

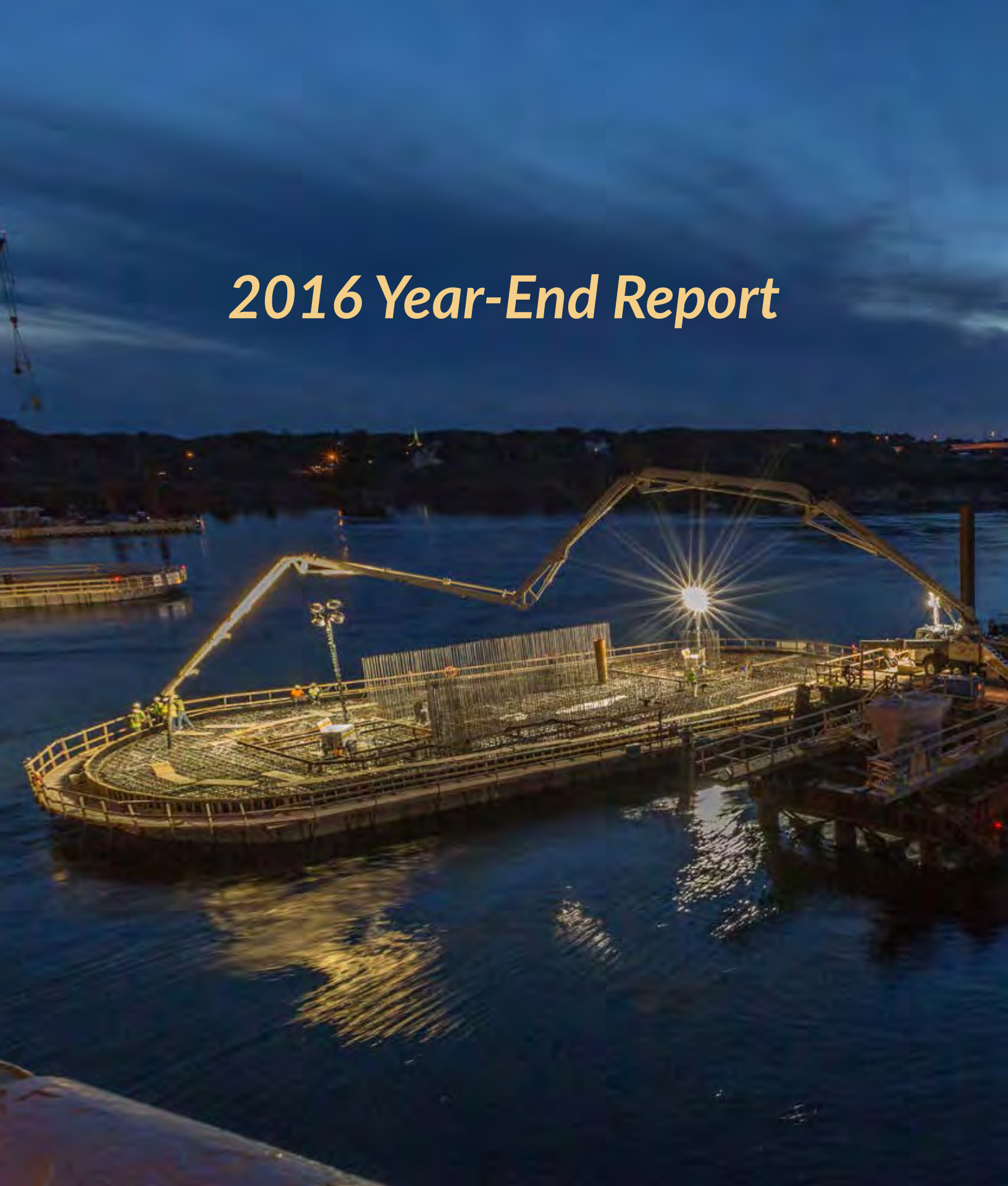
MAINE STATE LEGISLATURE

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2016 Year-End Report



Message from the Commissioner

*I am pleased to share with you the
MaineDOT Year-End Report for 2016.*



As we look back on the accomplishments of 2016, it is important to recognize that a mere 100 years ago, in 1916, the Maine State Legislature created the three-member Maine State Highway Commission. The Commission and its 12 employees were charged with building a “system of connected main highways throughout the state.”

Soon, 373 “patrolmen,” using horses and wagons, covered 3,379 miles of Maine’s dirt and gravel roads to find holes, fix washouts, clear culverts and ditches, and spot-fix other areas that needed repairs.

I like to think those pioneers of Maine’s transportation system would be pleased with today’s MaineDOT and our mission: To responsibly provide our customers with the safest and most reliable transportation system possible, given available resources. However, today’s mission faces daunting challenges as Maine’s infrastructure ages and resources are limited.

MaineDOT strives every year to become a more efficient and effective steward of the transportation system. To that end, a Roads Report Team was formed to review current and identify new management strategies for Maine’s highway network. In December 2016, the team published the Roads Report which recommended a refinement of our asset management principles to focus more on highway preservation. Though this means fewer miles of expensive highway reconstruction, it allows us to improve more highway miles at a lower cost per mile. This approach also extends to Maine’s bridges as we strengthen strategies to extend the service life of more bridges through rehabilitation, rather than replacement, when it makes fiscal sense.

2016 also saw modifications to our Strategic Plan, which was introduced in 2012 and revised in 2014. The 2016 Strategic Plan integrates this refined asset management approach with our three goals: 1) Manage the Existing System, 2) Support Economic Opportunity and 3) Build Trust.

This includes a focus on partnerships with public and private sectors to enhance Maine’s businesses’ access to suppliers and markets. For example, working with the Maine Port Authority, MaineDOT is marketing Maine’s transportation infrastructure regionally and globally to drive Maine’s economy. Exciting new trade routes in the Arctic and the North Atlantic place Maine, and the port of Portland, as the gateway to the 60 million person market of the northeastern United States. Concurrently, new shipping routes are opening exciting new markets for Maine-made products from Maine’s food, beverage and forest products industries.

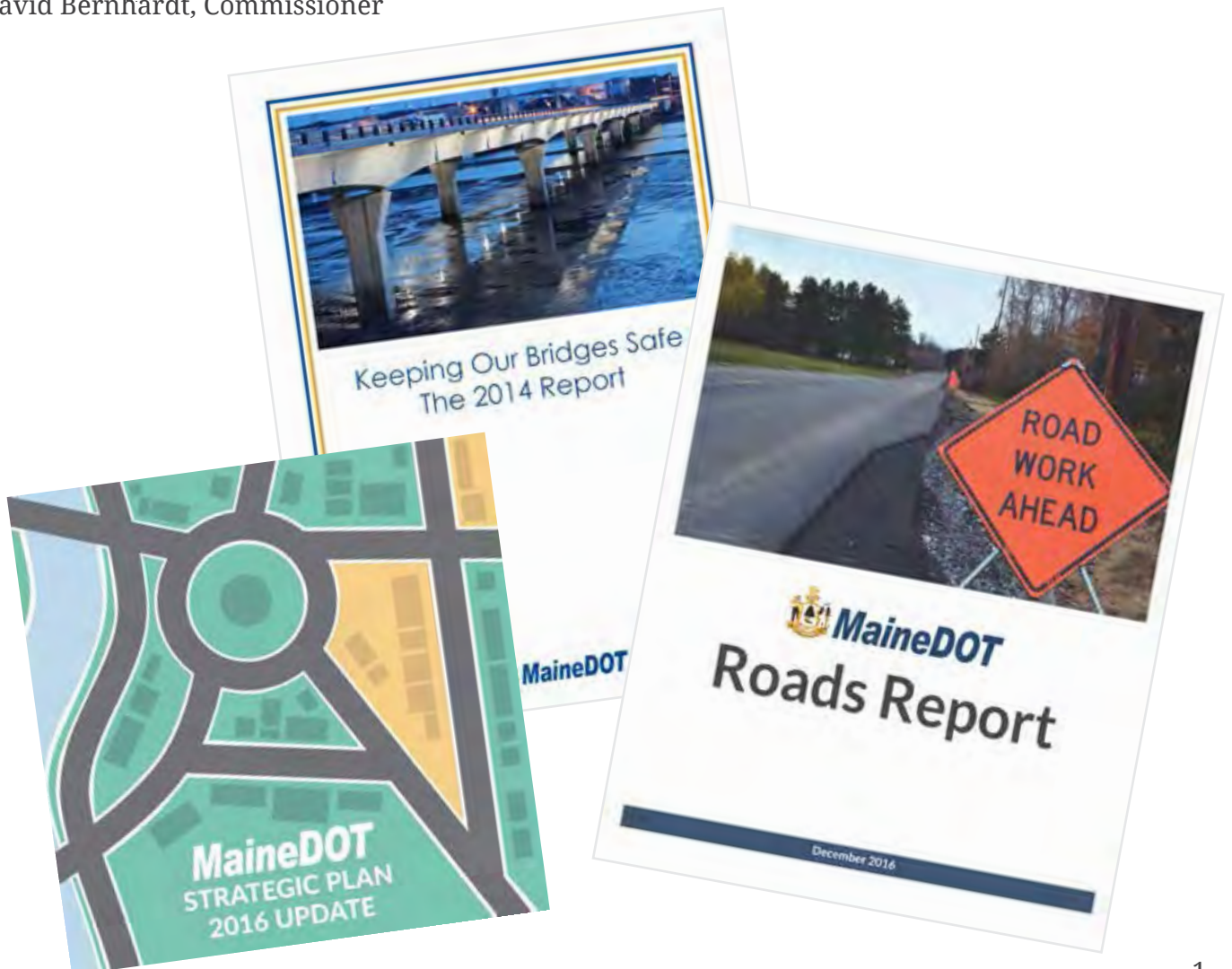
Lastly, the 2016 Strategic Plan offers strategies to build a workforce that is motivated, productive and efficient through programs aimed at professional development and personal wellbeing. Our aging workforce, combined with decreasing unemployment numbers, means MaineDOT must sharpen its efforts to recruit and retain smart, experienced and dedicated employees. MaineDOT employees personify those qualities and I consider them to be our greatest asset.

