



STATE OF DELAWARE
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MEMORANDUM

DelDOT's Legacy under the Markell Administration

Excellence in Transportation
Every Trip - Every Mode - Every Dollar – Everyone

- **Every Trip** – We strive to make every trip in Delaware safe, reliable and convenient for people and commerce.
- **Every Mode** – We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.
- **Every Dollar** – We seek the best value for every dollar spent for the benefit of all.
- **Everyone** – We engage and communicate with our customers and employees openly and respectfully as we deliver our services.

Over the course of the past eight years, the department has been successful in accomplishing a number of initiatives that help support this mission and its goals.

Under Governor Markell's administration the Delaware Department of Transportation (DelDOT) is successfully pursuing an agenda aimed at delivering "Excellence in Transportation" statewide. The department is making significant strides in the areas of safety, financial stewardship, new project delivery, customer service, innovation and network accessibility and sustainability. The agency has also entered a new era of transparency and accountability following a challenging period in which its motives and methods were not always clear. DelDOT's various divisions are working hard to implement the same performance management principles used by many Fortune 500 corporations. We are seeking greater public and legislator involvement before making key project and policy decisions. And, we are delivering outcomes that are better vetted and more supported by those who are affected.

In the area of crisis management, DelDOT's record over the past eight years has been admirable. The agency's management and response to the "snowmageddon" of 2010, the earthquake and Hurricane Irene in 2011, Super Storm Sandy in 2012 and the "polar vortex" were stellar examples of committed public service. As impressive as those results were, they pale in comparison to the way Team DelDOT mobilized to repair and reopen I-495 in the summer of 2014. Cutting through every possible form of delay, the agency coordinated a nationwide rapid response effort that drew

the attention and praise of President Obama and the nation. Defying most expectations, Team DelDOT was able to reopen southbound I-495 in fewer than 60 days, and northbound less than 30 days later.

With regard to agency funding, DelDOT had been trying to do more with less for too long. The result was a growing tension between diminishing state transportation revenues and the rising costs of a 21st century transportation system demanded by employers, citizens and visitors. Recognizing early in your administration the need for long-term solutions to fund the roads, bridges, buses and multiuse facilities needed to maintain Delaware's quality of life you supported the 2010 creation of the Transportation Trust Fund Task Force and directed the department to take its findings to heart. DelDOT has kept up its end by acting on a number of these recommendations, including reducing borrowing, keeping operating costs level, creating a more sustainable business model for transit, and making more intelligent use of available dollars through the adoption of a data-driven capital spending process. In return, the General Assembly approved a series of fee increases for FY2016 that matched with borrowing will add an additional \$390M over the next 6 years to the capital program. This will help us meet Delaware's future transportation needs, kick-start state construction jobs and create the kind of infrastructure that keeps and attracts good employers.

We are proud of the progress the department has made to improve the quality of life for our citizens and travelers and even more encouraged by what the future holds.

DelDOT Improving the Lives of Delawareans

Investments in Delaware's Economy

The Department is acutely aware of the impact the condition and performance the transportation system has on Delaware's economy. One of the main goals of the Department is to make every trip taken in Delaware safe, reliable and convenient for people and commerce. During the course of the Markell Administration, the department is anticipated to invest **over \$3.5 billion** in infrastructure improvements, resulting in the **creation of 45,500 direct and indirect jobs**. These projects are focused on improving the safety of the network, reducing congestion and supporting economic development by increasing accessibility.

With the successful adoption of a new revenue package, the department unveiled a new slogan to celebrate the increase work to make Delaware's roadways safer and more efficient. The slogan, "Making strides to improve your ride," is being displayed at DelDOT worksites throughout the state. We want our customers, the residents of Delaware and our guests, to understand that, although road projects might cause short-term delays, we are working for the long-term safety and efficiency of the state's transportation network. We are "making strides to improve your ride".

Job Creation:

- **How lives have been improved:** Construction spending means good paying engineering and construction jobs, as well as jobs for material suppliers and other associated vendors.
- **Data:** Investment of \$3.5B in infrastructure over the course of 8 years results in the creation of 45,500 direct and indirect jobs; In FY2016, 70% of contracts went to Delaware firms, compared to only 66% in FY2009.
- **Testimonial:** Delaware Contractors Association, Delaware Building Trades Council, Association of Builders and Contractors.

