Division of Transportation Investment Management

The mission of the Division of Transportation Investment Management (DTIM) is to plan and program resources to achieve a safe, effective and efficient multimodal transportation system. DTIM is committed to improving transportation safety, fostering internal and external partnerships, and increasing efficiencies. DTIM's specific duties include:

- Coordinating, collecting, storing, and distributing data required to optimize the use of available funding for state highway system project and program development. More information can be found at http://wisconsindot.gov/Pages/projects/6yr-hwy-impr/overview/default.aspx.
- Developing urban and statewide multimodal transportation plans, policies and strategies to help identify a comprehensive view of future transportation needs, direct program development and guide investment decisions. More information can be found at http://wisconsindot.gov/Pages/projects/multimodal/default.aspx.
- Providing statewide leadership to enable communities to make sound mobility decisions and investments by anticipating and exploring opportunities, promoting and facilitating solutions, and providing financial and technical support. Additional information can be found at http://www.dot.wisconsin.gov/localgov/.
- Providing leadership to maintain and develop a safe and efficient air transportation system. Please see http://www.dot.wisconsin.gov/modes/air.htm for more information.

## 2015- 2017 Accomplishments

### *Long-Range Transportation Planning*
In 2015, the department began the process of developing Wisconsin's first-ever State Freight Plan. The freight plan enables the department to better define the state's freight system. The plan identifies strategic actions to improve the freight system and economic opportunities in Wisconsin by helping the department define industry needs, transportation issues, and the investment and policy options available for preserving Wisconsin's multimodal freight transportation system. The State Freight Plan was developed using the department's stakeholder engagement process to ensure the final document and recommendations reflect the interests, issues, and concerns of the users of the freight system in Wisconsin. During the Plan's development process, the department engaged the Wisconsin Freight Advisory Committee (FAC) four times to ask for guidance, input, and feedback. During the Plan's public involvement process, the department collected over 300 comments from interested individuals and groups. In response to the comments, the department added policies and expanded content to reflect issues raised. The final State Freight Plan is scheduled to be complete in fall 2017 and will be submitted to the United States Department of Transportation for approval before the end of 2017. Additional information about the State Freight Plan can be found at:
http://wisconsindot.gov/Pages/projects/sfp/default.aspx

### *Transportation Economic Assistance Program*
The Transportation Economic Assistance (TEA) program provides 50 percent state grants to governing bodies, private businesses, and consortiums for road, rail, harbor and airport projects that help attract employers to Wisconsin, or encourage business and industry to remain and expand in the state. Over the previous biennium, DTIM approved more than $8.8 million in grants aimed at creating or retaining 4,140 jobs in Wisconsin.

For more information, please visit http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/tea.aspx

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*State Infrastructure Bank*
The State Infrastructure Bank (SIB) Program, like a private bank, offers loans and credit options to help finance eligible surface transportation projects. The Wisconsin SIB program is a revolving loan program providing capital for transportation projects from loan repayments and interest earned from funds remaining in the bank. SIBs offer the ability to undertake transportation projects that would otherwise go unfunded or experience substantial delays. Communities can borrow funding to provide needed transportation infrastructure improvements to help preserve, promote and encourage economic development and/or promote transportation efficiency, safety and mobility. The SIBs can be used in conjunction with other programs to better facilitate the timing of economic development projects.
Eligible SIB projects include the following:
- Improve an interchange for a new industrial park or commercial development
- Enhance a road leading up to a contaminated (brownfields) property
- Provide for better access to facilitate increased auto or truck traffic near commercial or industrial sites
- Construct or widen a road linking an intermodal facility (i.e. airport, harbor, railroad)
- Construct parking facilities, bicycle lanes and pedestrian walk-ways to better facilitate customer traffic on or near retail centers and tourist attractions

DTIM has issued a total of $1,986,000 in low-interest SIB loans to the Town of Crescent (Oneida County) and Village of Fontana (Walworth County) to complete critical transportation infrastructure improvements in a timely manner. For more information, please visit http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/sib.aspx

*Traffic Forecasting and Travel Demand Modeling*
During the biennium, WisDOT completed approximately 972 traffic forecast reports for Wisconsin corridor planning, roadway projects and intersection improvements. Transportation planners and engineers use future traffic volumes and other factors to plan and design the transportation system correctly.

WisDOT supports traffic analysis tools including travel demand models and statistical approaches to problem solving, including the Traffic Analysis Forecasting Information System (TAFIS). WisDOT leads or assists the support of twelve travel demand models that serve 30 Wisconsin counties. In calendar year 2014, WisDOT completed a major update to six travel demand models affecting long-range planning assumptions in eleven out of fourteen Wisconsin MPOs. Travel demand models assist with day-to-day traffic forecast production, evaluating transportation project alternatives, and developing long-range transportation plans. The forecasting section has reviewed and enhanced the transportation planning manual to reflect updates developed to guide internal stakeholders in developing traffic forecasts for projects. During 2016, the forecasting section assisted the DTSD Regional Offices in the review and development of project level forecasts for the Majors, Mega and Backbone systems.