In 1916, when the Highway Commission was formed, hopes were high that modern infrastructure was the key to prosperity and quality of life. 100 years later, those same hopes remain high and that responsibility is keenly felt at MaineDOT. Many of the highlights of 2016 are featured in this report, as well as statistics about our day to day work. I am confident that every day we make great strides towards a transportation system that is not only safe and efficient, but strategic in positioning Maine for economic prosperity in the global economy.

Sincerely,



David Bernhardt, Commissioner





2016 Accomplishments

MaineDOT Receives \$7.7 Million Grant for the International Marine Terminal in Portland

The U.S. Department of Transportation (USDOT) awarded \$7,719,173 in grant funding to the Maine Intermodal Port Productivity Project (MIPPP) for infrastructure improvements at the International Marine Terminal (IMT) in Portland.

The Fostering Advancement in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) grant is a new USDOT program created by the FAST Act. The program is focused on investments in regional and nationally significant transportation assets. The total cost of the MIPPP is \$15,438,347. Federal grant funds will be matched equally by funds from state and private sources. The project will include acquisition of a new crane, moving the current maintenance facility from the pier and development of additional pier area, improvements to gate operations, and the creation of additional rail capacity.

The growth of container traffic at the IMT terminal has exceeded 20% year after year. Further growth will be driven by increased rail and vessel activity, which will minimize the use of the US highway system and other roadways in Maine, as well as key border crossings. As a result, vehicle emissions will be lowered and roadway maintenance costs will be reduced, while freight is moved more efficiently and economically.

Movement of the existing port maintenance facility and technology investments will also enable improved speed and safety through the port for trucks moving freight to and from the terminal. Investments in rail capacity will make possible increases in freight moving by that mode as well.

“Infrastructure, such as the IMT, ensures that we are able to efficiently and cost-effectively pursue the world’s best fish, expand our customer base and put the freshest seafood on tables across the country.” ~ Peter Handy, President and CEO of Bristol Seafood

2016 Accomplishments

International Marine Terminal Receives National Award



Each year, the American Association of State Highway and Transportation Officials (AASHTO), AAA and the U.S. Chamber of Commerce recognize the best transportation projects across America and highlight the benefits they provide to communities throughout the country.

On June 7, 2016, the Maine Department of Transportation was presented a regional award in the 2016 America's Transportation Awards competition. The "Expansion of Portland's International Marine Terminal" received the award in the "Quality of Life/Community Development, Small" category.

"... the Greater Portland Council of Governments salutes the Maine Department of Transportation for its vision and commitment to infrastructure investment that will leave a lasting and positive impact on the community."

*~ Neal Allen, Executive Director
The Greater Portland Council of Governments*

As noted by the city of Portland in a letter to the competition committee members: "Through the work of the MaineDOT and the Maine Port Authority, the International Marine Terminal has transformed from an underperforming liability to a transportation and economic asset of international significance. For the first time in generations, the Port of Portland now links to international ports with direct marine/rail/highway connections for containerized freight. Through strategic investment, thoughtful design, and energetic marketing, the International Marine Terminal serves the Icelandic shipping firm, Eimskip, and is positioned to expand into coastal short sea domestic shipping. These accomplishments have occurred with partnership, collegiality, and inclusive decision making with the city of Portland as the host community."

The expansion of the IMT in 2015 included installation of 5,000 feet of new railroad track, construction of a concrete loading pad for shipping containers and preparation for a new cold storage facility. These investments will propel the growth of a new rail container service to N.Y. and southern New England, and offer a cost-effective alternative to utilizing I-95 by truck. In addition, IMT is now an alternative for customers shipping product by container vessel. From only 227 containers shipped in all of 2012, the Port has grown to nearly 7,000 containers in 2015 due to these strategic investments.

Residents of Maine have benefitted as well. The expansion of IMT also improved nonmotorized transportation with the construction of a 12-foot wide brick multiuse trail, an eight-foot wide tree lined esplanade with landscaping, and designated bike lanes through the 1,650-foot length of the project.

A nighttime photograph of the Sarah Mildred Long Bridge replacement project. The image shows a large steel truss bridge structure under construction, illuminated by bright work lights. Several barges and support vessels are visible in the water, and the scene is reflected on the river's surface. The background shows the dark sky and distant city lights.

2016 Accomplishments

Sarah Mildred Long Bridge Replacement Project

The replacement of the Sarah Mildred Long Bridge, which spans the Piscataqua River between Portsmouth and Kittery, is a joint venture between the Maine and New Hampshire Departments of Transportation, with MaineDOT serving as the lead. This significant undertaking is expected to cost approximately \$158.5 million. In September 2014, a \$25 million TIGER (Transportation Investment Generating Economic Recovery) grant was awarded for the rail portion of the bridge. The new bridge is scheduled to open in the fall of 2017.

Rising Out of the Water

During the spring of 2016, the new Sarah Mildred Long Bridge emerged from the swift moving waters of the Piscataqua River with the placement of 22 precast tub segments. These “tower tubs” (the portion below water) form the shell of two massive foundation caps, each measuring 65 feet wide, 125 feet tall and 15 feet deep. The two tower tubs were filled with more than a million pounds of reinforcing steel and 25 million pounds of concrete.

When completed, each of the four towers will have 24 concrete segments and will rise 215 feet above the water. Each tower segment weighs 80 tons and was precast in the nearby N.H. Port Authority property by a select crew of Cianbro workers. The segments are transported to the water’s edge by a 12-axle heavy-haul trailer, then barged out to the channel and set in place with a 300-ton capacity crane.

Farewell to the “Old” SML

The Sarah Mildred Long Bridge Replacement Project crossed many milestones in 2016, but none could quite compare to the earlier than expected demise of the existing Sarah Mildred Long Bridge. Over the weekend of August 21st, a trunnion in the south tower slipped in its mount resulting in the lift span becoming stuck in the up position. After an exhaustive review by MaineDOT, the New Hampshire DOT, and experts from consultant Hardesty & Hanover, it was decided not to repair the old bridge.

On the evening of October 14th just after 11 pm, the old Sarah was floated off her bearings under a flood tide. These “float out” events are a unique method of dismantling infrastructure whereby

the contractor uses the enormous force and mechanical advantage of a rising tide to lift and remove massive structures.

The existing lift span weighed approximately 1.7 million pounds and was disassembled at the Port Authority's main dock and shipped to Boston for recycling. The four remaining truss spans were floated out in a similar fashion. At the writing of this update, all that remains of the existing bridge are the foundations.

VIPs Tour the Project

On October 3rd, MaineDOT's Chief Engineer Joyce Taylor was host to Maine Senator Susan Collins and the Honorable Anthony R. Foxx, Secretary of Transportation. Their visit included a river cruise around the project site with fantastic views of the Kittery lift tower segments being set and the Portsmouth railroad bridge segments emerging from the Port of Portsmouth.

Senator Collins helped secure the \$25 million TIGER grant that is paying for the railroad bridge portion of the project.



2016 Accomplishments

Municipal Partnership Initiative

MaineDOT's Municipal Partnership Initiative (MPI) is designed to reduce red tape, expedite construction and forge a collaborative partnership between MaineDOT and local communities. MPI began in 2012 and, to date, over 69 projects at a total value of more than \$81 million have been completed. Another 49 projects have been proposed and approved through 2018.

Under the Municipal Partnership Initiative, monies from MaineDOT, the municipality and, in some cases, from private sources are combined to put highway improvements on a fast track. MPI allows the local community to determine its priority for local state and state-aid highway improvements, and determine its willingness to share in those costs. Municipalities may then apply to MaineDOT for matching funds. Though reviewed on a first-come, first-served basis, MaineDOT is looking for projects that improve safety, boost economic development and improve mobility. In addition, projects are reviewed with an eye toward viability and the ability to get the work done in the next construction season. By leveraging local resources and utilizing more flexible project delivery methods, these projects are completed quickly and with a minimum amount of red tape.