Making the Network Safer:

- **How lives have been improved:** Making the network safer for the traveling public. Improved overall safety on the network at specific locations throughout the state that were experiencing high crash volumes.
- **Data: Project Specific Examples**
 - **SR 1 Pedestrian Improvements:** Five miles of the SR 1 corridor between Lewes and Rehoboth Beach had signalized pedestrian crossings and sidewalks constructed on both sides of the road to improve pedestrian safety. Total cost - \$15M
 - **Data:** From January 2011 to August 2013 there were 14 injury and 5 fatal pedestrian crashes within the project area. Since the project began, there have been no fatal and two injury pedestrian crashes.
 - **Highway Speed Electronic Toll Lanes on I-95:** This project added highway speed electronic tolls lanes at the I-95 toll plaza. Prior to the highway speed lanes, traffic would back up for miles at the toll plaza. With the addition of the lanes, there are virtually no backups. Total cost - \$35M
 - **Data:** This project has reduced crashes in this area by 71%.
 - 3-year crash total, immediately before project started = 246
 - 3-year crash total, immediately after project was completed = 71
 - **SR-1, North Frederica Grade Separated Intersection:** This project replaced the at-grade intersection of SR 1 and SR 12 with an interchange that included an overpass and ramps to provide access to westbound SR 12 from SR 1 and access to northbound and southbound SR 1 from SR 12. Total cost - \$11.5M
 - **Data:** This project has reduced crashes in the area by 42%.
 - 3-year crash total, immediately before project started = 26
 - 3-year crash total, immediately after project was completed = 15
 - **SR-1, SR-30 Grade Separated Intersection:** This project replaced the at-grade intersection of SR 1 and Wilkins Road/Cedar Neck Roads with an interchange that included an overpass and ramps to provide eastbound/westbound access to Cedar Neck Road and Wilkins Road from SR 1 and northbound/southbound access to SR 1 from Wilkins Road/Cedar Neck Roads. Improvements were also made to the intersection of Wilkins Road and Cedar Creek Road to include the installation of a signal and turn lanes to accommodate the various turning movements that occur at this location.
 - **Data:** This project has reduced crashes in the area by 52%.
 - 3-year crash total, immediately before project started = 33
 - 3-year crash total, immediately after project was completed = 16
 - This project has also reduced fatal and serious injury crashes by 100%.
 - 3-year fatal + serious injury total, immediately before project started = 5

- 3-year fatal + serious injury total, immediately after project was completed = 0
- **SR 1/Thompsonville Road:** This Grade-Separated Intersection will replace the grade-level intersection at Thompsonville Road / Route 1 with a grade-separated intersection. (\$25M) are currently under construction.
 - **Data:** 122 crashes occurred at the Thompsonville Road intersection from 2005 to 2015. The new interchange is expected to reduce this number significantly.
- **Testimonials:** Businesses and residents that live near the North Frederica and SR-30 interchanges

Improving Accessibility and Reducing Congestion

- **How lives have been improved:** The department has made a conscious effort to focus our improvements along the major corridors leading into and throughout the state. As a result, this has improved overall traffic flow, including visitor traffic flow to beaches and special events (Firefly, Big Barrel, Delaware Junction, NASCAR).
- **Data: Project Specific Examples:**
 - **SR 1 Auxiliary Lane, US 40 to SR 273:** The existing shoulder on SR 1 northbound between US 40 and SR 273 was converted to an auxiliary lane to reduce congestion and improve safety by providing a longer area for vehicles to merge. Total Cost: \$2.9M
 - **Data:**
 - Morning peak period travel time was reduced by 43%.
 - Average timeframe of each weekday when SR 1 traffic experiences delays during the morning commute reduced from 3 hours to approximately 1 hour.
 - **SR 1 Grade Separated Intersections:** Several at-grade intersections along the SR 1 corridor in Kent and Sussex counties have been replaced with grade separated intersections (i.e. interchanges) to allow SR 1 to have continuous flow while accommodating east-west movements and access to SR 1 via ramps.
 - **SR 1/North Frederica:** This project replaced the at-grade intersection of SR 1 and SR 12 with an interchange that included an overpass and ramps to provide access to westbound SR 12 from SR 1 and access to northbound and southbound SR 1 from SR 12. Total - \$11.5M
 - **SR 1/SR 30:** This project replaced the at-grade intersection of SR 1 and Wilkins Road/Cedar Neck Roads with an interchange that included an overpass and ramps to provide eastbound/westbound access to Cedar Neck Road and Wilkins Road from SR 1 and northbound/southbound access to SR 1 from Wilkins Road/Cedar Neck Roads. Improvements were also made to the intersection of Wilkins Road and Cedar Creek Road to include