*All Roads Network of Linear Referenced Data (ARNOLD)*
On August 7, 2012, FHWA issued a requirement for states to provide a geospatial network of all highways within their state. State DOTs are required to provide a Linear Reference System (LRS) Network for All Public Non-Federal Owned Highways. DTIM, through an interagency agreement with the University of Alabama, focused on editing Wisconsin Information Systems for Local Roads (WISLR) and developed a strategy for statewide implementation to meet national standards, and completed the updates in fall 2016. Common edits on state route links include dual carriageways, one-way ramps, ramp termini turn lanes, and general realignment of state routes to match ortho-rectified aerial photos. The Department's ARNOLD network lays the groundwork for easier data integration between state and non-state highways, spatial analysis, comprehensive safety analysis, visualization; and it will meet the ARNOLD 2012 federal requirements.

*Continuous Traffic Count Site*
Periodic review of the continuous count traffic program identified the need to increase the number of continuous traffic count sites. Continuous count site (CCS) data is used to develop seasonal, monthly, day-of-week, and growth factors which are then used to adjust short coverage counts to annual average daily traffic (AADT). Additional CCS were strategically distributed among rural and urban locations to address continuous traffic site location deficiencies and a Highway Performance Monitoring System (HPMS) sample panel data within a volume group. Installation of these sites were completed by the end of 2015 and further improve the department's ability to generate more accurate AADT and recognize trends on important roadway segments. DTIM and DTSD collaborate each year to adjust the continuous traffic count program to align with anticipated changes in traffic demands.

*Crash Mapping and Analysis*
Crash Mapping supports a data driven approach to traffic safety planning and program development. The department has developed a statewide crash mapping and analysis system that combines multiple years of highway and local road crashes onto a single GIS network. This system, referred to as the WISLR Statewide Crash Map, is incorporated into the WisTransPortal Crash Data Retrieval Facility at the University of Wisconsin – Madison Traffic Operations and Safety (TOPS) Laboratory and is used regularly by WisDOT, public safety organizations, local governments, regional planning commissions, universities, engineering firms, and others.

The WISLR Statewide Crash Map went into production in June 2012 based on five years of historical crash data. Since then, the crash map has been updated on a regular basis with current year crash data derived from monthly DMV Traffic Accident Extracts. In addition to TOPS Lab WisTransPortal components, the mapping system includes software and data processing components from the University of Alabama (UA) and the University of Wisconsin-Milwaukee (UWM).

*Highway Pavement Data Collection*
State highway pavement data collection efforts were increased to double the number of pavement section samples surveyed each collection cycle. Each year the department collects pavement distress data on half of the state highway system. For each pavement section a representative sample is surveyed to identify specific pavement distresses. Increasing the number of samples surveyed ensures the department continues to have reliable, accurate data to assist in the development of its asset management program.

*Highway Performance Monitoring System (HPMS)*
Staff increased the number of HPMS sampled roadway sections within volume groups based on FHWA guidance. The data reported in HPMS for sampled roadway sections are a source of the condition, use, and operational information pertaining to the nation's roadways. For analytical purposes, sample panel data is expanded to represent the full extent of roadways in the HPMS which is ultimately used for monitoring trends and impacts in performance data over time.

*Transition Field Data Collection Responsibilities to DTIM*
A transition plan was implemented to centralize field data collection responsibilities from the Division of Transportation System Development (DTSD) to DTIM's Data Management section. This transfer of State Trunk Network, Local Roads, Highway Performance Monitoring, and Short-term Traffic Counting responsibilities ensures long-term integrity of key inventory elements. This cross-divisional effort addressed budget, staffing, inventory, fleet, and recruitment considerations. Five DMS field data collection positions were filled beginning in January 2015.  In calendar year 2015, DTIM provided contract oversight, training, scheduling, and quality control

monitoring for the short-term traffic count program. As of June 2017, all field data collection responsibilities and processes associated to this transition are now fully operational in DTIM's Data Management section.

*Project Contract Review*

The Audit and Contract Administration Section completed Audits and Reviews of Department partners that received funds through grants or contact to ensure that payments made by the Department are spent in accordance with the requirements of agreements and applicable laws and regulations. Audits and reviews issued during FY 17 included:

- 104 Sub recipient Single Audit Reviews
- 180 Consultant Indirect Cost Rate Proposal Acceptance Reviews
- 469 Consultant/Railroad Contract Audits
- 7 Consultant Indirect Cost Rate Audits/Cognizant Reviews
- 105 Transit Grant Audits/Reviews


*Transit Online Grants Management System Interface to PeopleSoft*

DTIM's Transit Section implemented an interface between its web-based grants management and administration system and the PeopleSoft enterprise software system. The transit specific grants management system automates and streamlines the application and reporting processes for state and federal transit aid. This product also provides better access to our programs and yields significant efficiencies for local government and private non-profit companies that provide transit mobility options for Wisconsin's citizens. The digital interface allows transit project and payment information to be transferred between the two technology platforms. This connection improves DTIM's transit program accountability and efficiency by providing a seamless and automated method of managing program data, information and finances across systems.


