Implementing Strategic Plans:
A Survey of State Practice and Related Research

Requested by
Peter Spaulding, Caltrans Office of Strategic Management

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Table of Contents

Executive Summary ................................................................. 2
Background ............................................................................. 2
Summary of Findings ............................................................... 2
Gaps in Findings ..................................................................... 5
Next Steps ............................................................................. 5
Detailed Findings ..................................................................... 6
Consultation with State DOTs .................................................. 6
Related Research .................................................................... 29
Contacts ............................................................................. 32
Appendices ......................................................................... 32
**Executive Summary**

**Background**
Caltrans recently completed its Strategic Management Plan for 2015-2020 and is beginning to consider the process for developing and implementing the next plan. To support this planning effort, Caltrans would like to learn from the successes and challenges of other state departments of transportation (DOTs) and large public agencies in putting their strategic plans into practice. In other words, how have others effectively translated a strategic plan (visioning) into a management plan (implementation of the vision)?

To provide Caltrans with practical, experience-based information on effective methods and practices to communicate plans to employees and other stakeholders, integrate strategic plans into an agency’s daily operations, and monitor and report on implementation results, CTC & Associates contacted representatives from a select group of state DOTs expected to have experience with implementing strategic plans. To provide additional guidance, we supplemented this examination of current practice with a brief review of published research and other relevant publications that address the implementation of strategic plans in public agencies.

**Summary of Findings**

**Consultation with State DOTs**
We contacted representatives from five state DOTs—Georgia, Louisiana, Michigan, Pennsylvania and Washington—to learn more about these agencies’ practices in implementing strategic plans. Below we summarize common themes and key points identified in our interviews.

**Background**
We found little consensus among the agencies we contacted with regard to the plan development process or in the strategic plans themselves. State statutes control how strategic plans are developed and monitored in Georgia and Louisiana. In Michigan, a new approach to establishing and monitoring goals involves the designation of a “wildly important goal,” or WIG, that focuses agencywide attention on a critical issue. Two agencies—Pennsylvania DOT and Washington State DOT—have recently tightened the focus of their plans, limiting plan length and establishing a manageable set of goals.

**Communicating the Plan**
All agencies except PennDOT post their strategic plans online publicly (PennDOT posts its plan on its intranet). Methods used to communicate the plan to internal staff include staff newsletters, presentations during employee orientations and other employee gatherings, emails, periodic internal and public reports of accomplishments, and communications from the department secretary or director. External communications tend to be handled less formally and are typically less extensive. Only Washington State DOT has a formal communications plan. The plan, prepared by WSDOT’s Headquarters Communications Office, serves as a user guide, identifying how the plan should be used and providing talking points that describe how the plan impacts employees.
Reflecting Plan Goals in Daily Operations

Agency practices vary when it comes to integrating the agency plan into daily operations. PennDOT has the most extensive practice, requiring each of PennDOT’s 11 engineering districts and five Central Office bureaus to prepare a business plan and budget that outlines the district’s or bureau’s accomplishments, goals and future plans as they relate to the agency’s strategic goals. In Louisiana, each division and section is required to develop objectives that support the agency’s overall goals. Progress on meeting these objectives is reflected on divisional scorecards.

The other agencies we contacted do not require business or work plans that relate to the agencywide strategic plan, but some do encourage development of such plans. For example, Georgia DOT provides a template for a business work plan that documents a unit’s specific goals, objectives and performance measures that align with overall agency goals and objectives. In Michigan, while staff are not involved in developing unit- or division-level plans, they are involved in establishing goals that relate to the agencywide WIG. Staff are responsible for implementing these sub-goals, and tracking and reporting on their progress.

Measuring Results

Some agencies use SharePoint sites to track the status of performance measures associated with their strategic plans. In Louisiana, staff use a SharePoint site to enter data in scorecards that document achievements in meeting objectives that support the overall goals of the agency’s strategic plan. For Michigan DOT, monitoring rather than measuring is the focus for strategic plan goals, with the exception of the WIG. Washington State DOT’s Gray Notebook, a quarterly report of performance, allows the agency to track results of the performance measures associated with the strategic plan.

Reporting on Progress

All five agencies report on implementation progress in some way. Georgia DOT monitors results quarterly, reporting on internal measures that are also reported to the Governor’s Office of Planning and Budget, and daily, through the GDOT performance management dashboard. In Louisiana, quarterly meetings with the department secretary address progress made toward meeting strategic objectives as reflected by the agency’s scorecards. An online system is also used to submit performance progress reports. In Michigan, weekly and monthly meetings track progress on implementing the overall strategic plan through progress on tasks related to the WIG. Three states—Michigan, Pennsylvania and Washington—produce annual reports summarizing accomplishments in meeting overall plan goals.

Implementation Successes

Agencies reported a range of successes associated with plan implementation. Some highlights:

- Properly aligned goals help remove organizational silos and provide for goal congruency throughout the agency.
- The strategic planning process ensures that executive management is apprised of cross-agency issues.
- The strategic plan can improve the overall leadership alignment around a common goal, formalizing the intention to get results.
• Associating implementation tasks with specific sponsors or responsible parties encourages staff commitment, keeps things moving forward, and provides accountability.

Implementation Challenges

Our contacts had experienced a range of challenges in implementing strategic plans. Their observations and suggestions include:

• When establishing expectations for monitoring progress, agencies should consider the resources needed to conduct measurement in determining if formal measurement is warranted. In some cases, using professional judgment rather than formal measurement may be appropriate.

• Agencies should recognize the difference between aspirational ("stretch") goals and realistic goals and find a balance between them.

• The strategic planning process must be dynamic enough to respond to changes in funding and other unknowns.

• Changing overall goals in response to business climate changes can be met with resistance.

• It can be difficult to align the contribution of all staff with achievement of the department’s mission and goals.

Keys to Success

Interviewees identified the following practices as key to the successful implementation of a strategic plan.

Measurement

• Consider measurement when establishing goals.

• Keep the number of measures low and tie them to projects the agency expects to accomplish.

Staff Engagement

• Engage senior staff and the department secretary or director in supporting and communicating the plan.

• Provide staff to assist with facilitating implementation of the plan.

Reporting on Progress

• Ensure that some of the goals in the plan can be met in the first year of the plan so that the agency experiences some “early wins.”

• Use templates to aid plan participants in reporting on progress.

Related Research

This section provides a sampling of literature on strategic planning in the public sector. In addition to a workbook on strategic plan development, these publications address integration of unit or division plans into an organization-level strategic plan; linking strategic management to performance; identifying potential improvements in strategic planning practice; and assessing what has been learned from examining the strategic management tools used in the public
sector. Finally, a 2006 article contrasts department-based strategic planning with organization-level strategic planning to assess which practice is more effective.

**Gaps in Findings**

While the case studies in this Preliminary Investigation provide useful information and highlight some innovative practices, a targeted examination of five organizations is not intended to provide an exhaustive review of best practices in implementing strategic plans. There are likely other state DOTs, and other types of public agencies, with strategic plan implementation practices that may be of interest to Caltrans.

**Next Steps**

Moving forward, Caltrans could consider:

- Contacting any of the five states consulted for this Preliminary Investigation to learn more about specific areas of interest to Caltrans. These follow-up contacts might address:
  - Communication and outreach. Washington State DOT’s communications plan offers an example of a centralized approach to managing and encouraging communication of the plan across the agency and to external stakeholders.
  - Focusing plan implementation on a significant goal, such as Michigan DOT’s “wildly important goal.”
  - Assigning responsibility for meeting plan goals. For example, Washington State DOT has charged assistant secretaries with the responsibility for implementing plan goals. In contrast, Michigan DOT has staff teams throughout the agency tasked with delivering on sub-goals associated with the overarching agency goal.
  - Development of unit or division plans, as practiced by Georgia, Michigan, Pennsylvania and Washington State DOTs, to learn more about the resources required to develop these plans and the institutional support provided to plan developers.
  - Methods to report progress on meeting strategic plan goals, such as the Louisiana Performance Accountability System, an online database used to track agency performance, and Georgia DOT’s Horizon system, which is used to submit components of the agency strategic plan and periodic performance reports.
Detailed Findings

Consultation with State DOTs

Below we summarize our conversations and written correspondence with representatives from five state departments of transportation (DOTs)—Georgia, Louisiana, Michigan, Pennsylvania and Washington—about the agencies’ experiences implementing strategic plans. We asked these questions:

1. How does your agency communicate the goals, strategies and expected outcomes of your strategic plan to staff and other stakeholders during initial implementation of the plan? Please address the following in your response:
   A. What stakeholder groups are included in your communication effort?
   B. Please provide samples of the documents you have used to communicate with your staff and other stakeholders.

2. How does your agency ensure that the priorities and daily operations of individual divisions or programs reflect the goals of the agencywide strategic plan? Please address the following in your response:
   A. Do your agency’s divisions or programs develop their own strategic plans that align with the agency’s plan? If yes, please respond to the following:
      a) Is this a voluntary activity, or are all divisions or programs required to develop their own strategic plans?
      b) Please describe the resources devoted to individual division/program strategic plan development.
   B. Please describe any other specific practices or tools used to encourage adherence to plan goals across the agency.

3. Please describe your agency’s approach to monitoring or measuring results associated with the strategic plan. Please address the following in your response:
   A. Please describe any tools or practices used to monitor or measure results.
   B. How often do you monitor or measure results?
   C. How do you address results that fail to meet the expectations outlined in the strategic plan?

4. Please describe how you report on the progress made in implementing plan goals over the life of the strategic plan. Please address the following in your response:
   A. How frequently do you prepare progress reports?
   B. What is included in the progress reports?
   C. What stakeholder groups receive progress reports? Does the structure of the progress report vary by stakeholder group?
   D. Please provide samples of your progress reports.
5. What successes has your agency experienced in implementing and monitoring progress on the strategic plan?

6. What challenges has your agency experienced in implementing and monitoring progress on the strategic plan?

7. Are there other issues you’d like to address that would be helpful to another agency preparing to implement a new strategic plan?

The interview summaries are organized according to these topic areas:

- Background.
- Communicating the Plan.
- Reflecting Plan Goals in Daily Operations.
- Measuring Results.
- Reporting on Progress.
- Implementation Successes.
- Implementation Challenges.
- Keys to Success.
- Related Resources.

Not all summaries include all topic areas.

Common themes and key points drawn from the summaries below are presented in the Executive Summary of this Preliminary Investigation.

**Georgia**

Contact: Angela T. Alexander, Director, Office of Organizational Performance Management, Georgia Department of Transportation, 404-631-1743, aalexander@dot.ga.gov.

As director of Georgia DOT’s Office of Organizational Performance Management (OPM), Alexander oversees the development of the agency’s strategic plan and facilitates the strategic planning process throughout GDOT. The summary below is based on Alexander’s written responses to questions we provided by email, supplemented by a review of documents available on the GDOT web site and other online resources.

**Background**

Georgia statute requires the state and its agencies to develop strategic plans. The state’s governor, through the Governor’s Office of Planning and Budget (OPB), oversees the strategic planning process. The strategic planning process includes three elements:

- A state strategic plan that provides the vision, direction and priorities of the state.
- Agency strategic plans that align with the state strategic plan.
- A semiannual agency performance report used to report progress on meeting the objectives of the strategic plan, including reports on agency performance measures.
An online system—Horizon—is used by state agencies to enter a standard set of common strategic plan elements. Once agencies enter their strategic plan data into the Horizon system, the information is available to the public through the Horizon web site (http://horizon.opb.state.ga.us/). OPB provides a worksheet for agencies to use in entering data into Horizon; see below for a sample worksheet.

GDOT began producing strategic plans in 1994. The current 29-page plan describes the four goals adopted by the agency along with objectives and strategies designed to meet the goals. The plan guides the department’s priorities for the next four years and is updated annually.

The strategic plan differs from GDOT’s Statewide Strategic Transportation Plan (SSTP) (see http://www.dot.ga.gov/IS/SSTP). The SSTP was developed by GDOT’s Division of Planning to:

- Examine transportation options and solutions for Georgia.
- Evaluate the return on investment for various transportation methods.
- Meet the requirements of Senate Bill 200, a bill that reorganized GDOT to create a Planning Division to develop the state transportation improvement program and a statewide strategic transportation plan.

Related Resources:


This is the most recent update to GDOT’s strategic plan.


This is the worksheet agencies use to prepare strategic plan data for entry into the Horizon system.

Communicating the Plan

The strategic plan is posted on the department’s internal and external web sites. The following describes other efforts to disseminate information about the strategic plan within the agency and externally.

**Internal Stakeholders**

The following GDOT stakeholder groups participated in the development and initial implementation of the agency’s strategic plan:

- State Transportation Board.
- Agency leadership team (senior leadership members, including the Commissioner, Deputy Commissioner, Treasurer and Chief Engineer).
- Division directors.
- Office heads.
The agency’s strategic goals and strategies are communicated using the publications and online resources below; see below for examples.

- Annual Investment Reports.
- Milepost and Connector internal publications for GDOT staff.
- Horizon, Georgia’s strategic planning support tool.
- GDOT’s performance management dashboard.
- Transportation asset management strategic direction.

OPM staff also address strategic planning efforts during new employee orientation sessions, and new hires receive a card that outlines the department’s mission, vision and goals. Lunch and Learn sessions provide another opportunity for OPM staff to present the strategic planning process to interested employees.

Related Resources:

  
  Page 27 of this report (page 29 of the PDF) provides a summary of the goals that relate to and support the state’s strategic priorities and highlights performance measures in these goal areas.

  [http://www.dot.ga.gov/BS/Performance](http://www.dot.ga.gov/BS/Performance)
  
  This web site displays the results of performance measures identified to help assess the agency’s success in meeting the goals outlined in GDOT’s strategic plan.

- **Transportation Asset Management: The Strategic Direction of Georgia Department of Transportation**, Division of Organizational Performance Management, Georgia DOT, 2011.  
  
  Page 12 of this report begins a discussion of linking GDOT’s strategic plan with performance levels of service.

**External Stakeholders**

The primary external stakeholder for the plan is the Governor’s OPB. Alexander noted that GDOT has not registered much interest in its strategic plan from individuals or organizations outside the agency.

**Reflecting Plan Goals in Daily Operations**

While not required, some GDOT offices and districts develop business work plans that document their specific goals, objectives and performance measures that align with overall agency goals and objectives. OPM staff conduct training sessions on performance management, and individualized workshops are offered to help the offices and districts develop their own plans.
Measuring Results

OPM staff created a SharePoint site for use by staff in reporting the status of performance measures associated with the strategic plan. Other monitoring activities are conducted by OPM and at higher levels of the agency. Alexander explained:

Senior Leadership periodically reviews the status of GDOT’s agency-level performance measures during Division Directors’ Staff Meetings. Decisions regarding the results of performance, as well as the mechanics of the performance measure itself, are made during these meetings.

We monitor the results quarterly (internal measures that are also reported to the Governor’s Office of Planning and Budget) and daily (GDOT Performance Dashboard). The progress towards achieving our goals is also reported during Division Director Staff Meetings, as discussed above.

When the agency falls short of meeting its strategic plan goals, Alexander noted that:

[GDOT] analyzes why the expectations outlined in the Strategic Plan were not met. Based on the findings, the Department may take a different course of action to include investing more resources, shifting resources to other areas, or adopting a new approach. In some cases, targets may be adjusted or changed.

Reporting on Progress

Progress reports are submitted to the OPB quarterly and semiannually using the Horizon online system. These reports include agency-specific performance measures that apply data pulled from GDOT’s performance management dashboard. Data received by OPB from all state agencies is organized by policy area for inclusion in midyear and year-end state performance reports.

Progress on the measures associated with the strategic plan is addressed at internal management meetings and discussed at agency leadership and policy collaborative meetings. The plan and its outcomes are evaluated to make any necessary adjustments to the plan approach. These adjustments could include closing out obsolete, completed or consolidated strategies in a year-end performance report. The strategic plan itself is updated as needed to permit the agency to accomplish its goals.

Implementation Successes

Alexander reported that for GDOT, “[i]mplementing and monitoring progress on the Strategic Plan are moving towards an organizational practice.”

Implementation Challenges

Alexander noted that the following can present challenges to successful implementation of a strategic plan:

• Obtaining organizational buy-in at all levels of the department.
• The need to align the contribution of all staff with achievement of the department’s mission and goals.
**Additional Resources**

This document describes the state planning framework and provides guidance for agencies developing their own plans. Also addressed are the agency performance reports submitted twice each year through the Horizon online system.

**“Georgia’s Strategic Planning Process Overview,”** Governor’s Office of Planning and Budget, State of Georgia, April 2014.  
This presentation from the governor’s office describes the state strategic plan framework; agency strategic planning; plan review and use; reporting and accountability; the 2015 Strategic Plan; the Horizon reporting system; and a timeline of activities required in connection with Georgia’s strategic planning process for 2014-2015.

**Louisiana**

Contact: Denny J. Silvio, Director, Quality & Continuous Improvement Program, Louisiana Department of Transportation and Development, 225-379-1964, Denny.Silvio@la.gov.

As director of Louisiana Department of Transportation and Development's Quality & Continuous Improvement Program, Denny Silvio oversees LaDOTD’s Strategic Planning Manager. Silvio noted that the strategic plan is “owned” by department executives.

The summary below is based on Silvio’s written responses to questions we provided by email, supplemented by a review of documents available on the LaDOTD web site and other online resources.

**Background**

Strategic planning in Louisiana is required by state statute (Louisiana Revised Statutes § 39:31, Strategic Planning). The first strategic plans required under the statute were completed in 1998. The statute requires all plans to be revised and updated every three years.

LaDOTD's current 228-page plan includes six goals:

- Continually improve the performance of LaDOTD.
- Deliver cost-effective products, projects and services in a timely manner.
- Enhance the safety and well-being of our citizens, visitors and staff.
- Improve customer service and public confidence.
- Effectively develop and manage our human resources.
- Efficiently manage LaDOTD’s financial resources.
Related Resources:


This 228-page plan includes descriptions of objectives and strategies associated with each of the plan’s six goals. Also included is performance indicator documentation that describes in detail each performance indicator associated with the strategic plan.

**Strategic Planning web site**, Office of Planning and Budget, Division of Administration, State of Louisiana. [http://www.doa.louisiana.gov/opb/pbb/strat.htm](http://www.doa.louisiana.gov/opb/pbb/strat.htm)

This web site provides access to documents to aid state agencies in developing their strategic plans.

**Communicating the Plan**

LaDOTD does not have a formal plan to communicate the strategic plan to staff or external stakeholders. The plan is available on the agency’s web site, and stakeholders are notified of plan updates via email. Silvio explained:

While not a formal communications plan, a publication used by state agencies in preparing their strategic plans does provide recommendations for communicating the strategic plan [see “Strategic Planning: Planning for Results, Part I,” page 23, at [http://www.doa.louisiana.gov/opb/faf/MW_Strategic%20PlanningA.pdf](http://www.doa.louisiana.gov/opb/faf/MW_Strategic%20PlanningA.pdf)]. Some highlights:

1. Direct communications to stakeholders and expectation groups. Most departments or agencies have constituencies associated with their programs and activities (for example: business, labor, education, medical, social services, environmental, and recreational interest groups). Make these groups aware of the plan and what it means for them.

2. Clarify and simplify the plan for public consumption. Make sure that laymen can understand the plan. Use plain language; avoid jargon.

3. Broaden the base for support through local connections. Many departments have facilities located throughout the state (for example: correctional institutions, hospitals, parks and commemorative areas, wildlife management areas, and colleges and universities) or offer community-level services. Use community relations committees or community public meetings to communicate elements of the plan.

4. Monitor public and media reactions and make adjustments to communications as appropriate. If it works the first time, do it again. If the first approach is unsuccessful, try something different.

**Related Resources:**


This document provides a general discussion of strategic planning. Included are a model and template, and recommendations for communicating and marketing the strategic plan.
This part of the MANAGEWARE guide to preparing a strategic plan in Louisiana focuses on the components of the plan and offers instructions to agencies on how to analyze issues; sample internal and external factors; set goals; formulate objectives; build strategies; develop and manage action plans; develop performance indicators to measure results; and identify ways to use strategic planning and performance accountability to build budgets.

**Internal Stakeholders**

“Strategic Planning: Planning for Results, Part I” also includes these ideas for improving internal communications about the plan (see page 22):

- Make the plan a regular topic at staff meetings or in internal newsletters.
- Distribute the plan internally; make the plan easily accessible to all managers and employees.
- Display the vision, mission and/or philosophy statements in a prominent location.
- Recognize progress toward achieving goals and objectives at staff meetings, in newsletters, and at other organizational events. Celebrate accomplishments.

**External Stakeholders**

Louisiana state statute requires that strategic plans be submitted to the Commissioner of Administration and the standing committee of each house of the legislature having responsibility for oversight of LaDOTD. Silvio noted that LaDOTD’s strategic plans should also be provided to other legislative-related entities that have responsibility for review and evaluation of performance information. The submission guidelines also require publication of strategic plans and strategic planning process documentation on the agency’s public web site.

“Strategic Planning: Planning for Results, Part I” recommends these strategies for sharing the strategic plan with external stakeholders (see page 22):

- Put the plan on the Internet.
- Include articles about the plan in newsletters externally distributed by the department.
- Explain the plan at community public meetings.
- Issue press releases with highlights of the plan; provide media interviews; work with newspaper editorial boards.
- Prepare an attractive, condensed print version of the plan and make it available to interested persons and organizations.
- Reference the plan in presentations to the legislature or private sector and in presentations at conferences (“dog and pony shows”).
- Produce a video on the plan and its implementation.
Reflecting Plan Goals in Daily Operations

While LaDOTD divisions and sections are not required to develop their own strategic plans, each division and section is required to develop objectives that support LaDOTD’s overall goals. These objectives take the form of divisional scorecards.

Measuring Results

Scorecards are developed by the agency’s divisions and sections to document achievements in meeting objectives that support the overall goals of the agency’s strategic plan. Each scorecard is a tabular representation of objectives and objective types (sectional or divisional) displayed with the targets for meeting those objectives and a rolling 12 months of performance data. The agency’s SharePoint portal is used by designated LaDOTD staff to develop and update these scorecards.

Reporting on Progress

Each quarter, LaDOTD’s division heads and appropriate staff meet with the department secretary to discuss progress made toward meeting strategic objectives as reflected by the scorecards. At these sessions, division heads address any issues associated with not meeting an established target and provide details of an action plan developed to ensure the target is reached.

Agencies receiving state funding are required by state law to produce performance progress reports. These reports are submitted to the Office of Planning and Budget through the Louisiana Performance Accountability System (LaPAS). The LaPAS web site provides this overview of the tool and its purpose:

LaPAS is an electronic database that tracks performance standards, interim quarterly performance targets, and actual performance information for Louisiana’s Executive Branch departments and agencies.

Departments and agencies are required to submit quarterly Performance Progress Reports to LaPAS via a secure, web-based application. The Office of Planning and Budget (OPB) in the Division of Administration, as the official record keeper of performance standards and information, maintains LaPAS.

LaPAS allows authorized users to manage interim quarterly targets and enter quarterly Performance Progress Reports. Program heads coordinate entry of data in LaPAS, with the department’s undersecretary reviewing and approving all data submitted.

Related Resources:

LaPAS: Louisiana Performance Accountability System, Office of Planning and Budget, Division of Administration, State of Louisiana.

This is the home base for the Louisiana Performance Accountability System, the online system used by Louisiana state agencies to submit required periodic performance progress reports.
Quarterly Performance Progress Reports, Louisiana MANAGEWARE, Division of Administration Guidelines, Office of Planning and Budget, Division of Administration, State of Louisiana, November 2003.  
This document describes how Louisiana state agencies are to prepare quarterly performance progress reports and submit them using LaPAS.

Implementation Successes

Regarding LaDOTD’s success in implementing its plan, Silvio noted:

Our planning process ensures that executive management is apprised of cross-agency issues. Properly aligned goals help remove organizational silos and provide for goal congruency throughout the agency.

Implementation Challenges

Implementing the agency’s plan has presented challenges, as Silvio described:

Changing overall goals in response to business climate changes can be met with resistance, as organizational management becomes accustomed to managing and focusing on the originally specified measures.

It has been a challenge to get employees to take strategic plans seriously, as opposed to simply an exercise we have to go through to meet DOA [Division of Administration] requirements.

Keys to Success

When asked about guidance for another agency implementing a strategic plan, Silvio responded:

It is important to be specific, be high-level, and ensure goal congruency amongst all measures. Understanding where each proposed goal ties into the overall agency mission is also key. In addition:

• Pick objectives that relate to work the agency actually intends to accomplish.
• Examples may include objectives related to improving the condition of the transportation infrastructure and the use of funds.
• Keep the number of measures low and tie them to projects you actually want to accomplish.
• Survey general staff to see what they would like to see the agency accomplish. Do this by giving them a list of items to choose from (versus just asking for random ideas).

Additional Resources

Applying the Strategic Planning Process, Louisiana MANAGEWARE, Office of Planning and Budget, Division of Administration, State of Louisiana, undated.  
This high-level summary of the strategic planning process in Louisiana includes references to other documents that provide more detailed guidance to plan developers.
Michigan

Contacts:
- Sharon Edgar, Administrator, Office of Passenger Transportation, Michigan DOT, 517-373-0471, EdgarS@michigan.gov.
- Roger Safford, Grand Region Engineer, Michigan DOT, 616-451-4488, saffordr@michigan.gov.

Below is a summary of a telephone interview with Sharon Edgar and Roger Safford, co-chairs of Michigan DOT’s Strategic Plan Coordination Team for the past five years. We supplemented this interview with a review of documents provided by the interviewees and other documents available on the agency’s web site.

Background

MDOT has had a strategic plan since 1997. Every year the agency’s Strategic Plan Coordination Team reviews the strategic plan and recommends changes to MDOT’s executive team.

In 2012, the agency began applying a new strategy to ensure a more strategic focus on performance management and emphasize execution of the agency’s strategic plan. The agency evaluated and decided to adopt the principles espoused by Franklin Covey Inc. known as the Four Disciplines of Execution (4DX). The four disciplines of the Covey-inspired program include:

**Discipline 1: Focus on the wildly important.** Narrow the focus and limit the number of goals. Clearly define the critical goal in terms of moving from the current state to the desired state within a certain time frame.

**Discipline 2: Act on the lead measures.** With lag measures—the type of measures typically associated with performance measurement—the agency learns results when it is too late to affect performance. A lead measure is predictive and measures things the agency can do something about before the end of the assessment process.

**Discipline 3: Keep a compelling player’s scorecard.** Have the teams prepare their own scorecards to track their progress.

**Discipline 4: Maintain a cadence of accountability.** Hold short (30 minutes or less) weekly meetings that focus on one or two commitments each week. At each meeting, report on accomplishments on the previous week’s commitments, present data on lag and lead measures, and make commitments to work on over the coming week.

Two years ago, MDOT began using a 4DX implementation tool to enhance its strategic plan—a “wildly important goal,” or WIG.

MDOT senior executives, with the assistance of the Strategic Plan Coordination Team, define the WIG for MDOT. The first WIG had a one-year timeline; the current WIG will be implemented over a two-year period. The current WIG, identified in MDOT’s three-page strategic plan along with seven strategic focus areas, is related to innovation. MDOT’s WIG for 2015-2016:

- In all areas of the department, achieve a 25 percent improvement in value-addition (in terms of safety measures, cost reduction, increased quality or reduced schedule) by December 31, 2016, through the rapid application of innovative products, processes and technology.
Related Resources:

**MDOT Strategic Plan**, 2015-2016, Michigan DOT. 

This three-page plan identifies seven strategic focus areas (leadership, customer-centered, system focus, safety, partners, innovative and efficient, and workforce) and 14 strategies to address those focus areas. The plan also identifies the “wildly important goal” for 2015-2016—increase MDOT’s capacity to innovate. The plan also specifies the measures and steps needed to implement the goal.

[http://www.topslab.wisc.edu/its/topms/MDOT_PM_ITE_JRNL_20130913.pdf](http://www.topslab.wisc.edu/its/topms/MDOT_PM_ITE_JRNL_20130913.pdf)

This journal article describes MDOT’s application of the Four Disciplines of Execution in enhancing the agency’s strategic focus on performance management.

**Communicating the Plan**

MDOT has a structured approach to communicating the strategic plan to MDOT staff; communication to external stakeholders is approached more informally.

**Internal Stakeholders**

The agency’s practice is to ensure that routine communications include consideration of the strategic plan. Internal written communications about the plan include:

- Monday Memos (a regular form of email communication with staff).
- MDOT’s SharePoint site.
- An annual report of accomplishments (see below for two examples).
- Periodic Director’s Reports (see below for two examples).

Monthly meetings of the director’s leadership team and Strategic Plan Coordination Team are another way for the agency to keep the plan alive in verbal discussions.

**Related Resources:**

See Appendix A.

This annual report of accomplishments serves as MDOT’s primary tool for communicating progress on its strategic plan.

See Appendix B.

A report of accomplishments for another strategic plan period.

See Appendix C.
This internal report from the department’s director addresses MDOT’s WIG for 2015—increasing the agency’s capacity to innovate.

See Appendix D.
This document focuses on a WIG to increase overall customer satisfaction from 73 percent to 80 percent by the end of 2013.

**External Stakeholders**

For MDOT, written communication about the strategic plan tends to be more of an internal-facing process. While the strategic plan appears on the agency’s public web site, MDOT has not made external communication a priority. Communication with external stakeholders is typically done verbally. The agency’s director communicates with the general public and legislators, and verbal communication about the plan is embedded in routine communications. Themes included in the plan are reflected in public remarks and presentations made by staff and executives throughout the agency.

**Reflecting Plan Goals in Daily Operations**

MDOT has the expectation that individual units will develop their own plans, but development of these plans is not mandatory. The plans do not have a common format or method, and consistency is not expected across the agency.

While formal plans are not developed within individual units, staff members are actively involved in implementing the strategic plan. Employees throughout the agency work on local goals that are aligned with state goals. These localized work area goals are called sub-WIGs. Regions or other work areas propose sub-WIGs to the Strategic Plan Coordination Team for review and approval.

Once a sub-WIG is approved, each office, bureau or region develops lead measures, a method to score their progress, and an accountability process. The Strategic Plan Coordination Team reviews and approves the scoring method and accountability strategy. With these approvals in hand, the sub-WIG team is ready to begin their work. The team holds brief accountability sessions every week (typically 15 to 30 minutes), and the goals associated with the sub-WIGs are embedded in daily operations. Other meeting frequencies (biweekly or monthly) may be required to match with reporting frequencies for new data that allow for tracking implementation of the sub-WIG.

**Allocating Resources**

Implementing the strategic plan has not been burdensome in terms of the agency’s overall human resources; however, Edgar and Safford, as co-chairs of the Strategic Plan Coordination Team, do devote a significant amount of time to the strategic planning effort. The level of commitment of other members of the committee is not as significant, though this can vary. The agency’s practice of ensuring that routine communications typically consider the WIG and the overall strategic plan helps limit the additional resources needed for plan implementation.
Measuring Results

The state of Michigan and its state agencies are committed to the use of performance measures. A statewide dashboard reflects measures for all state departments using scorecards (MDOT has 32 items on its scorecard). For MDOT, the scorecard is another way to connect to the strategic plan.

Strategic plan goals are tracked formally and informally using:

- Work area goals.
- Individual performance plans for employees.
- An annual work plan.
- Performance measures.

Monitoring rather than measuring is the focus for MDOT’s strategic plan goals, with the exception of the WIG. The agency identified challenges in measuring the 2013 customer-focused WIG, which led the team to consider how the 2015 innovation WIG could be measured. Efforts were made to identify a WIG that would not require burdensome measurement to determine its success.

Use of a WIG has allowed the agency to be more intentional about results, and regular reporting of results has heightened interest on the part of staff. Edgar and Safford noted that strategic planning becomes a more natural part of business operations when staff understand what is being measured and why, and when the agency is transparent about its goals and expectations.

Related Resources:

  This is an example of a scorecard that shows progress made on 32 agency metrics. While not specifically tied to the strategic plan, the scorecard provides an opportunity to evaluate agency performance in broad categories.

Reporting on Progress

Weekly and monthly meetings related to sub-WIGs track progress on implementing the overall strategic plan. Individual sub-WIG scorecards, devised and maintained by each team, allow for continual assessment of progress. Performance is also assessed monthly at the executive level.

The primary method of disseminating information about progress on the strategic plan to a broader audience is an annual accomplishments report prepared by Edgar (see “MDOT Strategic Plan Accomplishments,” above). This internal document includes examples of the activities undertaken by staff to meet the objectives of the strategic plan.
Implementation Successes
Edgar and Safford reported the following benefits associated with implementing or realizing the results of MDOT's strategic plan:

- The strategic plan has improved the overall leadership alignment around a common goal, formalizing the intention to get results.
- The annual accomplishments report touches every corner of the organization. It has become a “badge of pride” for a group or project to be mentioned in this document.
- The Strategic Plan Coordination Team has been in place for 10 years and is critical to the success of plan implementation.
- Initiatives associated with the WIG and sub-WIGs have sponsors that move these issues forward. If there is activity on an initiative, people stay committed to it, and the sponsor provides accountability.

Implementation Challenges
Measurement can present challenges when tracking the results of a strategic plan. Edgar and Safford noted that measurement at MDOT tends to be done informally. Agencies should consider the resources needed to conduct measurement to determine if formal measurement is warranted.

With the recent failure of Proposal 1, a statewide ballot measure to change the tax structure to increase revenue for transportation funding, MDOT may have to retool the strategic plan to better address unexpected external factors.

Keys to Success
Edgar and Safford offered these observations and recommendations to agencies seeking to ensure effective implementation of a strategic plan:

- Identify only a handful of items to measure that lend themselves to measurement.
- Engage the department secretary or director and the executive team in implementing the strategic plan. Without a high-level focus, a strategic plan can lose momentum.

Pennsylvania
Contact: Paul E. Reed, Jr., Management Analyst 2, Bureau of Innovation, Pennsylvania DOT, 717-783-0779, pareed@pa.gov.

Below is a summary of a telephone interview with Paul Reed of Pennsylvania DOT’s Bureau of Innovation. Reed participated in development of the current strategic plan and is actively involved in monitoring and measuring the results of its implementation. We supplemented the results of this interview with a review of documents provided by Reed.

Background
PennDOT has 11 engineering districts and is somewhat decentralized, with each district adopting its own operating processes.
In 2012, PennDOT developed its strategic plan with the assistance of approximately 80 staff members. The development process was led by Reed and two staff members from the deputy secretary’s office. Reed noted that the plan generated by that expansive process was perhaps too general and too lengthy, which led to development of a shorter summary document. An interim plan prepared in 2013 took a 20-page strategic plan and condensed it to two pages to provide a concise representation of the agency’s goals and strategies.

This year, Reed provided a revision of the 2014 nine-page plan to the department’s secretary in advance of visioning sessions scheduled for this summer that will gather feedback for modifications to the plan.

Related Resources:

See Appendix E.
This plan describes the agency’s eight goals, each goal’s intent, objectives to meet each goal, how the goal will be achieved, and how it will be measured.

See Appendix F.
This one-page document highlights the agency’s eight goals.

Communicating the Plan

There are no restrictions on distribution of the strategic plan, but also no formal practice of dissemination beyond an internal distribution list. The strategic plan is published on the PennDOT intranet and shared with the agency’s engineering districts and bureaus, and the state’s 67 counties. Staff are encouraged to share the plan with stakeholders outside the agency.

Reflecting Plan Goals in Daily Operations

Each of PennDOT’s 11 engineering districts and the five Central Office bureaus (deputates) prepares a business plan and budget that outlines the district’s or bureau’s accomplishments, goals and future plans.