the installation of a signal and turn lanes to accommodate the various turning movements that occur at this location. Total cost - \$17.8M

- **SR 1/Little Heaven:** The new overpass will remove the current intersection and traffic signal at Route 1 and Bowers Beach Road as well as Route 1 and Clapham Road. The project improves safety and traffic flow on the Route 1 corridor. In its current configuration, the intersection causes lengthy backups on Route 1 during summertime beach traffic while turning traffic is at risk of side-impact crashes. When complete, Route 1 will cross over Bowers Beach Road allowing traffic to continue north and south without stopping while pedestrian and local traffic is maintained on the new ramps and service roads. Total cost - \$72M
 - **SR 1/South Frederica:** The project will realign Frederica Road and Tub Mill Pond Road to connect with ramps and accelerations/deceleration lanes providing access to southbound Route 1. It will realign Milford Neck Road to access northbound Route 1 via new ramps with acceleration/deceleration lanes. An overpass will allow traffic from Milford Neck Road to access Frederica Road via ramps and vice versa. This project will benefit local drivers as well as tourists traveling to and from Delaware beaches. As an added benefit, it will provide access to the DE Turf regional sports complex, which is expected to boost the economy by attracting thousands of athletes and their families to Kent County. Total cost - \$34M
 - **SR 1/Thompsonville Road:** This Grade-Separated Intersection will replace the grade-level intersection at Thompsonville Road / Route 1 with a grade-separated intersection. (\$25M) is currently under construction.
- **East-West Beach Route Improvements:**
 - **US 9:** Turn lanes at the intersections of US 9 and SR 30, Hudson Road/Fisher Road and Sweet Briar Road/Dairy Farm Road were added along both US 9 and the side streets to separate through and turning vehicles, which reduced congestion and improved safety. Total cost - \$15M
 - **SR 54:** Two miles of the SR 54 corridor between SR 20 and Bayville Shopping Center had a center left-turn lane, bike lanes and sidewalks constructed to reduce congestion and improve safety of motorists, cyclists and pedestrians. Total cost - \$21M
 - **SR 26:** Four miles of the SR 26 corridor between Clarksville and Bethany Beach had a center left-turn lane, bike lanes and sidewalks constructed to reduce congestion and improve safety of motorists, cyclists and pedestrians. Total cost - \$66M
 - **West Dover Connector:** The purpose and need for the West Dover Connector is to improve mobility for all modes of travel to and from the west side of Dover, reduce congestion at key intersections in the study area, improve the connectivity of the roadway network for regional, through and local travel, reduce through traffic volume on local streets and within historic districts, and improve safety, including emergency service access. The project includes a grade separation over the Norfolk Southern Railroad line as well as over the spur track to the NRG plant. The project

provides mobility options for vehicles, transit, pedestrians and bicycles. Total cost - \$61.5M