*Heavy Duty Transit Bus Procurement*

In 2017, the department established a multi-year, statewide contract for heavy duty transit buses. WisDOT led a work group including numerous local transit systems to coordinate input on vehicle specifications and procurement elements. Ultimately, multiple vehicle length and propulsion system configurations were solicited, evaluated and awarded for transit systems to purchase throughout the state. Procurement is a complex and highly scrutinized compliance area at the federal level and establishing a statewide contract has enabled the department to provide more efficient and effective technical assistance and oversight of the bus purchasing process.


*Wisconsin Employment Transportation Assistance Program*

WisDOT administers the Wisconsin Employment Transportation Assistance Program (WETAP) in partnership with the Department of Workforce Development. WETAP represents an effort to connect low-income workers with jobs through enhanced local transportation services. In 2017, WisDOT awarded roughly $1.8 million in combined state and federal funds to non-profit organizations throughout the state to support van pool, ridesharing, vehicle loan, operating and mobility management projects. Moreover, it was estimated that WETAP projects allowed approximately 1,900 individuals to retain access to jobs or find new employment in 2017.


*Freight Advisory Committee*

In 2016 the department continued working with the members of the Wisconsin Freight Advisory Committee (FAC). The Committee consists of over 40 stakeholders representing private businesses, educational institutions and local governments. The FAC was established to advise the department on issues that impact freight mobility and to provide a voice for the freight sector on the development of freight-related policies, projects, and processes. The FAC focuses on advising and helping WisDOT understand the current and emerging concerns from freight sector users, providers, and regulators. Committee responsibilities include:

- Assist WisDOT in the development of, and subsequent updating of, Wisconsin's State Freight Plan and other relevant state plans as appropriate.
- Provide feedback and advice to the Secretary's Office and WisDOT's Freight Policy Administrators Group on freight transportation policies, processes, or programs that facilitate and enhance:
  - Reliability, safety, and efficiency of state, national, and international freight movements.
  - Project decision-making and delivery process for freight and economic efforts.
  - Connectivity between the various modes of freight transportation.
  - Connectivity between state and local transportation systems.
  - Connectivity between the private and public sector.

Meetings were held in March and September of 2015 and April and October for 2016. For more information, please visit http://wisconsindot.gov/Pages/doing-bus/freight/fac.aspx.

*Freight Rail and Harbors Projects*

The department awarded Freight Rail Preservation Program (FRPP) grants totaling $19.1 million in 2015 and $28.5 million in 2016. In conjunction with recipient matching funds, FRPP grants enable acquisition, construction and rehabilitation of freight rail-related facilities to preserve and upgrade rail infrastructure important to job growth and Wisconsin's economy. In addition, DTIM awarded loans totaling $5.1 million in 2015 and $5.4 million in 2016 through the Freight Railroad Infrastructure Improvement Program (FRIIP). FRIIP-funded projects typically include track construction and rehabilitation, as well as privately-owned facilities such as industrial spurs, trackside grain elevators and conveyors, and transload facilities.

DTIM awarded and administered funds from the Harbor Assistance Program (HAP) of over $12.56 million for eight projects in 2015, over $7 million for four projects in 2016, and over $1.24 million for one project in 2017. HAP provides financial assistance to harbor facilities on the Great Lakes and Mississippi River for projects that improve or maintain waterborne commerce. Awarded projects included a mix of dredging, repairs, and expansions.

The Harbors and Waterways program area participates in statewide and regional planning to improve water transportation on the Great Lakes and Mississippi River:
- Conference of Great Lakes and St. Lawrence Governors and Premiers Regional Maritime Entity as a gubernatorial appointee. The Entity is updating the recently completed asset inventory and implementing regional priorities. WisDOT provides annual funding to support this work from Harbor Assistance Program segregated funds
- Upper Mississippi River Basin Association alternate member. Currently, the Navigation Subcommittee is working on multistate planning for development of the M-35 Marine Highway to improve water transportation on the Upper Mississippi River.
- Wisconsin Commercial Ports Association Ports Development Initiative participant. Phase 1 and 2 of the work is complete, including an asset inventory and development of statewide priorities and an assessment of commodities that could be moved from other modes to water to increase efficiency and relieve system congestion. WisDOT has provided $30,000 to support this work from 2015 State Planning and Research funds. Phase 3 is currently under development to create a modelling toolkit for ports to move between and utilize Wisconsin's port resources efficiently.
- Coastal Management Council is jointly administering with DOA representative as required by Wis. Statute 85.095(2). The council awards grants to preserve coastal lands and provide access to and education about Wisconsin's coastal resources.

The Railroads and Harbors Section (RHS) is continuously improving coordination between WisDOT and the railroad companies for highway improvement projects. RHS holds regular conference calls with the railroads to strengthen lines of communication and cooperation. Work is being done to provide the railroads with more advanced notice of upcoming highway projects that require plan review, coordination with railroad work, and flagging requirements for highway work that impacts railroad operations.