The business plans are developed using a template provided by Reed. The structure of PennDOT’s individual business plans has evolved over time. In 2012, the business plan template generated reports of up to 40 pages. In 2013, an interim report template required a snapshot of what was provided in 2012, and reduced report length to 20 pages. In 2014, the format for the business plan encouraged the use of more graphs and included a section for executive assistance—what the district needs from Central Office to address its concerns and allow the district to meet its goals.

The following is a typical schedule for development of the business plans:

- Templates are provided for plan development during the first two weeks of July.
- Completed plans are due to Reed’s office by the end of September.
- Presentations of the business plans made by the district or deputate executives to the Central Office executive group are scheduled for October and November.
Related Resources:

2013 Interim Business Plan Report, Paul Reed, Transportation Innovation Office, Pennsylvania DOT, November 2013. See Appendix G.
This document summarizes the interim business plans for the five deputates and 11 districts. The report captures what has been completed in addressing action items associated with the strategic plan, current activities, and barriers to continued success in meeting plan objectives.

District 1-0 PennDOT Organizational Business Plan, 2014-2016, Pennsylvania DOT Engineering District 1-0, September 2014. See Appendix H.
This report presents district progress on meeting strategic plan goals. Each of the eight goals is addressed through a discussion of achievements related to action items and executive assistance needed to continue to meet the objective.

This is an example of an interim form of the business plan. The report examines each of the eight strategic goals and key items completed, key items the district is still working on, and barriers to meeting the goals.

District 12 Business Plan 2012-2014, Pennsylvania DOT. See Appendix J.
This 36-page business plan is an example of an earlier version of business plans that tended to be longer than the current format. The report begins with a summary of accomplishments in the district and concludes with a discussion of executive leadership assistance needed to permit the district to accomplish its goals. This report also provides an opportunity to see the Strategic Plan Implementation Template in use. The template is used to identify a strategic plan goal and objective (the objective can be a department or organization objective), and a measure of success. Action items are noted with due dates for each item.

Measuring Results
Actions vary by district when a district fails to meet goals. With more of a focus on decentralization within the agency, districts retain more responsibility for accountability and are expected to take appropriate action to address gaps in performance.

In 2012, the agency decided to look at measurement from a deputate perspective, and asked each of the five deputates to identify measures in their business plans and assess how well those measures have been met. This approach shifted assessment from the high-level perspective of the overall organization to evaluating success at the level of each deputate.

In the last three years, PennDOT’s Next Generation effort, a combination of five initiatives to review and enhance PennDOT’s operations to improve efficiencies, has been assessing current processes to identify those that need improvement. Reed noted that the Next Generation effort has produced changes that align with the strategic plan.
Reporting on Progress

Action items from the business plans submitted by the districts and deputates are downloaded into a database that allows for tracking of progress. Monthly reports are produced for more significant action items to permit review of progress made and monitoring of due dates for specific tasks. Distribution of these reports is limited to the circle of staff immediately involved in the activities.

In 2013, Reed prepared a report that summarized the interim business plans for the five deputates and 11 districts (see “2013 Interim Business Plan Report,” above). The report captured action items completed, current activities and barriers to continued success in meeting plan objectives.

Each year, presentations are made by the district and deputate executives owning each business plan to the Central Office executive group. In addition to making these presentations, the executive group encourages district engineers to share with others in the organization the innovative ideas they have developed or brought in from outside sources to meet strategic plan goals.

Implementation Successes

Reed noted that PennDOT has experienced many improvements in its strategic planning process over the last 10 years. After a period under a previous administration during which PennDOT did not develop a departmental strategic plan, over last four to five years there has been significant movement forward in measuring the agency’s success in meeting its strategic goals.

Keys to Success

PennDOT has benefited from its transition from a too-general plan, which made it difficult for districts and deputates to design measures that align with plan objectives, to a plan that is much more specific. Reed recommended associating just three to five measures with each of the goals identified in a strategic plan. Limiting the measures can enhance an agency’s effectiveness in validating its activities in support of the plan.

Washington

Contacts:
- Daniela Bremmer, Director, Strategic Assessment Office, Washington State Department of Transportation, 360-705-7953, BremmeD@wsdot.wa.gov.
- Todd Lamphere, Strategic Assessment Office, Washington State Department of Transportation, 360-705-7936, LampheT@wsdot.wa.gov.

Below is a summary of a telephone interview with Daniela Bremmer and Todd Lamphere of Washington State DOT’s Strategic Assessment Office, the office charged with facilitating implementation of WSDOT’s strategic plan. We supplemented the results of this interview with a review of documents provided by the interviewees and other documents available on the WSDOT web site.
Background
The current WSDOT strategic plan for 2014-2017 is called “Results WSDOT” and aligns with the governor’s “Results Washington” strategic framework. The plan includes six goals (strategic investments, modal integration, environmental stewardship, organizational strength, community engagement and smart technology), 23 strategies to implement the plan, and 124 tasks that make up the work plan to be completed over the four years of the plan. At least two assistant secretaries are assigned to every goal in the plan and are responsible for implementation of their assigned goals.

The current two-page plan is contrasted with the 50-page plan that came out of the previous, bottom-up development process that involved many stakeholders. The plan that came of the previous process generated 14 focus areas, which Bremmer and Lamphere indicated are too many to address. The agency’s current two-page plan elevates certain key issues as the highest priority within the agency rather than seeking to identify every important issue in the agency.

Related Resources:

Results WSDOT is the agency’s strategic plan for 2014-2017. This two-page document outlines the six strategic plan goals and related outcomes and strategies.

**Results WSDOT web site**, Washington State DOT.
[http://www.wsdot.wa.gov/Secretary/ResultsWSDOT.htm](http://www.wsdot.wa.gov/Secretary/ResultsWSDOT.htm)
This web site offers commentary on the strategic plan, links to relevant documents, and highlights how this plan differs from previous plans.

Communicating the Plan
The WSDOT Headquarters Communications Office assists with disseminating information about the strategic plan to all regions and external stakeholders.

**Internal Stakeholders**
When implementing the most recent plan, the agency’s communications plan served as a user guide to describe how the plan should be used and communicated. Talking points emphasized how each employee is impacted by the plan and how employees can support common goals. Executives within the agency were expected to meet with staff to introduce the plan.

As work on supporting the plan unfolded, communicating the significance and impact of the strategic plan became integrated into daily operations. The agency capitalized on opportunities to talk about strategic goals using small, subtle reminders in the course of conducting daily business. General communications to employees originating in the WSDOT Communications Office identified how an activity or policy related to the strategic plan (for example, how training programs could be tied back to the strategic plan).
External Stakeholders

WSDOT developed a plan to communicate the plan to the governor and external stakeholders using emails, phone calls and personal visits. This plan was monitored with the use of an Excel spreadsheet categorized by stakeholder group. Structuring and monitoring an outreach plan proved to be helpful and allowed the agency to think proactively and spend more time connecting with a broader audience. The agency made at least 100 contacts, with the vast majority of these contacts (80 to 90 percent) being emails. Personal visits were typically conducted by regional administrators.

Related Resources:

“Setting WSDOT’s Direction,” Lynn Peterson, Secretary of Transportation, Washington State DOT. 
This presentation is an example of the stakeholder outreach conducted by WSDOT to inform and encourage input.

Reflecting Plan Goals in Daily Operations

A few unit-level plans that align with the agency’s strategic plan have been produced on a voluntary basis. The Strategic Assessment Office reviews these plans for alignment with the agency’s and governor’s plans, noting that individual unit plans should not usurp the strategic plan and process established by the agency or at the statewide level.

The unit plans have taken the form of two- to four-page folios that address the activities to meet a particular goal and offer a detailed description of success. Information from these individual goal efforts may also be included in the agency’s annual report on strategic plan progress.

Measuring Results

The primary tool for monitoring outcomes of the strategic plan is WSDOT’s Gray Notebook, a quarterly report of performance that began publication in 2001. Monthly or less frequent meetings are conducted by the teams charged with completing the action items to meet plan goals. The assistant secretary responsible for the relevant goal attends these regular meetings. Monitoring is done at the task level, noting progress, accomplishments and barriers.

Bremmer and Lamphere noted that WSDOT’s plan is practice-oriented and focused on what the agency should be doing, which makes results easier to track. The process for generating the current plan required developers to focus on the highest-priority issues and include only those issues in the plan. With fewer focus areas to track, the strategic plan allows WSDOT to track the highest-priority items in a more intentional manner.

The plan oversight that had been conducted by the Strategic Assessment Office is now the responsibility of each assistant secretary charged with monitoring progress on meeting assigned goals. This change in responsibility has enhanced staff compliance in completing tasks associated with the plan. The Strategic Assessment Office facilitates the process, identifying potential issues and bringing people together to address an issue, but higher-level staff—the agency executives—own the process.
Related Resources:

Navigating the Gray Notebook, Washington State DOT.  
http://www.wsdot.wa.gov/Accountability/GrayNotebook/navigateGNB.htm  
This web page provides access to the Gray Notebook, WSDOT’s quarterly performance report. Results associated with implementing the strategic plan are reported in this publication.

Reporting on Progress

WSDOT reports on strategic plan progress using an annual progress report executive summary (see below). This two-page progress report provides an update on the progress as of the report’s publication date, and indicates how many of the 124 plan tasks have been completed or are underway. The report also includes notable results. The next status report for the strategic plan will be distributed in January 2016.

The Gray Notebook is another mechanism used to communicate progress on implementing plan goals. In addition to the more formalized dissemination of progress through the Gray Notebook, email messages are distributed to staff describing progress on goals.

WSDOT manages its strategic plan at the task level, but reports progress at the strategy level. Lamphere and Bremmer noted that this practice illustrates the two sides of the plan—external versus internal. Activities happening at the operational, task level are addressed and documented internally; public-facing documents present progress made at higher levels of the plan. The opportunity to conduct and internally report on more extensive reviews at the task level allows the agency some flexibility to alter direction and address unexpected circumstances.

Related Resources:

Executive Summary: Results WSDOT Initial Progress Report, Washington State DOT, January 2015.  
This initial progress report provides highlights of the plan and a summary of progress to date on the plan’s six goals, 23 strategies and 124 tasks identified to implement the plan. Also included are notable results to date.

Implementation Successes

The strategic plan is a priority for leaders in WSDOT, not just the department’s secretary. The current WSDOT plan elevates the process of managing and implementing the strategic plan to a higher level within the agency, with six or seven staff members who report directly to the secretary conducting the agency’s day-to-day engagement with the plan.

Implementation Challenges

Bremmer and Lamphere discussed several challenges that agencies implementing a strategic plan may encounter. They made the following suggestions for addressing these issues:

• Recognize that a strategic plan is a living document. While WSDOT’s current plan is slated to unfold over four years, the plan could be updated before 2017 if changes in
circumstances require it. The strategic planning process must be dynamic enough to respond to changes in funding and other unknowns.

- Consider the difference between aspirational ("stretch") goals and realistic goals and find the balance between them.
- Consider goals, and their related tasks, that can be accomplished in one to two years and ensure that some focus is on things that can be delivered in the short term.
- Manage big thinkers. Remember that a big idea has to be translated to day-to-day operations.
- Have a discussion of who is going to do what, and by when. Make sure to get commitments from participants in the plan, and acknowledge the risk of failure and the consequences should failure occur.

**Keys to Success**

Bremmer and Lamphere offered a few additional suggestions for successful strategic plan implementation:

- Ensure that some of the goals in the plan can be addressed in the first year of the plan so the agency has some "early wins." Consider an implementation plan that covers one-, two-, three- and four-year cycles.
- Manage expectations. A change in WSDOT's plan development practices replaced a 50-page plan with one that is two pages. Bremmer and Lamphere noted that it took several months to get everyone on board to understand that the brief document really was the strategic plan. Some thought it was too brief.
- Provide staff to assist with facilitation. While responsibility for delivering results on the goals rests with agency executives, the Strategic Assessment Office plays an important role by facilitating the activities of the groups working on specific goals.
- Use templates to aid plan participants in reporting on progress. WSDOT is adjusting its template to facilitate quicker intake and dissemination of goal results by requiring more detail, more narrative and more specifics.
Related Research


From the publisher’s web site:

*Creating Your Strategic Plan* covers each of the ten key steps of the strategic planning process and each step description includes sections on purpose and possible desired planning outcomes. The authors provide clear instructions for creating a strategic plan tailored to the needs of the individual organization.

The workbook features practical advice to help readers:

- Refine mission and values
- Assess the internal and external environment
- Identify and frame strategic issues
- Formulate strategies to manage the issues
- Create, review, and adopt the strategic plan
- Assess the process

From setting up the meeting room, to establishing a vision of—and plan for—the future, this indispensable workbook will take readers through every step of the strategic planning process.

“Strategic Planning As an Effective Tool of Strategic Management in Public Sector Organizations: Evidence From Public Transit Organizations,” Isaiah O. Ugboro, Kofi Obeng and Ora Spann, Administration & Society, Vol. 43, No. 1, pages 87-123, January 2011. Citation at [http://aas.sagepub.com/content/43/1/87.short?rss=1&ssource=mfr](http://aas.sagepub.com/content/43/1/87.short?rss=1&ssource=mfr)

From the abstract:

This study determines the effectiveness of strategic planning as an effective tool of strategic management in public transit agencies. It finds that an effective strategic planning requires top managers’ active roles in defining the strategic direction of the organization and creating an environment that recognizes strategic planning as a tool of strategic management. Also, it requires good working relationships between the strategic planning staff, unit or division managers, and the top management team; the location of the strategic planning staff close to top management; integration of unit or division plans into an organization-wide strategic plan; and a planning process that is not too rigid or mechanical. Finally, the article finds that the strategic planning process of an organization must be responsive to environmental changes and challenges.

From the abstract:

While it has become ubiquitous in the public sector over the past 25 years, strategic planning will need to play a more critical role in 2020 than it does at present if public managers are to anticipate and manage change adroitly and effectively address new issues that are likely to emerge with increasing rapidity. This article argues that making strategy more meaningful in the future will require transitioning from strategic planning to the broader process of strategic management, which involves managing an agency’s overall strategic agenda on an ongoing rather than an episodic basis, as well as ensuring that strategies are implemented effectively. Complementing this move to more holistic strategic management, we need to shift the emphasis of the performance movement from a principal concern with measurement to the more encompassing process of performance management over the coming decade in order to focus more proactively on achieving strategic goals and objectives. Finally, agencies will need to link their strategic management and ongoing performance management processes more closely in a reciprocating relationship in which strategizing is aimed largely at defining and strengthening overall performance while performance monitoring helps to inform strategy along the way.


From the abstract:

Strategic planning is now a ubiquitous practice in U.S. governments and nonprofit organizations. The practice has become widespread for many reasons, but the chief one is the evidence that strategic planning typically “works,” and often works extremely well. Improvements in strategic planning practice are likely to come as it is seen and researched in its full richness as a practice, or set of practices. Several predictions are offered about the future of strategic planning practice and research.


From the abstract:

Strategic management is now prominent on the agenda of public administration scholars and practitioners. In this review, the authors outline why approaches based on strategy are suited to public agencies, noting the ways in which strategy varies across public organizations, seeks to match internal capacities to organizational environments, and shapes the impact of external and internal constraints on performance. Empirical evidence on the impact of strategy on performance is placed under the microscope, and while there are many positive relationships, the evidence base is limited in terms of its scope, data, methods, measures, and coverage. The authors trace out what needs to be done to move the field forward, noting in particular that theoretical enrichment, empirical variety, and

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explanations of causal complexity are likely to come from a synthesis of models of strategy and publicness.


From the abstract:

Although there is considerable literature on strategic planning and management in the public sector, there has been little effort to synthesize what has been learned concerning the extent to which these tools are used in government, how they are implemented, and the results they generate. In this article, the authors review the research on strategic planning and management in the public sector to understand what has been learned to date and what gaps in knowledge remain. In examining the 34 research articles in this area published in the major public administration journals over the past 20 years, the authors find substantial empirical testing of the impacts of environmental and institutional/organizational determinants on strategic management, but efforts to assess linkages between strategic planning processes and organizational outcomes or performance improvements are sparse. Large-N quantitative analyses and comparative case studies could improve the knowledge base in this critical area.


From the abstract:

This study examines the differences in department-level and organization-wide strategic planning efforts. Although much has been written about organization-wide planning, little empirical data exist on similar efforts at the departmental level. Although some research suggests that unit-level planning may allow departments to establish more appropriate priorities or create effective solutions that then percolate up to higher levels of the organization, other studies have argued that the lack of centralized, organization-wide coordination may actually result in suboptimal planning outcomes. This study addresses this paradox by using data collected from a national mail survey and personal interviews of senior managers. It suggests that although some aspects of strategic planning are perceived similarly at both levels, differences exist in relation to perceived levels of (a) conflict and cooperation, (b) innovation and empowerment, (c) support for the planning effort, and (d) change created through strategic planning.
Contacts

CTC contacted the individuals below to gather information for this Preliminary Investigation.

**State Agencies**

**Georgia DOT**
Angela T. Alexander  
Director, Office of Organizational Performance Management  
404-631-1743, aalexander@dot.ga.gov

**Louisiana DOTD**
Denny J. Silvio  
Director, Quality & Continuous Improvement Program  
225-379-1964, Denny.Silvio@la.gov

**Michigan DOT**
Sharon Edgar  
Administrator, Office of Passenger Transportation  
517-373-0471, EdgarS@michigan.gov

Roger Safford  
Grand Region Engineer  
616-451-4488, saffordr@michigan.gov

**Pennsylvania DOT**
Paul E. Reed, Jr.  
Management Analyst 2, Bureau of Innovation  
717-783-0779, pareed@pa.gov

**Washington State DOT**
Daniela Bremmer  
Director, Strategic Assessment Office  
360-705-7953, BremmeD@wsdot.wa.gov

Todd Lamphere  
Strategic Assessment Office  
360-705-7936, LampheT@wsdot.wa.gov
Leadership: Align the organization to carry out the MDOT mission, achieve the vision and demonstrate the values.

Goal Level

- MDOT launched its Good Government in Action initiative in early 2013 and carried it into 2014. MDOT identified the Department’s ‘Wildly Important Goal’ (WIG) as Improving Customer Satisfaction. Each work area identified a specific opportunity for improving customer satisfaction and through the use of for 2014 with sub-WIGs, lead and lag measures, players’ score-boarding and a cadence of accountability made specific improvements, including:
  - Many MDOT Regions established the goal of reducing “user delay cost (UDC),” in particular the cost to the motoring public associated with travel time delays resulting from winter storm events and work zones. The Southwest Region set a goal to achieve weekly user delay cost expectations 70 percent of the year and exceeded this goal with an 86 percent success rate. They achieved this success by focusing efforts on three lead measures involving 1) quickly clearing traffic incidents, 2) optimizing work zone maintenance of traffic schemes, and 3) regaining traffic speeds during morning rush hours during snow events.
  - North Region implemented a WIG to reduce fatalities on the trunkline roadways and to perform a field review of fatal crashes within one month of the crash occurrence. This process has improved communications with traffic safety partners and allows staff to quickly identify potential safety improvements along the roadway.
  - University Region partnered with various law enforcement agencies, emergency service agencies and towing companies to create a common understanding of the needs of each organization. This has allowed the reduction in time to clear incidents on trunklines throughout the region.
  - The Bureau of Transportation Planning set and met its one of several of its WIG -- processing and submitting State Transportation Improvement Plan (STIP) amendments to FHWA and FTA for approval within 10 days of section’s receipt of the amendment requests. Another Bureau of Transportation Planning 2014 WIG was to enhance the general public understanding of transportation funding issues. BTP worked with the Office of Communications and Mapping and Media Services to develop four new infographics for MDOT’s Facebook page and Twitter account, and developed Reality Check videos. Topics included: declining pavement condition and increased costs to maintain the system over time, declining highway capital program investment, decreased spending power, and Michigan’s road investment compared to neighboring states.
  - The Office of Aeronautics engaged in the development of a Safety Management System (SMS) for the operation of the State air fleet as its WIG. The SMS is being developed in accordance with the International Standard for Business Aircraft Operations (IS-BAO).
**Leadership:** Align the organization to carry out the MDOT mission, achieve the vision and demonstrate the values.

- Southwest Region set a WIG to limit the user delay cost for travelers on I-94, I-196, I-69, and US-131 by reducing and eliminating delays caused by incidents, work zones, and winter weather. The goal is to achieve 36 winning weeks in 2014. As of the week ending 11/9/14, the region achieved the year-long goal of 36 winning weeks. On a daily basis, employees focused efforts on three lead measures involving 1) quickly clearing traffic incidents, 2) optimizing work zone maintenance of traffic schemes, and 3) regaining traffic speeds during morning rush hours during snow events. The results of these efforts were recorded on scoreboards. Managers met on a weekly basis to report and explain the results to each other and their leader, as well as describe their past and future weekly commitments to further improve the results.

- The Bureau of Finance and Administration’s WIG was to reduce the average age of completed construction projects awaiting financial closure from 1.8 years to 1.0 year by December 31, 2014. From January 2014 through October 2014 financial closed 3,488 projects to reduce the average age of the backlog to 1.4 years.

- Grand Region established a WIG of improving municipal and utility permit customer satisfaction from the measured baseline of 73% to 80%. Lead measures focused on customer-centric workshops and bi-weekly follow-up from staff on active permits.

**Strategy Level**

1. Establish clear, measurable and aligned performance goals and desired outcomes across the organization.

- The Office of Aeronautics has created a tracking system for several organizational priorities which it terms “Truly Important Goals.” The system identifies short and long term goals, team members and team leaders and creates a system of accountability back through the office management team to help ensure these projects are completed and goals are met.

- Bay Region challenged every area to derive a Truly Important Goal (TIG) for their area. As a result the Bay Region created a spreadsheet to document the weekly progress and accomplishments. The areas of concentration include 24 different TIGs that affect the customer goal. The greatest success is the accountability. Each area reported goal progress weekly to the Region Leadership Team (RLT) member. That RLT member attended accountability sessions every month with the region engineer to discuss WIG progress, employee engagement, communication, and overall region progress.

- North Region set consistent performance goals for all its administrators to focus on four main goal areas for 2014/2015: WIG development and administration, employee engagement, workforce development, and innovation.

- Southwest Region business teams established Truly Important Goals (TIG) targeting specific objectives that align with department strategies. For example, the Region Construction Team has reduced the number of overdue finals on construction projects, and the Region Traffic Operations Team has seen a five percent reduction in severe and fatal crashes.

- The Superior Region has developed Sub–Wildly Important Goals (WIGs) and Truly Important Goals (TIGs) Goals to help improve the statewide WIG of improving customer satisfaction.

- The Roadside Design Section established a process to evaluate system needs using condition, life-cycle cost, safety, mobility, comfort and convenience, and risk factors.
**Leadership:** Align the organization to carry out the MDOT mission, achieve the vision and demonstrate the values.

- The Roadside Design Section developed tools to evaluate system performance and select strategies to address current/future needs.

- As a result of innovative “Success Management Workshops” attended by top level MDOT officials, clear goals were set for the I-94 “Mega Project.” Those performance goals are being used throughout MDOT to provide guidance and direction in the development of one of the largest projects ever undertaken by MDOT.

- Real Estate Services Section incorporated performance goals and employee performance management plans that align with the MDOT mission.

2. **Regularly evaluate organizational performance and adjust direction as necessary.**

- The Bureau of Transportation Planning conducted training for the Regional Planning Agencies to improve their facilitation of Rural Task Force meetings and assistance to MDOT with management of local rural program.

- To facilitate and ensure organizational direction and alignment is carried forth and adjusted as necessary, the North Region representatives on various statewide alignment teams (SDAT, SACT, T&S alignment team) report periodically at Region Leadership Team meetings as well as the Region QA & Alignment Team meetings. The representatives provide technical updates, report on current issues, direction, guidance given, and resolution of previous concerns.

- The Southwest Real Estate unit nominated a staff member for a Director’s Award, and the unit regularly recognizes staff for their extra efforts.

- MDOT Regions continue to maintain regional scorecards that are updated annually and correlate to Michigan’s Dashboard developed by the Governor’s office.

- As a result of the MDOT/ACEC partnering conference, MDOT is now utilizing a 2 year as-needed contract to deliver consultant facilitated RSAs. Clear timelines on draft/final reports was included in the contract and will be for future contract documents.

- Real Estate Services Section has regular meetings with staff to ensure goals are on track and utilizes the 4DX process to focus on the most important goals of the organization.

- The Grand Rapids Transportation Service Center (TSC) is participating on road/bridge statewide coordination team in Lansing. This effort will assist with the TSC’s “Truly Important Goal.” The 2014 Wildly Important Goal for MDOT’s Bridge Design Section is to improve customer satisfaction. Between the Transportation Service Center, Region and Lansing Central Office, the goal is to improve project design and construction. The TSC presented the TIG to the Bridge Design Section in an effort to understand and assist one another with their respective goals. Through this communication there were common themes that will require both groups to understand before both can achieve their goals. As a part of these meetings, the coordination expanded from just bridge construction to include road and bridge. From this progression, a road/bridge statewide coordination team was developed.
**Customer-centered:** Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

### Goal Level

- The Bridge Design Section has developed internal customer surveys that are routinely filled out at key design milestones and Bridge Design responds accordingly, with the idea that good internal customer service will lead to good external customer service. Since Bridge Design is typically in support of projects that are conducted by the Regions and Transportation Service Centers, they are considered direct customers.

- The Office Passenger Transportation initiated a program of safety inspection training for bus companies regulated under Act 432 of 1982 to increase the number of buses that pass their MDOT safety inspection at the first visit, in hopes of reducing the cost to the carrier and MDOT of re-inspection.

- The Bureau of Finance and Administration developed a restart agreement with Federal Highways Administration for projects withdrawn.

### Strategy Level

#### 1. Align our programs and services to be responsive to customer feedback.

- The Office of Aeronautics meets annually with local airport officials and their consultants to discuss capital development priorities at their airports. This enables aeronautics staff to evaluate and allocate funding in accordance with State, federal and local priorities.

- The Office of Aeronautics has completed an update to its online services that will allow aircraft owners to complete annual aircraft registrations completely online. This service enables customers to more easily and quickly complete their registrations at their convenience.

- The Office of Aeronautics has launched a new mobile app, available for Iphone, Ipad and Android devices to view the Michigan Airport Directory. The Directory contains information critical to pilots concerning each public use airport in Michigan. The app not only allows pilots to access this information on their mobile device but helps ensure the information is the most current information available.

- In the Bay Region, traffic control and maintenance of traffic are reviewed on all projects a minimum of once every two weeks, by an independent traffic engineer. These findings are recorded and relayed to the construction engineer, and documented in Project wise. The construction engineer and staff must respond back within two days. As a result of this “hands on action,” the quality of traffic control and customers’ mobility and safety has increased.

- The Mt. Pleasant Transportation Service Center coordinated the work on M-20 (Pickard Rd) in the city of Mt. Pleasant to be primarily completed at night time, when the traffic volumes are the lowest. There were no major accidents and the residents were pleased with the work.
Customer-centered: Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

- The Bay Region set a goal of increasing meetings with local agencies. In April, the Davison Transportation Service Center met with 13 local agencies with open agendas—whenever they wanted to discuss. Prior to the meetings, each local agency was sent a letter from the Bay Region which included reference to the region’s desire to improve customer service and communication. The region invited the local agencies to determine what items they would like to discuss—and with advance notice it was possible to have appropriate representation attend the one-on-one (Transportation Service Center-locals) meetings. The meetings were very well received. Many of the meetings included further follow up and action items, which have all been completed.

- Bay Region set a goal to conduct work zone, safety and mobility reviews bi-weekly on 3 projects 80% of the time. Davison Transportation Service Center has achieved the beyond the minimum of 3 bi-weekly reviews, including construction’s responding to comments/concerns, throughout the 2014 construction season. Likewise, whenever there have been and public concerns, made known to the Davison Transportation Service Center, there has always been customer follow up and resolution to address, as appropriate.

- The Davison Transportation Service Center had 5 project based meetings in 2014. They have included M-24 in Lapeer, I-69 in Flint/Burton, M-53 in Marlette, M-15 in Davison and I-475 in Flint/Mt. Morris. Another is being scheduled in Genesee County for I-75 at Bristol Road.

- MDOT hosted Regional Pedestrian and Bicycle Committees in five of the seven MDOT regions in 2013 and expanded this effort to all 7 Regions in 2014. The Committees are an open forum where bicycle and pedestrian safety and mobility topics could be proactively discussed between MDOT staff, other transportation professionals and the users of the transportation network.

- In 2014, MDOT began offering its Road & Trail Bicycling Guides online thru the Michigan.gov e-store providing better service and quicker turn around to its customers.

- MDOT partnered with SEMCOG to hold extensive public input meetings across southeast Michigan to gain better insight into the needs and priorities for bicycle and pedestrian travel in the region as part of the Metro Region Non-motorized Transportation Plan development.

- The Bureau of Transportation Planning completed the 2014 Attitudes and Perception Survey, which explores the opinions of adult residents of the State of Michigan toward the Michigan Department of Transportation (MDOT) and the state of transportation in the state. In general, the Michigan public remains fairly satisfied with the Michigan Department of Transportation (MDOT) and that satisfaction continues to be remarkably stable since the first time this question was asked in 2006. As has steadily been the case since 2006, public satisfaction is the lowest regarding maintenance of pavement on state highways and the highest on the safety of state highways. The 2014 survey also ask questions regarding driving behaviors. When it comes to driving behaviors, residents are very concerned about drinking and driving and texting while driving.

- The Traverse City Transportation Service Center initiated public involvement and outreach to tourist-oriented businesses and major employers almost two years in advance of a large-scale reconstruction project planned for 2015 along the Grand Traverse Bayfront. Staging plans include suspension of work during the month of July due to the Cherry Festival and Film Festival.
Customer-centered: Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

- Customer feedback was central to the development and testing of the MDOT Grant System (MGS) which is the system that serves as the application, review, and data storage center for all projects for the Transportation Alternatives, Safe Routes to School, and the Economic Development Fund Category A and F Programs. The Congestion Mitigation and Air Quality Program is currently working on automating their application and eligibility review in MGS as well. Since these programs have the same applicants and often the same reviewers, streamlining the user interface for the benefit of MDOT customers was an important goal. Local agencies and private consulting firms played an important role in the IT system development and testing phases to help shape the system. In addition, the program processes aligned and streamlined wherever possible to provide a better customer experience in applying for and receiving these funds.

- Southwest Region received input from a variety of businesses regarding the seasonal nature of route M-227 in Marshall, since many businesses were negatively affected by weight limitations during the seasonal restriction period. Roads and Risks Reserve (RRR) funds were received that allowed the design and construction of a project that changed an important segment of M-227 to all season status. The improved segment connected the local industrial park to I-69, a national corridor of significance with a much needed all season route. The Marshall Transportation Service Center analyzed the existing route to determine what fix was needed to meet the requirements and save the tax payers money at the same time. This construction incorporated three types of fixes (two course overlay, three course overlay, and reconstruction section) in order to meet the all season standards, as well as maximizing work zone mobility.

- To address the need for consistent vegetation management guidelines for permit holders, the MDOT Roadside Committee developed a state-wide “Special Conditions for Cutting, Trimming, and/or Removal of Vegetation” form (form 2240). This document was based on Special Conditions developed and used by the region’s Resource and Permits staff. The committee also developed an Invasive Species Guide. This current draft document provides information on MDOT management goals and strategies with input from Region and Lansing Resource staff.

- For temporary consents, the Southwest Region Real Estate unit began giving property owners a choice of receiving documents by mail, e-mail, or personal visit to accommodate the owner’s schedules, saving both money and time.

- The Michigan Welcome Center in New Buffalo offers a monthly drawing with Michigan-related prizes, such as Pure Michigan teddy bears from the Chelsea Teddy Bear Company as an incentive for completing the MDOT transportation survey.

- The Michigan Welcome Center in New Buffalo installed automatic door activation systems on the main doors to ensure its Welcome Center is barrier free.

- The Superior Region continues to partner with statewide planning and U.P. tribes to better understand the ecological needs of tribes along MDOT ROW in Baraga County.

- Superior Region worked with statewide planning and regional non-motorized stakeholders to host Regional non-motorized advisory committees throughout the U.P. These meetings provided forums where bicycle and pedestrian safety and mobility topics could discuss between MDOT staff, other transportation professionals and the users of the transportation network.

- A Road Watcher’s Program has begun in the Superior Region to gain input from customers traveling on selected routes during the winter.
**Customer-centered:** Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

- The Superior Region worked with U.P. ORV user groups, local governments, MDNR, and USFS to implement new legislation that allows ORV’s to travel within approved MDOT ROW. The Region also develop a new MDOT permitting process for permitting ORV’s in approved sections of MDOT ROW. A user-friendly website was created as part of this project to help prospective applicants navigate through the new process. The statewide ORV Team also conducted two statewide training sessions to help MDOT permit agents understand the new permitting process.

- Superior Region conducted Annual Rural Elected Officials and Transportation Summit meetings to collect customer input related to the Superior Region’s 5-Year Program and STIP.

- University Region solicits feedback from customers in several ways: through annual Mobility Summits, regular project meetings and through Transportation Service Center contacts. Through these feedback sessions the region has responded by adding context sensitive solutions studies on three corridors and deleting two projects for roundabouts that were not supported by the local agency or the public.

- Design Services Division is overseeing the update of the Continuously Operating Reference Stations (CORS) receivers with new antenna elements and receivers to enable access to the full satellite constellation for survey, construction, agricultural and transportation users of corrected Global Positioning System (GPS) data. The increased availability of satellites yields better spatial accuracy with shorter observation times. This has been a Design Division WIG to take ownership of county partner stations through agreements and upgrade fifty stations.

- A Request for Proposal (RFP) was advertised for the replacement of the Program/Project Management System (P/PMS) which was developed in the early 1990s. The Bureau of Highway Development plans to have a vendor in place by spring 2015 to begin the efforts of replacing P/PMS.

- The Design Services Section created a wiki manual for 3D model guidelines and standards. This format will provide for dynamic updates and maturation as the process for development of 3D models is refined through practice. The portal allows for user established e-mail update subscriptions and tracks changes in a transparent manner. This process allows user input as they are using the manual making the guidance documents up to current work practices.

- In response to customer feedback, MDOT is reviewing many components of the I-94 “Mega Project” in Detroit to insure that it meets MDOT customers’ most important needs while providing the necessary capacity to promote economic growth with minimum impacts.

- The Bureau of Highway Development Roadside Development staff participated in the Keweenaw Bay Indian Community-MDNR-MDOT Ecology and Cultural Collaborative to better understand the ecological needs of tribes along MDOT ROW and to consider opportunities to introduce cultural and ecological interpretive displays at rest areas and welcome centers.

- The Bureau of Highway Development Roadside Development staff collaborated with the Environmental Services Section to develop specifications and review best practices for green infrastructure, TMDLs, and related project design.
Customer-centered: Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

- The Real Estate Services Section Program and Property Management Unit has incorporated social media into the Excess Property auction process and the benefit is it increased the potential bidder audience to force competition amongst buyers.

- Development Services Division is utilizing electronic document management and E-processes for Local Agency Programs with ProjectWise workflows for 3rd party agreements, Force Account projects and a pilot for local preliminary plan reviews.

- Development Services Division updated the Local Agency 3rd Party Agreement Template, combining three templates into one to reduce review and approval time for local agencies to authorize consultant contracts.

- The Highway Permits Unit reworked the Internet Highway Advertising Program to conform to major legislative changes regarding digital billboard registration and notification of nonpayment status.