Newburgh Road, Hermon
Approved MPI Project for 2017

In 2016, 13 projects were completed for a total cost of approximately \$6 million. 50% of these costs were from the local communities.

MPIs Completed in 2016

Municipality	Road	Municipality Share	State Share	Actual Project Costs
Bangor	Griffin Road from Union to Ohio St.	\$152,769.04	\$152,769.04	\$305,538.08
Auburn	South Main St	\$500,000.00	\$500,000.00	\$1,000,000.00
Hermon	Klatte Road, Rt 2 to Newburgh	\$68,864.56	\$68,864.56	\$137,729.12
Hermon	Fuller Rd.	\$363,496.18	\$363,496.18	\$726,992.36
Rockland	Old County Road-Phase 2	\$500,000.00	\$500,000.00	\$1,000,000.00
Skowhegan	High/Pleasant/Norridgebrook	\$97,560.97	\$97,560.97	\$195,121.94
Waterville	Airport Rd. and Union St.	\$156,750.00	\$156,750.00	\$313,500.00
Brewer	Main St	\$12,766.90	\$12,766.90	\$25,533.80
Farmington	HIGH STREET	\$6,466.66	\$6,466.66	\$12,933.32
South Portland	Calvary Pond/Broadway	\$254,764.82	\$254,764.82	\$509,529.64
Saco	Bradley Street-Route 5	\$184,557.80	\$150,000.00	\$334,557.80
Bangor	Broadway from Stillwater Ave to Center St.	\$170,648.00	\$170,648.00	\$341,296.00
Rockland	Old County Road., Intersection	\$554,653.30	\$500,000.00	\$1,054,653.30
13	Totals	\$3,023,298.23	\$2,934,087.13	\$5,957,385.36



2016 Accomplishments

\$ 10.5 Million TIGER Grant Funds Replacement of Beals Island Bridge

Construction of this \$19.4 million bridge replacement will likely begin in July 2017. The construction schedule will span nearly three seasons, with possible final landscaping in the fall of 2020. The new bridge will be built parallel to the existing bridge on the east side. Two-way traffic will be maintained during construction and the navigational channel will be maintained.

With this latest TIGER grant, Maine has received more than \$122 million for crucial highway, bridge, port and rail projects since 2009.

In addition, MaineDOT received a \$100,000 grant from the Federal Highway Administration's Strategic Highway Research Program (SHRP 2). The competitive grant was awarded to implement design and construction methods to achieve an extended service life for the replacement bridge. MaineDOT has identified the Beals Island Bridge as one of 36 Forever Bridges in the state. Construction to replace these high-value bridges creates significant funding needs that can severely impact bridge resources. MaineDOT intends for these Forever Bridges to have a service life greater than 75 years and is committed to utilizing innovative technologies and practices to design, construct, and maintain the Beals Island Bridge as well as other bridges.

2016 Accomplishments

MaineDOT Streamlines Project Delivery

Thanks to funding under a competitive grant provided by the National Academy of Science's Strategic Highway Research Program, MaineDOT is streamlining its review process for projects that may impact the endangered Atlantic salmon. MaineDOT designed a multiagency programmatic agreement by working jointly with the US Fish and Wildlife Service (USFWS), the Federal Highway Administration (FHWA), the US Army Corps of Engineers and the Maine Department of Marine Resources. This agreement comes in the form of a Programmatic Biological Opinion (PBO) that applies to 60% of MaineDOT projects and a majority of Maine Turnpike Authority projects that are likely to affect Atlantic salmon. As a result, USFWS will be able to complete approximately 30-40 consultations annually compared to fewer than 10 in recent years. Crafting the PBO required expertise from Maine, as well as from FHWA's Resource Center and Headquarters staff, and a subject expert from the Pacific Northwest.

Flexibility, dedication, communication, and cooperation were also key to this success. The PBO is the final step in consultation for species listed as threatened or endangered under Section 7 of the federal Endangered Species Act. Thanks to this agreement, unpredictable delays will be replaced by a 30-day timeframe for all projects that MaineDOT or MTA design to meet agreed-upon performance standards. The performance measures are those actions that have already been determined to limit or eliminate adverse effects on Atlantic salmon or their habitat. The agencies are also developing an in-lieu fee mitigation program that will enable Atlantic salmon protection work to be carried out at locations deemed priorities for species restoration. Beginning early in 2017, MaineDOT will be able to deliver more projects potentially affecting Atlantic salmon on condensed, more predictable schedules using this first-of-its-kind PBO.





2016 Accomplishments

“No matter where you go in Maine, they seem to be paving!”

That was a familiar phrase in Maine during the summer of 2016, and for good reason. For the first time since 2002, more than 1,000 miles of Maine roadways were paved in 2016. To be exact, of the 8,800 miles of roadway that MaineDOT is responsible for, 1002 miles were improved. To accomplish this, about 1.2 million tons of asphalt were placed. To make the story even sweeter, the work was done through 125 contracts worth close to \$250 million which flowed into Maine's economy.

The treatments included:

- » 604 miles of Light Capital Paving (LCP), which keeps our lower priority roads in a smooth condition that is easier to maintain;
- » 337 miles of preservation paving which preserves our “built” roadways and extends their useful life;
- » 39 miles of rehabilitation, which improves the structure of the roadway; and
- » 22 miles of reconstruction that builds all new structure for a long-lasting roadway.

In recent years, paving miles have been hovering between 850 and 900 miles per year. The higher 2016 totals resulted from three major factors:

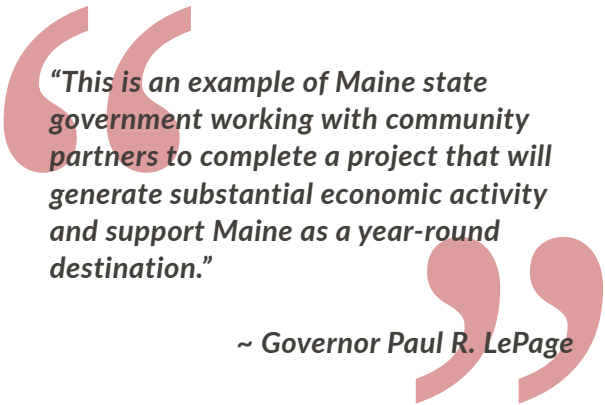
- » low asphalt prices resulting in a favorable bidding climate,
- » a focus on preservation treatments at a lower cost per mile, and
- » favorable year end revenue adjustments in both federal and state funds.

2016 Accomplishments

Communities Celebrate New Transportation Infrastructure Projects

Downeast Sunrise Trail Expands into Ellsworth

On December 2, 2016, Commissioners David Bernhardt (MaineDOT) and Walter Whitcomb (Maine Department of Agriculture, Conservation and Forestry - DACF) officiated at a ribbon cutting ceremony to celebrate the completion of the 2.2-mile extension of the Downeast Sunrise Trail (DEST), which runs from Washington Junction to High Street in Ellsworth. The two commissioners agree that the success of this project demonstrates what collaborative efforts between state agencies, local government and community organizations can accomplish when all parties work together. MaineDOT funded this project and DACF designed and managed its construction.



“This is an example of Maine state government working with community partners to complete a project that will generate substantial economic activity and support Maine as a year-round destination.”

~ Governor Paul R. LePage

The DEST, which follows the corridor of the former Maine Central Railroad, now provides an 87-mile off-road trail that can be used for bicycling, ATVs, horseback riding, and winter sports such as snowmobiling, cross-country skiing, and snowshoeing. The trail connects Ellsworth with numerous communities in Downeast Maine, and terminates at Ayers Junction. Future plans to extend the trail on its easterly end—the remaining 12 miles into Calais—are currently being explored.

The trail is the easternmost leg of the East Coast Greenway (ECG) and ECG officials indicate that it is the longest continuous off-road section of the greenway between Key West and the Canadian border. This project provides economic benefits and also expands access to numerous recreational activities throughout Washington and Hancock Counties.

Downtown Auburn Transportation Center Improves Service for Residents

On October 20, 2016, the new Downtown Auburn Transportation Center (DATC) opened at Great Falls Plaza in Auburn. The center’s amenities include a floor-to-ceiling glass viewing area, a warm seating area, two public restrooms and a break area for drivers. The Citylink fixed-route bus service makes hourly/daily stops at the center, which also provides a connection for passenger transfers to intercity bus service, which is provided by Concord Coach Lines.

The area surrounding Great Falls Plaza is in Auburn's central business district and contains an elderly housing complex, office and government buildings, and a hotel.

Construction of the DATC is the culmination of determined planning and community visioning that began early in the last decade. MaineDOT Transit Planning has been in continuing partnership with the city of Auburn and the Federal Transit Administration since the inception of the project. The department's Multimodal Program provided oversight of the locally administered project to build this modern and inviting facility.