*Passenger Rail*
The Milwaukee-Chicago Hiawatha Service provides seven round-trips daily (six on Sunday) between Milwaukee Intermodal Station, Milwaukee Airport, Sturtevant, WI, Glenview, IL, and Chicago Union Station. It is jointly supported by Wisconsin (75 percent share) and Illinois (25 percent share). The Hiawatha Service continues to experience increases in ridership and revenue. Ridership exceeded 815,000 in 2016, a 2.4 percent increase from 2015. Revenues increased by 5.9 percent. Cost recovery ratios also continue to increase year-over-year, from 75.6 percent in 2015 to 76.7 percent in 2016. The Hiawatha Service is the highest ridership route in the Midwest and the 6th highest state-supported route in the nation. The Hiawatha Service experiences standing room only conditions on some peak trains. RHS has completed several projects and initiatives as part of a continuing effort to maximize revenue and ridership, and manage costs. This effort has resulted in decreasing state operating payments. Initiatives include, but are not limited to:

- Introduction of new, more efficient state-owned locomotives (replacing Amtrak locomotives) through participation with Midwest states in joint ownership, maintenance, and management of locomotives procured with 100 percent federal funding.

- Introduction of peak/off-peak fares to increase revenues

- Construction of a new train concourse at Milwaukee Intermodal Station with ADA-compliant platforms, safe, overhead access to the platforms, and a new roof structure

- Introduction of roll-on bike service and pets on board program

- Schedule changes on Saturdays

- Marketing program and promotion efforts

The Railroads and Harbors Section also completed a draft of the Environmental Assessment to increase the Hiawatha Service from seven round-trips daily to ten round-trips daily to meet increasing demand, address transportation issues on the corridor, and support economic development. RHS held three public involvement meetings for the project and completed the public comment period. The final Environmental Assessment is currently being completed, which will make the project eligible for federal funding.

*Rustic Roads*
Since the first Rustic Road was designated in 1975, the Rustic Roads program has remained one of Wisconsin's most successful and long-lasting state-local partnerships and programs. As of October, 2017, there are over 724 miles covered by Wisconsin's 120 Rustic Roads found in 59 counties. For more information, please visit http://wisconsindot.gov/Pages/travel/road/rustic-roads/default.aspx.

*Airport Projects*
During the biennium, approximately 78 Wisconsin airports benefitted from $149 million in airport improvements administered by DTIM's Bureau of Aeronautics (BOA). These projects were completed primarily in two categories: 1) rehabilitation and repair of runways, taxiways, aprons and roadways pavements, helping preserve these pavements before they reach the point of needing complete replacement, and 2) pavement reconstruction projects or new pavements. Both rehabilitation projects and reconstruction projects help increase safety at airports by refreshing airport pavement surfaces, therefore significantly reducing the amount

of foreign debris on pavements that can damage aircraft engines. Preservation projects of crack sealing and seal coating airfield pavements occurred at nineteen airports during the biennium. Below is a list of rehabilitation paving projects and paving reconstructions or new pavements.
Rehabilitation paving projects:
- The first phase of runway pavement rehabilitation at Dodge County Airport in Juneau and resurfacing the crosswind runway at West Bend Municipal Airport
- Rehabilitating airfield pavement concrete panels and joint sealing at the Sheboygan County Memorial Airport
- Rehabilitation of runway and taxiway pavements at General Mitchell International Airport in Milwaukee
- Rehabilitation of runway pavement concrete panels and joint sealing at Central Wisconsin Airport in Mosinee
- Rehabilitation of apron and taxiway pavement at Green Bay- Austin Straubel International Airport.

Projects that conducted pavement reconstructions or new pavements:
- Wittman Regional Airport in Oshkosh
- Dane County Regional Airport in Madison
- Green Bay – Austin Straubel International Airport
- Door County Cherryland Airport in Sturgeon Bay
- Waukesha County – Crites Field Airport
- Eagle River Union Airport
- East Troy Municipal Airport
- Chippewa Valley Regional Airport in Eau Claire
- Manitowish Waters Airport
- Sheboygan County Memorial Airport
- Rhinelander – Oneida County Airport
- J. Douglas Bake Memorial Airport in Oconto
- Cumberland Municipal Airport
- Park Falls Municipal Airport
- Solon Springs Municipal Airport
- Waupaca Municipal Airport
- Merrill Municipal Airport
- Ephraim-Gibraltar Airport
- John F. Kennedy Memorial Airport in Ashland
- La Crosse Regional Airport

Safety is of utmost importance at airports, and several projects conducted in the biennium enhanced safety in various ways. Three airports installed or upgraded perimeter fencing, therefore helping to increase airport safety as well as reduce wildlife near airfield pavements: General Mitchell International Airport and La Crosse Regional Airport reconstructed perimeter fencing and Sawyer County Airport in Hayward installed a new perimeter fence. Several other airports acquired dedicated airport snow removal equipment, which is necessary to quickly remove snow on runways and taxiway pavements to help aircraft land without diverting to another airport.

Those airports that acquired snow removal equipment include:
- Adams County Legion Field in Friendship
- Central Wisconsin Airport in Mosinee
- Green Bay – Austin Straubel International Airport

- Clintonville Municipal Airport
- Fond du Lac County Airport

Additionally, several airports enhanced safety by refreshing pavement markings or installing or reconstructing navigational aids, such as runway and taxiway lighting and visual glide slope indicators, giving visual cues to pilots as they approach the runway. Dane County Regional Airport in Madison, completed work on a runway navigational instrument landing system that allows aircraft to approach the runway in nearly any kind of poor visibility scenario – rain, snow, and heavy fog. In a situation with poor visibility, the system guides pilots on the correct glide path nearly to touch down on the runway with instrument radio signals. When the aircraft is in range, an approach lighting system gives pilots a visual guide to the runway touch down point. This navigational system for the Dane County Regional Airport reduces flight delays and enhances the safety of all flights that occur at the airport in poor weather conditions. Five other airports also enhanced their airport safety by either removing obstructions or marking/lighting obstructions near the airport environment.