- The Transportation Permits Unit planned and effectively executed the transition of the Michigan Business One Stop call center from the state to MDOT for MDOT Permit customers.

- The Accounting Service Center worked with DEQ to analyze, prioritize and implement 5 new electronic receipting options allowing customers to pay more fees electronically.

- The Bureau of Finance and Administration implemented a risk based approach to audits in which specific consultants are identified as low risk, based on a variety of factors. These low risk consultants no longer need audits performed of their contracts, and contracts/job numbers can be closed in a timely manner.

- The Grand Region held multiple meetings with municipal, transportation and economic development agencies during the US-131/I-96 Planning and Environmental Linkages (PEL) study process. The objective was to understand how these freeways support economic development, identify operational issues and evaluate improvement needs for these corridors, and the connecting local system. Two public meetings were held as well. The PEL study process is continuing in 2015.

- Grand Region held public involvement construction update meetings for important 2014 construction projects including US-31BR Resurfacing in Muskegon, M-82 Resurfacing in Fremont and the M-11 Roundabout in Walker. These meetings were well publicized in the West Michigan area and the public in attendance participated in information sharing with Grand Region and Muskegon Transportation Service Center staff.

- Grand Region utilized the Context Sensitive Solutions Policy to gain stakeholder participation in key upcoming MDOT projects including the US-31 Reconstruction and Rehabilitation Project scheduled for 2016 in the City of Holland.

2. Be accountable and transparent to our customers through tracking and reporting on MDOT’s key performance metrics.

- The 2013-2014 winter season was extreme. Despite that reality, the Bay Region consistently met its winter goal of maintaining traffic speeds within 10 mph of normal speeds, 80% of the time when a storm event impacts the AM peak.
**Customer-centered:** Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

- MDOT monitored and maintained a short-term and long-term traffic monitoring program. Staff supported 141 permanent continuous automatic traffic recorder (ATR) locations. FHWA requires that states maintain a traffic monitoring program as a requirement for federal aid by FHWA.

- The Bureau of Transportation Planning conducted more than 3,200 traffic counts for the year, of which more than 1,000 were on local jurisdiction roads.

- MDOT maintained monitoring equipment to report traffic and visitors at MDOT’s 14 Welcome Centers.

- MDOT conducted more than 1,500 special studies, such as intersection turning movements, bike lane usage, park and ride use and condition, airport takeoffs/landings, and speed, gap, delay, and pedestrian studies.

- The Bureau of Transportation Planning, Statewide Planning Section staff represents MDOT by actively participating in the Michigan Transportation Planning Association (MPO Directors) and Michigan Association of Regions’ meetings and serves as the department’s voice when providing information regarding statewide and metropolitan transportation planning processes, funding, programs, projects, public involvement, and consultation. Section staff has been able report and provide updates on the MPO’s and Regional Planning Agencies’ concerns, issues, accomplishments, innovations, collaborations and challenges.

- During the winter of 2013, the North Region tracked winter maintenance performance through the use of its Road Watchers program. This program allowed the Region to receive feedback from drivers on road conditions after storms via online surveys. This feedback was utilized to improve and optimize winter snow removal operations.

- Customer inquiries, field investigations and on-going issues are tracked at the Traverse City Transportation Service Center on an integrated spreadsheet covering traffic, permits and maintenance tasks. The Operations Task List is reviewed routinely in staff meetings, where activities are prioritized, progress reported and deadlines assigned.

- Development Services Division established specific timelines for deliverables in Local Agency Programs, billboard permitting, transport permits, and real estate activity areas.

- The Permits Coordination Unit reduced the turn-around time for transport permits. The goal was to return permits within 4 hours; the Unit is currently averaging less than 2 hours on most permits. This has significantly reduced the number of calls from customers requesting the status of their permit.

**System Focus:** Provide cost-effective, integrated and sustainable transportation solutions.

**Goal Level**

- The Departments of Transportation for Michigan, Indiana and Illinois (the Program Sponsors), in association with the Federal Railroad Administration (FRA) have initiated the Chicago-Detroit/Pontiac Passenger Rail Corridor Program (Program) to evaluate intercity passenger rail for a corridor between Chicago and Detroit/Pontiac, Michigan (the Corridor). The Federal Railroad Administration (FRA), in coordination with the three state DOTs, has prepared a Tier 1 Environmental Impact Statement (EIS) to evaluate passenger rail improvements for the Chicago-Detroit/Pontiac corridor. DEIS Notice of Availability published in the Federal Register September 19, 2014.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- MDOT’s Rest Area Operations Team (RAOT) launched in early 2013 as a Region/Bureau collaborative in order to align development and operational improvements for rest areas and welcome centers. The team is responsible for developing MDOT’s comprehensive rest area asset management plan and to collaborate with the MDOT Road and Bridge Call for Projects (CFP) process and the Facilities CFP process to meet system preservation goals. The RAOT established a comprehensive approach to the preservation, improvement and operation of its rest area system. The proposed asset management strategies will unite the rest area system with stated system focus goals to maintain and preserve the existing transportation system in support of economic vitality.

Strategy Level

1. Apply asset management principles to prioritize and implement the most cost-effective transportation investment strategies.

- In order to prioritize state funding at airports, the Office of Aeronautics has developed and follows the Michigan Airports System Plan (MASP). The MASP is a system planning document, unique in the nation that examines aeronautical system needs on both a system wide and individual facility basis.

- To maintain consistency in Bay Region’s Asset Management Strategy, the Pavement Management Engineer utilizes ArcGIS Maps to display pavement and structure information to make better informed decisions. These maps are utilized at Call for Project Meetings, van ride a rounds and strategy meetings.

- The Transportation Asset Management Council:
  o Continued to focus on training and educating local agency staff and elected and appointed officials on the benefits of asset management.
  o Maintained features to the public interactive map that includes historical and most current Pavement Surface Evaluation and Rating (PASER) condition ratings, updated PASER data collection status information, and most current National Bridge Inventory (NBI) condition information.
  o Developed and improved upon several performance measure dashboards that show the condition, operation, and investment in Michigan’s public road and bridge system. To view these dashboards, visit the TAMC Website: www.michigan.gov/tamc.

- Per legal requirement, on May 2, 2013, MDOT staff submitted the 2012 Roads & Bridges Annual Report to the Michigan Legislature.

- On March 10, 2013, former Rep. Rick Olson published an update to the September 2011 report of the Work Group on Transportation Funding (Michigan House of Representatives Transportation Committee) titled Michigan’s Roads Crisis: What Will It Cost to Maintain Our Roads and Bridges? This report relied on the PASER condition data supplied by the TAMC and analysis completed by MDOT staff.

- The Bureau of Transportation Planning formed an internal team to review infrastructure computerized prioritization models that are currently being developed and implemented by other DOT’s in hopes of implementing such a model into the department’s current program development process. This would support and expand existing decision making business processes by providing quantifiable prioritization results and would also allow MDOT to consider multiple criteria such as safety, mobility, performance, etc. in prioritizing road and bridge capital projects. This model will be data driven requiring likely integration with several corporate asset management systems to enhance the existing project selection process.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- MDOT is beginning to investigate stratified pavement condition goals as part of the overall asset management strategies.

- MDOT has advanced the state of the practice nationally by beginning to implement Performance Based Maintenance, to focus on highway maintenance outcomes that are most important to MDOT customers and drive consistency and efficiency in delivering those outcomes. A statewide implementation team was formed that is actively installing a pilot in Southwest Region and working toward statewide implementation in 2015.

- Condition of highway assets are reviewed bi-annually by Maintenance in the Traverse City Transportation Service Center, then needed repair strategies are developed based on available funding and the implementation is prioritized.

- The Southwest Region bridge network is managed using a mix of asset management strategies, which include: a replacement program in alignment with roadway needs and regional prosperity; a rehabilitation program and preventative maintenance program that preserves the existing assets; and an internal maintenance program that provides quick response to more pressing, unplanned bridge maintenance issues. A bridge maintenance contract using an Indefinite Delivery/Indefinite Quantity (ID/IQ) delivery method was also developed to support bridge maintenance needs, and will be let in early 2015.

- The Southwest Region began a pilot project to develop a Performance-Based Maintenance rating tool. This tool will be used to measure the overall functionality or “health” of the MDOT assets, which can be used as a tool in future business making decisions.

- In the University Region asset information is collected and stored in Arc GIS. Some of the assets that the region is collecting are guardrail, culverts, wetlands, sidewalk ramps and drainage structures. The region also performs regular inspections on roads and bridges to keep the statewide pavement data up to date and region construction staff regularly updates the data for the Pavement Historical Database and Warranty Database.

- Design Services Division is working with the Michigan Utility Coordination Committee to set up a Geospatial Underground Information Data Exchange. This is a GIS initiative that will be piloted in 2014/2015 with three major utilities on permitted underground installations. By collecting accurate spatial data at time of construction, MDOT will significantly reduce risk of safety hazards, cost overruns and construction delays when future reconstruction and underground work is done. A comprehensive report will be prepared in 2014 utilizing FHWA STIC grant money. Utilizing the GUIDE data, Design Services is also defining a process for post collection use of the data for utility clash detection and utility design.

- Design Services Division obtained State Planning and Research (SPR) funding to do a Mass Data Acquisition Pilot in the Muskegon Transportation Service Center area. SSI is under contract to perform mobile LiDAR and extract assets through the use of a variable scope fixed cost contract. This project is multi-faceted and intended to demonstrate the value and economy of high quality, mass geospatial data acquisition for asset collection, design purposes and data management practices.
**System Focus:** Provide cost-effective, integrated and sustainable transportation solutions.

- The Design Services Section developed tools and resources to implement PowerGEOPAK SS3 for enhanced automated mapping, parametric roadway design and drainage design. This effort will further enable the development of 3D engineered models and electronic engineered data for delivery to construction and beyond. The section developed training on the tools and resources necessary to implement PowerGEOPAK SS3 which increases efficiencies in 3D model development. Training was provided to regions and consultants.

- The Design Services Section developed 3D model guidelines and processes for quality assurance reviews of electronic engineered data during the plan development process. Establishment of this process, centered upon roadway design, allowed for achievement of a significant milestone of requiring electronic engineered data at advertisement for all trunkline projects commencing design on or after 10/1/14.

- The Design Division released the Mi-Bridge web based application for collecting bridge inventory, inspection, load rating data, and providing a one-stop management tool for all highway bridges.

- Design Division staff rewrote the MDOT Pontis Bridge Inspection Manual to comply with the new National Bridge Elements. This manual will allow MDOT to collect element level data utilizing multiple distress paths within the defined condition states. The manual also included improvements and Michigan specific items above and beyond the National Bridge Elements. The complete set of elements captures the component necessary for MDOT to manage all aspects of the bridge inventory within the Bridge Management System.

- The Grand Region’s ITS unit has worked on implementing the ITS Asset Management database and utilizing annual field reviews of ITS equipment to determine beneficial preventative maintenance and help prioritize heavy maintenance needs to make the most efficient use of available funds.

- MDOT provided technical and financial support, including access to federal funds, to the Michigan Association of United Ways (MAUW) to help them add transit information in MAUW’s regional 2-1-1- call centers. These call centers connect people to local community-based organizations to access health and human services programs. Under a competitive program, MDOT received a federal grant that will help MAUW to transform the regional call centers into a statewide network that will enhance the ability of the 2-1-1 system to help people with regional mobility.

2. **Optimize the value of transportation investments by employing solutions that:**

   a) **Are creative and innovative**

- For the I-75 project in Saginaw County, MDOT used innovated methods of maintaining traffic during the summer peak travel periods. The north bound traffic was placed on the south bound roadway that could accommodate 3 lanes of traffic on Fridays and be switched back to accommodate 3 lanes of traffic on Sundays during the high summer time travel periods.

- MDOT undertook the development and annual updating with CSS (Center for Shared Solutions) for a number of Web mapping applications: the Adjusted Census Urban Boundary (ACUB) application, which displays information important for deciding urban adjustments and the adjustments that were made; the NTFA application, which displays traffic count locations and the annual average daily traffic (AADT) applied to local jurisdiction federal-aid roads; the NFC/NHS application that is still being produced; and the PR Finder that helps identify any route section or point in the road system.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- Bureau of Transportation Planning staff assisted the Crash Data Users Group (CDUG); helped revise the data form (UD-10) used by police officers to fill in crash information. This involvement helped initiate a study looking into the feasibility of adding a mapping application to the electronic UD-10 form that would result in more accurate crash locations.

- The Bureau of Transportation Planning assisted with managing the Michigan Statewide Authoritative Imagery and LIDAR (MiSAIL) contract for MDOT, which is used by workers across the state (LIDAR stands for “light detection and ranging”). LIDAR enables 3-D imagery and positioning.

- The Bureau of Transportation Planning created and maintained a contract for Roadsoft, asset management software for local agencies to provide traffic data to MDOT. Nine updates to the software were implemented during the last year; several of the updates were related to the export of local traffic data and integrating it with MDOT traffic data on the federal-aid highway road system. Using locally collected traffic data is more cost effective than having MDOT go out and collect the same data on local roads.

- MDOT’s Metro Region successfully delivered the I-96 Fix in Livonia and Redford, a $150 million reconstruction of 7 miles of 8 lane freeway and rehabilitation of 37 bridges. The project was the most intense and fast pasted freeway reconstruction in MDOT history, opening to traffic in just 167 days. This was made possible through a strong partnership with the contractor’s team, creative contracting provisions and application of e-construction technology, including use of automated machine grade control and stringless paving. The project also reached new heights of customer engagement through the assignment of a project ombudsman and the use of social media, resulting in high degrees of public support throughout the project, capped by an opening celebration with over 10,000 people participating to walk, run and bike the new freeway before it re-opened.

- The North Region utilizes portable blue tooth traffic counters to obtain and monitor travel time and traffic speed information for segments of roadway. This data allows the Region to better understand how the road system operates, allowing for improved design of work zones and system operation.

- An innovative idea pertaining to how accelerated bridge construction projects are let was proposed for a bridge replacement project in the Southwest Region. The idea combined an alternate technical concept (ATC) and A+B letting method with hopes of allowing the Contractor to propose accelerate bridge solutions or prefabricated bridge elements when it makes sense. Unfortunately, the concept was not incorporated into the pilot project proposed due to time constraints during design, but rather an abbreviated version with the use of a special provision entitled “Optional Precast Concrete Substructure” was incorporated.

- The Southwest Real Estate unit created and implemented a method that speeds up the acquisition process; each project contains electronic templates for each acquisition type that only requires the addition of parcel specific information. This ensures each parcel has the correct instruments for the acquisition type, creates consistency between parcels, reduces errors and saves time.

- The Southwest Real Estate unit created a procedure to close out project files that tracks, confirms, verifies, ensures permanent ROW acquisitions (recorded deeds/easements) are electronically saved and ROW Map Sheets are updated.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- Southwest Region staff partnered with several local and state agencies to host a design charrette to plan the future of state highways through downtown Kalamazoo. The goal of the charrette was to ensure that trunkline highways in the urban core meet the changing needs of a community that is more focused on multimodal transportation opportunities.

- Superior Region implemented a GPS initiative that includes installing Automated Vehicle Locators and maximization GPS software that will be used to deploy equipment to areas where the weather conditions are the worst in order to make best utilization of MDOT’s fleet. This combined with implementation of Maintenance Decision Support Systems will allow staff to make more informed decisions and optimize resources.

- The Superior Region evaluated its Road Weather Information System (RWIS) program and will issue a design-build contract in the fall/winter of 2014 to install 8 new Environmental Sensor Station (ESS) sites. These new ESS sites will enable motorists to obtain real-time weather information and road conditions. A primary benefit of this system is to provide advanced warning and improve motorist safety.

- The Superior Region has utilized FiberMat on projects as part of the emerging technology Program.

- University Region demonstrated innovation through the implementation of the new layout at the I-96/US-23 interchange and the innovative contracting methods used on that project and on the I-75 project in Monroe County that will use Alternate Technical Concepts to attempt to maximize the performance of the maintenance of traffic on that project.

- The Survey Support Unit purchased, developed software workflows, conducted classroom training and provided field support for construction utilization of modern survey equipment for inspection activities. This provides the technology necessary for staff to perform quality assurance on stakeless and stringless construction jobs.

- The Engineering Support Unit implemented ProjectWise for external users including contractors, suppliers, consultants and FHWA. The ProjectWise iPad app was also implemented for field use.

- The Engineering Support Unit provided development, training, and support for the use of ProjectWise in construction activities. Folder structures, security, and workflows were established to accommodate construction documents and business processes. Training was provided to MDOT staff and contractors throughout the state.

- The Bureau of Highway Development’s Innovative Contracting Office has utilized a Construction Manager/General Contractor procurement to implement the first bridge slide construction project in Michigan. The bridge slides significantly reduced delays, impacts and user costs to the traveling public.

- MDOT’s Bridge Development Section showcased the construction of two bridges using bridge slide-in technology in partnership with the Federal Highway Administration. Using this construction method, MDOT builds a bridge next to an existing bridge and when ready, the contractor quickly “slides” the new bridge into place keeping traffic disruptions during construction to a minimum. This construction method also keeps construction workers away from live traffic as much as possible, creating a safer work environment.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- MDOT’s Bridge Development Section showcased the construction of the state’s first Geosynthetic, Reinforced Soil (GRS) Integrated Bridge System, in partnership with the Federal Highway Administration and Ionia County. This is a promising new bridge substructure that will allow MDOT and local agency bridge owners, using simple construction methods, to build small to medium span bridges quickly with reduced cost.

- Grand Region worked with Lansing staff to begin design on a Diverging Diamond Interchange (DDI) at Cascade Road over I-96. MDOT performed an extensive study at this location and chose this new and innovative interchange design based on the many operational and safety benefits that it offered. Not only is the work creative and innovative, it required great teamwork within MDOT, as well as MDOT and its county, local and FHWA partners.

b) (Optimize the value of transportation investments by employing solutions that): Support job creation

- Under the Transportation Economic Development Fund (TEDF) “Category A “ grant program, the Bay Region worked with the City of Frankenmuth to provide $210,000 in state TEDF funds which was part of an overall project that included extending a center-left-turn land and paving M-83.

- In Tuscola County the Dairy Farmers of America has invested $40 million in a new 33,000 square foot processing plant in Cass City. The village of Cass City was milled and resurfaced Doerr Road from Division Street to M-81. Additionally, the intersection of Doerr Road and M-81 will be widened to accommodate an increase in truck traffic. The estimated cost of these transportation improvements is $549,965, including $439,972 in state TEDF funds, and $109,993 in local match from the village.

- The Bureau of Transportation Planning managed the Connected and Automated Vehicle (CAV) strategic contract, which has a goal improving the business climate of Michigan to encourage increased technology and research jobs in Michigan for the connected and automated vehicle industry.

- In 2014, MDOT completed new report titled, "Community and Economic Benefits of Bicycling in Michigan." This report is Phase I of a two-phase project that explains the economic benefit bicycling has on Michigan's local and statewide economies. Phase II will be completed in 2015, and will include more specific data on the economic impact of bicycling "events," bicycle touring, and Michigan as a bicycle destination.

- MDOT partnered with local agencies to improve rail passenger facilities that accommodated anticipated growth and incorporated localized economic development opportunities that will improve the livability of communities along the Corridor. The Birmingham station was relocated to a new facility in Troy; the new station opened October 14, 2014. A new Dearborn station opened in late 2014.

- The Superior Region continues to serve on the Upper Peninsula Collaborative Development Council to discuss economic development implementation strategies and to share information about MDOT programs.

- North Region worked in partnership with MEDC regional staff and Cooper Standard in Fairview to enhance road access and safety for Cooper Standard’s major expansion. This expansion is bringing 177 new jobs to Northeast Michigan. The Alpena Transportation Service Center was awarded an MDOT Transportation Economic Development Fund grant that included matching funds from Cooper Standard, to construct a new passing flare on M-72 for the increased truck traffic entering the plant.
**System Focus:** Provide cost-effective, integrated and sustainable transportation solutions.

- The Bureau of Highway Development has engaged a consultant with unique specialized experience to support the development of firms that are owned and controlled by minorities, women, and other socially and economically disadvantaged persons.

- Grand Region staff worked with The Right Place and MDOT Office of Rail on several local rail economic development projects to support expanding industries in the Grand Rapids area.

**c) (Optimize the value of transportation investments by employing solutions that:)** **Reduce life cycle costs**

- Bay Region used the alternate pavement bidding process for four projects for a lower Life-Cycle Cost Analysis.

- The Bureau of Transportation Planning staff assisted on the implementation of the Mechanistic-Empirical Pavement Design Guide (MEPDG) by the department with Pavement Design staff. This included providing truck weight data, which is an input into the PREP-ME software. This will be most likely an annual process of providing the data and completing an assessment of data.

- The Bureau of Transportation Planning staff executed and administered the Remaining Service Life (RSL) Estimate Assignment Process; published 2013 RSLs.

- The Bureau of Transportation Planning staff prepared and published 2013 Crack Survey/Distress Index, IRI, rut, and fault data.

- The bridges carrying I-94 over the Rice Creek in Calhoun County (801-13083-3/4) were previously programmed for superstructure replacements and widening to accommodate maintenance of traffic needs for a future roadway reconstruction project. Because these bridges were rehabilitated in 2007 and have a good surface condition rating, the Southwest Region reconsidered the fix for the 2017 project. It was proposed that work be limited to preventative maintenance to maximize the life of the structure and reduce the life cycle costs. The bridges will be widened or replaced during the next roadway reconstruction project where accelerated bridge construction will be considered.

- MDOT continued to upgrade the Freeway Lighting System to energy efficient LED luminaires. Included was lighting in high profile project areas such as I-96 from I-275 to US-24 and the Zilwaukee Bridge. Also, High Mast light towers were converted to LED at the I-75 and US-2 interchange. This is one of the first known installations in the country to utilize High Mast LED towers to light an interchange.

**d) (Optimize the value of transportation investments by employing solutions that:)** **Leverage partnerships to increase investments in Michigan’s transportation system**

- City of Bay City and Bay Region partnered on a project that includes replacing city water main under M-13 (Euclid Avenue) and resurfacing one lane of the roadway. This project was one of the selected projects under the Priority Roads Investment Program.

- The Bureau of Transportation Planning staff coordinated the TIGER 5 application process for the department, which resulted in funding of track improvements in the high-speed rail corridor.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- MDOT initiated a partnership with the Wisconsin DOT to combine federal funds allocated to Wisconsin with Michigan’s Comprehensive Transportation Funds, to continue rural intercity bus service from Michigan’s Upper Peninsula through rural Wisconsin to Duluth, Minnesota. This route connects rural Michigan and Wisconsin to the national intercity bus and rail networks in Duluth. Absent this funding partnership, the route would have been discontinued by the Wisconsin DOT when they were no longer able to match their federal aid.

- MDOT became a participating member of the Council of Great Lakes Governors Maritime Task Force, which consists of the governments of the eight Great Lakes states and the provinces of Ontario and Québec. The task force is developing a set of regional maritime priorities, compiling a comprehensive maritime asset inventory, and exploring the possibility of establishing a regional entity that would strategically plan, prioritize, and direct needed funding to maintain and improve the Great Lakes – St. Lawrence River navigation system.

- MDOT, in partnership with the non-profit M-1 Rail organization, successfully initiated reconstructing Woodward Avenue from downtown Detroit to New Center and reintroduction of streetcar infrastructure service along the corridor by the end of 2016. The project complements and enhances the redevelopment already occurring throughout downtown and Midtown Detroit, and is made possible through a unique partnership between private, philanthropic, local, state and federal agencies.

- At the I-75/University Drive interchange, Metro Region responded quickly in extreme, sub-zero weather conditions to secure public safety when cracks were discovered in several bridge beams. The region then moved swiftly, extending an established partnership with the City of Auburn Hills, to secure funding to rebuild and modernize the bridge and interchange to the locally preferred Diverging Diamond configuration with the assistance of legislative leaders through the Priority Roads Improvement Program and the Transportation Economic Development Fund. A design build contract will be let late in 2014, with the construction to be completed in 2015.

- MDOT, in partnership with ITS America, helped host the 2014 Intelligent Transport Systems World Congress in Detroit. The event was heralded as the most successful world congress ever held in the Americas, with 9,200 registered participants from 65 countries. MDOT’s contributions were highlighted by coordinating over 30 technology demonstrations on Belle Isle, installing a multi-agency traffic management center which operated the Metro Detroit freeway system live from the floor of the exhibit hall, and a youth outreach program that brought over 1000 students in to enlighten them about future careers in connected and automated vehicle technology.

- Improvements to M-75 in Charlevoix County are being planned by a local developer in partnership with the Traverse City Transportation Service Center. The project will be constructed with a combination of grants and private funds and will support new tourist-oriented business and provide pedestrian facilities.

- North Region has participated in non-motorized transportation facility partnerships to improve and develop non-motorized facilities. Including planning, design and construction for the Sleeping Bear Heritage Trail, grant opportunities and awards for the I-75 bicycle and pedestrian bridge at the Hartwick Pines State Park and also creation of the Charlevoix to Traverse City Trail Connection Work Group.

- The Superior Region pursued a Public Private Partnership for managing timber within portions of MDOT Right of Way.

- The University Region is currently working with its transportation partners to find transportation solutions on the I-94 corridor throughout the region.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- With the help of a Federal Rail Administration grant, MDOT is working together with Railroad companies to construct a project called the “West Detroit Connection Project.” The project is currently under construction. It will reduce travel time for Amtrak passengers to Detroit and also relieve rail congestion by separating freight and passenger rail traffic.

- Through the work of Development Services Division Local Agency Programs Unit, MDOT entered into a contract with the County Road Association to fund an engineer position which will allow more effective participation in technical committees, engineering discussions, and standards development on the part of Local Agencies.

- MDOT met the FHWA Financial Plan requirement for Major Project Requirements for the I-94 Reconstruction project which allowed the project to proceed on schedule including the Woodward Bridge. This allowed the M1Rail Project to proceed on schedule.

- Grand Region is partnering with the City of Walker to design and construct a roundabout project on M-11 at the intersection of Wilson and Remembrance Road. This intersection consists of two MDOT legs and two local legs. To make this project a success, there are many funding sources. The project is utilizing both state and local funding and some federal funding (CMAQ). MDOT and the City of Walker are also partnering to provide information to the public regarding this project through public meetings, city commission meetings, and public outreach.

- Grand Region partnered with two cities and Muskegon County to obtain an enhancement grant for the Veteran’s Memorial facility. MDOT originally built the memorial site when the M-120 causeway was constructed. This project allowed us to complete the commitment to the veterans. The grant has been used as leverage to obtain other grants for the same facility.

e) (Optimize the value of transportation investments by employing solutions that:) Improve the quality of life for Michigan’s citizens

- In Bay Region, the Salsburg road project completely rebuilt water main, sewer, drainage, sidewalk, and pavement in a metropolitan area.

- MDOT worked with Department of Natural Resources to establish US Bike Route 10 in the Upper Peninsula to support the Governors initiative of a bicycling and hiking route between Detroit and Wisconsin.

- MDOT installed US Bicycle Route signs on state trunkline segments to aide in cross state bicycle travel (US Bicycle Route 20 and 35).

- MDOT provided training to local officials and engineers on proper design principles, facility types appropriate to their context and overall benefits of a connected network for bicycling.

- MDOT provided technical and financial support to the Michigan Public Transit Association to initiate a pilot project to enhance the ability of local transit agencies, in partnership with private transportation companies, to provide non-emergency medical transportation for Medicaid clients.
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- MDOT began rehabilitating the track and upgrading the signal system for a 135-mile segment purchased from Norfolk Southern Railroad on December 2, 2012. MDOT has replaced over 138,000 ties, surfaced 135 miles of track, and replaced over 160,000 linear feet of rail. Upgrades to the signal systems started in Kalamazoo and will continue moving east to Dearborn through 2016. Also, Amtrak has been upgrading the track curves and grade crossings from Kalamazoo to Battle Creek.

- The Traverse City Transportation Service Center has assisted in the planning, design and implementation of various recreational trail segments, including: Sleeping Bear Heritage Trail, Leelanau Trail and future routes between Traverse City and Charlevoix.

- The bridge carrying M-22 over the Platte River in Benzie County in the North Region was reconstructed in 2014 to eliminate the center pier and provide an unobstructed waterway opening for recreational boaters and patrons of the nearby canoe liveries and National Park campgrounds.

- The Superior Region coordinated with statewide non-motorized staff to promote and apply for a new U.S. Bike Route, US-BR-10.

- Improving operations and reducing delays and the amount of time MDOT customers spend in traffic is a focus area of the University Region. An example of this is the construction of the improvements to the I-96/US-23 interchange which will improve operations and safety at this very busy interchange.

- To support water quality education, the Environmental Services Section has developed and distributed storm water management presentations, displays and handout materials for school-age children, transportation construction contractors, and the general public. The department also corrected 10 soil erosion problems along highway right of way to protect Michigan's surface water from sediment, conducted 12 audits of MDOT maintenance facilities to reduce the chance of pollutants reaching surface waters, and removed 8 illegal drains from MDOT storm water collection system.

- Grand Region partnered with both the City of Ionia and the City of Walker to improve Regional Trail Networks by developing key connections that traversed MDOT Trunklines. A non-motorized bridge will be built over M-66 in the City of Ionia, and a tunnel will be constructed under M-45 in the City of Walker. Both of these projects are utilizing MDOT Transportation Alternatives Funding and will be constructed in 2015.

- Grand Region worked with the MDOT Economic Development Office and Ottawa County Planning and Grants Department to plan, leverage funding and construct the multi-use lane portion of the M-231 Bridge. This is a key component of the new M-231 Project and the multi-use lane will create a regional non-motorized connection that impact trails throughout the West Michigan Region.

f) (Optimize the value of transportation investments by employing solutions that:)

- MDOT was granted a pilot project from FHWA to conduct a climate based vulnerability assessment for state owned transportation infrastructure. This partnership with FHWA will be completed during calendar year 2014 and is a first step to developing a system to identify at-risk infrastructure. Developing this study is also necessary to continue to protect MDOT infrastructure investments from extreme weather events and future changes to weather patterns.
**System Focus:** Provide cost-effective, integrated and sustainable transportation solutions.

- Storm water filtration facilities were constructed in accordance with best management practices by the City of Traverse City in conjunction with a bay front trail extension project which was funded through the Transportation Alternatives program.

- The North Region has developed a new strategy for managing roadside grass along the I-75 corridor that takes advantage of low growth rates for grass through much of the corridor and the ability to utilize growth regulators to restrict growth in areas with higher growth rates. The Region has refrained from mowing the grass for the past two years, saving both money and energy. After one additional year of using growth regulators on the high growth areas, the corridor will be mowed completely and the cycle will start again.

- Southwest Region staff, using an opportunistic approach to project design, included a rain garden in the project to replace the M-139 bridge over the St. Joseph River in the City of Niles. The rain garden will ensure that the water entering the St. Joseph River is cleaner than it was before the bridge replacement.

- The University Region has been an integral part of Washtenaw County’s ReImagine Washtenaw initiative. ReImagine Washtenaw is a multi-jurisdictional land use planning and public transit initiative whose goal is to transform the M-17 corridor into a safe, multi-modal, public transit-enhanced corridor. The goal is to use modal choice to create a sustainable corridor with new, high-quality mixed-use development, enhanced transit service and amenities that will result in a corridor with sense of place.

**(Optimize the value of transportation investments by employing solutions that:)** Reduce energy use, congestion and emissions

- In Bay Region, CMAQ projects were built in Huron and Genesee counties to improve traffic flow.

- The Bureau of Transportation Planning managed the Connected and Automated Vehicle (CAV) strategic contract which has as a goal, the implementation of connected and automated vehicle technology that provides motorists with information on traffic, weather, and roadway conditions.

- The North Region was involved in completion of the next section of the Sleeping Bear Heritage Trail, which now has a total trail length of 10 miles that transports visitors and residents between the Sleeping Bear Dunes National Lakeshore’s major visitor destinations. The trail provides an alternative transportation option to reduce congestion and reduce emissions.

- A number of communities in the North Region have had upgrades to the overall traffic signal system including interconnection to a central controller for a corridor. This interconnection promotes progression of vehicles therefore reducing congestion and reduces idle time. CMAQ funds were used in Ludington, particularly for a system upgrade and interconnectivity.

- University Region is collaborating with many its local transportation partners to implement a regional non-motorized system that will provide linkages to other non-motorized trails in the region and externally. This is being coordinated through the three Metropolitan Planning Organizations in the region.
### System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

- Warm Mix Asphalt (WMA) is a relatively new asphalt mixture technology that uses fuel used in heating processes and therefore less carbon emissions from the plant. Since the technology requires investment by the plant owner to purchase add-on equipment, MDOT worked with the industry to develop “permissive specifications” which allow contractors the option of using WMA or HMA (Hot Mix Asphalt) mixtures. This approach allows contractors to make the choice on what makes the most sense and what is more economical for them. MDOT Regions began including the permissive specifications in proposals for projects starting in 2014.

- Grand Region staff continues to participate in the “The Rapid’s” Laker Line Bus Rapid Transit (BRT) Study Committee. This project would establish BRT service from downtown Grand Rapids to Grand Valley State University in Allendale. The goal of the BRT is to provide an efficient transit service on M-45 and work to reduce congestion and have a positive air quality impact. This participation has included attending and participating in public involvement and stakeholder meetings.

### Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

#### Goal Level
- Toward Zero Deaths, MDOT has set a trunkline goal to reduce traffic fatalities and serious injuries from 419 and 2,286 respectively in 2011 to 333 and 1,700 in 2016.

#### Strategy Level
1. Foster communication, coordination, and collaboration with our public and private safety partners to achieve the goal.

- The Office of Aeronautics develops and presents regular pilot safety briefings across the state. These presentations serve to address common issues that have or may lead to aircraft accidents and encourage open dialogue with pilots to discuss technique and practices to avoid operational errors.

- Bay Region Traffic Safety and Operations Engineer and Associate Region Engineer have given approximately 30 presentations on Toward Zero Deaths to raise awareness and hopefully change driver behavior. These presentations have been given to MDOT staff, AASHTO, MSP, County 911, Local Officials and Service Groups in the last 18 months.

- The Mt. Pleasant Transportation Service Center held a design open house for the construction of the first modern roundabout in the city of Midland. At first the citizens were not accepting of the idea. The construction progressed smoothly and the TSC now frequently gets favorable comments from the public. Some have even stated that more are needed. To date there has been no major accidents at this location.

- MDOT initiated a multi-year research project, in conjunction with The University of Michigan Transportation Research Institute, Department of State Police, Department of State and others, to develop a statewide education and intervention strategy for older drivers, aimed at maintaining older driver mobility and alternatives to driving as needed.
Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

- MDOT released a joint MDOT and Department of State “Share the Road” bicycling video in May of 2014.

- The Alpena Transportation Service Center worked with their six counties to discuss the best detour routes to be used for emergency incidents. County roads were classified for detour routes that could be used for 24 hours or less, 24 hours or more, and not to be used. Laminated poster boards and computer file disks were given to each county and a set of the six poster boards were placed in the area wide Emergency Management Trailer. Working with safety partners allowed us to prevent setting up detours on the wrong roads during emergency incidents.

- There has been substantial communication and coordination between the City of Gaylord and the Gaylord Transportation Service Center regarding the proposed Renaissance Project on M-32 and Otsego Avenue. The project includes numerous safety improvements for pedestrians and motorists. The Transportation Service Center has attended numerous meetings, both public and internal, to gain resolution on a four- to-three-lane conversion on Otsego Avenue as well as a road diet and streetscape on M-32, that will be coordinated with MDOT’s CPM milling and overlay project in 2016 if approved through the TAP grant process.