The opening of the DATC expands Citylink's one-hub system to two hubs, one in Lewiston and one in Auburn. Citylink's two-hub design was recommended in the short-range transit plan, "Evaluation of the Fixed-Route Bus System," in Lewiston-Auburn. The move to the two-hub system is part of an effort to improve bus service for Auburn residents and to improve on-time performance for Auburn bus routes.

Lisbon/Durham Bridge Opens One Year Early

The new Lisbon/Durham Bridge, which carries Route 9/125 over the Androscoggin River, opened to traffic Monday, July 11th. This \$6 million bridge project began in November of 2014 and was finished approximately one year early.

The Lisbon and Durham communities hosted a special celebration featuring presentations by the historical societies of both communities as well as Mr. Walter Parker as the grand marshall. Mr. Parker was the first person to cross the new bridge just as he was among the first to cross the old bridge back in 1937.



The new bridge consists of two 11-foot lanes with 5-foot shoulders and a 5-foot sidewalk along the upstream side of the bridge. The new, wider bridge is a major improvement over the previous bridge, which had only 22-foot clear roadway width and restricted the height of trucks due to the overhead frames of the truss. The new crossing is much more open and improves sight distance for motorists. Also, the shoulders have been widened at the curves to allow for large tractor-trailer trucks to safely cross the bridge.

In addition to the new bridge, a \$2 million road project to stabilize Route 9 was completed. Wyman & Simpson of Richmond was the contractor for the project.

The New Wadsworth Street Bridge in Thomaston Features Innovation

The new Wadsworth Street Bridge is a 280-foot long, four-span structure that crosses the Saint George River. The aging truss was restricted to one truck at a time due to its structural deficiencies, a very narrow total width of 20 feet, and its vertical height restriction. The open design of the new bridge is approximately 33 feet wide, including 11-foot lanes, three-foot shoulders and a five-foot sidewalk. The new bridge also eliminates vertical height restrictions, provides more under-clearance for boats and will carry all legal traffic.

This bridge took two years to complete due to in-water restrictions and the work that was required. It was built on a new alignment just upriver so that traffic could be maintained on the existing bridge throughout construction. The bridge replacement project also included reconstruction of more than 1,100 feet of Wadsworth Street, Water Street and Sunrise Terrace in order to shift the alignment of the new structure. Prock Marine Company of Rockland built the new bridge at a cost of \$4.3 million.

MaineDOT used many innovative features to extend the life of the new bridge. These include the use of hybrid composite beams which have fiber-reinforced polymer exteriors which require very little maintenance and never rust like the existing steel bridge. The bridge deck, which has historically been a limiting factor in Maine's harsh conditions, has been reinforced with glass reinforced polymer bars (GFRP) instead of steel reinforcing bars. The GFRP reinforcing will never rust like conventional steel, greatly extending the life of the bridge deck. The saltwater-exposed steel pipe pile foundations are also coated with a special polyurea coating that has proven to be very durable and will provide exceptional corrosion protection. MaineDOT is confident this new bridge will last at least 100 years with minimal maintenance.

The opening celebration on October 5th featured 1928 antique cars from the Owls Head Transportation Museum as well a volley of shots discharged across the new bridge by local citizens in period dress of the Revolutionary and French & Indian wars. The old Wadsworth Street Bridge was built in 1928 by Boston Bridge Works.



Ogunquit Project Finishes Up Ahead of Schedule and Under Budget!

Our “Thank You” note to Ogunquit pretty much sums up this ambitious project. (insert gift print ad found under images) But Ogunquit residents and businesses had something to say too.

Karen Marie Arel, President of the Ogunquit Chamber of Commerce told MaineDOT, “We’re glad it’s over but we know it’s worth it...You took a three-year project and condensed it down to 17 or 18 months. We’re very happy with the finished product! We’re looking forward to having our summer season start so we can show off.”



More 2016 Accomplishments

2016 Bond Package Approval Signals Voter Support

The 2016 transportation bond was a critical funding component of the \$2.2 billion, three-year MaineDOT Work Plan for Calendar Years 2016-2017-2018. Clearly, the public understands the need for transportation funding and responded with overwhelming support for the bond package with more than 61% of voters approving the measure.

Although the bond didn’t earmark specific projects, a tentative disbursement plan for bond proceeds was established. Of the \$100 million proposal, \$80 million was identified for highways and bridges, including \$24 million to construct, reconstruct, or rehabilitate Priority 1, 2 and 3 state highways, \$4 million for the popular Municipal Partnership Initiative (a 50-50 program aimed primarily at lower priority roads) and \$52 million to replace and rehabilitate bridges. The remaining \$20 million will be spent on ports and marine transportation, aviation, railways, public transit, and bicycle and pedestrian trails. This bond recognizes that transportation is a driver for economic vitality. Smart investments in roads, bridges, ports, and rail lines reduce cost to Maine businesses, making them globally competitive and creating jobs across the state. MaineDOT has proven that we can get a substantial return on investment from bond funds in a way that supports economic development. The approved bond money will match an estimated \$137 million in federal and other funds.

Bangor I-395 Radio Ad Wins First Place in AASHTO Contest

The American Association of State Highway Transportation Officials (AASHTO) TransComm Skills Contest is considered the premier competition in the transportation industry and the awards demonstrate the very best examples of innovation, planning, production, and execution.

MaineDOT was pleased to win first place in the Radio Advertisement Category for a communication campaign about the full closure of I-395 in Bangor. When MaineDOT decided to close a well-traveled section of I-395 over one four-day weekend in May so that a massive bridge replacement project could be done, it was clear that a robust and nimble public outreach campaign was needed. Since the contractor could select any weekend in May, as long as they notified the department by the preceding Tuesday, it was decided that radio spots would be key since they could quickly indicate when the closure started as well as when it ended. The humorous and memorable spots became a topic on local talk radio and a university communications professor requested copies of the spots to teach students how a lighthearted script could be used to promote a serious topic.



Commissioner Bernhardt Named President of AASHTO

Maine Department of Transportation Commissioner David B. Bernhardt, PE, was chosen by the Board of Directors of AASHTO (American Association of State Highway and Transportation Officials) to serve as its president for 2017.

AASHTO is a nonprofit, nonpartisan association representing highway and transportation departments in the fifty states, the District of Columbia and Puerto Rico. Its primary goal is to foster the development, operation and maintenance of an integrated national transportation system.



As president, Bernhardt will concentrate on working closely with the Trump administration as well as members of Congress to develop strong transportation legislation. A top priority will be how to collectively address intermodal freight capacity and improve rail connections in addition to creating freight networks that support our nation's businesses.

2016 Paul L. Lariviere Transportation Excellence Award

Maine FHWA Division Administrator, Todd Jorgensen acknowledged Debora B. Farrell's efforts to ensure qualified consultants are equitably selected and that work is accomplished in a timely manner and at a fair and reasonable cost. The Federal Highway Administration named Farrell, Director of the MaineDOT Contract Procurement Office, as the 2016 Paul L. Lariviere Transportation Excellence Award recipient.

Debbi's commitment to excellence in her work inspires those around her. She routinely attends meetings with the Code of Federal Regulations in hand, making it evident that Debbi places high value on the partnership between MaineDOT and the Federal Highway Administration. Her peers throughout the country respect Debbi for her procurement expertise as evidenced by her membership on AASHTO's Technical Committee on Preconstruction Engineering Management.

Specifically, Debbi was recognized for her proactive, collaborative, and innovative approach to updating MaineDOT's Consultant Procurement Manual in accordance with the updated regulation on the Procurement, Management, and Administration of Engineering and Design Related Services (23 CFR 172).



2016 David H. Stevens Award

The 2016 recipient of the David H. Stevens Award was Rich Crawford, Assistant Director of the Bureau of Project Development. Rich joined MaineDOT 34 years ago on a survey crew as a seasonal Engineering Aide I. He quickly became a valuable asset for the department and was known, not only for getting the job right, but also for his incredible memory for details. One nominator said "you could ask Rich the elevation of a bench mark they set a year ago and he could tell you the elevation right to the hundredth of a foot."

In 2013, Rich accepted his current position as assistant director of the Bureau of Project Development. In this position, he has helped to continue and improve MaineDOT's successful capital program delivery. He has also volunteered and accepted leadership roles in department-wide efforts including employee development, health and safety. The energy he brings to these efforts will leave lasting improvements as others absorb his knowledge and inherit his desire to make MaineDOT a better place.



Pedestrian Safety Being Addressed

Pedestrian fatalities in Maine were averaging ten annually through 2014, but sadly have spiked in 2015 and 2016. There were 19 pedestrian fatalities in 2015 and 17 in 2016. This recent trend is a serious concern, so MaineDOT assembled a broad group of safety stakeholders in 2015 and asked them to explore the reasons for the increase and to recommend solutions. Based on data and observations, the group shaped a plan that is focused and multidimensional. It takes a three-pronged approach to solutions:

- » Engineering Infrastructure
- » Enforcement
- » Education/Outreach

This three-pronged approach will be applied geographically, based on high crash locations. This led the group to move along two strategic but parallel paths: urban and statewide.