Other airport improvement projects completed in the biennium helped enhance airport facilities, such as terminal building construction/remodel projects, Aircraft Rescue and Fire Fighting building upgrades, snow removal equipment storage buildings, and the construction of areas for future hangars to be built. Two airports also replaced or installed aircraft fueling facilities, which helps airports become more self-sustaining through revenue generation and increase the attractiveness of the airport to the transient flying public. Information on the Airport Improvement Program can be found at:
http://wisconsindot.gov/Pages/doing-bus/local-gov/astnce-pgms/aid/airport.aspx

*Enhanced Airport Safety and Capability*
DTIM's Bureau of Aeronautics (BOA) has collaborated with the Federal Aviation Administration (FAA) and conducted extended outreach to airport stakeholders to enhance and expand the capability and safety of their Wisconsin airports, including encouraging them to seize the opportunities of enhanced access and safety through FAA's Next Generation (NextGen) modernization program for the U.S. air traffic system. BOA managed projects that inspected and cleared Wisconsin airport approach and departure surfaces. These improvements cleared the way for implementation of enhanced NextGen instrument approach procedures. This effort provided the establishment of NextGen instrument approach procedures at airports, which previously had none. NextGen also provided BOA with the opportunity to enhance safety and capability at all airports with existing ground based navigation facilities while eliminating the cost of maintaining antiquated navigational aids like the Non-Directional Beacons.

NextGen is providing new capabilities that will improve safety and accessibility at airports used by piston- and turbine-powered general aviation aircraft. These enhancements expand the operational capability of our airports so that business, commercial and public safety users can depend on expanded access to Wisconsin communities, day or night and even in Wisconsin's often challenging weather conditions. Over the biennium, new standard instrument approaches were developed, or improved and implemented at Wisconsin's airports. Dependable access and a greater margin of safety are features that make our airports and communities attractive to commercial, business and industry users as they consider transportation infrastructure to support their operations and economic development needs.

*Airport System Manager (ASM)*
Over the biennium, BOA transitioned from the outdated Airport Information Management System (AIMS) to ASM. With the implementation of ASM, BOA now has one single software system to move proposed airport construction projects from the five-year program, qualify those projects in the state priority system and directly convert them into a project financial statement for project administration. ASM uses the Airport System Plan as

a living management tool, identifying and tracking facility deficiencies in the system and directing program resources to correct or support the highest priority safety and efficiency needs.

ASM is a more robust comprehensive project management system. New policies and procedures were developed to merge ASM with the project development process. In addition, project managers use ASM to maintain individual project budgets. Additional benefits include: contractor and consultant contract management efficiencies, process checklist integration, project record keeping, and comprehensive project oversight.

### *US Customs and Border Patrol (USCBP) clearing at Wisconsin airports*
DTIM's Bureau of Aeronautics (BOA) has worked with Green Bay, Appleton and Racine airports to establish new Customs clearing and screening facilities for international flights. The clearing and screening facilities conform to strict USCBP guidelines for USCBP staff to utilize and properly clear commercial, business and private aircraft into the United States. The clearing and screening facilities are built, compliant, staffed and functioning at the three airports. Project funding for the facilities was provided by local, state and federal government agencies and administered by the DTIM BOA.

### *Fly Wisconsin!*
In FY 2017, BOA partnered with the Wisconsin Airport Management Association (WAMA) to develop the Fly-Wisconsin Airport Passport Program. The overall goal is to promote aviation in Wisconsin while safely utilizing the national airspace system and related aeronautical infrastructure. By encouraging pilots to fly to all public use airports in Wisconsin, the Fly Wisconsin Airport Passport program promotes safety, partnerships and promotes economic opportunities. The program was successfully launched on September 1, 2017.

### *Local Aid and Assistance Programs*
The 2015-2017 biennium budget provided over $1.1 billion for local transportation aid, local road and bridge improvement assistance, and competitively awarded multi-modal and air quality improvement grants. Included in the biennium budget was more than $839 million in local transportation aid distributed directly to 1,925 local governments throughout the state of Wisconsin over the two fiscal years.

The department has further refined its change management protocol for delivery of local projects in the 2015-2017 biennium, including more detailed review of all requests for additional funding to ensure the most efficient use of available funding. The change management process applies to project funding, schedule, scope, and other factors.

The department conducted significant public outreach regarding programs, funding availability and process changes in the 2015-2017 biennium. This outreach has included written communications, public meetings, and ad hoc training sessions requested by stakeholders. The department also developed and posted additional resources to the General Transportation Aids program aid web page to address frequently asked questions and increase transparency regarding aid payment calculation process.

**2017 – 2019 Goals**

### *Long-Range Transportation Planning*
The Wisconsin State Freight Plan is scheduled for completion the fall of 2017 and will be submitted to the United States Department of Transportation for approval before the end of 2017.