- The Marshall Transportation Service Center has invested a significant amount of time and effort in fostering partnerships with incident first responders and improving traffic incident management, which significantly reduces user delay and the potential for secondary crashes. The State Police are currently utilizing the Marshall Transportation Service Center Office as a detachment, reporting to the Coldwater Post. Sharing office space has helped develop relationships and increase communication across multi-disciplinary functions.

- The Marshall Transportation Service Center Operations staff has had the opportunity to participate in ride-alongs with the State Police. This has helped the operations staff to better understand the trooper’s role in monitoring and assisting traffic, including the troopers’ operational procedures and concerns.

- At incident scenes, Marshall Transportation Service Center Operations staff has worked in conjunction with other incident first responders to help expedite quick clearance. They have also participated in post-incident reviews to evaluate past experiences and improve efficiency on future incidents.

- MDOT Transportation Service Center Operation staff has been continuously coordinating and communicating with the Transportation Operation Centers on lane closures (due to incidents or construction) to ensure that the most accurate and up-to-date information is communicated to the public through use of the Dynamic Message Signs and the Mi-Drive website.

- In October 2014, the Southwest Region co-hosted three first responder meetings with the Michigan State Police (MSP) to strengthen communication and shorten future response times. The region worked in partnership with the MSP to develop a resource card detailing region contact information, maintenance garage operational hours, basic information on snow removal operations, cable median barrier and other points of interest that will be distributed to the MSP to use in their vehicles for quick and easy access in emergency situations.

- A Road Safety Audit (RSA) was conducted for a FY 20 safety project in the Superior Region. The RSA was conducted to evaluate a proposed safety improvement of paving the shoulders from Wetmore to Shingleton and add shoulder rumble strips. The RSA team agreed with the fix and suggested a few low cost safety countermeasures.
Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

- The Superior Region’s Signals unit hired a consultant to conduct an operational study of the Marquette Township Corridor. The consultant worked with the stakeholders to develop different alternatives, compare the safety benefits, and suggest short term and long term development plans. Suggestions included extending the boulevard, super street signals, dual-lefts at signals, and roundabouts.

- Washtenaw County worked with the Brighton Transportation Service Center and the University Region to implement pedestrian facilities at the Ann Arbor/Saline Road interchange in Ann Arbor to more safely move pedestrians across the bridge at this busy interchange.

- The University Region is working with the City of Ypsilanti and Eastern Michigan University to design and implement a HAWK signal on M-17 (Washtenaw Avenue) to assist with pedestrians crossing this heavily travelled trunkline.

- The Traffic & Safety Section of MDOT has ratcheted its statewide Toward Zero Deaths (TZD) campaign in 2014 by increasing the display of the number of traffic fatalities on Dynamic Message Signs to every Wednesday from March through November. This message is also shared weekly with the public on Facebook, Twitter and on MDOT’s home webpage TZD banner. The “Countdown to Zero” boards are now on display at every Region and Transportation Service Center office along with several maintenance fatalities, Welcome Centers and throughout the central office. The weekly information is provided through Gov Delivery along with information on a safety initiative. Over 350 are subscribed to the weekly Michigan Statewide Fatalities/Serious Injuries to Date message.

- Working in cooperation with the Office of Highway Safety Planning, MDOT’s Traffic & Safety Section has upgraded all seatbelt signing in rest areas to match the latest national campaign, Click It or Ticket, Day & Night.

- Traffic & Safety’s Safety Programs Unit has spearheaded the publication of the Michigan Aging Driver Guide. This guide is a resource for Michigan’s aging drivers, their family members, and caregivers. This guide helps with the understanding of how aging and aging-related changes in health status affect the ability to drive safely and provides references to where more information and services may be obtained.

- MDOT was the major sponsor of the 2014 North American Conference on Elderly Mobility – Best Practices from Around the World – A Decade of Progress. The conference featured the best practices in older adult mobility and highlight new developments since the conference was first held in 2004.

- MDOT hosted a national research (domestic scan) team to discuss its efforts on Toward Zero Deaths.

- MDOT Traffic & Safety staff provided free 2 hour training on the use of the Michigan Highway Safety Manual predictive spreadsheets for local agencies, as well as a 30 minute presentation on Road Diets at the annual County Engineers’ Workshop.

- MDOT Traffic & Safety staff initiated development of guidance for use of Road Safety Audits (RSA) outside the safety call for projects. A pilot Value Engineering/RSA study was completed and second initiated.

- MDOT Traffic & Safety staff actively participated in the planning and delivery of the Annual Safety Summit hosted by the Office of Highway Safety Planning.
Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

- MDOT supported Safety Program staff participation in two new National Cooperative Highway Research Program panels to help advance to knowledge of State DOT safety practices nationwide.

- MDOT Safety Programs staff delivered 2 Road Safety Audit courses and 2 Highway Safety Manual courses for MDOT employees.

- MDOT Region staff chair/co-chair local Traffic Safety committees, working with local traffic safety partners to identify local traffic safety initiatives and foster traffic safety in their respective areas. The purpose of these committees is to promote education and involvement in problem identification and traffic safety solutions among agencies, public and private, concerned with the safety of citizens living and visiting Michigan.

2. Prioritize MDOT safety investments toward those with the highest probability to move us toward the goal of zero deaths.

- Bay Region staff have partnered with Thomas Township, MSP and Saginaw County Sheriff to invest in safety improvements on M-46 in Saginaw County. An additional part of this safety initiative was the creation of a safety coalition and a “Stay Safe. Drive Smart” Campaign aimed at enforcement of red light running, seatbelt usage and speeding along the corridor.

- Construction of the West Mitchell Street (US-31) Access Management project in the Gaylord Transportation Service Center area was completed in 2014. This project included side street closures, driveway closures, and median islands. These safety improvements would not have been possible without an effective partnership with the City of Petoskey. These improvements will reduce the potential of crashes and fatalities, improve aesthetics, and result in smoother traffic flow through Petoskey.

- The Michigan Welcome Center in New Buffalo installed an intelligent transportation system to let truck drivers know how many parking spots are available at any given time. This effort is aimed at reducing driver fatigue, which contributes significantly to crashes.

- More tow plows were mobilized in the University Region which will allow Maintenance forces to more efficiently clear snow and more quickly return the roadways to normal operation after a winter storm.

- New to the Safety Call for Projects is the opportunity for Regions to submit additional low cost safety improvement candidates beyond the region submittal. If a region’s safety submittal meets or exceeds their FY 2020 target, additional low cost safety improvements may be submitted for consideration by the Sub-Committee. To fund this effort $1.0 million has been allotted from Discretionary funding. The maximum per proposed project will be $250,000.

- In the Safety Call for Projects, the average time-of-return for projects decreased for the second consecutive year from 4.4 to 3.7 years.

- In cooperation with DTMB, MDOT Safety Programs staff identified business and technical requirements required for a replacement Safety Management System. Roadsoft was selected as the replacement tool.

- MDOT reactivated the annual MDOT Traffic & Safety Conference held in conjunction with the annual Operations Conference.
**Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.**

- MDOT Safety Programs staff worked with 15+ local agencies to develop countermeasure suggestions for specific locations identified through the Local Safety Initiative and biennial Transparency Report.

- A Road Safety Audit was completed on the six illustrative alternatives identified as part of the I-375 Alternatives Study. This unique effort is believed to be the first time that MDOT completed an RSA on proposed alternatives in coordination with a Planning and Environmental Linkages (PEL) study. Results of the RSA were used to evaluate the expected safety performance of the illustrative alternatives.

- MDOT Local Area Programs staff is encouraging the use of high friction surface treatments by adding it to the FY 2016 Safety Program Financial goals.

- In Grand Region, Traffic Incident Management (TIM) workshops completed and ongoing from last year's WIG process for alignment and best practice sharing, to reduce time for investigations, clearing incidents and the resulting impacts to motorists, to improve communications between MDOT and partner agencies and provide a consistent understanding of the TIM practices that can help reduce crashes. Two Grand Region staff members have attended “train the trainer” courses to be able to train first responders on incident management principles. The Region continues to explore opportunities to advance quick clearance and incident management principles. The Region developed a guideline, shared with law enforcement in the Region, to conduct a debriefing of major incidents on Grand Region trunklines.

**Partners: Foster and sustain partnerships to optimize operations and achieve customer-centered results.**

**Goal Level**

- Bureau of Highway Development’s Safety Programs partnered with the American Council of Engineering Companies (ACEC) to deliver a discussion on “Road Safety Audits (RSAs) - Consultant Perspective” at the annual conference.

**Strategy Level**

1. **Prioritize and strengthen partnerships that create organizational efficiencies and optimize the contribution of transportation investments to Michigan’s economy.**

   - Davison Transportation Service Center has created an ever-growing email list by county from which any press releases are forwarded to anyone included in the list. Numerous individuals, Local Agencies, Emergency Responders, Businesses, Media Outlets, etc. have been added to the list. The list has been promoted at various meetings with the public and other partners. Besides a lot of praise for receiving the up-to-date information, there have also been numerous follow-up questions that have been responded to. Businesses have stated that they post the information in their employee’s break rooms. Information shared is not exclusive to ongoing projects, but has also included maintenance or permit work, as well as bridge inspections that include lane closures.

   - During the I-75 and Zilwaukee bridge construction project, the Bay City Transportation Service Center provided continuous updates to over 100 stakeholders. These updates included traffic control changes and progress. The stakeholders included local business, emergency responders, local agencies, local groups, and MDOT staff.
Partners: Foster and sustain partnerships to optimize operations and achieve customer-centered results.

- All Transportation Service Centers in Bay Region established an open door policy for the public to attend bi-weekly progress meetings to ensure satisfaction. This was especially successful on M-24 in Lapeer, I-75 @ M-81, US-10 in Midland County, and on M-13 Salsburg road.

- MDOT worked with the other nine member states of the Mid-America Freight Coalition to complete a regional inventory of significant freight facilities and generators, define regionally significant freight corridors, identify freight bottlenecks, and develop a regional freight model.

- MDOT organized a series of planning meetings and webinars with sovereign Tribal governments, the Michigan Department of Natural Resources and MDOT Highway Development staff, to identify common areas of interest where environmental and ecological management projects might be undertaken jointly by these agencies along state highways and highway corridors, including roadside and parks and recreation areas.

- MDOT worked collaboratively with sovereign Tribal governments and the Michigan Department of Natural Resources, to develop a template for placement of environmental and cultural education displays for travelers using Michigan roadside parks, welcome centers, and state recreation areas.

- MDOT is currently working in partnership with the Michigan Economic Development Corporation and the Michigan Department of Agriculture and Rural Development on an interactive freight mapping application. The primary goal of this project is to develop a freight interactive single source location of data and information for freight facilities, activities, and projects at the statewide level.

- The Bureau of Transportation Planning staff provided analyses through several white papers on the potential impacts that MDOT’s new boundaries as realigned with the Governor’s Regional Prosperity Initiative (RPI) would have on the metropolitan and statewide transportation planning processes. This enabled MDOT to identify which MPO or RTF agencies would be included in each prosperity region, as well as impacts to their processes and funding.

- MDOT began the process of reorganizing its regional structure with the RPI regions. Extensive involvement of staff at all levels and locations have been involved in the transition process, including a Region Committees and Transportation Service Center/Region operating area sub-committees.

- MDOT has taken tangible steps to mitigate an area-wide drainage issue from Tannery Creek in Petoskey following multi-agency meetings and coordination. Maintenance improvements to handle peak-runoff flooding have been completed by the Gaylord Transportation Service Center, and participation in a watershed study has also been agreed to. A long-term solution will only be possible with multi-agency partnering and cooperation between MDOT, township, county, and DNR officials.

- MDOT’s partnership developed in FY 2013 with the six MPOs that represent Transportation Management Areas to reflect requirements in MAP-21 and to coordinate and improve the effectiveness of MDOT and MPO Transportation Alternative Program investments, provided an even greater level of success in FY 2014, resulting in a record level of TAP funds used for project implementation in Michigan. This process was featured as a Federal Highway Administration case study in April 2014, part of an examination of how DOT’s and MPOs around the country have implemented TAP within their areas. From a national perspective, we are in the small group of states who are leading in obligation rates for these programs.
**Partners:** Foster and sustain partnerships to optimize operations and achieve customer-centered results.

- The goal of the Transportation Economic Development Fund (TEDF)” Category A” grant program is to support economic growth through transportation investments critical to developments that create and retain jobs in Michigan. By increasing interaction with our partners at MEDC, MDARD, MDOT region staff, local road authorities and local officials, the Office of Economic Development was better able to identify opportunities to assist private investment in Michigan. For fiscal year 2014, 22 Category A grants were approved in 20 different counties representing a public investment of $18.6 million. These grant dollars will support the creation and/or retention of 1,434 jobs. In addition to TEDF dollars, $24.4 million in matching funds were committed, leveraging an overall match of 58 percent. Private industries invested $538 million in new or expanding grant-related developments resulting in a private/public investment ratio of 29:1.

- MDOT has partnered with the City of Battle Creek, Battle Creek Unlimited (the business development arm for the city of Battle Creek), Fort Custer Industrial Park, the Air National Guard and other local stakeholders during the development of our Battle Creek I-94 Business Loop project. The collaboration with all participants will allow merging of military complexes while still improving access to the industrial park. By integrating these changes, this will enhance the potential of Battle Creek being chosen as a site for a major missile defense project. The multiple meetings also allowed the incorporation of ideas for the new bridge and improved interchange to meet current and future needs of all users to be incorporated within the project.

- MDOT provided technical and financial support to launch the new Regional Transit Authority of Southeast Michigan created by Act 387 of 2012. With MDOT support, the RTA Board met all the “first year” deadlines and related obligations set forth in the enabling legislation including: adopting by-laws and procedures/policies for the Open Meetings Act, board reimbursement, and procurement/contracting; fulfilling the RTA’s role in directing the federal and state transit funds that come to the region; forming committees required under Act 387; adopting an administrative budget and filing its first annual legislative report.

- The Superior Region met with Upper Peninsula economic development partners on a quarterly basis to develop new relationships and implement the governor’s MEDC Collaborative Effort.

- Superior Region Met with the Upper Peninsula State Police, Commercial Vehicle Enforcement Division (CVED) to discuss CVE needs and prioritize future CVE projects.

- The Superior Region worked with statewide ORV Team to develop a new MDOT permitting process to address permitting requests for ORV connector routes. The Region conducted two statewide training sessions to help MDOT permit agents understand the new permitting process. A new MDOT, ORV website containing all forms, procedures, and requirements pertaining to requesting an ORV connector within MDOT ROW was developed. This site is easy to access, user friendly, and intended for internal and external customers.

- The Statewide Complete Streets Internal Team (CSIT) completed the MDOT Complete Streets Implementation Plan. The Team also conducted two training webinars to share the MDOT implementation strategy with MDOT leadership and other appropriate teams.

- The Southwest Region Real Estate unit has been meeting with Lansing Real Estate periodically to work on developing/updating demolition specifications to match the requirements of the 2014 Specifications Book. Three specifications have already been created/changed and are ready to be reviewed in the next demolition contract.
**Partners: Foster and sustain partnerships to optimize operations and achieve customer-centered results.**

- Southwest Region staff members are actively involved in the Pure Michigan MiPlace Placemaking Team for Region Prosperity #8, ensuring that state government is efficiently working to help improve local communities, which are key customers of departmental services.

- University Region environmental staff and staff at MDEQ has improved the turnaround time of environmental permits and also improved the relationship with that agency and, thereby, the process to acquire permits.

- The Bureau of Highway Development partnered with DTE in their transitioning from the Detroit Public Lighting Department in an effort to maximize the efficiency of power feeds to Metro Area freeway lighting, pump stations, ITS, and signal installations.

- MDOT Environmental Services and MDNR staff worked on an interagency partnering agreement to identify and implement joint innovative initiatives to save time and money. Areas of collaboration include data sharing, off-road vehicle (ORV) use of highway right of way, threatened and endangered species concerns, Belle Isle road improvements, non-motorized trails, and coordination on environmental reviews.

- MDOT provided funding to MDNR to digitize recreational property data near highways to allow GIS analysis of project impacts. The data will streamline the environmental review process while also benefiting other MDNR programs, such as recreational grants.

- Bridge Design has recently created a road/bridge coordination team in response to the understood need for better coordination between road and bridge designers on projects. This team has met and identified several issues and will propose solutions to these issues in the coming months.

- Real Estate Services Section and Permits Coordination Section has held alignment meetings with the regions to identify work functions and set short-term and long-term goals benefiting improved communication and coordination.

- Development Services Division worked with County Road Association (CRA) to establish a CRA Engineer position which will enhance communication, understanding and coordination of transportation engineering issues for both MDOT and CRA.

- The Permits Coordination Section met with the trucking industry to discuss concerns with permitting, and partner with surrounding state to create harmonization with state to state trucking.

- The Accounting Services Division (ASD) distributed customer satisfaction surveys with the agencies they serve – DNR, DEQ, and MDARD as well as MDOT. Monthly meeting with these agencies are held fostering customer relationships.

- The Bureau of Finance and Administration developed a procedure with FHWA to adjust funding authorization for ROW projects that exceed scope or budget.

- The Grand Region and Environmental Section are sharing information, coordinating project schedules and providing support to the Grand Valley Metro Council and City of Grand Rapids on common regional storm-water issues and a proposal to Restore the Rapids in the Grand River through the downtown area. The Restore the Rapids proposal will impact several MDOT facilities and bridges.
Partners: Foster and sustain partnerships to optimize operations and achieve customer-centered results.

- Grand Region Planning and Development staff have worked extensively with the Grand Rapids, Holland and Muskegon MPOs and BTP to streamline, to the extent possible, the MPO Transportation Improvement Program (TIP) amendment process. This has resulted in fewer project changes requiring federal approval, with the resulting reduction in processing time. This was very helpful with the M-231 project which has multiple job numbers and phases, with many minor changes not impacting the overall project budget or scope.

- Grand Region participates on the Steering Committees of the Grand Rapids Downtown Plan (GR Forward) and the River Corridor Plan. Through participation on these committees Grand Region MDOT staff provides information regarding transportation infrastructure in the Plan areas and also serve as a reference on transportation related issues. Both Plans aim to have transportation recommendations which provide opportunity for continuing partnerships between the Grand Region and diverse public interests in the Grand Rapids Area.

- Grand Region partnered with the City of Kentwood, City of Grand Rapids and “The Rapid” on a plan to install sidewalk along M-11 (28th Street), to be constructed in 2015. The project involved federal, state and local money along with the necessary Right of Way that was secured by the locals, with private sector participation; MDOT also provided design assistance as part of a trunkline project.

- Grand Region continues to partner with contract counties in the area of a joint workforce to meet both of our seasonal workforce needs in both the summer and winter.

- Within Grand Region, various Transportation Alternatives project coordination efforts made connections for all modes of traffic and partnering in new ways; i.e. 4 to 3 lane conversion on US-31 BR in Whitehall to allow more on-street parking, 5 and 4 to 3 lane conversions on US-131 BR in Grand Rapids to include bike lanes, connecting with City owned segments.
**Innovative & Efficient**: Move people and goods through better customer-centered services and performance-driven decision-making.

### Goal Level

- As part of managing potential capacity issues and safety risks associated with I-75 project, the Davison Transportation Service Center is piloting the use of the ‘Slow Stopped System’ for traffic scanning and Dynamic Message System messaging to driver. Slow Stopped System was provided by industry to pilot for the first month of the I-75 construction. It monitored the active traffic speeds. When traffic was slowed or backed up, Dynamic Message Signing was activated to suggest alternate routes for traffic. After the initial month, the Davison Transportation Service Center decided to continue the use of the Slow Stopped System through the July 4th holiday – since recreational traffic is so significant on I-75.

### Strategy Level

1. **Pursue innovations, transformational changes and organizational efficiencies that lead to investing more in the transportation system.**

- The Bay Region used the Alternate Technical Concept (ATC) method for maintaining traffic that allows innovation in the traffic staging. This was a great success. This was the second time this concept was used in the region and the state. The contractor embraced the staging and traffic responsibility.

- During the reconstruction of the portion of I-75 in northern Bay County, the contractor was delayed starting 5 weeks due to the frost restrictions in the northern part of the state. In a combined and partnering effort, the Mt. Pleasant Transportation Service Center and the contractor (Ajax Paving) worked together to adjust the traffic control restrictions to complete the project early while eliminating all claims for extension of time. The project was fully open to traffic over a month ahead of schedule and prevented expense and need complete the project in the second year.

- The Bay Region piloted fluorescent barrels on eastbound I-69 with traditional barrels on westbound I-69 for comparison. They have been well received. Most people have said that the traditional barrels used on westbound I-69 “just look dirty”. Although all the barrels (fluorescent and traditional) were new for this project. Contractors and Inspectors have stated that they feel safer behind the fluorescent barrels. It was also said that they are more visible in rainy/wet conditions. The Transportation Service Center has recommended the use of fluorescent barrels become a standard.

- The Eastman Avenue project in Midland is one of the first projects to have design-build in a major urban non freeway roadway with public and private utilities.

- The bridge on US-127 over US-127 Business BR in Gratiot County is a new process that treats rust between plates on a bridge. This process of pack rust elimination and encapsulation allows MDOT to extend the bridge life without beam replacement.

- The Bureau of Transportation Planning staff participated in the analysis of using hard shoulder running on I-96 (Oakland County) and US-23 (Livingston and Washtenaw counties) as a way of utilizing innovative technology to manage peak hour traffic congestion resulting in improved traffic flow and safety along the corridor.
Innovative & Efficient: Move people and goods through better customer-centered services and performance-driven decision-making.

- The Asset Management Division has initiated action to prepare a risk-based Transportation Asset Management Plan (TAMP) in accordance with MAP-21 requirements. This project will continue in 2015 and 2016. The plan will address the department’s pavements and bridges on the National Highway and Federal Aid systems. It will also include NHS pavement and bridge assets managed by local agencies throughout the state.

- Bureau of Transportation Planning staff developed the “Making Michigan Move” brochure which was developed to communicate the importance of Michigan’s trunkline system to the state economy. It shows that 12% of the road network lane miles provide the highest level of mobility by serving 51% of all statewide traffic and 64% of all commercial traffic. It also advances the reasoning for larger investments in the state trunkline system in order to properly serve the high commercial vehicular traffic through more durable and stronger pavements.

- The Bureau of Transportation Planning researched the status of taxation of natural-gas vehicle fuel by the states, and prepared a report recommending amendments to Michigan’s Motor Fuel Tax Act. Michigan is one of 18 states without a road-user fee on natural gas used for vehicle fuel.

- The Bureau of Transportation Planning tabulation of the 30 parts of Michigan law governing vehicle-registration taxes was used by the legislature and other departments of state government to assist in the debate on adjusting road-user fees and simplifying the Vehicle Code. For the first time, foregone revenue was tabulated from the classes of vehicles eligible for discount registration.

- The Bureau of Transportation Planning evaluated legislative proposals involving wholesale-price-based fuel tax, vehicle registration taxes, oversize- and overweight-permit fees, truck fines, pavement warranties and other contracting practices, and sales and use taxes.

- The Bureau of Transportation Planning participated in legislative discussions of the treatment of pedestrians in the Vehicle Code. Michigan does not have a state law conferring right of way on pedestrians at un-signalized intersections.

- MDOT launched the Small Business Program to create more opportunities for Disadvantaged Business Enterprises and other small businesses to compete effectively for MDOT contracts. The program isolates small contracts for which sufficient numbers of pre-qualified contractors or consultants exists and allows them to compete amongst companies of common size and complexity, and thereby build their capacity their capacity over the long term to perform larger and more complex MDOT and federal aid transportation work.

- Many regions used the innovative contracting concept of Fixed Price Variable Scope (FPVS) within the CPM program as a method to gain the maximum amount of improvement with the available funds. In the North Region FPVS project is planned for late in the fiscal year, to utilize any funds remaining from favorable bids in the program, and results in more efficiently using employee resources in an existing planned project rather than developing a new, separate project. Bay Region had five FPVS projects on bridges, crack seals and chip seal projects. The University Region is considering for the I-69 portion of Eaton County. This approach also maximizes performance in the region strategy by increasing the lane miles of work applied.
Innovative & Efficient: Move people and goods through better customer-centered services and performance-driven decision-making.

- The North Region has utilized a variety of innovative staffing and contracting techniques to improve the efficiency of maintenance operations. These include assigning experienced transportation maintenance workers to the Transportation Service Centers to assist the transportation maintenance coordinators with oversight of county forces, contractors, and youth development and mentoring staff; working cooperatively with contract agency partners to complete complex maintenance work such as bridge repairs; and utilizing local contract agency staff with rented equipment to clean and repair catch basins, saving money compared to having the work completed by a private vendors. These innovative techniques have improved the efficiency of maintenance operations, allowing the Region’s investment in maintenance to yield a higher level of service to its customers.

- The Gaylord Transportation Service Center moved the construction schedule of a bridge rehabilitation project in Mackinaw City to accommodate a local ferry service’s (Sheppler’s) ability to move large boats from the docks to storage at the end of the season. Mobility impacts of rescheduling the project for late summer confirmed that there would be an overall benefit to MDOT customers to adjust the project schedule.

- MDOT deployed the Truck Parking ITS signs which provide valuable parking availability data to truck drivers, ensuring optimum, on time freight movement.

- MDOT deployed Integrated Mobile Observation (IMO) and Global Positioning System/Automated Vehicle Locator (GPS/AVL) systems in maintenance vehicles that independently provide data to other systems, including the Maintenance Decision Support System, thereby improving maintenance treatments.

- The Southwest region piloted using green lights in place of amber lights on snow plows for increased visibility to motorists.

- In a continued effort to incorporate the Highway Safety Manual (HSM) into MDOT’s business process, all safety projects submitted by MDOT Regions for FY 2019, except for freeway improvements, shall have the HSM predictive analysis performed on them. A comparison of future conditions with and without the proposed improvement shall be provided.

- Section 1304 of the current highway funding bill allows states to increases the portion of federal funding on projects that implement new and innovative contracting methods. By implementing new contracting methods and techniques, Bureau of Development’s Office of Innovative Contracting was able to save approximately $6.4 million dollars of state funds.

- MDOT plans to reconstruct I-75 in Monroe County, a sensitive environmental area very close to Lake Erie, an imperiled water body. MDOT obtained a federal grant to develop a conservation plan for the corridor that includes partnering resource and regulatory agencies with the goal of streamlining the environmental permit process. The two-year initiative paid off in the first year when MDOT was able to transplant 1,500 state threatened milkweed plants to MDNR’s Sterling State Park’s prairie restoration area from the freeway right of way.

- The Environmental Services Section continues to update and streamline processes for gained efficiencies and reduced costs through faster processing time and more consistent applications. Example includes: refining environmental license agreement process to meet customer needs and protect compliance with regulatory agencies for MDOT.
### Innovative & Efficient: Move people and goods through better customer-centered services and performance-driven decision-making.

- The Bridge Load Rating Unit worked towards meeting the FHWA Load Rating Plan of Corrective Action deadlines. Efforts included rating Tier 1 and Tier 2 structures as well as implementing enhancement in the MiBRIDGE system in order to more accurately depict which structures needed to be rated using load and resistance factor rating (LRFR). The Bridge Load Rating Unit answered 29 permit requests encompassing almost 100 structures; load rated over 100 structures for design requests, and addressed dozens of load rating Request for Action (RFAs).

- MDOT worked with Representative Kelly to draft legislation that was introduced in October 2014 that will reengineer MDOT’s approach to regulation of for-hire passenger transportation, with the net effect of focusing regulations on the larger vehicles were there are more safety benefits and eliminating MDOT regulation of smaller vehicles which will provide greater opportunity for innovation by Transportation Network Companies such as UBER and LYFT to respond to consumer demands.

- The Bureau of Finance and Administration implemented required standardized invoicing spreadsheets and forms that ensure that all consultant invoices received are consistent and uniform in size. This greatly simplifies the review process and shortens the time from receipt of the invoice to consultant payment.

- The Bureau of Finance and Administration developed a building security plan where the department will be able to work with one vendor to bring continuity to the department’s security systems. This includes a request form and justification criteria.

- The Bureau of Finance and Administration continued to deploy and upgrade technologies platforms to ensure the employee can perform their transportation related work effectively and efficiently.

- The Bureau of Finance and Administration upgraded Department computer systems to increase employee productivity and security. Upgrades included: MS 365 Outlook to Cloud, Windows 7, Internet Explorer 11, Windows 2008/2012 and WebSense We security software.

- MDOT updated more than half of the legacy applications in the last 3 years.

- The Bureau of Finance and Administration partnered with Highways and DTMB to deploy the E-Project initiative which is changing the way MDOT is constructing roads. Cutting millions of pieces of paper, hundreds of days of wait time per project, and saving the State of Michigan millions of dollars a year through efficiency.

- MDOT has worked to implement accelerated bridge construction (ABC) with the ultimate goal of improved mobility for customers in mind. The Grand Region successfully constructed three bridges using “bridge slide” technology and techniques which reduced traffic delays from months down to days due to construction.

- Grand Region has developed a “best value” contracting process for janitorial services at rest areas.

### 2. Manage performance to provide value and better customer-centered results.

- MDOT’s Metro Region improved the functionality of the freeway lighting system. After years of chronic underfunding, copper theft, and deteriorating infrastructure, MDOT’s Director charged staff to restore freeway lighting functionality from its then current state of 65% functioning to 80% functioning by the end of summer. The team went to work quickly to bring on additional temporary, supplemental staff and contractors, and applied execution strategies to make consistent, targeted progress to achieve the goal.
**Innovative & Efficient**: Move people and goods through better customer-centered services and performance-driven decision-making.

- During 2014, construction projects in the Traverse City Transportation Service Center six-county area were scheduled to accommodate local festivals and tourist-oriented events. For example, construction engineers worked with the contractor on the M-32 bridge project in East Jordan to reschedule closures until after the City’s Freedom Festival parade.

- The University Region has been active in expanding the use of ITS throughout the region to reduce user delays. During the most recent construction season the region is implementing ITS solutions on I-75 in Monroe County; I-96, I-496 and US-127 around Lansing; and a portion of the “Triangle Project” in Jackson and Lansing.

- Development Services Division has focused on meeting timelines and deliverables through the use of the 4DX process, using both WIGs and TIGs. Examples include Transport Permit turn-around time, appraisal delivery time, review of local agency real estate projects, and use of ProjectWise file sharing for some local agency projects.

- The Bureau of Finance and Administration developed a justification process for determining the disposition of inactive projects and developed a restart agreement with Federal Highways Administration for projects withdrawn.

- The Bureau of Finance and Administration developed a workgroup with Bureau Highways and Transportation Planning to review projects having no expenditures with the goal of reducing these to zero.

- The Bureau of Finance and Administration refinanced for State Trunkline Fund bonds generating $25 million in savings over six years.

- The Grand Region Permits Business Team established a process to better collaborate with utilities and local agencies on permits with the focus on reducing processing time, improving communication, reducing mutual customers’ impacts.

- Grand Region traffic signals staff have implemented a QA check on traffic signal timing permits, to help ensure that the intended signal timing is installed and maintained in all region traffic signals and signal inventories.
**Workforce: Recruit, develop, and retain a high-performing workforce.**

<table>
<thead>
<tr>
<th>Goal Level</th>
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<tbody>
<tr>
<td>Strategy Level</td>
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<tr>
<td>1. Target employee development to improve organizational performance, with a focus on customer service.</td>
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- Bay Region diversified employee roles to better understand the Transportation Service Center’s and MDOT’s bigger picture. Historically, there have been certain people who did general roles for the Davison Transportation Service Center – such as fleet management and safety officer. This year, the TSC changed those assignments up to share the responsibility and develop new awareness and working relationships across the department. The Mt. Pleasant Transportation Service Center had an opening for an entry level engineer. In wanting to diversify and hire the best; the advertisement was opened to everyone. The engineer hired for the position has 9 years active service time in the US Air Force and nearly 3 years in Federal Civil Service for the Air Force. She has her bachelors and masters degrees in civil engineering. During the last two years some offices have provided opportunities for employees to gain valuable experience at a higher level by offering working out of class positions. Based on operational needs, opportunities have been provided for the following: Secretary 9, Transportation Tech 11, and Maintenance Supervisor. These limited term positions did not extend beyond one year.

- The North Region created working-out-of-class TMW 9 positions to work with the Transportation Service Center maintenance coordinators to gain valuable work experience. The TMW 9 served as a lead worker and led MDOT/county work crews in performing maintenance activities throughout the Transportation Service Center’s. This employee development also assisted the Transportation Service Center maintenance coordinators in spending more time on customer service issues.

- University Region has been engaging students throughout the area to expose them to careers at MDOT. The region has expanded the YDMP program to 100 and continues to be active in the TRAC program by bringing TRAC interns into the workplace and exposing them to the many areas of engineering within MDOT. In addition, the region has expanded opportunities for our nation’s servicemen and women with MDOT through the Wounded Veterans Program. All of these programs strengthen the future workforce for MDOT when employment opportunities arise.

- The Performance Excellence Section supported MDOT-wide implementation the Workforce Development Foundational Curriculum-Phase One, which was rolled out in 2013. Each MDOT employee had completion of the curriculum during 2014 as an objective in his/her performance plan. Additionally, each supervisor and manager had a performance objective in his/her plan to ensure their subordinates had completion of the curriculum during 2014 as an objective. Staff throughout MDOT have completed the curriculum.

- The Performance Excellence Section began implementation of the REACH (Registration, Education, and Course History) system during 2014 to ensure training and development activities are offered, documented, and tracked in an efficient manner. REACH is a web-based, MDOT-wide learning management system acquired in 2013 which is designed to provide a single point of user contact for training registration and tracking of training and other learning-related data.

- Environmental Services Hydraulics Unit held a training class to promote consistency in hydraulic design within MDOT. The class was attended by 31 MDOT staff and 1 consultant.
**Workforce:** Recruit, develop, and retain a high-performing workforce.

- For the last year, all of the Design Division’s Project Managers (PMs) who manage bridge consultants have been meeting on a monthly basis. The purpose of these discussions is to steepen the learning curve for new PMs through sharing of knowledge and to promote consistency among the group.

- Accounting Services Division participated in MDOT’s Youth Development and Mentoring Program (YDMP) which is a summer work program designed to educate youths about MDOT. The student learned some of MDOT’s accounting functions and operations.

2. **Use workforce planning to increase flexibility in the workplace.**

- Design and construction of a portion of Old US-131 between Cadillac and Manton was approved for funding in April by the “Road, Risk, Reserve” program. North Region designed the project in 8 weeks by cross utilizing staff and close coordination with other support areas. Construction started after July 4th and was opened to traffic by the middle of September. Overall 42,000 cubic yards of earth were moved and 13,100 tons of HMA were placed for a total project cost of $2.4 million.

- Bay Region recently participated in cross training of Davison Transportation Service Center’s Cost and Scheduling Engineer and the Region Pavement Engineer. This has provided valuable experience for both to be very well rounded.

- The staffing concept developed for the Operations section in the Traverse City Transportation Service Center focuses on creation of cross-functional engineer and technician positions which work together as a team. Responsibilities are divided to balance workload but team members all have a role in major activities such as scoping, design and various aspects of permitting.

- During development of design for a 3R project North Region, construction staff where used to assist with plan preparation, quantities and meeting with the public and landowners. The cross utilization resulted in staff better understanding the overall process and development of abilities. This will help workforce be prepared for future position opportunities.