Urban Strategy

Pedestrian crashes are concentrated in Maine's population centers. MaineDOT identified ten community clusters that cover 21 towns where crash experience and/or exposure were significant. These 21 communities represent:

- » 29% of the state's population;
- » 65% of the state's pedestrian crashes;
- » 35% of pedestrian fatalities; and
- » 62% of pedestrian incapacitating injuries.

During 2017 and beyond, this pedestrian safety team will initiate the following urban activities:

- » Convene and facilitate community pedestrian safety forums to define local issues.
- » Work with community stakeholders to complete pedestrian safety audits.
- » Collaboratively develop community-specific pedestrian safety mitigation plans that incorporate both long-term and short-term actions needed to reduce the number of pedestrian crashes.
- » Collaborate with local law enforcement to implement a pedestrian safety enforcement program where officers proactively interact with drivers and pedestrians.
- » Targeted outreach to underserved populations such as those who are elderly, homeless, disabled, or speak English as a second language.

Statewide Strategy

The statewide strategy is designed to reflect the safety issues of rural Maine and will essentially benefit the entire state. This approach is based on the following statistics:

- » Pedestrian crashes are primarily an “adult” problem. Nearly 80% of the fatalities were aged 26 and older. About 28% were 71 years old or older.
- » 57% of pedestrian fatalities occur on rural roads.
- » 48% of the crash fatalities occur on roads with posted speed limits of 40 mph or higher.
- » Impaired conditions are noted in 27.8% of fatal crashes - reported more often for pedestrians than for drivers.
- » 66.2% of the fatal crashes occur between dusk and dawn – lack of visibility and wearing of dark clothing are often cited.

Planned statewide activities include:

- » Provide and produce an outreach campaign to include a television, radio, and social media presence along with supporting safety educational materials.
- » Establish a pedestrian safety web-based resource where materials and information on pedestrian safety and best practices will be made available.
- » Work with law enforcement agencies across the state to increase pedestrian safety enforcement, and distribute informational materials.
- » Increase ADA accessibility and create a transportation system that supports all users.



Capstone Performance Measures

MaineDOT's Capstone Performance Measures are intended to be department level measures for all work. These key performance measures and their associated goals are intended not only to monitor performance of MaineDOT, but in many cases the transportation system. The Capstones are highly dependent on subordinate measures and initiatives undertaken by individual units departmentwide. Through goal setting and measurement, the Capstones give MaineDOT the ability to monitor performance and strive for continuous improvement.



Capstone Performance Measures:

1. Customer Satisfaction

- A. Customer Satisfaction Survey
 - How satisfied are customers with the transportation system?
 - How satisfied are customers with MaineDOT and the services it provides?
- B. Key Business Sector Survey
- C. Municipal Official Survey

2. Safety

- A. Number and rate of crashes, serious injuries and fatalities on the state highway system
- B. Incident rates and severity rates of injured employees
- C. Number of accidents, injuries and fatalities in state highway work zones

3. Customer Service Level (CSL) Measures for Condition, Safety and Service, Including Progress Toward Statutory Goals (23 MRSA 73 (6))

4. Expenditures per Lane-Mile Compared to Peer States

5. Work Delivered on Time

- A. Percent of capital work in the Work Plan delivered on time
- B. Percent of M&O work in the Work Plan delivered on time

6. Work Delivered on Budget

- A. Percent of capital work in the Work Plan delivered on budget
 - Total project programmed amount when funded for construction in work plan vs. total project estimate at award
 - Project construction estimate at award vs. construction estimate at construction completion
- B. Percent of M&O work in the Work Plan delivered within 20% of initial programmed estimate
- C. Percent of process WINs completed on budget

7. Administrative Costs as Percent of Production

8. Quality and Compliance

- A. Life expectancy of treatments
- B. Number of citations/violations
- C. Compliance with State and Federal law

9. Performance Management and Employee Development

Percent of compliant performance reviews completed and submitted to Human Resources



Capital Work Delivered

Bridge Projects: 72 projects, \$93 M
Bridge Replacements: 21 projects, \$50 M
Paving Projects: 946 miles, \$136 M

Highway Reconstruction: 22 miles, \$94 M
Highway Rehabilitation: 40 miles, \$18 M
Highway Spot Improvements: 52 projects, \$26 M



Work Delivered On Time

Capital Work in the Work Plan Delivered On Time

Target: 80% **Actual:** 87%

Maintenance and Operations Work in the Work Plan Delivered On Time

Target: 80% **Actual:** 92%



Administrative Costs as a Percent of Production

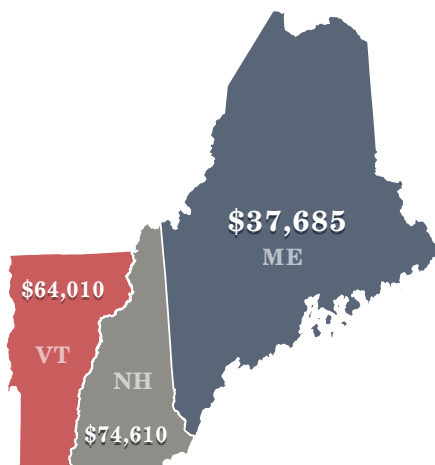
Target: Below 8% **Actual:** 7.6%

MaineDOT strives to keep administrative costs low so the majority of expenditures go directly toward Maine's transportation assets.

The administrative costs above are calculated as a percentage of capital production costs for the calendar year as opposed to page 29, where it is calculated as a percentage of the overall budget contribution from fuel tax and other fees.



Expenditure Per Lane-Mile Compared to Peer States



Maine	\$37,685 per lane-mile
Vermont	\$64,010 per lane-mile
New Hampshire	\$74,610 per lane-mile



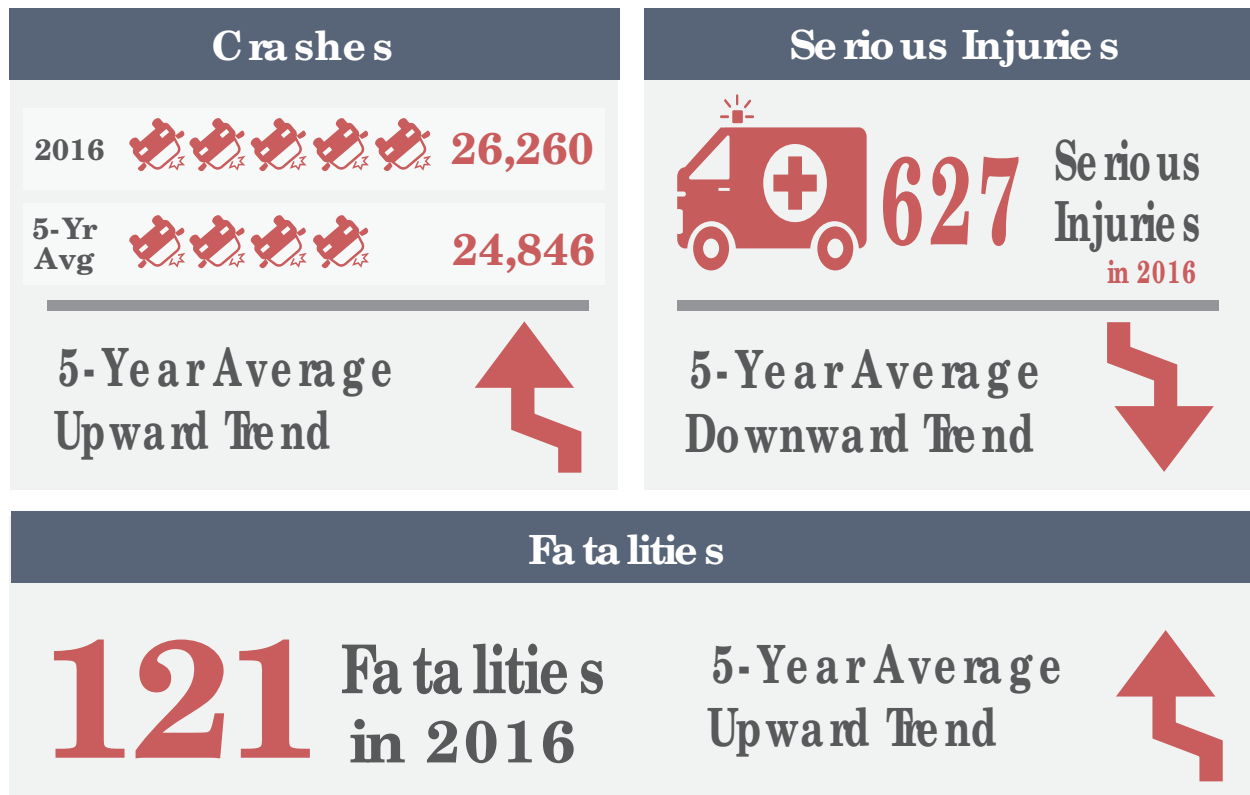
Safety

After achieving a 70-year low in highway fatalities in 2014, Maine has seen an increase in crash fatalities in 2015 and again in 2016. Motorcycle fatalities did moderate from a high of 32 (2015) to 18 (2016).