Working closely with local governments, WisDOT will complete the designation of Critical Rural Freight Corridors (CRFCs) and Critical Urban Freight Corridors (CUFCs). Designating public roads as CRFCs or CUFCs will make these roads or public transportation-related facilities part of the National Highway Freight Network and will make them eligible to receive National Highway Freight Program funds. Improvements to CRFCs and CUFCs will improve the safe and efficient movement of freight along the freight corridor and further promote industry growth.

Following United States DOT approval of the State Freight Plan, WisDOT will work with key transportation stakeholders, including local and Tribal governments, federal agencies, and the private sector, to implement the policies outlined in the Plan. In many cases this will involve continuing ongoing "best practices," but in some cases this will require WisDOT to develop new strategies and partnerships throughout the state. The Department is developing an overall approach for economic development focusing on developing close working relationships with other agencies in order to maximize the use of our resources to promote economic growth and development throughout the state.

This overall goal will be enhanced by several program and process improvement goals, including:
- Further develop and improve processes for TEA grant applications to reduce time between submittal and award determination, as well as, implement an application scoring procedure for evaluating the relative competitiveness of proposed projects.
- Implement the awarding of TEA loans as set forth in Statute. These loans will use current TEA funds to provide loans for projects that may have minimal direct job creation but significant secondary impacts.
- Reinstitute the use of SIB loans for projects not eligible for other loan or grant programs or project in which the use of these loan funds may be more appropriate such as those which include other federal funds.

*Traffic Forecasting and Travel Demand Modeling*
Traffic forecasting goals include continuing cooperative efforts in coordinating long-range planning and forecasting data with stakeholders, including metropolitan planning organizations. WisDOT will continue to update the Transportation Planning Manual with protocols, procedures and policies related to Department activities. Forecasting work will include updating guidance on traffic forecast production and improvements to communicating techniques. Forecasting will continue to develop models and methods to integrate techniques into the forecasting process. Forecasting will work toward integrating the National Household Travel Survey data into Department products.

*MPO and RPC Coordination*
WisDOT continues to coordinate with stakeholders. For example, WisDOT will continue to work with MPOs and Regional Planning Commissions (RPCs) to implement the Fixing America's Surface Transportation Act (FAST Act), the funding and authorization bill to govern United States federal surface transportation spending, conduct system-wide analyses and complete federally requested updates of their urban and regional long range transportation plans.

This includes the goals of establishing WisDOT (statewide) and MPO performance measure targets as required in MAP-21 and FAST Act legislation. Integrating performance based planning and project programing at the state and local level within funded planning activities toward achieving progress within the performance measure targets, long range transportation plans to deliver efficient and effective transportation systems.

## Corridor Management Program and Planning

DTIM will continue to manage the state's corridor management program. Efforts will include the continued coordination with the department's five region offices to facilitate a consistent approach to corridor planning. Department staff will document policy and processes to implement the department's long-range transportation plans and program investment decisions into the corridor management framework.

## All Roads Network of Linear Referenced Data (ARNOLD)

The completion of the network phase of the division's ARNOLD project in fall 2016 should substantially improve the state highway coverage in WISLR resulting in an accurate geospatial coverage system for both state and local roadways. ARNOLD has now made it more feasible to work towards a data structure that tracks state and off-state roadway inventory attribute data from a single network. Given upcoming additional network data requirements from FHWA, and an aging system to manage and apply ARNOLD data, DTIM should complete review of how to establish and leverage a more flexible and scalable core system in this next biennium. This system should enable users to utilize the Department's all roads network to seamlessly access physical and administrative roadway attribute data.

## Document Management

DTIM will continue to review how the department's document management software capabilities may increase the division's productivity, efficiency, and provide possible solutions for an array of program needs. Areas of interest for the Data Management Section (DMS) are workflow management, Geographic Information Systems (GIS) integration, intelligent capture, dashboard, etc. Efforts both for DMS and other sections will identify areas to confirm expected results, assess the stability of the process, and validate the proposed efficiency measure.

## Length Classification Usage

WisDOT's DTIM section is the lead state in Transportation Pooled Fund-5(340) Study which looks at the use of length classification data to estimate trucks and axle factors. Length classification sites are 1/5th the price and require much less maintenance than the axle classifications sites which were used to collect this data previously.

Results from the first phase of the project have shown that length classification data can be used accurately and effectively. DTIM now plans to determine how the study results can provide DTIM's data users much greater coverage statewide, leading to more projects having more specified data which will create more accurately designed roadways.

## Crash Mapping and Analysis

DTIM will continue to lead this multi-divisional program that supports a data driven approach to traffic safety planning and program development. The next phase of the project will focus on improved data quality, increased timeliness of obtaining crash data, and improved tools to access and update the supporting data.

## Highway Improvement Programs

DTIM will continue to provide asset management, program management, and financial direction for the state's Major Highway Program and the State Highway Rehabilitation Program (SHR). In addition, DTIM will provide financial guidance to the SE Mega Projects program. DTIM will:
- Establish, monitor, and pursue goals for total level of highway improvement projects advertised and awarded for "LET" and the level of construction-related quantities used on highway improvement projects.
- Conduct reviews of transportation projects to ensure that state and federal mandates and standards are met, as well as to identify potential cost savings using industry best practices.