- Superior Region provided working out of class opportunities in Region Construction – WOC EML 14 for the 2014 construction season. Traffic & Safety WOC TEL 13 from spring to December 2014. WOC Transportation Technician 11 – Region Mix Inspector for construction season. The Region had available Limited Term positions filled in the areas of Lead Worker Transportation Maintenance Workers and Transportation Technician 11.

- Superior Region management worked with staff to accommodate flexible work schedules. Over 20 Adjusted Work Schedules were accommodated by the Region in 2014.

- The Asset Management Division held three (3) all supervision meetings on Visions and Innovations. The meetings included discussions and exercises and involved an initiative to address the impacts of Moving Ahead for Progress in the 21st Century Act (MAP-21), as well as the growing need for new technology and improved processes within the division. Some of the items that came out of the meetings were: research ideas for the division, suggestions for ways of doing business better by using technology and software, identification on new federal laws, guidelines and rules that will affect the division and department, and recommendations on staff training.
**Workforce: Recruit, develop, and retain a high-performing workforce.**

- To permit more efficient use of staff time when it is necessary to participate in meetings throughout the state, Performance Excellence Section assisted the department in its continued use of Adobe Connect to enable web-based meetings which allow attendees to view presentations and documents as if they were actually onsite. Additionally, enhancements were made to conferencing equipment to improve the quality of audio experienced by remote attendees.

- MDOT has implemented a plan to support staff shortages for the limited crew of the Space Management team in the Financial Operations Division.

- Over the last year, the Grand Region has been working to redevelop the Engineering Development Program (EDP). The Grand Region has two existing staff engineers and has worked with them to offer cross training opportunities outside the units they currently work in. The Grand Region also had the opportunity to fill a vacant staff engineer position with a position that was created using the EDP model.

**3. Value, engage and empower our employees.**

- Throughout MDOT, leadership developed and implemented Employee Engagement (EE) activities, such as:
  - Each Grand Region Section and Transportation Service Center made roundtable discussions of the EE survey data a monthly topic at regularly scheduled staff meetings. A Grand Region ‘Region Sounding Board’ (RSB) was formed to develop recommendations for 2014 action plan. The RSB provided a recommended action plan that focused on consistency and communication. The Region Leadership Team (RLT) adopted the plan and it was shared with all region staff. The RSB has developed a Grand Region EE survey to measure the success of the action plan and presently compiling the results to present to RLT. A Region managers and supervisors forum was established to address issues raised during the EE process. Consistency, training and sharing experiences is the focus of the group to help with alignment between operating units within the Region and TSCs.
  - North Region has held group meetings with all maintenance, engineering, and technician staff throughout the past year. These meetings have allowed staff to hear about on-going initiatives from Region leadership, as well as their peers, and provided a venue for staff to engage with leadership on issues occurring throughout the Region.
  - Metro Region initiated a Leadership Institute to help managers and supervisors better lead and serve the needs of employees for improved communication, clarity of direction, and management support of employee training and development. Four successful sessions were held in 2014 with additional quarterly sessions planned for 2015 and beyond.
  - Southwest Region created an EE Team with multiple sub-teams targeting the region’s major groups: Transportation Service Center employees, Maintenance Employees, Region Office Employees, and Supervisors. These sub-teams identified four common areas of focus: Communication, Work Performance, Training, and Social Engagement. An invitation was issued region-wide in late September for employees interested in service on committees to address the four focus areas on a permanent basis. This will help region leadership work with employees to provide the best possible environment in which employees can thrive and deliver quality customer service.
  - The Office of Aeronautics through EE Action Plans, is addressing issues to improve trust, empowerment, inclusion, respect. Communication and micro-management.
  - Staff within the Office of Passenger Transportation identified a need for better teaming within MDOT and as a result scheduled regular meeting with Statewide Transportation Planning Division to improve internal communications.
  - MDOT Leadership visited the Regions throughout the state. A ‘town hall’ style meetings were held with staff. Employees were given an opportunity to ask MDOT leadership questions.
Workforce: Recruit, develop, and retain a high-performing workforce.

- The Accounting Services Division conducted employee survey and used results to develop employee focus groups improving staff and customer communications, employee cross-training and customer service. A “weekly spotlight” was developed which is a weekly communication to the Division featuring an employee and some personal information they wish to share about themselves.

- The Statewide Transportation Planning Division held an all-staff meeting where discussions and exercises focused on employee satisfaction and potential improvements in response to the employee satisfaction survey. Some items that came out of that meeting included: Quarterly meetings involving the division administrator, section managers and supervisors; a quarterly division newsletter that encourages participation through employee written articles and a rotation for publisher/editor throughout the division; opportunities for staff to attend section meetings outside of their own section; a shared electronic folder that provides access to weekly section activity reports, minutes from bureau staff meetings, various reports, etc.
**Leadership:** Align the organization to carry out the MDOT mission, achieve the vision and demonstrate the values.

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|  | • The Good Government in Action initiative was launched in early 2013 and identified the Department’s ‘Wildly Important Goal’ for 2013 with sub-WIGs, lead and lag measures, players’ score-boarding and a cadence of accountability on goal achievement across the organization to improve strategic outcomes and provide a framework for regular evaluation of our organizational performance.  
• The Director’s Leadership Team meetings have included presentations and briefings from representatives of the Governor’s Office as well as members of the DLT on various strategic elements of the Governor’s plan to Reinvent State Government. |

**Strategy Level**

1. Establish clear, measurable and aligned performance goals and desired outcomes across the organization.  
   • The Region/Bureau Management Team in Highway Operations has overseen the establishment of Operational Alignment Teams and ad-hoc Technical Agenda teams as a means to address alignment, quality, and consistency issues within the regions and bureaus.  
   • The Performance Management Task Force and Bureau of Development staff continue to monitor and update the Infrastructure Dashboard and MDOT Scorecard. These tools are part of our efforts to become more performance-based in our daily operations, helps us review our current performance goals and set new goals.

2. Regularly evaluate organizational performance and adjust direction as necessary.  
   • A high-level Employee Engagement (EE) Team was established to review the results of the Governor’s EE Survey and develop a high level action plan for improvement. Various areas within the department have developed supporting plans and employee engagement activities and efforts.  
   • Department-wide teams have been tasked to address implementation issues with MAP-21, IT operations and software development priorities and costs, along with the potential impact of new funding on program development activities.
**Customer-centered:** Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

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| MDOT established a Department-wide Customer Service goal – “Improve Customer Satisfaction from 73% to 80%.” This goal has provided the basis for clear, aligned performance goals across MDOT. In support of the goal, MDOT launched an on-line customer satisfaction survey which has been highlighted on MDOT’s website as well as brought to our customers’ attention in our routine presentations and added to email “signatures.” While we are still struggling with accuracy of the results for this sort of survey process, the placement of the survey on our website is a strong indication that MDOT wants customer feedback. 

- Within each work area, an internal or external customer satisfaction goal was established in support of the overall MDOT Customer Satisfaction goal. MDOT Regions all focused on reduction of User Delay Costs (UDC) for winter events and summer work zones (Region, Bureau and Office 2013 WIG results are available in a separate document.)

- MDOT held monthly Regional Leadership Team discussion on “getting to yes.”

- Customer Satisfaction surveys were distributed at the Welcome Center and various public meetings.

- Some regions have also established improvement goals (Truly Important Goals, or TIGs) that while not in direct support of the department wide goal to reduce user delay costs, are still customer focused. For example, North Region focused on increasing stakeholder’s involvement in project development and to strive to increase stakeholder knowledge of MDOT’s project development process.

- MDOT made a commitment to seeking focused public input on satisfaction with the transportation system and MDOT’s performance through its MDOT “Attitudes and Perceptions Survey.” This professionally developed and conducted telephone survey of 1000+ adult Michigan residents, has traditionally been conducted every 3-5 years as part of MDOT’s long range transportation planning process. It is a deep dive to gain feedback from Michigan residents on the condition of the transportation system – from guardrails, to pavement conditions, to public transportation services and more. The results help MDOT make long term investment decisions. Seeing the benefits of getting this public feedback more frequently, MDOT made a commitment to conduct the survey annually starting in 2013. |

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<td>1. Align our programs and services to be responsive to customer feedback.</td>
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- Within the Superior Region, the TSC utility and permit technician works in detail with permit applicants to streamline the electronic permit application process. This has been a successful effort. Nearly all applicants have had greatly improved ability on their next electronic application. First time applicants have shown great appreciation for the guidance.

- Region Offices conducted many customer outreach efforts, such as:
  - The Superior Region conducted Annual Rural Elected Officials and Transportation Summit meetings to collect customer input related to the Superior Region’s 5-Year Program and STIP.
  - Southwest Region had an open house in July 2013.

- The Superior Region accessed federal planning funds to undertake a project to better understand the ecological needs of U.P. tribes along MDOT ROW.

- MDOT undertook a complete revision of the selection and prioritization process used to program federal research funds to ensure selected projects have closer ties to MDOT work products.

- MDOT hosted Regional non-motorized advisory committees in five of the seven MDOT regions to provide an open forum where bicycle and pedestrian safety and mobility topics could be proactively discussed between MDOT staff, other transportation professionals and the users of the transportation network. The remaining two Regions will host meetings in 2014. These groups are planned to meet quarterly.
Customer-centered: Understand our customers’ most important needs to achieve a more customer-focused agency that results in better service and lower cost.

| 2. Be accountable and transparent to our customers through tracking and reporting on MDOT’s key performance metrics. | • MDOT has made it a priority to be an active participant in the Governor’s Dashboard and Scorecard initiatives and is using these measurement efforts to improve our focus on customer needs. MDOT has added a “Performance” link to its main webpage, from which the public can access three different reports that provide data on the condition of Michigan’s Transportation system and MDOT’s performance. The reports include the Michigan Infrastructure Dashboard (18 statewide measures on condition of the state’s infrastructure, 12 of which pertain to transportation); the MDOT Transportation Scorecard (32 measures of transportation system conditions as well as internal MDOT performance) and the Transportation System Condition Report (22 measures on the condition of the state’s transportation system). |
System Focus: Provide cost-effective, integrated and sustainable transportation solutions.

| Goal Level | MDOT developed the MAP-21 compliant Michigan Freight Plan in 2013, which will make Michigan eligible for federal funding flexibility for freight projects.  
| MDOT, working with the State Transportation Commission, developed and adopted a Complete Streets policy, and is nearing completion of implementation guidance for staff. |

| Strategy Level | Statewide and Region System Managers have cooperated and employed greater flexibility than in the past to ensure that large projects and statewide priorities are funded despite constrained funding scenarios.  
| MDOT is beginning to investigate performance based approaches to asset management, including methods to consider routine maintenance along with capital investment as part of our overall strategic asset management strategies.  
| MDOT has begun development of an Enterprise Asset Management System, a comprehensive tool used for collecting and maintaining asset inventories, performance models, and maximizing MDOT’s investment. This project will significantly improve the quality of information available to users (primarily highway users) and integrate maintenance activities with our asset inventories.  
| Development and distribution of a department-wide GIS (ArcGISExplorer) to map data about various MDOT transportation assets and features. This was done using standard state software and databases, and is available to users without licensing costs. |

1. Apply asset management principles to prioritize and implement the most cost-effective transportation investment strategies.  
- MDOT implemented the Construction Manager/General Contractor procurement process for repairs to the Zilwaukee Bridge, which has saved MDOT and taxpayers millions of dollars by having the contractor’s expertise advising the designer of potential risks and ways to mitigate them as opposed to having the contractor taking advantage of unknown issues that may arise during construction as often occurs under normal procurement processes.  
- MDOT has worked diligently to investigate and employ accelerated bridge construction and rapid renewal construction practices, such as precast concrete pavement repair systems, rapid set concrete for overnight concrete pavement repair, and "bridge slide" construction techniques.  
- MDOT has expanded the network of Road Weather Information System (RWIS) to provide improved information to winter maintenance workers.  
- MDOT is working with local business development agencies and advocates to implement best-value, performance based contracting provisions to encourage the use of local contractors, thus allowing the economic benefit of our transportation investments to be realized in the communities where projects are being built.  
- MDOT is implementing a GPS initiative that includes installing Automated Vehicle Locators and maximization GPS software that monitors and regulates salt usage based on temperature, speed, and mobile weather conditions. It also will be used to deploy equipment to areas where the weather conditions are the worst in order to make best utilization of MDOT’s fleet. This combined with implementation of Maintenance Decision Support Systems will allow staff to make more informed decisions and optimize resources.  
- MDOT is a national leader in the development and implementation of the e-construction, including the promotion of the use of e-signatures throughout MDOT. This will test the elimination of paper documentation on construction projects, with a shared electronic filing system and digital documentation.

2. Optimize the value of transportation investments by employing solutions that:  
  a) are creative and innovative  
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<tr>
<th><strong>System Focus:</strong> Provide cost-effective, integrated and sustainable transportation solutions.</th>
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<tr>
<td><strong>b) support job creation</strong></td>
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<td>- The goal of the Transportation Economic Development Fund (TEDF) Category A grant program is to support economic growth through transportation investments critical to developments that create and retain jobs in Michigan. Between fiscal years 2011 to 2013, 39 Category A grants were made in 26 different counties representing a public investment of $37.7 million. These grant dollars supported the creation and/or retention of 8,222 jobs. In addition to TEDF dollars, $39.6 million in matching funds were committed, leveraging an overall match of 51 percent. Private industries invested $2.8 billion in new or expanding grant-related developments resulting in a private/public investment ratio of 75:1.</td>
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<td>- MDOT discovered excess right-of-way that was quickly disposed of and resulted in a multi-million dollar marina, public waterfront park, and mixed use development.</td>
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<td>- MDOT was able to convert operational right-of-way in a community to excess status to allow for the purchase and construction of a new conference center and national headquarters for a faith-based business, creating construction jobs, and new business opportunities. New access management practices were used to increase roadway safety. The project produced over $125,000 in new revenue from the direct sale.</td>
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<td>- MDOT has worked with state and local workforce development agencies and community based organizations to address the chronic unemployment in urban areas. We are actively engaged in aligning efforts to help unemployed persons enter the construction skilled trades.</td>
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<td><strong>c) reduce life cycle costs</strong></td>
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<td>- MDOT has made great strides towards implementation of a new methodology for designing pavements, the Mechanist-Empirical Pavement Design. This new design process will produce more cost-effective designs, saving money while optimizing life cycle costing methods.</td>
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<td>- MDOT is pursuing two U.S. Department of Transportation’s (USDOT) TIGER program applications that will improve the long-term operations of passenger and freight rail in Michigan through capital improvements:</td>
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<td>o Improve the Dearborn-Kalamazoo portion of the accelerated rail corridor to allow higher speeds between Battle Creek and Ypsilanti.</td>
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<td>o Modernize and increase the capacity of the Delray Interlocking (Detroit Intermodal Freight Terminal project), the busiest freight rail area in Detroit.</td>
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<tr>
<td><strong>d) leverage partnerships to increase investments in Michigan’s transportation system</strong></td>
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<td>- MDOT partnered with the US Forest Service to remove trees within the clear zone on M-65 in Iosco County. The trees were shading the roadway making it difficult for snow and ice removal. The US Forest service allowed a contract (at no cost to MDOT) to clear cut the ROW to a commercial logger. This was a win-win solution for all three parties, as the logger received the lumber, the US Forest Services got paid for the trees, and MDOT had the trees removed from the clear zone to help with snow and ice removal.</td>
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<tr>
<td>- MDOT is exploring options for creative Public Private Partnership approaches by releasing “Requests for Interest” for a variety of functions and services we provide, including support services at Michigan’s Rest Areas and Welcome Centers, timber management, and freeway lighting.</td>
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<td>- MDOT set aside intercity bus funding for a new East Lansing train/bus terminal while locals attempted to secure federal competitive grants.</td>
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<td>- In Traverse City, MDOT’s system–focused approach with TC TALUS toward development of Complete Streets leverages existing local partnerships and technical talent to assist communities and Act 51 agencies in providing more cost-effective, integrated, and sustainable transportation projects.</td>
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</table>
**System Focus:** Provide cost-effective, integrated and sustainable transportation solutions.

| e) improve the quality of life for Michigan’s citizens | • MDOT established two USDOT-approved US Bike Routes (USBR20 and USBR35) in 2012, providing designated bicycle connections across the state.  
• MDOT staff participation in MSHDA place-making workshops outpaced any other state or local agency, demonstrating our commitment to improving the quality of life through transportation options and increasing our technical skills and abilities to do so.  
• MDOT has implemented new standards that improve safety for the motoring public, including the pavement Safety Edge and median cable guardrail. |
| f) are sustainable | • MDOT pursued a statewide policy approach to implementation of MAP-21 that would have sustained existing Transportation to Work services in small urban areas, but based on transit agency feedback instead allowed for local decision-making.  
• MDOT continues to find ways to incorporate recycled materials into construction while not compromising performance. Examples include the use of recycled glass, a permissive specification for using recycled shingles in HMA, and increasing the allowable use of recycled asphalt pavement (RAP) in pavements. A pilot project using crumb rubber asphalt is also underway. |
| g) reduce energy use, congestion and emissions | • MDOT continues to expand the use of LED lighting technology for freeway lights.  
• MDOT supported an FHWA grant application for a public-private partnership project, the Michigan Flyer, as an alternative to single occupant driving to Metro airport and pursued MPO approval to allow the grant to proceed.  
• MDOT maintains the framework of a Traffic Bottleneck program, should additional funding become available.  
• MDOT is leading the development and implementation for sensible salting practices.  
• MDOT has developed specifications that allow the use of Warm Mix Asphalt in place of Hot Mix Asphalt, which reduces energy use and improves pavement density.  
• MDOT worked with FHWA to develop an alternative approach to use of CMAQ funds (shifting from operational support to capital support) so that the MiChivan programs could be sustained using CMAQ.  
• MDOT is working with FHWA to streamline the CMAQ funding approval process and to assume the responsibility for determining project eligibility for CMAQ funding. |
**Safety:** Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

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<tr>
<th>Goal Level</th>
<th>Strategy Level</th>
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| • MDOT has set a statewide goal to reduce traffic fatalities and serious injuries on all roadways from 889 and 5,706 respectively in 2011 to 750 and 4,800 in 2016. | • Bay Region has been training first responders on a weekly and monthly basis to ensure quick response and clearance of incidents. Also, post incident meetings and reviews have been executed for closures that are over 2 hours long.  
• In October 2012, the Alpena TSC hosted an Alpena TSC Local Road Safety Plan meeting to seek input in establishing a Local Road Safety Plan (LRSP) to assist in improving communication and reducing fatalities and serious injury crashes within the six counties of the Alpena TSC. The purpose of the (LRSP) is to identify the area’s key safety needs and guide investment decisions to achieve significant reductions in fatalities and serious injuries on all public roads. The (LRSP) provided an opportunity for safety stakeholders to work together to align and leverage resources to address the safety challenges unique to the local area.  
• The Gaylord TSC has worked closely with the City of Petoskey to ensure access management measures proposed by the city are incorporated into our construction plans. These design techniques will have a direct impact on accident frequency and severity along the US-31 corridor in Petoskey.  
• The Gaylord TSC is working with Indian River to include a median island installation at a proposed mid-block crosswalk that will reduce the frequency and severity of certain types of crashes, particularly pedestrian crashes.  
• The Gaylord TSC is evaluating the safety benefit of reducing a four lane section (2 lane 2 way) of US-31 between Eppler and US-131 west of Petoskey to a three lane section (1 lane each way with center turn lane). These measures will have a direct impact on reducing the crashes that have been experienced in that section of roadway.  
• Quick clearance efforts, including partnering meetings, on-site discussions, and Post-Incident-Reviews with transportation first responder’s – all have produced favorable results at incident scenes.  
• Operation SABRE (a driver safety program on US-2 from St. Ignace to Manistique) remains for another year (5-7 years of success). Handing out placemats at restaurants and placement of banners along US-2 has noticeably reduced aggressive driving and reduced accidents (especially fatal accidents).  
• Bay Region has been reaching out to the Michigan State Police posts, 911 Central Dispatch Centers, and local service organizations within the Bay Region to discuss MDOT’s Towards Zero Deaths and Good Government in Action initiatives. Initially members of the service organizations stated “that they dreaded the idea of having two engineers come and present to their group. However after the presentation, they had a greater understanding and appreciation for what we do, MDOT’s safety initiatives and realized that we were not boring!” MDOT has been working with the Traffic Improvement Association of Michigan on videos promoting safe driving. |
Safety: Move Michigan toward zero deaths through the incorporation of safety in all our transportation efforts.

- MDOT launched a new statewide safety campaign in July 2013 on selected interstates and highways in Michigan. MDOT is displaying the number of traffic fatalities on Dynamic Message Signs one day per month through November in an effort to raise public awareness and improve driver behavior. In support of the campaign, MDOT developed a Toward Zero Deaths (TZD) video for YouTube that asks the public what number should be the goal. A “Countdown to Zero” board is now displayed in the lobby of the Transportation Building in Lansing. The board displays fatalities and serious injuries to date and is updated weekly, posing the question: “What are you doing to get to Zero?”

2. Prioritize MDOT safety investments toward those with the highest probability to move us toward the goal of zero deaths.

- The Superior Region is placing pavement dots on the inside of curves where right turn lanes are located.
- In the Safety Call for Projects, the average time-of-return for projects over the past few years has been between five and six years.
- The “Safety Edge” is being incorporated into pavement standards. Aggregates used in pavements must meet minimum skid resistance values to assure adequate friction between the pavement and the vehicle tire.
- In 2011, MDOT completed a study of 110 wrong-way crashes that occurred on freeways from 2005 to 2009. The results from this study emphasized the need to provide additional guidance at night for confused drivers. During the next four years, MDOT plans to apply one or more of seven selective countermeasures to 161 interchanges state-wide.
- In 2012, the American Transportation Research Institute released a truck overturn study that highlighted the 10 interchanges most prone to truck rollovers for 31 states. Ten such interchanges were identified in Michigan. In response to the study, the Safety Programs area pulled single vehicle truck overturn crashes from 2002-2011 and coded them to the appropriate portion of each interchange. This was done to determine causation of each crash and any appropriate action that can be taken. From this information the Traffic Signing Unit reviewed each location and developed a signing plan to improve the guidance of trucks along the ramps within these interchanges. While several of the interchanges are in the five year improvement plan, each interchange was addressed with new signing in 2012 and 2013.
- For FY 2013, funding was included in programmed preliminary engineering for outer year safety projects to conduct a road safety audit (RSA). The purpose of the audit is to ensure the appropriate safety fixes are incorporated into the overall design.
- New to MDOT’s internal annual for safety projects for FY 2014 through 2017 is the opportunity for each Region to allocate up to 10 percent of their funding target for low cost safety improvements. This amount is in addition to the SWA funding. The focus is to be on system-wide safety improvements done by work authorization or through the letting process. A TOR justification is not required if the proposed improvement is selected from the list of approved and proven safety system-wide fixes (Eligibility Guidelines for Low Cost Safety Improvement Projects). For FY 2018 this percentage is 25 percent.
- In an effort to incorporate the Highway Safety Manual (HSM) into MDOT’s business process, all safety projects submitted for FY 2019, except for freeway improvements, shall have the HSM predictive analysis performed on them. A comparison of future conditions with and without the proposed improvement shall be provided.
- The Safety Programs area is promoting high friction surface treatments to address locations where vehicle speeds and roadway geometrics create a friction demand higher than what can be countered with standard pavement surfaces.
**Partners:** Foster and sustain partnerships to optimize operations and achieve customer-centered results.

### Goal Level
- MDOT participates in the MEDC-led Interdepartmental Collaboration Committee (ICC), including subcommittees on Mining, Logistics, Rural Development, and Placemaking. We also participate in the Governor’s Cities Team and the state-level cross-agency team that is dedicated to supporting the revitalization of Detroit.
  - MDOT participates in the ICC Placemaking Subcommittee, which supports the Governor’s Placemaking Initiative. MDOT Region staff members participate in Regional Prosperity Initiative teams that review, collaborate on, and support strategic placemaking projects.
- MDOT has been working very hard maintaining our relationships with the contractor and consultant industry groups over the past several years. We have sustained a large number of MDOT/Industry Operations Committees and initiated several new ones in key discipline areas that needed more attention. These committees and our ongoing commitment to work more closely with industry groups has paid dividends in working through a number of critical contentious issues with them achieving win / win solutions.
- Based on the performance of Accounting Services Division staff, the department reached agreements with DTMB – Office of Financial Management to continue providing accounting services to four state departments and housed the division in the Van Wagoner building.
- Accounting Services Division conducted a customer survey for accounting services functions and used results to better align services to meet customer needs in revising Service Level Agreement metrics.

### Strategy Level

| 1. Prioritize and strengthen partnerships that create organizational efficiencies and optimize the contribution of transportation investments to Michigan’s economy. | 
| --- | --- |
| - MDOT worked with Michigan’s Congressional Delegation to communicate Michigan’s needs and impacts of policy changes prior to passage of MAP 21 in 2012. | 
| - In 2012/13, the Data Collection Section initiated with DTMB through the LAMP project, an effort to modernize the technology and the techniques used to schedule, process, review, perform QC/QA on data, and make available traffic information to MDOT, our partner agencies, and the public. This effort began by first working with DTMB staff and MDOT staff to map out the “as is” state of our work flow. This then will set the stage for the next phase of the project which will be to conduct an alternative analysis on how to best develop the “to be” state of how to do the work. The end objective is to find the best method to warehouse the traffic data, make it available to our customers and allow quick turnaround on the processing to put it into the hands of the customer who will use the traffic information. | 
| - MDOT developed and fostered State agency partnerships on non-motorized issues, senior mobility planning, and “Building Michigan Communities” initiatives (DNR, Community Health, MSHDA, MEDC, etc.) throughout 2011, 2012 and 2013. | 
| - MDOT developed a partnership with the seven MPOs that represent Transportation Management Areas to coordinate and improve the effectiveness of MDOT and MPO Transportation Alternative Program investments. This was accomplished through contributions from Local Agency Programs, Roadside Development, Environmental, Intermodal Policy, Statewide Planning, Passenger Transportation, Economic Development, and all seven Regions. | 
| - Collaboration between MDOT, Travel Michigan, and the state’s Convention and Visitor Bureaus through the Highway Hospitality Committee provides an opportunity to work together to support the tourism industry throughout Michigan. |
**Partners**: Foster and sustain partnerships to optimize operations and achieve customer-centered results.

- In the Traverse City TSC area, when developing the new shopping center and Meijer store in Acme Twp., the resulting selection of a roundabout over a conventional traffic signal was a response to feedback received from the community through the Grand Vision regional study process. Prior to becoming involved in the planning process, the local TSC had already worked to develop strategic partnerships with the Township and County officials which ensured that traffic impacts on MDOT’s operation would also be addressed as part of this major development.

- The North Region is working with local officials and Grand Traverse County to design and construct a roundabout on M-72 at Lautner Road as an example of leveraging partnerships to increase (private) investment in Michigan’s transportation system. The preferred design of a roundabout reflected the goals of improving the quality of life through reduced energy use, congestion and emissions. This design also protects watershed from increased runoff and provides a traffic-calming entryway for visitors to the area.

- MDOT is a member of the Great Lakes Regional Transportation Operations Coalition (GLRTOC) that is made up of neighboring states and Canada. GLRTOC collaborates on initiatives that improve cross-regional transportation operations in support of regional economic competitiveness and improved quality of life. Plans and strategies designed to achieve the coalition’s goals include efficient freight operations, reliable mobility, and traffic incident management and emergency traffic operations.

- MDOT’s Superior Region is meeting with Upper Peninsula economic development partners on a quarterly basis to develop new relationships and implement the governor’s MEDC Collaborative Effort.

- MDOT’s Superior Region continues to meet with Michigan State Police to understand weight enforcement needs and prioritize those needs in MDOT’s annual CVE Implementation Plans.

- MDOT served on interagency workgroup chaired by DHS Director Corrigan, to develop transportation solutions for DHS PATH Clients.

- Together with the Governor’s Office and SEMCOG, MDOT served as interim staff to the Board of the new Regional Transit Authority of Southeast Michigan.

- MDOT worked with Suburban Mobility Authority for Regional Transportation (SMART) to include layover capacity for SMART buses at the Greyhound Bus station in Detroit. MDOT was able to accommodate the work being done as part of the new Detroit TSC project adjacent to the Greyhound Station.
**Innovative & Efficient**: Move people and goods through better customer-centered services and performance-driven decision-making.

### Goal Level
- MDOT’s Good Government in Action (GGiA) effort is framed around a goal of customer satisfaction with work areas responsible for lead measurements that are charted via a scoreboard as are the resultant lag measures and goal results, which are then accounted for on a regular basis.
  - Much of the GGiA efforts focus on improving the movement of people and goods throughout the state with data-driven decisions associated with efforts to optimize freeway travels in the five southern regions and better work zones and winter operations on freeways and non-freeways in the two northern regions.
  - Other GGiA efforts focus on improvements to benefit our customers both internal and external to MDOT. Efforts include better processing of Special Provisions to reduce contractor claims, faster permit responses and approvals.
  - The GGiA efforts also result in gained efficiencies and consistencies through cycle or response time savings, cost reductions, and improved processes and actions.
- MDOT is expanding its capital program asset management system into the maintenance area, with customer-oriented and regional and statewide consistent levels of service and resulting in improved cost allocations.

### Strategy Level
1. **Pursue innovations, transformational changes and organizational efficiencies that lead to investing more in the transportation system.**
   - Innovative applications include: development of unmanned aerial vehicle systems, accelerated bridge construction, constructing long-lasting bridges with new technologies (e.g. carbon fiber), implementing new strategies for managing complex projects, developing rapid-set concrete, implementing precast concrete panel systems, utilizing smart compaction, first in-the-nation use of federal funds for advance right-of-way acquisition, etc.
   - MDOT continues to update and streamline processes for gained efficiencies and reduced costs through faster processing time and more consistent applications. Examples include: revising the consultant selection process, improved financial closure, reducing the number of leased facilities, developing an environmental license agreement to account for customer-caused pollution in MDOT’s right-of-way.
   - MDOT established innovative contracting methodologies such as Design-Build, Fixed Price Variable Scopes, Alternate Pavement Bid, Contractor Manager-General Contractor, and the use of Alternative Technical Concepts to gain efficiencies in the type or amount of construction performed which results in reduced costs and/or elapsed time.
   - Maintenance results are improved through creative approaches with joint ventures with contract agencies, material application studies, etc.
   - To gain efficiencies in construction management two efforts are underway, one is eConstruction. Projects are being piloted using MDOT’s ProjectWise document management system for collaboration between MDOT and construction contractors. The second is the use of Reference Information Documents (RID) on trunkline projects. RID consists of published electronic information (CAD files, terrain models, cross sections, control point coordinates, etc.), used to develop construction plans.
   - MDOT used the Planning/Environmental/Linkage process at the I-94/Sprinkle Road interchange which streamlined the project development process and resulted in realizing the benefits of an improved interchange design that promotes safety and increased development opportunities sooner.
**Innovative & Efficient**: Move people and goods through better customer-centered services and performance-driven decision-making.

<table>
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<th>2. Manage performance to provide value and better customer-centered results.</th>
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| • To reduce travel delays, each MDOT region measures and accounts for the costs associated with freeway delays when traffic moves at less than 60 mph.  
• To improve winter operations, each MDOT region measures and accounts for winter regain time, the amount of time freeways became free of snow and ice after each winter event.  
• To improve traffic incident management and quickly clear incidents, each MDOT region measures and accounts for incident clearance time; in addition, MDOT conducts post-incident reviews and trains first responders.  
• To improve work zone management, each MDOT region measures and accounts for predicted and actual delay times in work zones.  
• To improve visitors' experiences, MDOT developed the Adopt-A-Welcome Center (AAWC) Program which encourages local tourism entities, such as Convention and Visitor Bureaus, to work closely with a Welcome Center to better serve customers. This can involve providing volunteer staffing to increase hours, sharing local products. To date, the Marquette and New Buffalo Welcome Centers have AAWC activities underway. |
### Workforce: Recruit, develop, and retain a high-performing workforce.

| Goal Level |  
| --- | --- |
| **Wounded veterans who cannot return to their previous civilian jobs after serving in combat were provided placement opportunities with MDOT through a grant provided by the Federal Highway Administration. MDOT was one of the first state transportation departments to offer the internship program.** |  
| **Each Region/Bureau initiated brown bag lunch sessions to listen to the workforce and resolve issues.** |  
| **MDOT Leadership Support for Employee Engagement Survey and substantial follow-up work.** |  
| **In coordination with OHR and Civil Service, the Bay Region has attended multiple career and engineering fairs in the area. Our presence at these events has helped provide attendees a better understanding of what MDOT does, provided direction for future employment opportunities to youth and high school students, and actively recruited veterans seeking employment.** |  

### Strategy Level

1. **Target employee development to improve organizational performance, with a focus on customer service.**
   - OOAS and OHR have worked together to work towards “no gaps” in youth being involved in transportation. From TRAC to YDMP to Co-Op to Student Assistants.
   - The roll out of the Foundational Curriculum-Phase One is an important accomplishment for 2013. It helps bridge the gap with the current MDOT workforce and new MDOT employees, in understanding the MDOT “culture.”
   - Working with Co-ops and students enhancing youth involvement in Transportation.
   - Support Career Days and other youth outreach initiatives which include periodic tours of the various facilities and presentations.
   - Increased use of online technical training modules to enhance employee knowledge.
   - Mentoring opportunities are developed to select future leaders to attend TRB each January to get a national perspective on research, new technologies, and best practices across the nation.

2. **Use workforce planning to increase flexibility in the workplace.**
   - The Transportation Technician has proven to be a great tool to encourage cross training and create promotional opportunities.
   - The Bay Region, OOAS, and CFS is working together to formalize estimating the workforce needs by using the workforce planning tool. OOAS is administering this tool going on its fourth year and now is working with the SACT to organize and develop these upcoming needs for co-ops, consultants, and overtime in 2014.
   - Maintenance Garage workers from different garages were combined to complete large projects.
   - Reorganization efforts created stronger operations focus.
   - Reorganization efforts created stronger design focus.
   - Implementation of Alternate Work Schedules.

3. **Value, engage and empower our employees.**
   - Town Hall meetings (for MDOT employees) are being conducted in each Region. Also, follow up to the employee surveys.
A new vision and WIG for the "Innovation Hub"

Each year, MDOT's top leaders review the department's strategic plan in the context of our accomplishments and our current environment, and makes recommendations for change to my Executive Team. This disciplined approach to our performance is actually embedded in one of our leadership strategies: regularly evaluate organizational performance and adjust direction as necessary. Our Strategic Plan Coordination Team has spent the last few months doing just that, driven by two basic questions:

1. What kind of agency are we striving to become?
2. What should our new WIG be?

MDOT's new vision

The answer to the first question should be embodied in our corporate vision statement. Here is a test for each of you. Can you tell me what MDOT's current vision statement is? I'll bet most of you will have to look it up; I could not recite it myself. That simple fact told us that we needed to take another look at it and consider formally re-defining the department's vision. So today we are rolling out the following new vision statement for MDOT:

"MDOT is recognized as a **progressive** and **innovative** agency with an **exceptional workforce** that inspires **public confidence**."

Let's dive a little deeper into that statement. First, it is a single statement, so it is clearer than a series of statements or separate phrases. Second, it is both outward- and inward-focused.
In order for that vision to be realized, both the organization (inward) and its customers and stakeholders (outward) need to be involved. Third, it contains some key words and phrases that are intended to provide a framework for evaluating our organizational culture and performance moving forward. What do we mean by these key words and phrases? Let me suggest the following operational definitions:

- **Progressive**: Continually advancing our business policies and practices to meet the needs and demands of our customers.
- **Innovative**: Pursuing and implementing new technologies, products and processes to achieve greater efficiencies and value-added outcomes.
- **Exceptional Workforce**: Our employees are engaged, equipped and empowered to deliver results that matter for our customers.
- **Public Confidence**: We are trusted by the public to do the right things in the right way.