Pedestrian fatalities rose from 9 (2014) to 19 (2015) and did not improve much in 2016 with 17 fatalities. MaineDOT is leading a coordinated effort, with a broad group of safety partners, to maximize effective pedestrian outreach and education.

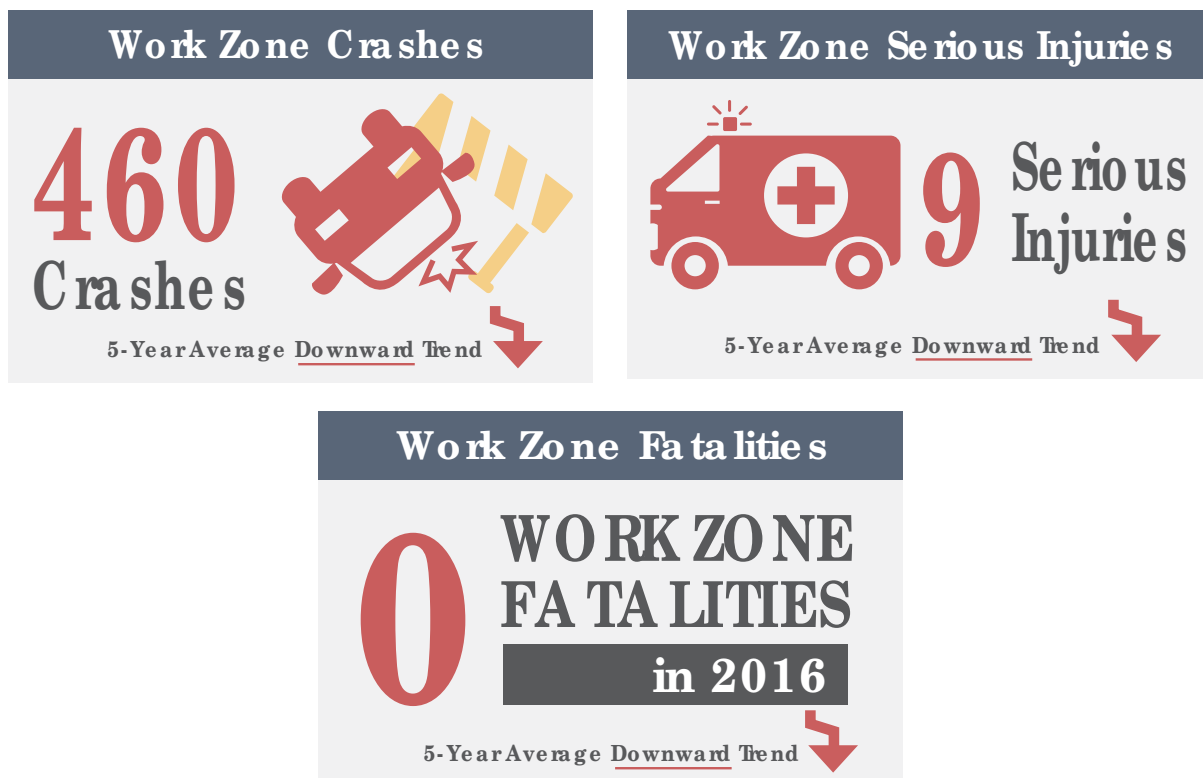
Maine's most serious crash type continues to be lane-departure, when a vehicle leaves its proper lane and is involved in either an off-road or a head-on collision. These crash types result in 70% of the fatalities and 50% of the serious injuries on state roads. MaineDOT is aggressively installing centerline rumble strips on its top priority roads. The 2017-2018-2019 Work Plan adds about 200 more miles of rumble strip installations. MaineDOT is also evaluating systemic solutions to mitigate went-off-road crashes.

Crashes and Fatalities on the State Highway System



Work Zone Crashes, Serious Injuries and Fatalities

Driver speed and driver distraction/inattention are the two leading causes for crashes in work zones. Work zone safety is critical, both for the traveling public and the vulnerable workers positioned where high-speed traffic may be passing. These workers include not only MaineDOT crews, but utility, public works and contractor crews. The public may be surprised to learn that motorists suffer the majority of serious injuries and fatalities in work zones – not crew members. However, MaineDOT employees, contractors and utility workers have also lost their lives in work zone crashes.

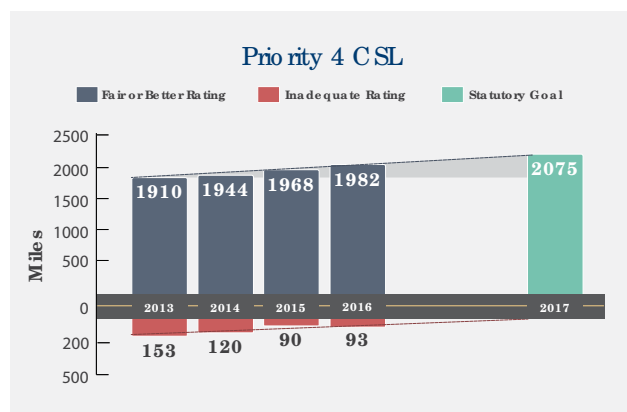
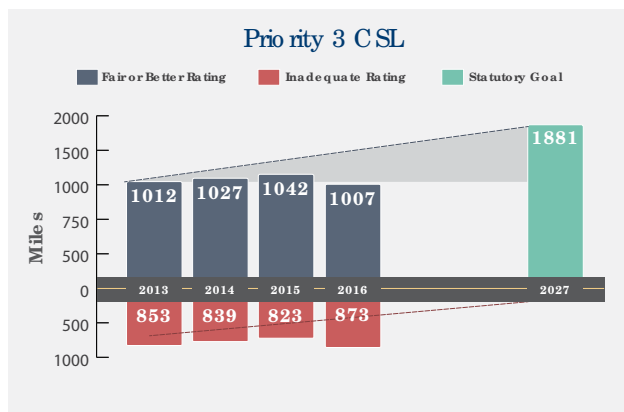
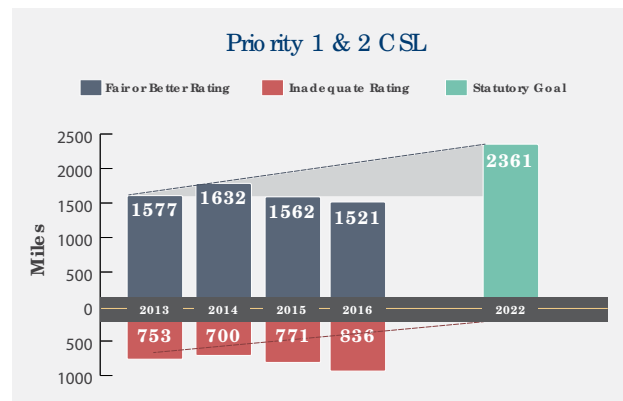


Note: Work zone crash data reflects work zone crashes that occurred on state highway and state aid roads. They include crews working for MaineDOT, utilities, public works departments and private contractors.



Grading Maine's Highway Assets for Safety, Condition and Service

MaineDOT categorizes highways into six levels of priority with Priority 1 being major routes, such as the Interstate, and Priority 6 being local roads and streets. We then assign customer service levels (CSL) of safety, condition and service to each priority. The Maine State Legislature established statutory goals (23 M.R.S. § 73, sub-§7) for priority levels 1-4. Ultimately, the goal is to eliminate all inadequate roads by specific target dates. Unfortunately, the gap between these targets and actual road conditions is growing due to fiscal limitations.