- Leverage all federal highway funding received and ensure that all federal highway funding is obligated resulting in the eligibility to receive additional federal highway funding through the federal redistribution process.

*Performance Measures*

DTIM will work with internal and external partners to identify and implement federal performance measures for the National Highway System (NHS) related to pavement condition, bridge condition, and system performance. The department will:
- Coordinate with Metropolitan Planning Organizations to establish performance measure targets for the upcoming reporting period.
- Continue refining and documenting its transportation asset management strategies to address critical needs on the NHS.
- Define data collection efforts to ensure they meet established federal guidelines for asset attribute and condition reporting.

*Project Contract Review*

The Audit and Contract Administration Section will implement a solution to identify and measure contracts requiring final settlement and audit based on information in new business information systems recently deployed across the enterprise:
- Implement temporary reporting system/tools to identify contracts pending settlement/audit to use until an enterprise IT solution is developed and deployed.
- Publish regularly updated contract settlement/audit status for use by other Divisions in project close-out process.
- Implement routine and stable processes to close out consultant contracts on a regular and timely basis to facilitate prompt closure of projects by other Divisions.

*Highway Performance Monitoring System (HPMS)*

Each state is required to prepare an annual submittal of HPMS data in accordance with the procedures, formats, and codes specified by FHWA. Every ten (10) years FHWA makes significant refinements to HPMS – the next reassessment is in 2020. Reassessment may contain additional data collection requirements, and changes in procedures and submittal timeframes. DTIM staff will participate in workshops and webinars to offer recommendations, gain knowledge and information of the upcoming assessment, and begin to make refinements to DOT data collection processes.

*Transit Programs*

The department has a goal of being certified to comply with the enhanced regulatory standards for the State Safety Oversight (SSO) program. Following 49 CFR part 674, designated state safety oversight agencies must demonstrate adequate capacity to oversee, enforce, investigate and audit rail transit systems' safety programs and activities. The deadline for the Federal Transit Administration to certify each state's SSO program is April 15, 2019 and the department intends to submit its certification application in April 2018.

The department has a goal of complying with new federal Transit Asset Management (TAM) program requirements. TAM is a business model that prioritizes funding based on the condition of transit assets – vehicles, facilities and equipment – to achieve or maintain transit networks in a state of good repair. The TAM rule (49 CFR part 625) is a set of federal regulations that sets out minimum asset management practices for transit providers and state and local transit systems are required to maintain and document minimum TAM standards. The department intends to submit a compliant TAM Plan by the October 2018 federal deadline.

*Freight Rail Programs*

RHS will maintain WisDOT's relationships with the rail transit commissions, communities and the railroads to preserve and improve freight rail service to Wisconsin businesses and communities. The following Freight Railroad Preservation Program (FRPP) project goals would lead to achieving the FRA Class 2 safety standard on 78 percent of state-assisted track and 286,000-lb. carload capacity at 25 mph on 80 percent of state-assisted bridges:

- Completion of the bridge B-256 (at Spring Green) reconstruction project
- Completion of the Fox Lake Subdivision (Janesville–Zenda/Illinois state line) track rehabilitation and rail replacement project
- Completion of the bridge B-316 (at Wauzeka) replacement project
- Completion of the Brandon–Ripon rail replacement project
- Completion of bridge rehabilitation and replacement projects on several state-owned rail lines
- 50 percent completion of the bridge 334 (at Merrimac) rehabilitation project
- 50 percent completion of the Waukesha Subdivision (Waukesha–Milton) track rehabilitation and rail replacement project
- Assisting Escanaba & Lake Superior Railroad to maintain rail service for its Wisconsin customers

RHS will strive to provide at least $10 million of low-cost Freight Railroad Infrastructure Improvement Program (FRIIP) loan funding to businesses to increase transportation efficiency and reduce shipping costs for Wisconsin farmers and industry.

Goals for RHS management of state railroad property:

- Resolve 100 percent of Trans 29 Utility Permit Applications within 25 days of receival
- Develop SharePoint Workflow for DT2036 (Trans 29 Application) form routing to improve permit process efficiency.
- Continue development of a GIS application for the state-owned rail system
- Continue development of the Rail Asset Database for the state-owned rail system
- Video-record 100 percent of state-owned rail lines

RHS will continue to provide railroad coordination for highway projects. The STEP grant will complete design and begin construction and railroad work with an anticipated completion date of December 2020.

*Airport Improvements and Preservation*

- The Bureau of Aeronautics will continue to improve Wisconsin airports by enhancing safety and maintaining airport infrastructure. In the next biennium, we will also make airport improvements which promote economic development. The Bureau manages the Federal Aviation Administration's program, shares in the cost of that program, and manages and funds state aid projects.
- Alexander Field in Wisconsin Rapids is already experiencing increased activity related to a local golf resort development. The aircraft parking area will be expanded and rehabilitated as a first step to meet increasing demand. Kenosha Regional Airport is in the midst of planning and design efforts to extend the primary runway, an improvement which will meet business aircraft needs. The first phase of parallel taxiway construction is underway at Dane County Regional Airport in Madison; this capacity-increasing project will be completed in the biennium.
- Waukesha County Airport will begin construction of a major runway approach safety project in 2019. General Mitchell International Airport in Milwaukee will build the first of three aircraft deicing facilities, making aircraft safe for cold weather flight and reducing pre-flight delays. Appleton International Airport

is partnering with Fox Valley Technical College to build a regional aircraft rescue and firefighting training facility.