This is the kind of agency we are striving to become. In many ways, I believe we are already there now. As I reviewed the impressive list of accomplishments as a result of our 2014 Customer Satisfaction WIG (Wildly Important Goal), I saw many of them as evidence that we are there. But there is always room for improvement. As many of you have heard me say more than once, "We are either getting better or getting worse each day. We never stay the same." We are committed to getting better. That's what high-performing organizations do. If they are not champions, they strive to become champions. If they already are champions, they strive to remain champions. And we get better through a disciplined approach to our performance. This brings us to the second question, "What should our new WIG be?"

**MDOT's new WIG**

MDOT has consistently earned the praise of our customers, stakeholders and peers by continually improving many of our products, processes and outcomes over the years. MDOT's ability to improve through innovation has drawn national attention and has distinguished us from many of our peers, particularly in the application of technology to the business of transportation. Of course, innovation has been part of MDOT's corporate heritage, ever since the department was first created by an act of the Michigan Legislature in 1905.

Our strategic focus on customer satisfaction over the last two years has given us many opportunities to be innovative. That's why I call MDOT the "innovation hub," because of our
growing reputation as an agency that seizes the opportunity to try new and better ways to do our business better, faster, cheaper, safer and smarter.

As we turn the corner and head into a new year, we again have an opportunity to "get better" as an organization by focusing on a new department-wide WIG for both 2015 and 2016:

**MDOT's WIG: Increase our capacity to innovate.**

This corporate WIG is different than our last two WIGs in two important ways. First, it is a two-year goal. We believe we will need two full years, at a minimum, to see the impact of our efforts to increase our innovative capacity. We are taking a little more time to roll this WIG out to and throughout the organization. We want to give you time to understand its implications, and develop and implement action plans aimed at supporting and achieving this goal. Secondly, this goal is not really aimed at any current performance gap. Instead, we see it as one of our strengths that we are choosing to leverage and take to the next level.

MDOT will be focused on this organization-wide goal of increasing our capacity to innovate in three ways:

- First, we will be strengthening our organizational culture to foster and encourage more innovation. We are considering some formal assessment tools to evaluate our baseline innovative culture. We also are considering some leadership training aimed at increasing our capacity to foster innovation within MDOT. We also will be looking at ways to reward and acknowledge our innovative efforts.

- Second, we want to continue to champion innovation right at the level of the individual employee and work unit. Let's keep our innovation hub humming with those new ways of doing business.

- Third, we will seek to identify a few organization-wide products, processes and technologies to focus on in our quest to improve our innovative capacity. We are considering setting aside some resources for implementing new innovations. We also are anticipating asking each operating area to identify local champions to provide leadership and inspire innovations within each work area.

We also are discussing the following measure of success for our new WIG as we move forward:
In all areas of the department, achieve a 25 percent improvement in value-addition (in terms of safety measures, cost reduction, increased quality, or reduced schedule) by Dec. 31, 2016, through the rapid application of innovative products, processes and technology.

I realize a 25 percent value improvement may seem like a very high threshold to meet, but don't let it scare you. We selected 25 percent as the "stretch" goal to remind us that we are striving to push innovation to the next level, and I know there are innovations out there that can achieve 25 percent improvement levels over the next two years. However, improvements of 5, 10, 15 or 20 percent are equally worthwhile and should be considered.

Work with your performance leaders and champions to set an improvement goal that is appropriate for your specific innovation. We have many tools at our disposal to help us achieve our goals, including our 4DX process and our new training curriculum, and we will be leveraging the innovations we currently are working on.

Is there a new method, product or technology you would like to see tested, proven or applied in your area of business? Get ready to engage with your peers and your leadership as we look to identify those new and existing ideas that will generate value for our customers.

Our new vision statement embraces innovation as one of the foundations of our success as an organization. The statement also says that we have a workforce ready to achieve this vision. I couldn't agree more that the exceptional employees of MDOT are ready to take on and achieve this new challenge and strengthen MDOT's reputation as the innovation hub.

To view a list of 2014 Strategic Plan Accomplishments, click here.
To view the revised Strategic Plan, including MDOT's new vision and WIG, click here.
Updated MDOT Strategic Plan renews emphasis on serving customers

MDOT has had a high-level business plan, or Strategic Plan, since 1997. These plans were adopted to streamline operations and refocus our attention and investments to match our core mission. Over the years, the plan was updated to acknowledge the department's many accomplishments. We have achieved a great deal but, like everything, our goals change over time and our plan needs to evolve. Over the past year, department leaders have worked to update our Strategic Plan. The new plan reflects changes in the way we do business and MDOT’s role in reinventing Michigan with a renewed focus on customer-centered performance and employee engagement.

One challenge identified by MDOT leaders is translating the Strategic Plan into tangible improvement in our department’s response to customer needs. Consequently, one of the big changes in the new Strategic Plan is not in the plan itself but in our adoption of methods to make strategically important changes. We're calling this methodology MDOT's "Good Government in Action" initiative. It represents the way any of us can close a performance gap on anything that is strategically important.

Toward that end, managers throughout the department are participating in training sessions this month. Then they will share these principles with all of you in January.

MDOT's Goal for 2013: 80 percent Customer Satisfaction

As you will learn, the first step in the process is identifying our target achievement. Through our discussions, we have determined customer satisfaction to be a primary goal.

MDOT has long been a customer-focused organization. For many years, we have proudly declared one of our five shared values to be "customer orientation." So we have a
strong foundation already. We also know from recent public surveys and feedback from
customers that we have many positive examples of outstanding customer service. Still,
the data also reveals many areas where there is still room for improvement. As part of
Gov. Rick Snyder's call to reinvent Michigan and promote Good Government, he has
challenged us to think and act as a customer-service industry. That means delivering great
customer service to taxpayers, businesses, and visitors to Michigan. This is why the
updated Strategic Plan has reformed one of our strategies to be customer-centered,
emphasizing that customers are the beginning and end of everything we do.

Being great at customer service is really very different than being customer-
oriented. It means taking us to a new level of customer orientation, not just assuming we
know what is best for our customers. It means frequently and routinely asking them if we
are meeting and exceeding their expectations. No customer service business is effective
without knowing their customers' level of satisfaction. Customer satisfaction measures
become the drivers for delivering service at the highest levels, inside and out, every day,
every time.

Therefore, for MDOT right now, one of the most strategically important things for
us to do is close the gap between being a good customer-oriented organization and being
an outstanding customer-service organization. To do that, our goal this year will be to
make a 10 percent improvement through the use of our "Good Government in Action"
process. Specifically, we aim to increase overall customer satisfaction from 73
percent to 80 percent by the end of the year (the 73 percent baseline comes from our
latest Attitudes and Perceptions Survey). Through a disciplined application of this
process, and the creativity and innovation of all of our employees, I am confident we can
hit this mark. In the end, we will reinvent MDOT into a customer-service organization
that delivers really good government for the citizens of Michigan.

(Click here for a look at MDOT’s revised Strategic Plan.)
The following document is the Pennsylvania Department of Transportation Strategic Plan. It directly aligns with the Governor’s Strategic Goals for the Department under Goals 2, 5, 7, and 8 in the Office of the Budget’s performance reports. Alignment with the “Transportation Performance Report, Pennsylvania 2013” as identified under the sub-topic “Achieved through . . . and Metrics/Measures used.”
Our VISION

A better quality of life built on Transportation Excellence

Our Mission

To provide a sustainable transportation system and quality services that are embraced by our communities and add value to our customers

Our VALUES

Safety: we promote the delivery of a safe work environment and a safe transportation system in our products and services

Modernization: we consistently evaluate our processes and procedures to encourage innovation and remain competitive

Customer Service: we are committed to providing the highest level of public service and value to our customers

Communication: we are committed to effective communication with our customers, employees, and the legislature

Workforce Development: we value and respect one another while promoting team-work and workforce development
Goal 1: Provide timely, quality service in order to create the best value for all customers

Goal Intent: The intent of this goal is to capture the level of satisfaction of both external customers (contractors, legislators, other agencies, private or public businesses, traveling public, news media, etc.) and internal customers (PennDOT employees who receive a product or a service from another organization within the Department) with our products, services, and processes.

**The Objective:** is to increase or maintain the level of satisfaction by our customers whether they are the traveling public, Legislatures, other Agencies, or organizations within the Department.

**Achieved through:** Accountability in the TPR Final Report where accountability is listed as one of the major areas of activity by the Department. The subcategories include but not limited to:

- Next Generation Project Teams of which there are 39 and the continuous process improvement, process efficiencies, and cost savings from these improvements;
- State Transportation Innovation Council;
- Transit Performance;
- Transit Modernization;
- Project Delivery;
- Business Partnerships.

**Metrics/ Measures used:** measures from the items above can be determined through:

- Final Project Amount;
- Inactive Federal Obligation;
- Annual Letting, etc.

These measures can be found in the District Metrics Dashboard where the results are posted on a periodic basis. An example:
Goal 2: Leverage Pa.’s Resources to maximize the effectiveness of transportation products and services

Goal Intent: The intent of this goal is to collaborate with organizations outside of PennDOT (Federal, State, Local, and Business Partners) to maximize the use of our collective resources (dollars, people, and assets.)

The Objectives: align capacity and services to eliminate redundancy; improve service delivery; and increase coordination of projects and programs to maximize Commonwealth investments

Achieved through: Preservation and Renewal in the TRP Report on limited resources driving our collaboration with other Commonwealth Agencies, local governments, and private organizations, and corporations. These involve:

State bridges; Local bridges; Posted Bridges; Pavement Reconstruction; Rail infrastructure; Transit infrastructure, etc.

Metrics/Measures used: measures for the items above can be determined through but not limited to:

SD Bridge Area; Longitudinal Joints; NBIS Inspections; Claims, etc.

These measures can be found in the District Metrics Dashboard where the results are posted on a periodic basis. An Example:
Goal 3: Create and Nurture a Flexible, Dynamic Work Environment that Supports Organizational Learning, and Personal and Professional Growth in order to become a Competitive Employer

Goal intent: the intent of this goal is the development of plans and programs that enhance the work environment and the opportunities of self-development for all PennDOT employees to more effectively deliver projects, products, and services.

The Objectives: implementing individualized training and development plans focused on career succession planning and knowledge transfer; incentivize cross training, rotational, technical, and professional growth; become an employer that fosters an empowered workforce by appropriately allocating decision-making processes.

Achieved through: numerous options are available for organizations to meet this goal and its intent. Some of these options are:

- Internal and External training opportunities; EIT-PE programs; Emp. quarterly reviews; ASHE, AASHTO, ACEC, and other professional group membership and participation, etc.

Metrics/ Measures used: measures for the items above can be determined through but not limited to:

- Training Records; EPR’s; Requests for participation by professional groups on project teams, etc.

Some measures may need to be tracked separately such as professional group participation on project teams. Examples of metrics and measures would be the up to date training records that align with career paths.

Goal 4: Communicate our Performance to our customers

Goal intent: to maintain the open lines of communication to employees and the general public on our products, services, and work area updates

Objectives: 1) communicate the value of our projects, products, and services to our customers to increase public understanding; 2) while providing current updates to local and statewide media on upcoming projects and current project updates.
Achieved through: Improving communication at all Levels by the use of:

Internal and External Surveys; Plans Displays; Public Meetings, partners, local and statewide media outlets, etc.

Metrics/ Measures used: measures for this activities include but are not limited to;

Project meetings, AAR’s, etc.

Goal 5: Integrate land use and local, regional, state, and federal transportation planning in order to enhance quality of life for all Pennsylvanians, focusing on multi-modalism, and aligning priorities and funding at all levels

Goal intent: to continue to enhance the cooperation, collaboration and communications among all levels of transportation planners in Pennsylvania.

Objectives: 1) develop and implement a multi-modal statewide long-range transportation plan; 2) create a collaborative partnership between County, Regional (MPO/RPO/TMA), and PennDOT Planners to advance land use and transportation planning; and 3) to maximize planning resources to advance the integration of land use and transportation planning

Achieved through: Environmental Stewardship; MS4 permits, Illicit water discharge, SEMP program, Wetlands, etc.

Metrics/ Measures used: measures for these activities include but are not limited to:

SEMP records, etc. An example:
Goal 6: To Continuously Foster a “Safety First” Culture embraced by all

Goal intent: to develop a culture in the Department that safety is first and foremost in what we do and how we do it for employees, contractors, and the public.

**Objectives:** 1) reduce all traffic related fatalities; 2) reduce department personal injury and fleet accidents; 3) and reduce the number of work zone intrusions that results in property damage or personal injury

**Achieved through:** Reduction in impaired driving, Unbelted fatalities, Speeding/Aggressive driving, Districted driving, Pedestrian safety, and Work Zone crashes, Employee Safety programs, etc.

**Metrics/ Measures used:** measures for these activities include but not limited to:

- Seat Belt Info, Fatalities, reducing Major Injuries, Employee injuries and accidents, etc.
Goal 7: Continually increase the efficiency of PennDOT through: modernization of our assets; effective use of our compliment; and streamlining of our processes

Goal intent: to increase and enhance the productivity of the Department assets, people, and processes through the use of new technology, applications, and practices.

Objectives: Modernize PennDOT to enhance services and/or reduce costs, maximize effectiveness of complement, and streamline and/or standardize PennDOT’s business processes to enhance services

Achieved through: Funding Transportation agencies must continue to modernize and embrace innovation to control costs. PNG Teams, etc.

Metrics/Measures used: Accrued Unbilled, Project Closeouts, Innovative tracking, etc. An example:
Goal 8: Promote Continuous Improvement and Innovation with a special focus on Delivery of Projects, Department wide Operations, Asset Management, and Mobility

Goal intent: to apply innovative ideas and new technology in how we design, construct, and maintain our roadways, bridges, and other projects that are our responsibility.

**Objectives:** manage assets to maintain a state of good repair; maximize efficiency and allow flexibility of project deliver processes; manage highway operations (especially winter services); increase best practices and innovative products/processes; all of these while recognizing funding constraints; maintaining accountability; reducing traffic related fatalities; improving mobility and environmental impacts and development of a metric tracking system.

**Achieved through:** Mobility, congestion management, capacity enhancements, traveler information, traffic signals, and Traffic Incident Management, innovative ideas/concepts/processes benefits and efficiencies.

**Metrics/ Measures used:** HOP’s, IRI data, Surface Improvement, Fab Structures, Congestion. An example:
Our Vision
A better quality of life built on transportation excellence.

Our Mission
To provide a sustainable transportation system and quality services that are embraced by our communities and add value to our customers.

Our Values

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</tbody>
</table>

Our Strategic Goals

- Provide timely, quality service in order to create the best value for our customers.
- Leverage Pennsylvania’s resources to maximize effectiveness of transportation products and services.
- Create and nurture a flexible, dynamic work environment that supports organizational learning, and personal and professional growth in order to become a competitive employer.
- Communicate our performance to our customers.
- Integrate land use and local, regional, state and federal transportation planning in order to enhance quality of life for all Pennsylvanians, focusing on multi-modalism, and aligning priorities and funding at all levels.
- To continuously foster a "Safety First" culture embraced by all.
- Continually increase the efficiency of PennDOT through: modernization of our assets; effective use of our complement; and streamlining of our processes.
- Promote continuous improvement and innovation in delivery of projects and department-wide operations with a focus on asset management and mobility.
2013 Interim Business Plan Report

The Interim Business Plan Reports of the five Deputies and the eleven Engineering Districts. These will be provided in the Appendix and preceded by an Executive Summary.

Paul Reed, Transportation Innovation Office
11/20/2013

The Executive Summary will provide a short overview and highlights captured from the organizational business plans. It is hoped that the summary will create an interest in the reader to review the different plans to see the depth of what PennDOT Deputies, Districts, and its employees are doing to create a better quality of life for those who live in and travel in and through the Commonwealth of Pennsylvania.
Executive Summary of the Transportation Department’s 2013 Interim Business Plans

Overview: The following document contains a summary of the interim Business Plans for the five Deputates and the eleven Engineering Districts. Three areas were required for the Districts and Highway Admin Deputate to report on; Fatalities, IRI, and SD bridges. All organizations were required to report on the Safety Culture in their organizations. Each organization is working hard to make improvements in the way we do business and in providing products and services to the traveling public. The first three pages are only a small glimpse of what is taking place in PennDOT. Although a few have been mentioned by name when cost savings have been documented it by no means diminishes the work the other organizations are doing.

Each Interim Business Plan Report is provided in the appendix for reference beginning with the eleven Engineering Districts followed by the Deputates. Each report covers the action items presented in the business plans last year showing current progress and the barriers they are facing.

Goal 1: Provide Timely, Quality Service

Completed: There has been continued success in processing HOPs and permit reduced turn-around times. The department has continued to focus on customer satisfaction levels for our performance, products, and services. District 9 implemented bridge bundling in a pilot with a savings of $840K.

Current: We continue to work on meeting response times for Customer Care Center and 800 Fix Roads issues. We are increasing the use of Innovative Bidding, bridge bundling and other innovative ideas to meet time requirements and restricted available funding on all projects; Ecolane for the shared ride providers; increased number of languages for driver knowledge testing; credit card acceptance at driver license centers; reduce PIB turnaround time; OCS and 360 survey capabilities. Plan for credit card acceptance at DLCs.

Barriers: The pavement improvement metric; reporting component on CCC; Lack of mechanisms and methods to assess how well we are meeting customer expectations; SharePoint document management only addresses submittals during construction needs to include design activities; credit card acceptance at DLCs means more credit card fees that may have to be funded from the Department’s budget.

Goal 2: Leverage PA’s Resources

Completed: District 11 identified cost savings realized from reduced oil in sealcoat program ($41,544); recycling concrete slabs to extract #8 stone ($109,620). Districts have agility agreements that include winter services as well as partnering with other agencies for tree trimming, brushing, roadside mowing, and fleet preventive maintenance. Processing of DCNR renewal applications and registration cards.

Current: Districts are working together on regionalized maintenance activities with each other, with other agencies, and on projects near District and County lines; Multi Agency Capital Planning with DCNR on agency road and bridge projects; regionalization of transit systems; use of new technology and GIS on projects; continuing design/build projects; implement financial responsibility fine in lieu of a suspension.

Barriers: The lack of recycled materials for reuse, RAP and cold mill recycling; Civil Service rules and regulations; Travel for the sharing of services needs to be considered.

Goal 3: Create and Nurture a Flexible, Dynamic work environment
Completed: Held district Health and Safety fairs for employees. There have been expanded district specialized crews for seal coats, and mill and fill projects, full width seal coat in-house. A District created desk manual training and holding quarterly innovation council meetings; BPT’s I-pad app for Fed required compliance reviews.

Current: Career development and mentoring programs have been and are still being developed as well as participation in LEAD, PLAS, PLAM, and the Exec Leadership Programs; the use of IdeaLink by all Deputates and Districts and working on succession planning efforts; employee recognition programs. Districts are using cross training and working out of class opportunities at all levels; civil engineers rotating through design, construction, and maintenance. AWS has been implemented and applied throughout the Department. The use of experienced personnel for critical construction operations as mentors; identifying and sharing best practices.

Barriers: Switching from union to management positions with loss of union representations and various benefits

Goal 4: Communicate our Performance

Completed: Initial customer contact on issues within 24 hours and continues to be the target. Public outreach efforts with MPOs, legislative reps, and municipalities using open houses, newsletters, project specific web-sites, and issuance of press releases have been and continue to be the mode to communicate what we do.

Current: Districts conduct outreach meetings yearly and communicate weekly construction schedules to public via text and email, web site; customer satisfaction and service index surveys; use of “LiveFreeRideAlive” website; provide TIP status reports to partners.

Barrier: The inability to use Tweeter, Facebook, and new technology for communication efforts; Modernization of DOT website with more district control

Goal 5: Integrate Land use and Local, Regional, State, and Federal Transportation Planning

Completed: Preparation of bike/ped checklists for all projects and incorporate facilities where feasible; implemented and used Linking Planning and NEPA process with Planning Partners for coordination with TIP development; District 3 maintains attendance at local chamber meetings; www.PAonTrack.com website;

Current: Working with Southwestern Pennsylvania Commission (SPC) to assist in development of the region Long Range Plan; collaborate with planning partners to align land use and transportation planning; establishment of Regional Long Range and Multi-Modal plans; two studies for commuter/bike/pedestrian issues for Capital region; continued evaluation of roundabouts; working with DPW and DOA to streamline human service trans across state; creation of a Planning Strategy Catalyst Team

Barriers: Continued differing agenda of various groups

Goal 6: To continuously Foster a “Safety First” Culture Embraced by All

Completed: Construction project review to implement safety measures; Implementation of DOT/Union “Safety Partnership” agreement; reviewed (all) crash cluster locations, develop diagrams, field view locations and determined appropriate counter measures; district safety committee reviews near misses with corrective/preventive measures and incident trends with training to address; attention of senior management at safety committee meetings; flagger certification implementation; safety outreach by district safety press officer; positive trending of injuries and accidents; contracts to install guiderail at unprotected bridge abutments, relocated hit utility poles closer to ROW; use of local police and county sheriff departments in work zones;
Current: Increase public education and awareness in effort to reduce crashes; provide two weeks of training for each new temp. winter op and assign senior Mentor; flagger training for all crews; daily job safety talks on personal injuries and fleet accidents; Safety Stand Down Days; use of daylight work zone devices; 100% seat belt usage; identify and implement low cost safety improvements such as milled rumble strips, guiderail upgrades, shoulder upgrades, and intersection sight distance improvement; provide info to PSP on intrusions with PSP rapid response; conducting regular accident/incident review for trends; partnering with local universities and law enforcement in events on safety issues and methods; according to Highway Admin statistics, fleet accidents have increased while the personal injuries have remained relatively steady. On the public side, total crashes and fatalities have been steadily decreasing.

Barriers: Implementation of rumble strips due to age and condition of road per Pub 638 p. 5-88; Limited funding for paving programs and highest maintenance backlog approx. $543 million (15.78% statewide total)

Goal 7: Continuously Increase the Efficiency of PennDot

Completed: RAP/paving DOT teams; geo-synthetic reinforced soil walls and abutments when applicable; Department force line painting program; savings of 265K using RAP vs. a 1” overlay; design workload sharing; bridge bundling; workload/resource sharing across district and central office lines; realized $1 million annual savings from emission management contract

Current: Participation in Next Generation (PNG) programs; use open-ended agreements by sharing consultant construction inspectors on multiple projects; implementation of systematic fraud deterrent processes; update FHWA 4232 for electronic signature; use of warm mix asphalt on projects.

Barriers: Bureau of state employment timeline for filling positions; link electronic permitting system and geographic information systems mapping for posted and bonded roads; Telecommunication costs have risen in District 3 by 53K annually since Penn Connect, with non-ownership and contractual obligations where a change could results in substantial savings to the district; Maintenance DF work/coordinate with future contract work; combined DF crews/% SLM under agreement; Local labor practices and policies do not support regionalization

Goal 8: Promote Continuous Improvement and Innovation

Completed: Dump truck fleet replacement cycle; job mix formulas improvements; surface improvements and continued bridge and deck improvements

Current: Meet all committed let dates; continued effort to reduce SD bridges while supporting MAP-21 requirements which may include removal of limited use bridges (i.e. local bridges also); in-house design and manufactured concrete bridges and placement; concrete box culvert designs and implementation; use of Design/Build option; roadway surface improvements using innovative techniques; Highway Administration statistics show that state owned SD bridge number has dropped to 4,350 the lowest in 12 years and the number of posted bridges will begin to trend upwards after years of downward movement. The statistics also show that pavement with poor IRI and poor roughness mileage are also beginning to increase after years of improvement.

Barriers: Decentralize RWIS/ITS functions to all districts; Environmental agency coordination; DEP permits for pipes should be reengineered at high level; cycle time measure for pavements are not a critical measure; IRI quality will continue to drop as county budgets continue to be reduced; the material quality also has an effect on the pavement quality: Americans with Disability Act – The Public Right of Way Accessibility Guidelines (PROWAG) have not yet been adopted by the Department of Justice (DOJ). We anticipate that under MAP-21, we will no longer be able to defer reconstruction on the interstates and our NHS routes – we will not be able to justify continuing to resurface (with a shortened life) when reconstruction is warranted.
II. Executive Message

www.dot.state.pa.us
II. Executive Message

Together, we are entering new territory!

Act 89 has presented us with opportunities and funding that we have long sought. The legislative summit has been eclipsed and we now have great expectations, coupled with great opportunity, at our doorstep.

What does success at PennDOT look like now with new revenues supporting a Multi-Modal 21st Century PennDOT? The dedicated men and women of this organization will rise up to the new challenges and use innovation and their entrepreneurial spirit to create new momentum towards stabilizing our fragile infrastructure. AND we will create a new business model that more ably supports our local and modal partners.

Our Business Plan provides insight into our efforts to keep up with the pace of change that is all around us. In order to add value for our customers, we intend to use the statewide PNG effort and our Competitive Enterprise initiative as catalysts towards stretching dollars. This requires a dialogue and input from our skilled and dedicated workforce, active listening to our customers, and continued organizational learning!

We are very proud of our accomplishments, that include:

- A Recycled Asphalt Paving Program (RAP) that has saved $20.5 million over the past 7 years
- An Agility Program that represents 28% of PennDOT’s overall program
- A record of having the lowest International Roughness Index (IRI) Pavements 13 of the last 15 years
- The most dynamic county pre-casting operation(s) that include: channel beams, inlet boxes and hybrid box culverts to support our Department Force Program
- A Pavement Quality Task Force (PQTF) that has led to numerous quality-enhancing changes to our asphalt paving program
- The design and construction of our first roundabout in Waterford that holds the promise of a safer facility
- A leading edge on design and construction of ADA accessibility to public facilities
- The aggressive marketing and repurposing of two historic bridges
- The mitigation strategies employed to relocate 17,710 threatened and endangered mussels to five states including West Virginia, Ohio, Kentucky, Illinois and other locations in Pennsylvania.

This small sample highlights some of the capabilities of our team. The people at PennDOT represent our strength, our foundation and our greatest asset.

We are excited about the promise of a better future for our industry and for our continued stewardship of the transportation infrastructure with which we have been entrusted. We are committed to our journey towards redefining “GREAT”!

William G. Petit, P.E.

District Executive, Engineering District 1-0
III. Goals, Objectives, and Executive Assistance

1. Provide timely, quality service in order to create the best value for all customers

1.1 Objective:
To improve the level of satisfaction for our internal and external customers.

Achieved Through Action Items:

1.1A Develop a report and design a process for tracking the number of projects with design error and omission work orders.

1.1B Develop a long-term plan to limit the number of weight posted bridges.

1.1C Develop a more aggressive construction work schedule with industry partners for mill and fill projects.

1.1D Conduct an After Action Review on completed major construction projects to identify opportunities for improvement.

1.1E Continue to optimize alternate work schedules and compressed project schedules to limit inconvenience to our customers.

1.1F Continue a dialogue with industry partners (Pennsylvania Asphalt Pavement Association, American Concrete Pavement Association and Associated Pennsylvania Constructors) and local government agencies on improving products and services.

1.1G Develop a five-to-ten-year strategy to improve International Roughness Index scores and correct out-of-cycle pavements across all highway systems.

1.1H Maximize reimbursement forPosted and Bonded Roads repairs to minimize the financial burden in Maintenance.

1.1I Continue to evaluate winter services to ensure that they are timely and provide an appropriate level of service.

1.1J Conduct a District 1-0 external Customer Survey to identify needs, opportunities and expectations.

1.1K Modify the existing Customer Care Center tool to allow the District to identify, prioritize, and respond to all types of concerns in a timely manner in accordance with the pilot of the Safety Scorecard (In 2014 District 1 has averaged 10.94 days to complete concerns).
Executive Assistance for Goal 1:

- Modernize the current Customer Care Center to be more user friendly and develop standard reports on timelines, locations and types of concerns reported.
- Help in securing additional maintenance funding since the level was reduced by $1.3M from FY 10/11 to FY 14/15. Costs are increasing across the board, while funding is projected to be held at a flat rate into the foreseeable future.
- We should develop an online customer survey tool that can be sent to customers through the PennDOT Driver and Vehicle Services website, Customer Care Center website and Electronic Permitting website to get customer feedback.
- Incorporate the Posted and Bonded Roads five-year plan for repairs into a five-year maintenance plan.
- Incorporate a formal communication process in ECMS to allow input from the Assistant District Executive for Design on Design Errors or Omissions in ECMS.

*Source: ITEP analysis of data from FHWA*
2. Leverage Pennsylvania’s resources to maximize the effectiveness of transportation products and services

2.1 **Objective:**

Align capacity to eliminate redundancy and improve service delivery.

**Achieved Through Action Items:**

- **2.1A** Continue to hold annual reverse-marketing meetings with consultant partners to assess best practices for incorporation into District 1-0’s Competitive Enterprise.
- **2.1B** Collaborate with Planning Partners to develop fiscally balanced Transportation Improvement Programs.
- **2.1C** Manage project let schedules and cash flow to meet established metrics.
- **2.1D** Continue a dialogue with adjacent Districts to explore potential regionalization opportunities across all units.
- **2.1E** Use Agility agreements to support winter services in lieu of Winter Maintenance Agreements with municipalities.
- **2.1F** Assist municipalities in developing a prioritized plan for signal upgrades and maintenance.
- **2.1G** Use the Make vs. Buy decision model to determine the most cost-effective and efficient direction for delivery of products and services.
- **2.1H** Continue to aggressively support in-house design and Department Force construction of bridges.
- **2.1I** Continue to prioritize structurally deficient bridge rehabilitation and/or reconstruction to reduce SD bridges below the national average.
- **2.1J** Assess capacity and leverage resources to support Department Force work including precast channel beams, hybrid box culverts, and inlet boxes for in-house work and with potential for our municipal partners.
- **2.1K** Maintain a five-year plan for DOT crew Recycled Asphalt Paving and Seal Coat by Department Forces.
- **2.1L** Continue to produce winter materials (cold mix and salt brine) by Department Forces.

### RAP Savings

<table>
<thead>
<tr>
<th>Year</th>
<th>Tons</th>
<th>Cost/Ton</th>
<th>Total Costs</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013 RAP</td>
<td>78,247</td>
<td>$26.99</td>
<td>$2,111,886.53</td>
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<td>2013 Hot Mix*</td>
<td>58,685</td>
<td>$75.00</td>
<td>$4,401,393.75</td>
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</tr>
<tr>
<td>2012 RAP</td>
<td>109,210</td>
<td>$28.44</td>
<td>$3,105,932.40</td>
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<tr>
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<td>$75.00</td>
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<tr>
<td>2011 RAP</td>
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<td>$33.93</td>
<td>$5,345,875.08</td>
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<td>$3,526,011.72</td>
<td>$1,920,968.28</td>
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<tr>
<td>2008 RAP</td>
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<td>2007 RAP</td>
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<td><strong>RAP</strong></td>
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<td><strong>$26,339,237.92</strong></td>
<td><strong>$20,599,703.33</strong></td>
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</table>

**Footnote:** For cost savings comparisons, a ratio of 0.75 Tons of Hot Mix/Ton of RAP was used due to strength factors for the respective products.
2.1M Develop a five-year, equipment-sharing plan within the District and seek regional opportunities with other Districts.

2.1N Continue the flexible winter maintenance services agreement between District 1-0 (I-376 in Mercer County) and District 11-0 (I-79 in Lawrence County).

2.1O Use approved IDEA funds to pilot a project that uses fines left over from extracting #8 stone from millings for other applications (currently our District has $255,918 in research funds from IDEA for this).
2.2 Objective:
Increase coordination to maximize the value-add of Commonwealth investments.

Achieved Through Action Items:

2.2A Improve the coordination of Highway Occupancy Permits across organizational silos (Design, Construction, and Maintenance) and with Planning Partners.

2.2B Include regulatory agency representatives at pre-construction conferences involving environmental issues.

2.2C Maintain an Environmental Mitigation Tracking Matrix to ensure all environmental commitments are completed for every construction project.

2.2D Continue to advocate and plan for historic truss bridge preservation throughout northwestern Pennsylvania (picture on front cover).

2.2E Monitor quarterly Agility status reports and ensure timely delivery of commitments within the work plans.

2.2F Support District-wide participation in new initiatives including the State Transportation Innovation Council, Public-Private Partnerships, PennDOT Next Generation Initiatives, and the Catalyst Team Effort.
Executive Assistance for Goal 2:

- Recognize usage credit for equipment shared across county lines.
- Modify the current policy that records equipment usage based on equipment hours charged on payroll to use actual hours instead.
- Support a funding increase for shared, specialized equipment (pavers, beam setting cranes, crusher, etc.)
- Increase funding support for local SD bridge program.
3. Create and nurture a flexible, dynamic work environment that supports organizational learning, and personal and professional growth in order to become a competitive employer

3.1 **Objective:**

To implement individualized training and development plans focused on career succession planning and knowledge transfer.

**Achieved through Action Items:**

3.1A Improve succession planning throughout the organization *(18 out of 32 in senior management will be retiring in the next 4 years).*

3.1B Develop and implement employee training based on Career Development Plans.

3.1C Implement the Online Career Planning Tool on the District Management Information System (DMIS).

3.1D Develop a survey and collect data for a training needs assessment on each employee in District 1-0.

3.1E Conduct quarterly “Managing Your Career” training.

3.1F Publish information about State Civil Service Commission testing, Career Development Plans, and Frequently Asked Questions about career development in a bi-monthly newsletter.

3.1G Create Position Analysis Workbooks/Desk Manuals statewide by using best practices and topic experts from Central Office.

3.1H Distribute the bi-annual retirement projections report.

3.1I Develop a sustainable mentoring program.

3.1J Continue to schedule one-on-one career counseling days with employees.

3.1K Create redundancy to eliminate one-person roles/units and develop desktop manuals for those identified positions.

3.1L Encourage District-wide participation in national transportation associations such as the Transportation Research Board and the American Association of State Highway and Transportation Officials.

3.1M Develop a strategy to promote and support the deployment of new technologies including mobile applications, Intelligent Transportation Systems and social media.

3.1N Continue to provide Acting Foreman Block-Phase Training and promote this training for statewide implementation.

3.1O Implement the District 1-0 Competitive Enterprise Recognition Program to recognize employees who provide excellent service in their jobs.

3.2 **Objective:**

Provide opportunities for professional growth by supporting rotational assignments and/or cross-training.

**Achieved Through Action Items:**

3.2A Encourage employee commitment to developing their Career Development Plans.

3.2B Develop cross-training and job-shadowing programs, and expand potential cross-training to modal partners.
3.2C  Ensure District 1-0 uses Temporary Working Out-of-Class assignments as needed to support organizational learning.

![TEMPORARY WORKING OUT-OF-CLASS ASSIGNMENTS](chart)

3.3 Objective:
Empower employees at the appropriate level to make value-add decisions.

Achieved Through Action Items:

3.3A  Conduct Employee Participation Opportunities (EPOs) to engage employees on creative solutions to stated problems.

3.3B  Continue the District’s Suggestion Connection/Ideas League, promote the Department’s IDEALINK, and encourage IDEA Research proposals.

3.3C  Continue District 1-0 Leadership Training 101 for all managers and supervisors; and extend to rank-and-file and other Districts. *(This was developed and presented by District 1-0 employees. We have trained 280 employees to date.)*

3.3D  Conduct District 1-0 Leadership Training 102, which is being developed and will be conducted by District employees, for all managers and supervisors.