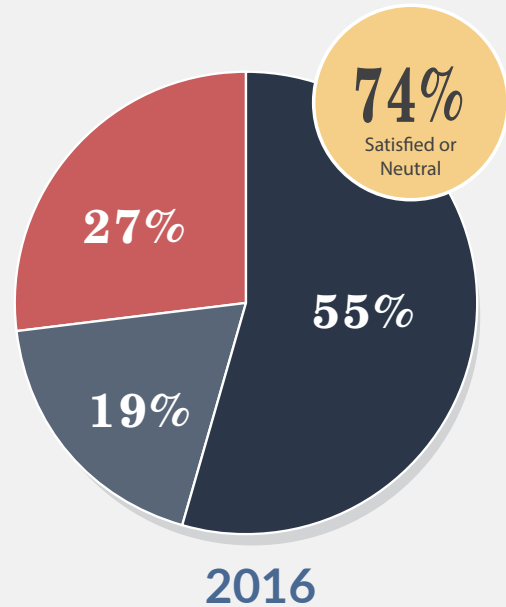
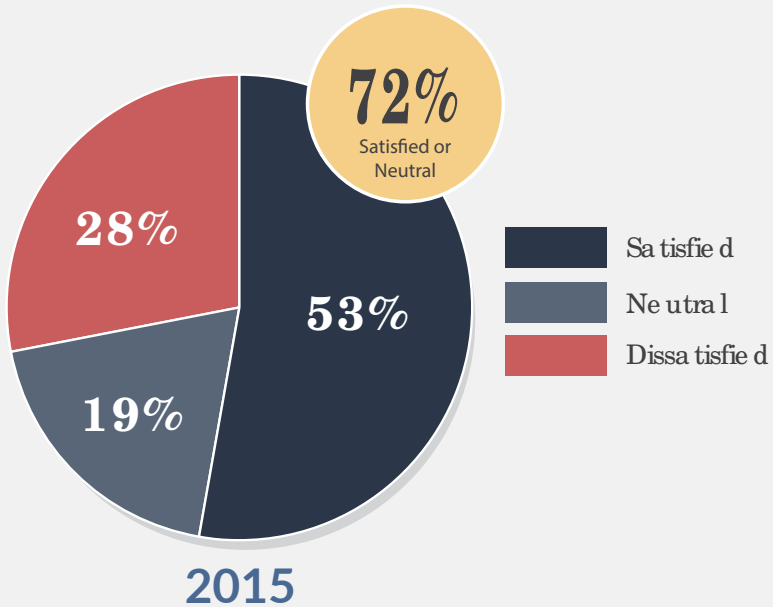


Note: The statutory goal for Priority 4 is based on pavement smoothness only.

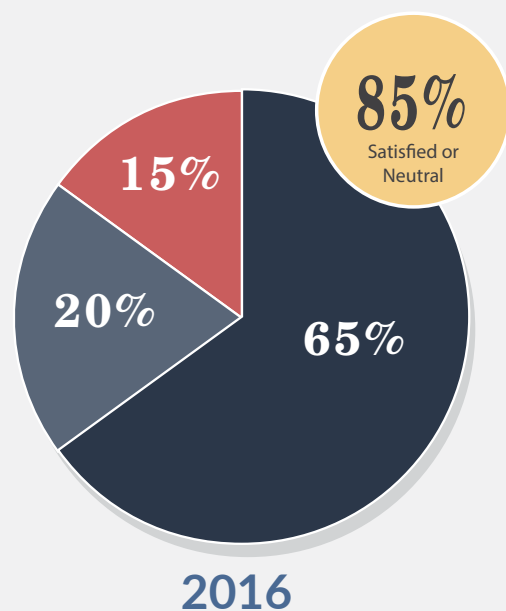
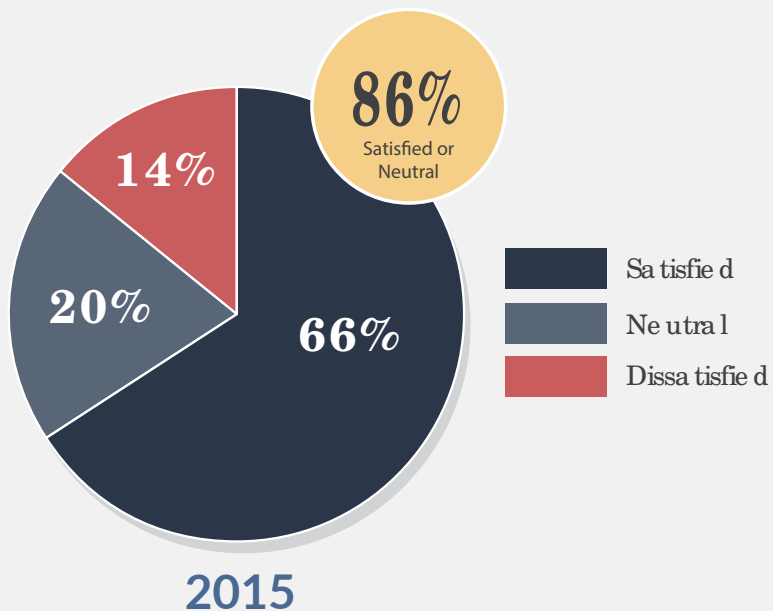


Customer Satisfaction

How satisfied are customers with the transportation system?



How satisfied are customers with MaineDOT and the services it provides?



2016 MaineDOT Stats



Bridge Stats

Topside Inspections: 2,070

Underwater Inspections: 160

Wearing Surfaces Repaired/Replaced: 295,892 sq ft on bridges

Joints Repaired/Replaced: 4,854 bridges

Bridges Washed or Painted: 1,559 washed, 13 painted

Bridges Posted or Closed: 12 posted, 1 closed



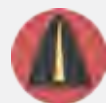
Ridership & Visitor Stats

Maine State Ferry Service:

484,631 Passengers (down from 490,502 in 2015)

Penobscot Narrows Bridge & Observatory:

Visitors: 60,954 (up from 53,740 in 2015)



Roadside Stats

Roadway Striping: 18,677 miles of paint

Ditched: 908 shoulder miles

Swept: 6,535 shoulder miles

Removed Litter: 2,140 shoulder miles

Mowed: 9,656 shoulder miles

Roads Posted (in spring): 1,521 miles

Guardrail Maintained: 47,216 linear feet

Signs Maintained: 14,540 installed



Transit & Rail Stats

5.4 Million Passengers

20 Regional Transit Providers

(including tribal governments)

420+ Accessible Buses and Vans

47 Communities received transit service
at least 3 days per week

Maintained: 492 miles of state-owned rail

Inspected: 1,819 miles of private lines

Leased: 329 miles of track to private operators



Winter Maintenance Costs (5-year Comparison)

Winter Season	No. of Events	Salt Usage	Total Cost
2011-2012	31	95,381	\$25 M
2012-2013	32	102,011	\$28.5 M
2013-2014	38	136,858	\$35.5 M
2014-2015	36	131,502	\$36 M
2015-2016	29	95,740	\$29.6 M

MaineDOT Expenditures

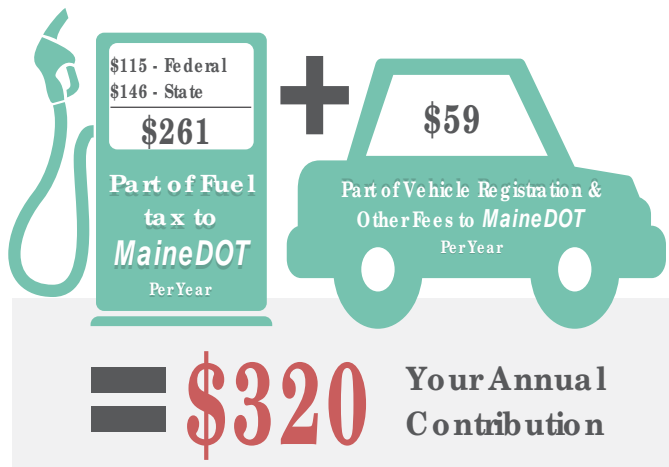
MaineDOT expended over \$700M in calendar year 2016. The focus of expenditures is to maintain and improve the transportation infrastructure. 48% of expenditures went directly to capital infrastructure improvements. Through these expenditures, MaineDOT strives to fulfill our mission of providing the safest and most reliable transportation system possible.

Expenditure Category	\$M Total	%
Benefits	\$53.93	7.6%
Bond Principal & Interest	\$33.58	4.7%
Capital Equipment	\$11.02	1.5%
Capital Infrastructure	\$348.41	48.8%
Commodities, Equipment, & Supplies	\$10.02	1.4%
Contracted Services	\$0.43	0.1%
Engineering Services	\$51.29	7.2%
Ferry System Operations	\$13.53	1.9%
Highway & Bridge Materials	\$23.72	3.3%
Information Technology Expenditures	\$12.32	1.7%
Insurance Related	\$0.73	0.1%
Miscellaneous	\$0.86	0.1%
Operating Grants & Agreements	\$14.34	2.0%
Payments to Municipalities (IRAP)	\$21.54	3.0%
Rentals & Repairs	\$5.92	0.8%
Salaries	\$81.00	11.3%
Services, Professional-By State	\$1.53	0.2%
State Cost Allocation (STA-CAP)	\$2.46	0.3%
Training & Licensing	\$0.48	0.1%
Travel & Expenses - In State	\$4.82	0.7%
Travel & Expenses - Out of State	\$0.18	0.0%
Vehicle & Heavy Equipment Exp.	\$21.92	3.1%
Grand Total	\$714.07	100.0%

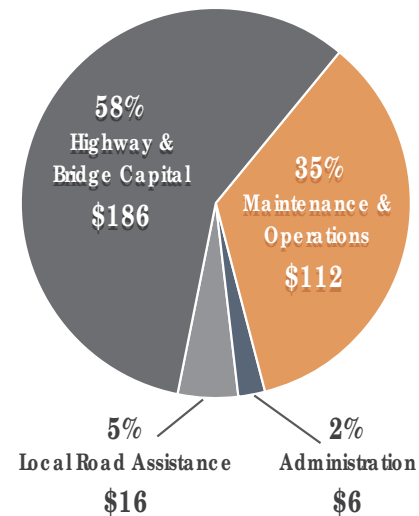
Your Contribution To Transportation Funding

Based on 13,500 annual vehicle miles traveled by the average Maine driver.