- The bulk of airport improvement funding is spent to extend the life of existing airport pavements. Runways at several general aviation airports will be rehabilitated. A primary runway and parallel taxiway will be realigned at Hartford Municipal Airport to provide safe approaches. Aircraft boarding bridges at several air carrier airports have reached the end of their useful life and will be replaced.

*Runway Pavement Marking*

BOA will continue the state-sponsored pavement marking program, which assists general aviation airports with refreshing their pavement markings on runways and taxiways. Pavement markings are an essential safety item for pilots. Pavement markings allow pilots to visually identify the runway environment, as well as safely identify the location of taxiway pavements. As a pilot approaches the runway, they use the visual cues provided by the pavement markings to identify that they are at the correct airport and on the correct heading, as well as use the pavement markings to identify the target area for landing the aircraft and guide them along the center of the pavement. Once on the ground, the pilot needs to maneuver the aircraft to the taxiway system, and the pavement marking gives a centerline reference to those taxiway pavements. General aviation airports, especially smaller general aviation airports, typically have less local resources to conduct pavement marking projects. BOA assists the general aviation airports with keeping the pavement markings visible with the pavement marking program, therefore increasing safety to the flying public.

*Fly Wisconsin!*

In FY 2017, BOA partnered with the Wisconsin Airport Management Association (WAMA) to develop the Fly-Wisconsin Airport Passport Program. The overall goal is to promote aviation in Wisconsin while safely utilizing the national airspace system and related aeronautical infrastructure. By encouraging pilots to fly to all public use airports in Wisconsin, the Fly Wisconsin Airport Passport program promotes safety, partnerships and promotes economic opportunities. The program was successfully launched on September 1, 2017. Over the biennium we expect airports and their surrounding communities to see increased traffic and more visitors and we have a tracking system established to monitor participation.

*Aircraft Registration System*

The current aircraft registration system (ARS) is hosted on the DOT mainframe. This is old technology and the department is in the process of moving hosted applications so the mainframe can be shut-down and eliminated. As a result ARS will be converted and hosted on a new platform. The ARS conversion project will yield additional benefits including a customer self-service web portal, allowing customers to submit initial aircraft registration applications and renew existing applications on-line and pay fees via credit card. The objective is to have the new ARS on-line by June 2019.

*Wisconsin Standard Specifications for Airport Construction Document Update*

Standard Specifications for Airport Construction establishes the administrative procedures, requirements, acceptable means, methods and quality for construction on airports. Establishing a state specification for airport construction is critically important to identify the unique and important safety and quality differences from WisDOT highway and roadway construction specifications. Federal Aviation Administration (FAA) produces national construction standards. The national standard however does not consider state, local, geographical, materials, and construction industry practices. Recently the FAA produced updated national standards. This required WisDOT-BOA to update the state specification for airports to bring our state specification into federal compliance. A key benefit to creating an FAA approved state specific airport specification is that it allows Wisconsin to maximize and tailor the states unique conditions, while ensuring compliance with FAA requirements and federal funding eligibility. Further benefits include Departmental consistency in contract

administration, improved efficiency and consistency, which reduces the potential for claims and disputes, and reduce overall project construction costs. The final draft of the Airport Construction Specifications will be submitted to FAA for approval by the end of the 2017 calendar year. We expect final FAA approval early in 2018. We will be implementing the new specification for all Construction projects bid staring in 2018.

*Local Aid and Assistance Programs*
The overarching goal of the department for local aid and assistance programs is to provide funding for local governments and local projects quickly and efficiently while providing excellent customer service. In the new biennium, program outreach and communication efforts will continue to ensure strong and stable program partnerships with local units of government, regional planning organizations, and community stakeholder groups for all local aid and assistance programs.

The department will continue to develop its change management and initial project review processes to ensure that the scope of each project does not exceed what is necessary for a safe and effective facility.

Local bridge facility replacement in kind will increase program stability, and allow the department to fund additional projects by limiting state or federal funding to the essential scope of the project.  Local project sponsors maintain the ability to enhance design of local bridges with local funding.

The department will also review existing aid and assistance programs and operations for efficiencies. As part of this effort, the department will begin use of a new web-based system for the Local Roads Improvement Program that will reduce printing, postage, and other administrative costs while streamlining program and records management.

*Passenger Rail*
The goal for passenger rail is to continue to increase revenue and ridership on the Hiawatha Service, with a target of at least one percent ridership growth annually. The Department will also continue to manage operating costs with a goal to maintain a cost recovery ratio of 70 percent or higher. The Department will complete a final Environmental Assessment and Service Development Plan for increasing the Hiawatha Service to 10 round-trips daily. The goal is to receive a Finding of No Significant Impact from the Federal Railroad Administration. This will make the project eligible for federal funding for final design, construction, and implementation, and will facilitate competitive grant applications.

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