3.3E  Conduct an After Action Review for each summer and winter maintenance season, and review with the crews before the start of the following season.

3.3F  Continue to conduct the District’s Annual Employee Recognition Day.

3.3G  Provide annual awards for Employee Service/Longevity.

3.3H  Hold an Annual Public Service Recognition Week activities for all employees.

3.3I  Promote the Employee Safety Recognition Program.
Executive Assistance for Goal 3:
- Promote more flexible Civil Service rules and regulations, specifically to allow non-Civil Service employees into acting Civil Service positions.
- Reconcile pay disparity between union and management positions.
- Streamline the SAP role assignment process for permanent and acting positions.
- Provide Planners, Utility Coordinators and various support positions with logical career paths within the Districts.
- Promote greater flexibility to support needs in high-tech fields, such as new classifications, collaborations with universities, etc.

4. Communicate our performance to our customers

4.1 Objective:
Communicate the value of our products and services to our customers.

Achieved through Action Items:
- **4.1A** Maintain our annual County Open Houses/Outreach Programs.
- **4.1B** Publish County newsletters on a quarterly basis.
- **4.1C** Increase PennDOT participation in Township and Borough Association Meetings.
- **4.1D** Continue to promote the use of Twitter, Facebook, Hootsuite and other social media postings to increase “Followers” and effectively extend PennDOT’s message to our customers.
- **4.1E** Conduct annual meetings with all state and federal legislators and provide them with the District 1-0 Report Card.
- **4.1F** Conduct an annual Employee Communication Survey.
- **4.1G** Conduct annual External Customer and Stakeholder Surveys.
- **4.1H** Foster good working relationships with State Police, school districts, libraries and other safety partners to educate the public on driver safety issues.
- **4.1I** Use Expanded Staff meetings to promote transparency and organizational learning.
- **4.1J** Facilitate bi-annual focus group meetings in counties to receive feedback on how well we are communicating the value and information we provide.
- **4.1K** Conduct quarterly Town Hall meetings to allow for timely discussion on employee issues and concerns.

4.2 Objective:
Provide timely updates to local and statewide media and partners on upcoming and current projects.

Achieved through Action Items:
- **4.2A** Expand distribution lists for PennDOT news releases and travel advisories to include non-media partners and customers, to provide project information to all customers.
- **4.2B** Issue the bi-monthly Major Project Newsletter (**13 years running**) and the monthly Intermodal Projects Newsletter.
4.2C Develop Construction and Design web pages that are managed by the units and administered by the Community Relations Coordinator on the District website.

4.2D Attend regional municipal meetings to discuss changes to posted and bonded roads and training on the Electronic Permit System.

4.2E Provide timely and accurate response to news media inquiries.

Executive Assistance for Goal 4:
- Explore opportunities for greater information exchange through social media and traditional means.

5. Integrate land use and local, regional, state, and federal transportation planning in order to enhance the quality of life for all Pennsylvanians, focusing on multi-modalism and aligning priorities and funding at all levels

5.1 Objective:
Support a multi-modal statewide long-range transportation plan.

Achieved through Action Items:
- 5.1A Meet on a quarterly basis with multi-modal partners.
- 5.1B Support multi-modal fund application processes.
- 5.1C Collaborate with MPO/RPO partners on appropriate criteria for the Transportation Alternative Program.

5.2 / 5.3 Objective:
Create a collaborative partnership between county, regional (MPO/RPO), and PennDOT planners to advance land use and transportation planning; and to maximize planning resources to advance the integration of land use and transportation decision-making.

Achieved through Action Items:
- 5.2A Partner with the Department of Community and Economic Development to conduct Land Use training for municipal governments and municipal services staff.
- 5.2B Continue to foster relationships with local planning commissions to discuss the impacts of developments on the transportation system, and foster discussions at the local level.
- 5.2C Partner with municipal governments on stormwater concerns related to medium and high-volume driveway Highway Occupancy Permit applications.
- 5.2D Conduct Land Use/Transportation studies; prioritizing high-growth corridors.
5.2E  Create a dedicated complement position to support modal authorities within the District (Port Authority, Railroad, Public Transportation and Aviation).

Executive Assistance for Goal 5:

- Provide flexibility and additional dedicated funding to support transportation/land use studies.
- Secure dedicated funds to relieve county budgets of long-term, legacy drainage issues related to stormwater management.
- Support the creation of a new classification in the District to work with modal partners.

*This graph includes all grants, bonds and TA projects that have been awarded in 2014 to date.*

### Maintenance Allocation

<table>
<thead>
<tr>
<th>County</th>
<th>10-11 Allocation</th>
<th>11-12 Allocation</th>
<th>12-13 Allocation</th>
<th>13-14 Allocation</th>
<th>14-15 Allocation</th>
<th>$ Change from last year</th>
<th>% Change from last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crawford</td>
<td>$22.3M</td>
<td>$24.0M</td>
<td>$22.4M</td>
<td>$21.7M</td>
<td>$22.3M</td>
<td>$0.8M</td>
<td>2.8%</td>
</tr>
<tr>
<td>Erie</td>
<td>$27.0M</td>
<td>$29.2M</td>
<td>$26.8M</td>
<td>$25.9M</td>
<td>$25.9M</td>
<td>$0.1M</td>
<td>.4%</td>
</tr>
<tr>
<td>Forest</td>
<td>$4.8M</td>
<td>$5.0M</td>
<td>$4.8M</td>
<td>$4.9M</td>
<td>$4.9M</td>
<td>$0.2M</td>
<td>9.3%</td>
</tr>
<tr>
<td>Mercer</td>
<td>$21.0M</td>
<td>$22.6M</td>
<td>$20.8M</td>
<td>$20.2M</td>
<td>$20.4M</td>
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<td>1.0%</td>
</tr>
<tr>
<td>Venango</td>
<td>$15.2M</td>
<td>$16.5M</td>
<td>$15.3M</td>
<td>$14.7M</td>
<td>$15.2M</td>
<td>$0.5M</td>
<td>3.4%</td>
</tr>
<tr>
<td>Warren</td>
<td>$13.7M</td>
<td>$14.7M</td>
<td>$13.8M</td>
<td>$13.4M</td>
<td>$13.0M</td>
<td>$0.5M</td>
<td>3.7%</td>
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<tr>
<td><strong>District Total</strong></td>
<td><strong>$103.8M</strong></td>
<td><strong>$112.0M</strong></td>
<td><strong>$103.9M</strong></td>
<td><strong>$100.5M</strong></td>
<td><strong>$102.5M</strong></td>
<td><strong>$2.0M</strong></td>
<td><strong>2.0%</strong></td>
</tr>
</tbody>
</table>

*Gross Allocations before deductions*
6. Continuously foster a “Safety First” culture embraced by all

6.1 Objective:
Reduce all traffic-related fatalities.

Achieved through Action Items:
6.1A Review safety improvement opportunities at each stage of design.
6.1B Spend the available HSIP 715 monies on safety projects which maximize the effectiveness of the funding, within Planning Period One each Fiscal Year.
6.1C Use crash cluster listings generated by CDART to identify and prioritize needed safety enhancements.
6.1D District Traffic and Safety Engineers will coordinate with County Maintenance staff to identify applicable projects for use of HSIP and LSIP funding.

6.2 Objective:
Reduce Department personal injury and fleet accident rates.

Achieved through Action Items:
6.2A Integrate the mission of the District Safety Press Officer, the District Safety Engineer and the District Safety Coordinators.
6.2B Support the bi-monthly conference call with Central Office and other District Safety offices.
6.2C Conduct annual 614 training for all Transportation Equipment Operators.
6.2D Conduct bi-monthly District Safety Committee meetings; and make changes based on recommendations.
6.2E Re-certify the five county Safety Committees and the Construction Safety Committee with Labor and Industry Safety Committee Certification.
6.2F Provide CPR and First Aid training with in-house trainers.
6.2G Mandate safety performance standards in all EPRs.
6.2H Conduct a County Safety Stand Down Day twice per year and a District Safety Conference annually.
6.2I Continue the pilot on the use of a Safety Report Card in both District 1-0 and 11-0.
6.2J Hold a minimum of two Safety Quality Assurance reviews every fiscal year by all Assistant County Maintenance Managers and County Equipment Managers in each county.
6.2K Provide New Employee Flagger Training.
6.2L Continue safety initiatives (corrective action plans, crew safety observer, and advancing supportive behaviors).
6.2M Meet the 25% accident and injury reduction goal from the previous three-year rolling average rate in each county and district office.

6.2N Hold a Construction Safety Stand Down Day annually to ensure the Department Construction workforce is properly trained in safety.

6.2O Incorporate standard PPE safety requirements in all invitations and notifications to field view invitees to ensure compliance.

6.2P Continue to hold employees accountable for proper PPE, with zero tolerance for infractions.

6.2Q Continue to partner and coordinate with AFSCME on all safety initiatives.

6.3 Objective:
Reduce the number of work zone intrusions.

Achieved through Action Items:

6.3A Provide daily safety talks that relate to the day’s activities.

6.3B Continue to report work zone intrusions and follow up with the authorities.

6.3C Promote safety with the implementation of the District Maintenance Circulars on safety vests, cones and flags in work zone signs.

6.3D Utilize portable rumble strips in appropriate locations.

6.3E Develop a Quality Assurance process that ensures Maintenance and Protection of Traffic reviews are performed and documented.

6.3F Have the Construction field staff participate in daily safety talks with the contractor’s personnel.

6.3G Develop a partnership between Construction and the Industry to combat work zone intrusion.
6.3H Educate the public by providing message board, newspaper, radio and television announcements on work zone safety.

6.3I Provide a weekly schedule of maintenance work to be performed the following week.

6.4 Objective:
Reduce the District’s five-year average of fatalities.

Achieved through Action Item:

6.4A Investigate and implement new safety technologies such as the cameras that are being utilized by Maryland DOT to enforce Work Zone traffic violations.

6.4B Participate in and promote motorcycle safety courses.

6.4C Support, participate in and promote high school driving education/safety courses.

6.4D Continue to invest in local and state law enforcement safe driving initiatives.

6.4E Establish a Mature Driver Task Force to improve the way we reach and educate drivers over 75 years of age, collaborating with potential partners including AARP, AAA, the Erie-Western Pennsylvania Port Authority, local colleges and universities, UPMC, Highway Safety grantees, Erie County Department of Health, Active Aging and others.

6.4F Emphasize the importance of modeling safe driving behavior by parents as we continue to engage and educate teen drivers through expansion of the teen driving competitions, expanded use of impaired/distracted driving simulators, District 1-0’s Road Ahead newsletter, and Park-the-Phone campaigns.

Executive Assistance for Goal 6:

- Develop a certification process to ensure Maintenance and Protection of Traffic is being handled appropriately by utility and construction companies in compliance with PennDOT standards.

- Promote a primary helmet law for motorcyclists to improve safety.

- Work towards increasing penalties for work zone intrusions; larger fines and license suspension.

- Support a more stable, uniform requirement for PPE to keep employees up to date with current policies.

- Develop an integrated approach to incorporate a safety culture across silos for all field employees in Construction, Design and Maintenance.

7. Continually increase the efficiency of PennDOT through modernization of our assets, effective use of our complement, and streamlining our processes.

7.1 Objective:
Modernize PennDOT to enhance services, reduce costs, and produce a sustainable business model.
Achieved Through Action Items:

7.1A Complete the retrofit of the proposed wireless Intelligent Transportation System devices with T1 lines and cellular support.
7.1B Incorporate a LiDAR Survey on future interstate projects (Interstate 90).
7.1C Perform county winter and summer model reviews.

7.2 Objective:
Modernize PennDOT to maximize the complement’s effectiveness.

Achieved Through Action Items:

7.2A Realign complement based on operational needs and the County Modernization efforts.
7.2B Work with AFSCME to promote flexibility within the workforce to support the District DOT crews, Next Generation Initiatives, and Regionalization.
7.2C Develop a regionalized program that will allow advertising the needs and capacity in each District (PennDOT version of Angie’s List).
7.2D Support and participate in the new Rapid Bridge Replacement Public-Private Partnership reviews and processes; then seek future business opportunities.

7.3 Objective:
Modernize PennDOT to streamline and/or standardize business processes.

Achieved through Action Items:

7.3A Seek out and deploy new technologies based on needs and the return on investment.
7.3B Continue to monitor, via QAs, inventory management processes and procedures districtwide for compliance.
7.3C Ensure all levels of the Maintenance organization are trained in and are following the Inventory Management processes and procedures.
7.3D Monitor Plant Maintenance reports to support effective management decision making.
7.3E Continue to review Privately Owned Vehicle (POV) costs to evaluate the assignment of state vehicles.
7.3F Determine a replacement strategy and necessary quota for fleet management throughout the District.
7.3G Fully implement the PennDOT Project Collaboration Center for review and documentation of contractor and designer submittals.
7.3H Ensure a constructability review process takes place on all projects.
7.3I Continue to work on Project Manhour Tracking reports with SAP.
7.3J Assess the value-add of the use of iPads for Construction documentation and applications.
7.3K Implement direct entry of Employee Self Service Payrolls for all Construction employees via mobile computing.
7.3L Conduct annual meetings with DEP and other regulatory agencies that discuss Stormwater Best Management Practices (BMPs).
Executive Assistance for Goal 7:

- Use Central Office IT expertise for District training, such as development of Crystal and Business Warehouse reports.
- Provide training on purchasing laws and regulations as they relate to new ideas and technologies.
- Make vs. Buy decision-making training is needed. PennDOT needs to complete a formal analysis to show the taxpayers the value being added.

8. Promote continuous improvement and innovation with a special focus on delivery of projects, department-wide operations, asset management, and mobility

8.1 Objective:

Manage assets to maintain a state of good repair.

Achieved Through Action Items:

8.1A Continue to monitor and evaluate the performance of Warm Mix Stone Matrix Asphalt (SMA) pavement on SR 8 in Crawford County (2013 Betterment Project) and SR 80 in Mercer County (2014 Interstate Resurfacing Project) for potential alternate applications on our high-level network.

8.1B Require all asphalt paving projects be held open until a spring pavement review can be conducted via a District Special Provision.

8.1C Conduct post-construction, annual pavement reviews in order to monitor pavement performance, Job Mix Formulas, vendor quality and maintenance needs.

8.1D Evaluate Job Mix Formulas for performance and reject poor performing Job Mix Formulas based on data and product performance.

8.1E Require all 9.5mm Job Mix Formulas to be designed at 3.5% air voids and include a minimum of .25% anti-stripping agent into all gravel, coarse aggregate mixes.

8.1F Require the use of lower gyrations mixes in order to increase asphalt content, based on the pavement engineer’s analysis.

8.1G Collect and monitor longitudinal joint density data by utilizing Publication 408 (Section 405) or a District Special Provision.

8.1H Continue to collect and monitor information from the electronic pavement database to establish minimum asphalt content special provisions.

8.1I Specify a Material Transfer Vehicle to be used for all paving projects where appropriate.

8.1J Institute local acceptance on testing of materials on all available projects.

8.1K Maintain and utilize the District materials lab for bituminous mix design and aggregate property verification.

8.1L Maintain maintenance cycles to “keep our good pavements good” and maintain our Overall Pavement Index and International Roughness Index numbers for all routes.

8.1M Use the District’s Pavement Management tool to prioritize networks from worst to best and attach a fiscal component to include inflationary factors for future years.

8.1N The District will use the Pavement Management tool to identify out-of-cycle pavements, and prioritize maintenance needs and develop Surface Improvement Program mile targets and goals.
8.1O Test Intelligent Transportation Systems devices daily and document results. Diagnose and troubleshoot non-working devices.

8.1P Develop a Group Bridge Deck Waterproofing Project during next Transportation Improvement Program update (to date we have waterproofed 1,405 out of 2,064 bridges).

8.1Q Continue to produce Department Force bridge designs and explore more cost efficient bridge construction methods and materials.

8.2 Objective:
Maximize efficiency and allow flexibility of project delivery processes.

Achieved Through Action Items:

8.2A Continue county involvement throughout the District at County 911 centers during weather-related incidents.

8.2B Increase utilization of Intelligent Transportation Systems technologies and roadside messaging.

8.2C Aggressively promote roundabouts as a safer alternative to traffic signals.

8.2D Establish Open Plan schedules within 30 days of the Environmental and Engineering Scoping Form being approved.

8.2E Group bridge rehabilitation projects in order to get high value, low cost upgrades completed in a timely manner. Focus bridge rehabilitation efforts on two areas: Shotcreting metal culverts and using bonded overlays on concrete decks; and upgrading safety features.

8.3 Objective:
Manage highway operations (especially winter services).

Achieved through Action Items:

8.3A Continue logging new Stormwater BMPs into inventory as constructed and determine a long-term maintenance solution for each location.

8.3B Use crushed #8 stone extracted from stored millings in seal coats applied on high Average Daily Traffic routes.

8.3C Determine the areas of weakness within Maintenance through QA processes and develop appropriate trainings. Continue to monitor those areas for noticeable improvements.

8.3D Review unassigned trucks in the District and insure that knockouts are properly assigned; use rentals if necessary.

8.3E Develop a way to monitor application rates in winter events to ensure consistent application rates are being utilized.

8.3F Evaluate cycle times to ensure appropriate service levels are maintained on all snow routes. Conduct winter preparedness meetings annually with neighboring states.

8.3G Ensure that 100% of the truck fleet is ready by November 1.

8.3H Complete After Action Reviews after significant winter events and after the winter season.
**8.3I.** Identify future 3D design opportunities on projects with significant earthwork and start advertising with a model to optimize saving opportunities.

**8.3J.** Facilitate the deployment and use of the Pavement Asset Management System.

**8.3K.** Ensure a value-add service review takes place for Period 2 planning and reconciliation.

<table>
<thead>
<tr>
<th>District</th>
<th>2013 DF DumpTrucks not assigned as per GIS application</th>
<th>2013 Knockout Trucks from Inventory Report</th>
<th>MECE allowed 10% over for base number to be used as knockouts (Based on 2013)</th>
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<tbody>
<tr>
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<td>17</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td>02</td>
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<td>12</td>
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<td>12</td>
<td>19</td>
</tr>
<tr>
<td>Statewide</td>
<td>81</td>
<td>123</td>
<td>218</td>
</tr>
</tbody>
</table>

Over 10% 14
### Authorized DF Dump Truck Fleet (Does not include Knockout Trucks)

<table>
<thead>
<tr>
<th>District</th>
<th>2013 Authorized DF Dump Truck Fleet</th>
<th>2003 MECE Truck Guidelines ** (agility was not removed)</th>
<th>Updated MECE Numbers Using Info From GIS Database*** (Represents Recommend DF Fleet Without Knockouts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>185</td>
<td>185</td>
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*Snow Zone miles in the Snow Route Planning does not match SLM in RMS and is inflating the DF equipment number due to tandem plowing.*

** Yellow: Current fleet over calculated number.
8.4 **Objective:**

Increase best practices and innovative processes.

**Achieved through Action Items:**

- **8.4A** Review the District Dashboard to ensure measures are appropriate and correct.
- **8.4B** Continue to mentor/coach our volunteer Competitive Enterprise Champions and Operating Committee members.
- **8.4C** Maintain Accrued Unbilled Costs and de-obligation levels within acceptable standard metric.
- **8.4D** Start distributing monthly reports on the District Dashboard, the Assistant District Executive Performance Metrics Dashboard and Competitive Enterprise.
- **8.4E** Continue research on the PA Flex Beam technology which will reduce beam depth and substantially decrease the amount of steel used. This beam would facilitate accelerated bridge construction for Department Force bridge projects, as there would be no cast-in-place deck.
- **8.4G** Develop District Bridge Parapet Standards for new construction with a bituminous overlay and waterproofing membrane.
- **8.4H** Implement Accelerated Bridge Construction process with Geosynthetic Reinforced Soil abutments, precast two-piece, small box culverts and the PA Flex Beam.
- **8.4I** Promote District 1-0’s precasting capabilities to local governments and other Districts to offer them a competitive alternative.

*As seen in the graphs above, District 1 has the second lowest percentage of Structurally Deficient bridges in Pennsylvania, and ranks fourth lowest in SD Deck Area.*
Executive Assistance for Goal 8:

- Allow Districts to manage Roadway Weather Information System/Intelligent Transportation Systems functions. (A maintenance contract is needed for Roadway Weather Information Systems.)
- Develop District expertise in troubleshooting Intelligent Transportation Systems and Roadway Weather Information Systems.
- Create a Research and Development fund for each District that will allow the Districts to pilot project proposals before handing them off to the State Transportation Innovation Council for further research.
- Develop formatting standards for 3D earthwork data to be provided to bidders.
- Provide targeted funding for counties to perform bridge repairs for removal of structurally deficient designations, or to keep bridges from becoming structurally deficient.
- Work with the Legislature to simplify the Capital Budget Bill process or seek approval for inclusion of all state bridges.
### District 1-0: District and County Budget

#### Fiscal Year 2014-2015 Governor’s Budget Snapshot

**Authorized Complement - 841**  
**Budget (in thousands) - $172,955**

#### Organizational Chart

<table>
<thead>
<tr>
<th>County</th>
<th>Complement</th>
<th>Budget</th>
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<tr>
<td><strong>Warren</strong></td>
<td>88</td>
<td>6,517</td>
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</table>

#### Budget Breakdown

**District Office (1-0)**

- Complement: 242
  - Personnel: 22,263
  - Operating: 3,229
  - Fixed Assets: 5,261
  - Grants: 918
  - **Total:** $77,671

**County Budget**

- **Crawford County (1-1)**  
  - Complement: 127
    - Personnel: 9,841
    - Operating: 10,559
    - Fixed Assets: 261
    - **Total:** $20,661

- **Erie County (1-2)**  
  - Complement: 140
    - Personnel: 11,143
    - Operating: 12,738
    - Fixed Assets: 375
    - **Total:** $24,256

- **Forest County (1-3)**  
  - Complement: 31
    - Personnel: 2,429
    - Operating: 2,080
    - Fixed Assets: 12
    - **Total:** $4,521

- **Mercer County (1-4)**  
  - Complement: 126
    - Personnel: 9,866
    - Operating: 8,861
    - Fixed Assets: 45
    - **Total:** $18,772

- **Venango County (1-5)**  
  - Complement: 87
    - Personnel: 7,049
    - Operating: 7,035
    - Fixed Assets: 40
    - **Total:** $14,124

- **Warren County (1-6)**  
  - Complement: 88
    - Personnel: 6,517
    - Operating: 6,409
    - Fixed Assets: 24
    - **Total:** $12,950

**NOTES:**

- Complement 341
- Budget: Funding per Governor’s Executive Budget (SEM V40)
- When applicable excludes unbudgeted pass-through funds, includes transportation assistance program bonds, liquid fuels tax fund, and highway safety grant (Ledger 5)
Executive Summary

Executive Message

We have a long history of providing value to our customers in NW Pennsylvania. They have high expectations for our professional stewardship of the transportation system that we have been entrusted; and they should.

Our customers invest in us every time they go to the pump to refuel. They are stockholders in our company and they should know that we are working on their behalf to use our resources wisely. We are very proud of our ability to push past the status quo and deliver timely transportation products and services. We are competitive and as such, strive to be the very best in all we do.

This Business Plan represents a reconciliation of our use of resources to meet the needs of our customers throughout NW Pennsylvania. It is a reflection of our maturation and development of a Competitive Enterprise; our label and focused goal of becoming the very best value-add provider of transportation products and services. We have come a long way ... building on our strengths and working to continually improve on areas where our internal and external customers expect and need us to do better.

The economic challenges that are omnipresent do not stop us from pridefully sharing this information with all of you. Our Team is strong, professional, and resilient. We have a leadership stake in many business areas and we are not afraid of change.

A peek around the corner reveals:

- We have the best roads in the Commonwealth based on the International Roughness Index (13 of the last 14 years)
- We are the leaders in delivering work plans through Agility with our Municipal Partners; leveraging our collective resources
- We are the leaders of Recycled Asphalt Pavements; representing 72.3% of PennDOT’s in-house throughput and redirecting savings of $18.31M over the last six years
- We have the lowest total dollar needs per mile of pavement of any district; an indicator of a vibrant, efficient maintenance operation
- We have reduced our Structural Deficient Bridge by Deck Area measure by 9.77% over the past six years

These are just indicators that we are steadily improving the health of the system and that our targeted Asset Management investment strategy is paying dividends to our customers; our stockholders.

Please know that our strength lies within our people and in our partnerships with community and municipal leaders and industry. We are a Team that truly cares about the people we are privileged to serve and as such, will not halt our efforts towards meeting the needs and expectations of our customers through continuous improvement.
GOAL 1: Provide Timely, Quality Service

Key Items Completed:

- Utilize the Customer Care Center (CCC) as a tool to identify and respond to maintenance needs in a timely manner
- Conduct District 1-0 external Customer Survey to identify needs, opportunities and assessments
- Provide a high level of turnaround on permits: 30 days on HOP, 60 minutes on Hauling Permits and 8 days on Posted and Bonded Roads
- Construction Quality Plan developed with measures

Key Items still Working On:

- Develop a process for considering alternate work hours and compressed project schedules on construction projects during the pre-bid schedule review
- Conduct an AAR on completed major construction projects to identify opportunities for improvement
- Continue to hold the line on International Roughness Index (IRI) scores across all highway systems
- Continue to conduct the District 1-0 external Customer Survey to identify needs, opportunities and assessments
- Pavement Quality Task Force – white paper
- Pavement Database – Job Mix Formulas (JMF) monitoring, Special Provisions and Warm Mix Asphalt (WMA)

Barriers/Issues:

- Need Reporting component on CCC – CCC needs a more user-friendly interface, better updating/notification tools and additional standardized reports statewide
- Transportation Funding - maintenance funding and TIP funding have been reduced drastically
- Material quality - pavement quality should not be viewed as strictly a function of IRI
- Lack of adequate mechanisms and methods to assess how well we are meeting the needs and expectations of our customers
GOAL 2: Leverage Pa.’s Resources

Key Items Completed:

- Continue to implement Department Force bridge designs (ten were constructed in the District this year) and reduce Structurally Deficient (SD) bridge rates by utilizing Department Forces to construct bridges
- Producing salt brine and cold mix by Department Forces in all counties
- Agility agreements are in place for Winter Services in Mercer and Erie Counties for a total of 168.37 miles with a service exchange of $189,719.02
- Leverage resources to precast channel beams and inlet boxes by Department Forces
- Developed a five year plan for the DOT Team work for Recycled Asphalt Pavement (RAP) and Seal Coat applications
- Developed an annual equipment sharing plan for within our District and with other Districts
- Invite outside agencies to pre-construction conferences with environmental issues

Key Items still Working On:

- Developing a process to produce and market channel beams and hybrid box culverts for municipal and state projects (potential pilot: Fairview Township, Erie County is interested in working with task force on 31’ structure)
- Work on utilizing approved research proposal funds to pilot a project using fines left over from RAP crushing/#8 extraction for other applications
- Work towards a regionalized effort for maintenance responsibilities of I-79 and I-376 between District 1-0 and District 11-0, there are union issues in District 11-0
- Develop Historic Truss Preservation plan by working with the Pennsylvania Historical and Museum Commission, Central Office and Federal Highway Administration (FHWA)
- Maintain Environmental Mitigation Tracking Matrix

Barriers/Issues:

- Usage credit for sharing equipment outside of the District
- Equipment usage based on equipment hours charged on payrolls: the issue is that the actual usage hours are different than what is recorded
- Lack of funding to support specialized equipment
- Delivery of local bridge projects by allowing more Department involvement in tasks like Right Of Way, Survey and Cultural Resources
- Funding for waterproofing bridge decks with Bridge Preservation Monies
GOAL 3: Create and Nurture a Flexible, Dynamic Work Environment

Key Items Completed:

- Continue to work on succession planning, empowering employees and public involvement throughout the organization
- Encourage employees to develop Career Development Plans
- Continually conduct Managing your Career Training
- Continue to conduct safety training
- Publishing career information in monthly newsletter
- Hold Annual Employee Recognition Day
- Hold Annual Public Service Recognition Week for all employees and provide quarterly awards for employee service/longevity
- Continue to conduct Employee Participation Opportunities to foster innovative ideas
- Continue to promote our Highway Employees Committee (HEC) and Intra District Employee Committee (IDEC) work within our District and encourage participation
- Provided 2010 Computer Microsoft Training
- Continue to conduct leadership training and Regional Spring Maintenance Training
- Significant County Maintenance Improvement Process (CMIP)/Employee Participation Opportunity (EPO)/Customer Survey (CS) Groups Initiative based on Competitive Enterprise
- Implement Acting Foreman Block Phase Training

Key Items still Working On:

- Continue succession planning throughout the organization
- Develop and implement online Career Planning Tool on District Management Information System (DMIS)
- Continue to support cross training between operation silos & mentoring
- Continue to promote out-of-class opportunities
- Continue to promote Suggestion Connection/Ideas League, IDEALINK and IDEA Research Proposals

Barriers/Issues:

- Civil Service rules and regulations, especially concerning temporary working out-of-class and job specifications
- Switching from union to management positions with loss of union representation, loss of travel time, premium pay, lunch reimbursement and pay disparities
- Training requirements of operators when they become full-time
- SAP role assignments – limitations and time consumption
- Support from upper management for employee cross-training assignments in regards to policy that requires approval for cross-training opportunities
- Support to offer Employee Development Plans (EDP) as part of Employee Performance Ratings (EPR) by mandating that all employees visit as a part of their EPR process
GOAL 4: Communicate Our Performance

Key Items Completed:

- Continue timely and accurate response to news media inquiries and provide periodic updates for upcoming design and ongoing construction projects to effectively communicate the PennDOT message
- Continue to promote expansion and be more pro-active in the use of Twitter, Facebook and other social media postings
- Discussions being held with local and state police about safety
- Conducted semi-annual legislative meetings using District 1 Legislative Report Card
- Metropolitan Planning Organization/Rural Planning Organization receives copies of our Business Plan Presentations
- Foster good working relationships with safety partners to educate the public on drive safety issues
- Attend Township and Borough Association Meetings
- Conducting county open houses
- Continue to hold focus group meetings
- Developed county newsletters
- Conducting an annual employee Communication Survey, external Customer and Stakeholder Surveys
- Attend regional municipality meetings to discuss changes to posted and bonded roads and external customer training for the Electronic Permitting System

Key Items still Working On:

- Develop a District Communications Plan
- Utilize standard press packets for all design projects
- Work on maintaining all construction project information and detours on website
- Work on building an even better working relationship with safety partners to educate public on driver safety issues

Barriers/Issues:

- Traditional print, television and radio media are becoming competing with, new on-line media and that is creating a greater emphasis on immediacy of that news content
GOAL 5: Integrate Land Use and Local, Regional, State and Federal Transp. Planning

**Key Items Completed:**
- Continue to develop working relationships with local planning commissions to discuss impacts of developments on our transportation system
- Complete Pennsylvania Community Transportation Initiatives
- Conduct annual PADEP/PENNDOT coordination meetings
- Continue studies on Land Use/Transportation, focusing on high-growth areas

**Key Items still Working On:**
- Corridor Studies: SR 322

**Barriers/Issues:**
- Additional funding is needed to support Land Use/Transportation studies
- Storm water management on county maintenance budgets
- Eliminating bridges from the system: need to determine if the original need for the structure still exists
- Local Projects - Education
- Traffic Signal Maintenance
- ADA Ramps and Sidewalks
GOAL 6: To Continuously Foster a “Safety First” Culture Embraced By All

Key Items Completed:

- Create a virtual organization to integrate the mission of the District Safety Press Officer, District Safety Engineer and District Safety Coordinator
- Hold bi-monthly District Safety Committee meetings
- Have mandated Safety Performance Standards in all EPRs
- Conduct Safety Stand Down Days and Safety Conferences
- Hire a second Safety Coordinator
- Held first Safety Stand Down Day in Construction
- Safety QA’s completed throughout District
- Continue to investigate new safety technologies

Key Items still Working On:

- Certify county’s Safety Committees
- Start conducting CPR & First Aid Training
- Implement a Safety Recognition Award Program
- Spend available Surface Improvement Program 715 monies on safety projects
- Create and prioritize needed safety enhancements based on Crash Cluster listings
- Develop a crew safety observer(AFSCME Leadership buy-in)
- Pilot of Safety Report Card with District 1 and District 11 in Mercer and Lawrence Counties
- Continue to conduct new flagger training
- Continue Safety Initiatives, work on ensuring we have a 25% reduction in accidents and injuries from previous three year rolling average rate
- Continue with daily safety talks; continue to deploy portable rumble strips on routes with posted speed limits greater than 35 mph

Barriers/Issues:

- Utility companies are not maintaining the same work zone standards and are doing so without penalties
- Highway Safety Improvement Program Funding is too restrictive in application
GOAL 7: Continuously Increase the Efficiency of PennDOT

Key Items Completed:

- Standardize inventory management processes and procedures District-Wide (Benchmarking in Mercer County)
- RAP/Paving DOT Team’s in District
- Waterproofing bridges
- Salt brine making capabilities in counties
- Use data not “wants” to make inventory decisions
- All levels of the organization are training in inventory management processes and procedures
- Utilize Geosynthetic Reinforced Soil walls and abutments when applicable
- Complete Department Force line painting program: approximately 11,000 miles using two new airless trucks

Key Items still Working On:

- Support PennDOT Next Generation teams
- Asset Management
- Implement new Intelligent Transportation System devices within District
- Winter Services
- Implement Onboarding for all new employees
- Realign complement based on operational needs and Next Generation efforts
- Continue desk manual training for employees
- Continue to aggressively work with AFSCME for flexibility with the workforce
- Digitize bridge inspection documentation
- Reduce and standardize construction documentation
- Develop a payroll report system for project man-hour tracking with standard reports
- Review Privately Owned Vehicle (POV) costs and assign state vehicles when POVs exceed 10,000 miles in a 12-month period

Barriers/Issues:

- Bureau of State Employment timeline for filling positions
- No method to provide Department-created materials to municipalities
- ESS/ECMS need to have an export function for database development
- Need a Data Analyst/IT Programmer to integrate data from various legacy systems into one concise reporting capability
- Centralization of comptroller negatively impacts PennDOT
- Link Electronic Permitting System and Geographic Information Systems mapping for posted and bonded roads
GOAL 8: Promote Continuous Improvement and Innovation

Key Items Completed:
- Conduct another round of external focus groups, external customer and stakeholder surveys and the fifth Employee Communication Survey
- Evaluated Job Mix Formulas (JMF) for performance and rejecting poor JMFs for future projects, requiring lower gyrations in an effort to increase asphalt content
- Work in a Competitive Enterprise
- Close gaps from surveys via CMIP/EPO/CS Groups Construction Quality Plan Developed with Measures

Key Items still Working On:
- Developing a process to empower our supervisors/managers to hold employees accountable and to start developing position analysis workbooks and desk manuals
- Eliminate unneeded bridges from the state and local system
- Track and assess Posted and Bonded Roads upgrades and damage assessments
- Maintain cyclical maintenance cycles to “keep our good pavements good”
- Reconcile IRI and Overall Pavement Index (OPI) out of cycle miles
- Maintain and utilize District materials lab for bituminous mix design and aggregate property verification
- Continue to have county involvement throughout the District at county 911 centers during weather related incidents
- Continue to utilize the Maintenance Decision Support System (MDSS) through a statewide pilot project to improve our winter operations and improve upon material usage
- Conduct winter preparedness meetings annually with neighboring states, have 100 percent of truck fleet ready and spreaders verified by November 1
- Conduct AARs after significant winter events and winter season
- Meet monthly goal for Accrued Unbilled Costs (AUCs) on Dashboard
- Closeout Consultant’s projects per Dashboard requirements

Barriers/Issues:
- Need maintenance contract for Roadway Weather Information System (RWIS)
- Decentralize RWIS/ITS functions to all districts
- Purchase Pavement Asset Management software to monitor/evaluate/improve our roadway systems
- Provide dedicated research funds each year to all districts to promote continuous improvement and innovation
Goal 1: Provide timely, quality Service

Major Bridge Initiative:
In 2005, we developed an overall strategy to address our large amount of structurally deficient bridges. This included our small bridge initiative, establishing department force work including replacing small bridges with box culverts or pipe systems, replacing medium size bridges, bridge preservation program and our major structures.