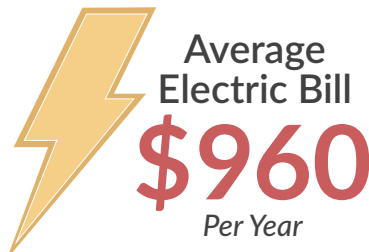
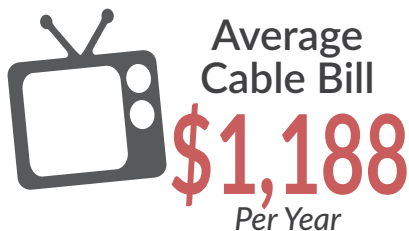
How MaineDOT received funds from you to pay for the state highway system



How MaineDOT used your dollars in Fiscal Year 2015



Compare that to...



Highway and Bridge Capital provides for capital improvement of the state highway and bridge network in order to maintain a safe, efficient and effective infrastructure.

Maintenance and Operations includes snow and ice removal on state highways and year-round maintenance of highways and bridges.

Local Road Assistance is a highway fund set aside and distributed to municipalities for capital improvements on local roads.

Administration includes financial planning and analysis, human resources, legal, and administrative support services.

Vision

*To be the most trusted organization in Maine
by being open, accountable, and responsive.*

Mission

*To responsibly provide our customers
the safest and most reliable transportation
system possible, given available resources.*

Core Values

Integrity ~ Competence ~ Service

MaineDOT Organization

Meet the MaineDOT Executive Team



David Bernhardt
Commissioner

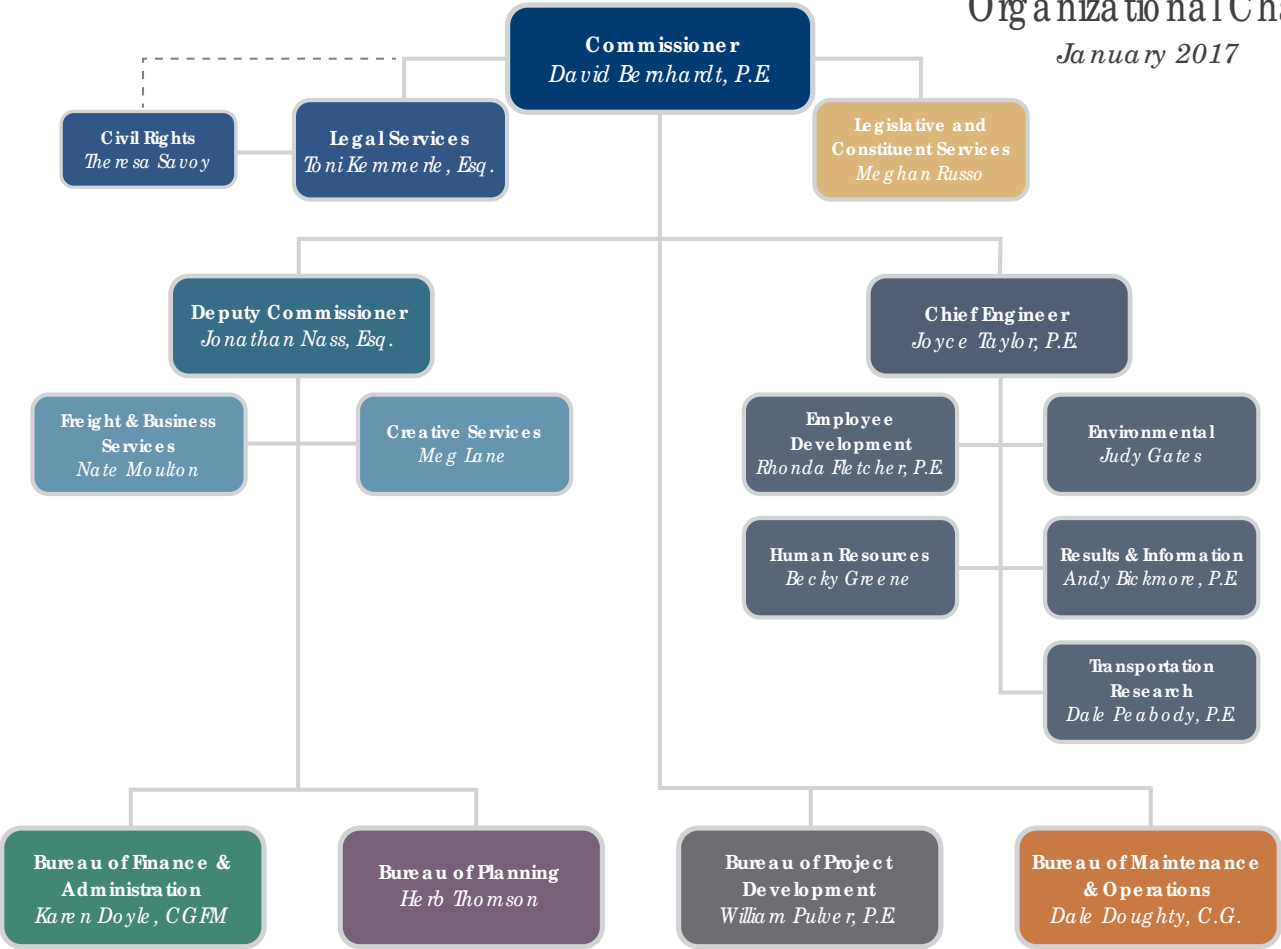


Jonathan Nass
Deputy Commissioner



Joyce Taylor
Chief Engineer

MaineDOT Organizational Chart January 2017





Bureau of Finance & Administration

Karen Doyle, Director

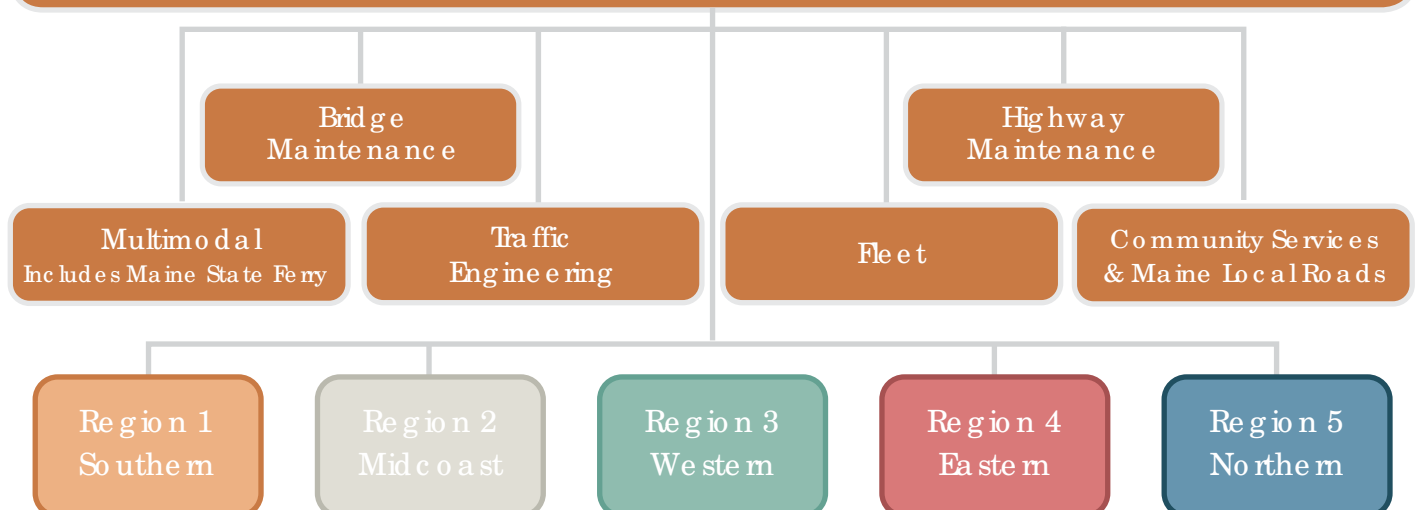
MaineDOT bureau responsible for providing administrative and financial support services to the department.



Bureau of Maintenance & Operations

Dale Doughty, Director

MaineDOT bureau responsible for maintaining state-owned transportation systems.





Bureau of Planning

Herb Thomson, Director

MaineDOT bureau responsible for developing plans and programs to address Maine's transportation needs.



Bureau of Project Development

William Pulver, Director

MaineDOT bureau responsible for developing and delivering MaineDOT's Work Plan projects through to completion of construction.





MaineDOT



mainedot.gov

Photo Credit:

The cover photo and page 4 photo were taken by Richard Hopley of Portsmouth, New Hampshire.

Thanks to Cianbro for providing these photos for use in this report.