Since 2005, we have made substantial progress repairing or replacing the major bridge and river crossings in the District 12. The table indicates the status of each of these projects. The Donora-Webster Bridge is closed and will be removed and not replaced. Bridges that are currently under design or construction constitute 6.9% of our total deck area.

Small Bridge Initiative: District 12 developed the Small Bridge Initiative in 2008. The first of these projects consisted of a group of 21 bridges done as Design/Build Projects.

These 21 bridges were first scoped and field viewed in the spring of 2009. Limited design work on a short 2-month schedule was completed without survey, TS&L, line and grade, H & H, and a limited TCP specifying detours or half-width construction phasing.

After this group of 21, in 2011 improvements were made to the Design Process. An extensive selection process that considered structures that could be built in existing right-of-way or by Maintenance forces was utilized. Field views on the selected projects narrowed the candidates to 10 structures. Design Scoping now included survey, line and grade, TS&L, H & H, Foundation Design Guidance Reports and approved TCP plans. This was accomplished on an 8-month schedule. All of the structures were able to be replaced without acquiring additional right-of-way.

In 2012, another group of Design/Build structures consisting of 9 structures was completed with the same design scope including all the above items.
Employee Activities, Charities and Community Support:

The 2011 SECA Campaign is District 12’s most successful campaign to date in the amount of monies raised, number of participants and the percentage of goal achieved. From years past to the present campaign, we use a simple approach to raising monies. We make the employees aware of the opportunity to give and we ask each individual in our organization to support this unified cause. The SECA campaign is strongly supported by our District Executive, his management staff and is carried throughout each county and division of our organization to each individual employee. We have a District/County team approach with coordinators and solicitors established at each level. The District team makes sure that all information and materials are delivered in a timely manner to keep focus on the goal and to keep everyone aware of how we are doing and what still needs to be done. Through a letter from our District Executive, newsletter(s)/bulletin(s), executive staff meetings, bid days and our employee recognition days; our management, coordinators and solicitors ask each individual to give from their hearts to the charities that they are personally inclined to support and we thank them for their current, future and past support. For the 2011 SECA campaign, PennDOT as an agency collected $431,000; 103% of the agency’s goal; an average of $37.00/employee; 36% employee participation. District 12-0 collected $42,099; 153% of the District’s goal; an average of $50.00/employee; 63% employee participation. In 2011, the goals were lowered across the board throughout PennDOT organizations over the last seven years, District 12 employees raised and contributed $242,431 to the SECA campaign.

District 12 also supports local communities by assisting the American Cancer Society’s “Relay for Life” for the past several years. Our team name is the PennDOT “Plowers” and this past year, we achieved their Platinum Level award by raising $7,649 as well as Rookie of the Year at the Mount Pleasant, PA Relay.

Additionally, District 12 hosts the Golfers for Charity Association (GFCA) yearly golf outing. This year’s event was the 8th annual event. To date the (GFCA) has raised more than $40,000 dollars for the “Relay for Life” organization to find a cure for cancer. The event has between 100 to 130 people that represent PennDOT and other outside organizations. Next year’s event is already being planned and information is available at the website www.informationfairway.com.

The District 12 Activities Committee is another employee driven committee that coordinates outside activities for employees to promote team building. In 2012, we coordinated a ski trip, baseball game and a bus trip to a Pirate game to name a few and will continue to work together to increase employee pride and morale.
Goal 1: Provide timely, quality Service

**I-70 Project Corridor:** District 12 continues to undertake an effort to modernize the Interstate 70 corridor in both Washington and Westmoreland counties. Four projects were completed within the last two years including Kammerer Interchange, Zediker Road overpass, and Dunningsville Interchange in Washington County and Smithton Interchange in Westmoreland County. Projects currently in construction include South Junction Interchange with I-79, and SR 519 interchange in Washington County, and I-70 structure over SR 3014 (Waltz Mill Hunker Road) in Westmoreland County. Also, an ITS project to implement provisions including Dynamic Message Signs, cameras and communication infrastructure along entire I-70 corridor is nearing completion. Projects under design in Washington County include Jessop Street Interchange bridge replacement (D/B let 5/24/2012), 70-T20 (N Jct. with I-79 to SR 136 widening/reconstruction), 70-T10 (SR 136 to S Jct. with I-79 widening reconstruction), 70-W31 (S Jct. with I-79 to PA 519 widening/reconstruction), 70-21H (SR 917 Bentleyville Interchange), and 70-10J (SR 481 Interchange). Projects under design in Westmoreland County include 70-K10 (SR 31 interchange), 70-L10/L20 (Yukon and Madison Interchanges) and finally the 70-Q10 (New Stanton Interchange) project. These projects along with the aforementioned ITS project provide a significant investment that will upgrade a large portion of an aging interstate that is 50 plus years old, into modern facility meeting current design standards that will serve the public for many years. For each of these projects, the use of detention basins will be minimized through Best Management Practices and early coordination with the agencies. To ensure the projects provide adequate capacity, the District undertook a traffic study of 36 miles of Interstate 70. Counts were collected with new technology using overhead radar which was safer way for collecting traffic information. Information regarding scope of and progress of all Interstate 70 projects both completed or in design is conveyed to the public through our I-70 Corridor website ([I-70Projects.com](http://I-70Projects.com)).

**Diverging Diamond:**

As part of the SR 0070 Section T20 project, which involves widening of 1.7 section of Interstate 70 in Washington County, District 12 replace a substandard cloverleaf interchange at Interstate 70 and SR 19 Murtland Avenue with a diverging diamond interchange (DDI). With a June 2014 letting, this is proposed to be the first DDI in the Commonwealth of Pennsylvania. To complete design, District brought on outside experts who had been involved in DDI in other states. This allowed the District to take advantage of lessons learned from other DDI projects. District personnel have presented the diverging diamond interchange concept at several public forums including aforementioned 70 T20 project public plans display, Southwestern Pennsylvania Commission (SPC) meeting, and Southwest American Society of Highway Engineers’ (ASHE) March meeting.
Goal 1: Provide timely, quality Service

Project Delivery

Our success and emphasis on advancing projects from planning to design and through construction is a high priority. Project Delivery meetings with power point presentations are held monthly with Design, Construction and Maintenance staff to discuss projects that are currently being designed and constructed. Monthly Letting Schedule/Design Staff meetings are held to discuss every project being designed in greater detail. In-Depth project reviews are held on high priority projects with project managers and key support services staff. For Calendar year 2011, and 2012 District 12 did not miss any committed let. dates by more than 30 days.

Project Delivery

2011 = 54 projects let for $206,202,385

- Met 100% of commitments

2012 = 43 projects let for $83,319,279 (9/27/12)

- On target to meet 100% of commitments

2012 = 14 projects to be let for approximately $25,000,000

Design/Build to Improve Delivery Time:

District has continued to be at the forefront in administering Design/Build projects in an effort to reduce the time and cost it takes to deliver a project. We have let various types of projects using Design/Build techniques including two Design/Build best value bridge replacements and 3 groups of 7 bridges that were bid with no preliminary design work completed prior to letting. These projects challenged the Design/Build teams to Design, Build, Inspect, and Warrantee the bridges. The District will also be participating in the upcoming local bridge pilot project and will continue to lead the way in the Design/Build arena.
Accomplishments

ISO 9001

For more than a half of a decade District 12 has maintained a certification in the international ISO 9001 quality standard for “Project Delivery”. The ISO quality criteria is used by the premier organizations to improve, enhance and maintain their products or services at the highest levels for customers. Independent ISO certified external examiners are required to review certified organizations to ensure that all processes and standards are maintained and measured.

These external surveillance audits are held at six month internals throughout the year. District 12 was the first engineering district in the state of Pennsylvania and also nationally to achieve certification in this area. Our program has also been recognized nationally by AASHTO when the District won the “Francis B. Francois” award” for Innovation in Transportation. Other state DOT’s have contacted the District for information about our process.

PennDOT District 12 recently completed its third Re-certification audit as part of a three year contract in May 2012. Utilizing this framework has enabled us to redirect our cost savings throughout the organization to enhance services to our customers.

The District's ISO 9001 Quality Management Manual and system has been developed in an “All electronic” framework, and is located via the PennDOT District 12 website so all employees will have easy access.

Additionally, we have developed automated electronic training courses covering ISO 9001 requirements, of which all district office employees have completed. There are 109 employees trained as internal auditors. We are currently developing electronic training for ISO 14001 which will be completed by October 2012.

The District has also assisted District 10 in their ISO 9001 construction process.

Pavement Management:

District 12 has been able to limit our poor OPI roads to less than 100 miles. This has been accomplished by focusing on core maintenance activities such as; Shoulder Cutting, Base Repair, Patching, Drainage, Crack Sealing and Seal Coating. Currently, we continue four year cycle maintenance work on our system to maintain our system and minimize road damage.
Bridge Structural 0, 1, and 2’s

District 12 has systematically reduced our backlog of Bridge Priority 1’s from over 800 on inventory in December 2008 to less than 10 currently. District developed a tracking sheet that was used to prioritize, plan, and assign County Maintenance Projects. This tracking sheet was monitored monthly at County Manager meetings. In addition, hard copy books were developed for each County Priority 1 repair that included: location map, photos, work orders and cost estimate.

District 12 has managed 45 structurally deficient county maintenance bridge replacement projects over the last five (5) years. In support of the replacement initiative, training was conducted for County Bridge Crews and After Action Reviews (AAR’s) were completed to identify improvement opportunities and best practices. District 12 has taken the lead on also developing a new process for box culverts called a Before Action Review (BAR’s). This Before Action Review (BAR) process is used to assist in planning and preparing in advance of the construction phase of the box culverts.

District 12 is now using a similar strategy for mitigating our list of Structural Priority 2’s. Structural Priority 2’s are categorized by various types of repairs such as Erosion & Sedimentation (E&S), steel beam and concrete. Each is assigned to either Department Force or On-Demand Bridge Maintenance Contract. By focusing on Priority 2’s, we are able to reduce the amount of Priority 0 and 1’s. We had over 1650 Priority 2’s in February of 2011. To date, we have reduced the Priority 2’s by 20%.
Accomplishments

PennDOT / AFSCME / FOSCEP Safety Partnership Agreement and Declaration of Safety

The Declaration of Safety was developed in District 12 during the summer of 2011 and was implemented in the Fall of 2011. The Declaration of Safety was created with the thought of our “Partnering Agreements” in mind. A partnering agreement requires that all of the stakeholders on a given project agree and sign their name signifying that agreement to the goals and objectives of a given project. With that thought in mind, we went one step further and patterned our document after the Declaration of Independence. Within the language of the Declaration Safety, we incorporated the various aspects of our safety program – engaged employees, accountability, safety programs, safety education/training, safety/health inspections, personal protective equipment and accident investigations. We focused on the fact that safety is the responsibility of each employee and that each employee must be accountable for their actions. **Our goal is zero accidents and injuries.**

The intent was that by having every employee sign the Declaration, they were agreeing to these basic tenets and would take ownership and accountability in their own safety. The Declaration of Safety was introduced at our Safety Stand Down Days and every employee in each respective organization signed the document. Each organization has their respective Declaration prominently displayed within their office to signify and remind employees of their commitment to safety. In addition, each employee was given a laminated copy of the Declaration so that they would have a reminder as to what the Declaration is about. New employees are also given a copy of the Declaration along with a brief discussion regarding the District’s Safety priority. In order to sustain the Declaration and have continuing ownership as employees come and go, our intent is that each year, each organization will again have every employee sign the Declaration and replace the previous year’s Declaration.

The Declaration of Safety led to District 12-0 being responsible for the coordination and development of the Safety Partnership Agreement, a SAFE-T Improvement Plan deliverable. On October 10, 2012, the Safety Partnership Agreement was signed by the Secretary, Deputy Secretary’s for Administration and Highway Administration, AFSCME and FOSCEP officials during an impressive signing ceremony that reinforced each areas commitment to the safety of our employees. This agreement is currently being passed through the organization until all Deputies, DEs and employees sign off on their commitment as well.
Select a Department Goal:

**Goal 1: Provide timely, quality service**

Select a Department Objective:

**Increase the level of customer satisfaction of PennDOT's products and services**

or

Enter Your Own Organization Objective: 

Enter a Measure of Success:

**Measure B: improvement of and/or compliance with process cycle times**

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Continue to provide a high level of customer service by maintaining the Customer Care Center (CCC) and 800-fix-road services.</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>2. Implement a process for notifying District review units when permit reviews are at or near 21 days to ensure compliance with 30 day cycle time.</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>3. Continue the 511 Quality Assurance report review.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
### Strategic Focus Area

Select a Department Goal:

Goal 2: Leverage Pennsylvania's resources

Select a Department Objective:

- Align capacity and services to eliminate redundancy and improve service delivery

**or**

Enter Your Own Organization Objective:

Enter a Measure of Success:

Organizational/Deputate specific to capital, people, and time

### Action Item(s)

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1 Implement the use of Share Point which is a construction management software, to all construction projects for use in the construction season.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>2 Implement two (2) Agility Agreements per Assistant County Maintenance Manager per year.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>3 Continue with Annual Meetings with Service Providers (Police, Emergency Medical Services, Fire Departments, Schools).</td>
<td>Ongoing</td>
<td>○</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:
Goal 2: Leverage Pennsylvania's resources

Select a Department Objective:
Increase coordination of projects and programs to maximize Commonwealth investments

or

Enter Your Own Organization Objective:

Enter a Measure of Success:
Organizational/Deputate specific to number of projects, capital, people, and time

Action Item(s)

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct monthly project delivery meetings between Design, Construction, Maintenance, District Executive, Central Office and FHWA.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>Partner with contractors in the region through Spring and Fall Associated Pennsylvania Constructor's regional conferences in addition to quarterly meetings.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 3: Create and nurture a flexible, dynamic work environment

Select a Department Objective:

Implement an individualized training and development plan

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Individualized career plans will be provided to 25% of workforce in year one, 50% in year two, 100% in year three. Process should begin with first-level management

<table>
<thead>
<tr>
<th>Action Item(s)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Succession planning effort to further develop managers to assist employees and</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>develop succession plans for identified positions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop and implement a career development mentoring program within the</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>District.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize temporary work out of class opportunities at all levels to encourage</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>cross training and rotational assignments to create professional growth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>opportunities.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 3: Create and nurture a flexible, dynamic work environment

Select a Department Objective:

- Develop PennDOT as an employer that creates employee pride

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Reduce non-traditional separation rate (not including discharge or normal retirement). Conduct and follow-up on an exit survey for all separating employees.

---

**Action Item(s)**

<table>
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<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Promote employee health and wellness through safety and health fairs.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>2 Encourage participation in the Employee Activities Committee.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>3 Promote employee involvement in State Employees Combined Appeal (SECA) and community service.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>4 Distribution of Human Resources (HR) bulletin which provides HR topics and other important information.</td>
<td></td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 3: Create and nurture a flexible, dynamic work environment

Select a Department Objective:

Create and foster an empowered workforce

or

Enter Your Own Organization Objective:

Enter a Measure of Success:
Foster initiative by developing and implementing a merit based incentive program

Action Item(s)

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<tr>
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<th>Delete</th>
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<tbody>
<tr>
<td>1 Encourage continued use of the PennDOT Idea Link.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2 Encourage voluntary participation on various committees including safety committees and corresponding sub committees.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>3 Establish District Safety Awards.</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>4 Maintain the current employee recognition program.</td>
<td>2013</td>
<td></td>
</tr>
</tbody>
</table>

Contact:
## Strategic Focus Area

Select a Department Goal:

**Goal 4: Communicate our performance**

Select a Department Objective:

- Effectively communicate the value of our projects, products, and services to our customers

*or*

Enter Your Own Organization Objective:

Enter a Measure of Success:

Conduct an annual survey on the (Department/Press Office) website to determine our customer’s understanding of PennDOT

## Action Item(s)

<table>
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<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Community Relations and Design Unit offices coordinates on all major projects needing public input.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2 Utilize the established communication systems (website, District Video Messaging System, District Dozen Newsletter).</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>3 Conduct external county outreach meetings on a yearly basis.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>4 Promote project successes on projects through various means such as media.</td>
<td>2013</td>
<td></td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 4: Communicate our performance

Select a Department Objective:

Increase the public understanding of PennDOT

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Completed plans

Action Item(s)

Key Action Item(s):  Due Date(s):  Delete

1. Coordinate with Central Press Office to establish a communication plan.  2013-2014  

Contact:
Select a Department Goal:

Goal 5: Integrate land use and local, regional, state, and federal transportation planning

Select a Department Objective:

Develop and implement a multi-modal, statewide long-range transportation plan

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Ensure completion of long range transportation plan by 2014. Target: 100% complete by summer 2014

Action Item(s)

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
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</thead>
<tbody>
<tr>
<td>1 Work in conjunction with Southwestern Pennsylvania Commission (SPC) to assist in the development of the region and its Long Range Plan.</td>
<td>2014</td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 5: Integrate land use and local, regional, state, and federal transportation planning

Select a Department Objective:

Create a collaborative partnership between County, Regional, and PennDOT Planners

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

District and Bureau (involved in transportation planning) has a collaborative process in place to advance land use and transportation planning

**Action Item(s)**

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
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</thead>
<tbody>
<tr>
<td>1 Discuss potential Projects/Forms at early TIP update sessions and level 1 forms with County Offices, District, Central Office, and SPC staff.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>2 Biannual meetings will be held in coordination with SPC for the Transportation Improvement Program (TIP) update.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>3 Schedule meetings with each county's planning partner prior to August 31st each year.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 5: Integrate land use and local, regional, state, and federal transportation planning

Select a Department Objective:

Maximize planning resources to advance the integration of land use and transportation planning

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Each District and Bureau (involved in transportation planning) has identified human resources (DOT/MPO/RPO/TMA/County/Universities/Regionalization) to manage land use and transportation planning for their District and/or region

---

Action Item(s)

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Utilize county resource agencies when creating the Linking Planning and (NEPA) National Environmental Policy Act (LPN) form.</td>
<td>2013</td>
</tr>
<tr>
<td>2</td>
<td>Screen Linking Planning and NEPA forms for land use plan.</td>
<td>2013</td>
</tr>
<tr>
<td>3</td>
<td>Apply smart transportation guidelines to all projects and discuss as an agenda item at various district meetings.</td>
<td>2013</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 6: To continuously foster a "safety first" culture embraced by all

Select a Department Objective:

To reduce all traffic related fatalities

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Reduce the rolling five year annual average number of fatalities to 1,197 by FY 2016. This represents approximately a 12.5% reduction in relation to the five year period ending 2011 (sustains twenty year target goal for a 50% reduction).

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
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</thead>
<tbody>
<tr>
<td>1 Increase public education and awareness in an effort to reduce traffic crashes.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>2 Review each construction project and key corridors/locations to implement safety measures to prevent or lessen the severity of all crashes and reduce fatalities.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
<tr>
<td>3 Systematically implement projects and programs each year with the sole purpose of addressing specific safety mitigations.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
</tbody>
</table>

Contact:
Pennsylvania Department of Transportation  
Strategic Plan  
Implementation Template

### Strategic Focus Area

Select a Department Goal:

**Goal 6: To continuously foster a "safety first" culture embraced by all**

Select a Department Objective:

- Reduce Department personal injury and fleet accidents

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Reduce PennDOT OSHA recordable work-related injuries to 3.21 by FY 15/16. This goal represents a 10% reduction each FY.

### Action Item(s)

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<thead>
<tr>
<th>Key Action Item(s):</th>
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</thead>
<tbody>
<tr>
<td>2. Pilot - District 12 is piloting for 24/7 Safety Culture.</td>
<td>2012/2013</td>
<td>○</td>
</tr>
<tr>
<td>4. Implement a District 12 Safety Patrol.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>5. &quot;Buddy System&quot; operation throughout the District.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 6: To continuously foster a "safety first" culture embraced by all

Select a Department Objective:

Reduce Department personal injury and fleet accidents

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Reduce PennDOT fleet accident rate to 5.80 by FY 15/16. This goal represents a 10% reduction each FY.

Action Item(s)

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1 Verify all delineations identified on winter &quot;Dry Run&quot; routes are in place.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2 Develop and implement a stockpile truck movement plan, for all locations.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>3 Provide two weeks of training for each new temporary winter operator and assign a</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>&quot;Senior Mentor&quot; to work with the operator.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Usage of the &quot;Circle of Safety&quot; program.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>5 Rotation of the semi-annual &quot;Stockpile Safety Cup&quot; award program.</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 6: To continuously foster a "safety first" culture embraced by all

Select a Department Objective:

Reduce the number of work zone intrusions that result in property damage or personal injury

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Reduce Department work-related injuries and fleet damage due to work zone intrusions to no more than 17 incidents by FY 15/16. This goal represents a 10% reduction each FY.

Action Item(s)

Key Action Item(s): Pre-Date(s): Delete
1 Prevent work zone crashes through the design of the work zone individually for each project. 2013
2 Promote safe construction zones through coordination with Pennsylvania State Police. 2013
3 Enhance maintenance activity set-ups by use of innovative district practices. 2013

Contact:
Select a Department Goal:

Goal 7: Continually increase the efficiency of PennDOT

Select a Department Objective:

Modernize PennDOT to enhance services and/or reduce costs

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Cost/benefit; service enhancement; reduction in cost; dollars redirected

Action Item(s)

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</thead>
<tbody>
<tr>
<td>1 Implement Intelligent Transportation System (ITS) program in District 12.</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>2 Review and update Interstate Diversion Routes and plans.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>3 Actively participate and promote the ongoing PennDOT Next Generation (PNG) programs.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 7: Continually increase the efficiency of PennDOT

Select a Department Objective:

Maximize the effectiveness of PennDOT’s complement to enhance services and/or reduce costs

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Cost/benefit; number of projects; dollars redirected; productivity improvement

<table>
<thead>
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<th>Key Action Item(s):</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Strategically utilize Open-End Agreements by sharing Consultant Construction Inspectors on multiple projects.</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>2. Continue and expand Alternate Work Schedule as permitted. (4-10 Hours days) in Maintenance.</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:

Goal 7: Continually increase the efficiency of PennDOT

Select a Department Objective:

Streamline and/or standardize PennDOT's business processes to enhance services and/or reduce costs

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Cost/benefit; number of projects; dollars redirected; productivity improvement

Action Item(s)

<table>
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<tbody>
<tr>
<td>1 Complete an initial documentation review on every construction project within 30 days of the computer installation date. Meet the 12 month close out requirement.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>2 Maintain current inventory County Maintenance Measurement Tool (CMMT)score.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>3 Continue our strategy of working together as a District and Organization by sharing our investments, upgrading equipment and practices.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>4 Complete the one County Maintenance Improvement Process (CMIP) per Year in each county organization.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>5 Fiscal control process for the Accrued Unbilled Costs and Federal De-obligations.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>6 Utilize the ISO 9001-2008 &quot;Project Delivery&quot; process and continue to improve.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
</tbody>
</table>

Contact:
**Select a Department Goal:**

Goal 8: Promote continuous improvement and innovation

**Select a Department Objective:**

Manage assets to maintain a state of good repair

*or*

Enter Your Own Organization Objective:

**Enter a Measure of Success:**

Develop fiscally responsible and systematic risk/condition based Asset Management plans across the organization District, Statewide and Central Office – i.e. bridges, roads, equipment, safety, mail equipment, IT, ITS, highway and sign lighting.

### Action Item(s)

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<tbody>
<tr>
<td>1. Improve dashboard metric through estimator Web Collaboration (Web-Colab's) and Central Office input.</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>2. Maintain a two-year projected workload of bridge preservation projects.</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>3. Meet all committed let dates within 30 days and in accordance with the Transportation Improvement Program (TIP).</td>
<td>2013</td>
<td>☐</td>
</tr>
<tr>
<td>4. Maintain safety of motoring public during winter and other events. After the event, return traffic to normal speed as quickly as safely possible.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>5. Continue our Pavement Management policy using a field based approach.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>6. District 12 will maintain the 6 year (average) dump truck fleet replacement cycle.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>7. Continually monitor/update high mileage vehicle assignments on non-construction personnel.</td>
<td>Ongoing</td>
<td>☐</td>
</tr>
<tr>
<td>8. Use updated Decade of Investment list as project priority list.</td>
<td>2013</td>
<td>☐</td>
</tr>
</tbody>
</table>
Select a Department Goal:

Goal 8: Promote continuous improvement and innovation

Select a Department Objective:

Maximize efficiency and allow flexibility of project delivery processes

or

Enter Your Own Organization Objective:

Enter a Measure of Success:
Reduce redundancy to achieve On Time/On Budget through the re-engineering of 4 major areas annually

<table>
<thead>
<tr>
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<th>Delete</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase the use of Design Partnering Teams on major projects.</td>
<td>2014</td>
<td>○</td>
</tr>
<tr>
<td>2</td>
<td>Clear right-of-way and utilities early for small bridge replacement projects to be designed and shelved.</td>
<td>2013</td>
<td>○</td>
</tr>
<tr>
<td>3</td>
<td>Perform geographic rotation of cyclic maintenance.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
<tr>
<td>4</td>
<td>Maintain at least a six (6) year maintenance cycle.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
<tr>
<td>5</td>
<td>Use the Design/Build method to deliver projects faster and on budget.</td>
<td>Ongoing</td>
<td>○</td>
</tr>
</tbody>
</table>

Contact:
Select a Department Goal:
Goal 8: Promote continuous improvement and innovation

Select a Department Objective:
Manage highway operations to reduce the overall impact of traffic related incidents and fatalities

or

Enter Your Own Organization Objective:

Enter a Measure of Success:
Reduction in the time to return to normal operations following the conclusion of events and reduction of crash/fatality rates

Action Item(s)

Key Action Item(s):

1. Proactive utilization of weather prediction tools on 24 Hours basis.
   Due Date(s): Ongoing

2. 24/7 Radio Dispatcher communication between “sister” Counties and adjoining States.
   Due Date(s): Ongoing

3. Conduct post winter After Action Review (AAR) to document opportunities for improvement.
   Due Date(s): Ongoing

4. Eliminate or reduce incidents of closures and delays due to winter and other impediments through communication and having man-power, plans, materials and equipment in place.
   Due Date(s): Ongoing

Contact:
Select a Department Goal:

Goal 8: Promote continuous improvement and innovation

Select a Department Objective:

Increase use of best practices and innovative products/processes

or

Enter Your Own Organization Objective:

Enter a Measure of Success:

Meet specified business plan goals and targets relative to increased warm mix/recycled pavement utilization, asset management and fatality reduction to achieve the desired outcome

**Action Item(s)**

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhere to the Equipment Division 25% JOMA blade usage mandate and is proceeding to full implementation in the next five (5) years.</td>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>Implement Traffic Calming Initiatives (Bailey Avenue).</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Develop and implement a Design Build ISO 9001 process.</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Complete research project on the Reflector System (State Route 380).</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Upgrade seal coat Chipping Equipment for increased efficiency.</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Increase use of Warm Mix asphalt to 50% (excluding Interstate work).</td>
<td>2013</td>
<td></td>
</tr>
<tr>
<td>Evaluate and refine use of mass concrete placement specification on large structure projects.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>Use of long life concrete pavement design on appropriate projects</td>
<td>Ongoing</td>
<td></td>
</tr>
</tbody>
</table>
Pennsylvania Department of Transportation
Strategic Plan
Implementation Template

Strategic Focus Area

Select a Department Goal:
Goal 8: Promote continuous improvement and innovation

Select a Department Objective:
Develop a meaningful performance metrics program/system that guides decision making

or

Enter Your Own Organization Objective:

Enter a Measure of Success:
Apply a value added process to all metrics annually. Report on total number, number reviewed, and number changed

Action Item(s)

<table>
<thead>
<tr>
<th>Key Action Item(s):</th>
<th>Due Date(s):</th>
<th>Delete</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Implement additional metrics to improve the quality of bituminous pavements in District 12 in 2012.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>2 Partner with industry representatives to develop and improve meaningful Construction Quality Metrics.</td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td>3 Utilize the District metrics and Statewide Scorecard/Dashboard to assist managers in targeting corrective action identification.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact:
MARCELLUS SHALE

The District monitors more than 600 miles of heavy user roadways utilizing four (4) full-time consultant Transportation Construction Inspectors (TCI’s).

We have two (2) areas of concern:

1. Non-Posted Traffic Routes
2. Multiple users on the same route

Our biggest area of concern is our non-posted traffic routes. We completed traffic counts on various traffic routes throughout District 12 in 2010 and found an average of an 8% increase in heavy vehicle traffic as compared to historical data. Some routes showed an increase of greater than 15%. The predominant vehicle is the Marcellus Shale water truck. These water trucks are the most damaging classification of trucks to our pavements. Each water truck is equivalent to a loaded tri-axle truck. To put this in perspective, each loaded water truck is equivalent to approximately 10,000 passenger vehicles. Our roadways are receiving double the amount of loadings anticipated with this increase in truck traffic and the deterioration is exponential compared to normal traffic growth.

We suggest that any Marcellus Shale revenues dedicated to PennDOT be directed towards non-posted traffic routes.

Our second area of concern is bonded roadways with multiple users on the same route. We have experienced as many as five (5) different users on a single roadway that required a letter requesting road repairs to begin within the required five (5) business days. Determining the fair financial responsibility of required repairs is difficult for both the users (heavy and regular) who share the road and the Department.

Utility Companies:

Utility coordination and relocation is an issue that is affecting the cost of project delivery, causing project delays, and increasing the inconvenience to traffic and businesses on projects.

In the design phase, lack of attendance at project meetings, incomplete and inaccurate submissions, and not making submissions in a timely manner make delivering the project on the committed letting date a challenge.

In the construction phase, Utility companies do not make the necessary relocation work a priority, and fail to meet the commitments made during design and then often fail to meet revised commitments made during construction as well.

The problem seems to be that the Utility Companies have limited resources and have cut staff. Some of the ideas that the District is implementing to improve the utility process include:

- A Utility Expert or Utility Design Firm gives a conceptual relocation plan to the utility companies for their review and approval, rather than having the utility companies develop them.
- Look for ways to improve obtaining existing utility easements information from utility companies.
- Record and track all utility correspondence and contacts on construction projects and prepare a report that will be used to help Central Office communicate problems with Utility companies.
District 12 has the most landslide susceptible geology in Pennsylvania; the Waynesburg Hills Physiographic Province was identified by the Department of Conservation and Natural Resources (DCNR) in 2000. (See figure right)

District 12 spends on average $1.75 million dollars from county budgets annually for embankment failures. This is more than all the other Districts combined. Washington County alone spends more annually for embankment failures than any other District.

Two thirds of the list of eighty four (84) current embankment failures submitted to the PMC will be under contract or repaired by the end of the fiscal year along with a dozen additional embankment failures that have occurred since the list was generated.

### Longwall Mining

Since 1982 twenty two (22) longwall mining panel locations have affected the interstates in Washington and Greene counties. Between November 1999 and November 2008, Interstates 70 and 79 suffered up to five (5) feet of vertical drop (subsidence) during the mining. It costs the District more than $26M to monitor and make repairs after mining. To prevent longwall mining the mineral rights would need to be purchased and would cost $283M in today’s dollars. PennDOT District 12-0 has been in communication with the mines and will need to prepare for two (2) more panels to undermine Interstate 79 just north of Waynesburg, Pennsylvania in the year 2017. These two (2) panels will damage approximately one (1) mile of Interstate 79.
Executive Leadership Assistance

Structurally Deficient (SD) Bridges:

District 12 is making considerable progress with our bridge crisis (as illustrated below), however we are still the worst in the state for number of SD bridges, percentage of SD bridges, percentage of SD bridge deck area and number of posted bridges.

- 583 SD Bridges in District 12 (25%); down from 685 just 2 years ago.
- 22% SD Deck Area; down from 29% just 2 years ago.
- 138 Posted Bridges; down from nearly 160 just 2 years ago.

We have continued our strategy to eliminate SD bridges through:

- Major Bridge Initiative.
- Effective use of Design/Build projects.
- Grouping small bridge replacements.
- Small structure replacements by our Department Forces.
- Prevention of structures becoming SD through effective preservation efforts.

We intend to supplement this effort by clearing R/W and Utilities early to allow projects to be designed and shelved to be let when funding becomes available.

It truly is, as they say “all about the money”, and if more funding was available for bridges, District 12 could manage our SD bridges more effectively.

Facilities: Latrobe stockpile (23) closing

The recent emergency closing of the Latrobe stockpile in Westmoreland County is a concern for winter operations with the redistribution of trucks to other stockpiles.

1. It will add an approximately 30 minutes per round trip for each snow route.
2. Alternate stockpiles do not currently have adequate truck hook-ups.
3. Level of service reduced on approximately 300 snow lane miles.
4. Increased winter material download times.
5. Less safe operations regarding stockpile truck movements.
6. Westmoreland County is at higher risk should another major snow event require alternate plans.
### District 12-0: District and County

#### Fiscal Year 2012-2013 Snapshot

**Authorized Complement** - **787**  
**Budget (in thousands)** – **$271,425**

---

#### DISTRICT OFFICE (12-0)

- **Complement**: 251  
- **Budget**
  - Personnel: 15,828
  - Operating: 4,310
  - Fixed Assets: 151,233
  - Grants: 2,809
  - **Total**: $174,180

---

#### Fayette County (12-1)

- **Complement**: 108
- **Budget**
  - Personnel: 9,100
  - Operating: 11,710
  - Fixed Assets: 25
  - **Total**: $20,835

#### Greene County (12-2)

- **Complement**: 82
- **Budget**
  - Personnel: 6,400
  - Operating: 6,627
  - Fixed Assets: 25
  - **Total**: $13,052

#### Washington County (12-4)

- **Complement**: 166
- **Budget**
  - Personnel: 13,400
  - Operating: 15,966
  - Fixed Assets: 40
  - **Total**: $29,406

#### Westmoreland County (12-5)

- **Complement**: 180
- **Budget**
  - Personnel: 14,900
  - Operating: 18,962
  - Fixed Assets: 90
  - **Total**: $33,952

---

**NOTES:**

- **Complement**: Authorized full-time positions as of July 10th, 2012.
- **Budget**: Funding as of 8/31/2012 Funds Management Report for the Fiscal Year 2012-13.
- *When applicable excludes unbudgeted pass-through funds, includes transportation assistance program bonds, liquid fuels tax fund, and highway safety program grants.*
Customer List 12-0—BP 2012-2014

Legislators
Schools
Municipal leaders
Emergency services
Police – local and state
Trucking firms local and long haul
Bus companies
Commissioners /Local Municipalities
Welcome centers
Media
Website users
Residents
Casino owners
Large/Small business owners
Out of state visitors
Libraries
Colleges
Marcellus shale industry
Turnpike
Utility companies
Interstate users
Right to Know Law requestors
Travelers /Tourism /Motorists
Contactors/ Consultants