- **Highway Speed Electronic Toll Lanes on I-95:** This project added highway speed electronic tolls lanes at the I-95 toll plaza. Prior to the highway speed lanes, traffic would back up for miles at the toll plaza. With the addition of the lanes, there are virtually no backups. Total cost - \$35M
- **I-95 / SR 1 Interchange:** The I-95 / SR 1 interchange project upgraded a severely-congested interchange in New Castle County. The project improved the operational efficiency of the interchange by providing new high-speed (55 mph) ramps to accommodate the heavy traffic movements from northbound SR 1 to northbound I-95 and southbound I-95 to southbound SR 1, as well as additional ramp modifications to improve traffic flow through the interchange. The project also provided physically separated roadways for through and local traffic along SR 1 south of the interchange to minimize weaving conflicts and improve safety. Total cost - \$149.7M
- **I-95 / US 202 Interchange:** Exit 8 ramp from Northbound I-95 to Northbound US Route 202 is now a 2 lane ramp that has eliminated daily morning and evening backups. The existing ramp from Southbound US Route 202 to Southbound I-95 was eliminated and a new ramp was constructed that removed the dangerous curve at the top of the old ramp and increased the merge distance onto Southbound I-95. The Southbound lanes of I-95 were lowered 2.0 feet to increase the clearance under the US Route 202 Bridge to avoid future damage to the bridge by tractor trailers. The ramp from Southbound I-95 to Southbound US Route 202 was relocated and now ties into US Route 202 at a new south Directional signal. Other improvements included pavement reconstruction and bridge rehabilitation. Safety to the traveling public is greatly improved as a result of the project. Total cost - \$43.8M
 - **Data: I-95 /US202 Specific:** The number of hours when traffic was traveling less than 50 MPH on average dropped from almost 6 hours per day to less than 1 hour, significantly improving traffic flow.
- **SR 8, Mifflin Road to Weston Drive, Signal Optimization Project, Dover:** Signal timings were modified to improve signal coordination, reduce delays, and reduce travel times through the 7 signals along this corridor.
 - **Data: SR 8 Specific:** Average peak hour delays were reduced between 18 and 20 percent, and average morning peak hour travel times were reduced between 13 and 25 percent.
- **SR 20, Sussex Avenue to Ames Plaza, Signal Optimization Project, Seaford:** Signal timings were modified to improve signal coordination, reduce delays, and reduce travel times through the 8 signals along this corridor.
 - **Data: SR 20 Specific:** Average peak hour delays were reduced between 15 and 31 percent. Average afternoon peak hour travel times were reduced between 2 and 3 percent.

- **Testimonial:** Owners of Christiana Mall, Delaware Office of Tourism, Red Frog, Employees of the Christiana Hospital

Improving Quality of Life

First State Trails and Pathways Program with DNREC: The state's commitment to build a first class trails network in the State continues to become a reality, with Delaware ranking the 3rd most Bicyclist Friendly State since 2015, according to the League of American Bicyclists. Through your leadership, the department, working in conjunction with DNREC and the bicycle community has invested \$16.6 million in the First State Trails and Pathways Program, with the creation or expansion of trails and pathway projects throughout the state since 2010. In the fall of 2016, the construction will start on the Industrial Track Phase III project. This project will reuse the old rail line to connect the Wilmington Riverfront and the City of New Castle with a state of the art pedestrian and bike trail, including a bridge over the Christina River. Enclosed is a map highlighting the accomplishments of this initiative.

- **How lives have been improved:** Creation of a world-class statewide network of new pathways and trails for Delaware's citizens and visitors for biking, hiking, walking and active living while connecting communities. This initiative has created jobs, both construction and in recreation related businesses, and has improved the quality of life by steering Delawareans toward healthy activity.
- **Data:**
 - 21% of Delaware's population lives within a 10-minute bike ride of the trail network built or improved under the Governor's Trails and Pathways Initiative.
 - Since 2010, DelDOT has added 15 miles of bike lanes annually to the network, resulting in a total of 90 new bike lane miles.
 - The first year after the opening of the Gordons Pond Trail approximately 113,000 users were on the trail. DNREC expects a similar number of users for 2015.
 - Since 2013, we have had 450,000 users on the Michael Castle Trail.
 - Since November 2014, we have had 58,000 users of the Capital City Trail.
 - Following the opening of the Lewes and Rehoboth trail network, Delaware River & Bay Authority saw a 30% increase in riders with bikes on the Cape May-Lewes Ferry
 - Several Chambers of Commerce and Southern DE Tourism observed an increase in fundraising events on trails. Event participants are booking hotels and making local purchases
- **Independent Validation:** League of American Bicyclists – In 2008, Delaware was ranked 31st in the nation for bicycle friendly states. Since 2015, Delaware is now ranked 3rd.
- **Testimonial:** Bike Delaware; trail users

Transportation Improvement Districts (TIDs): For the past three years, the Department has actively been working with the local land use agencies to promote the creation of Transportation Improvement Districts (TIDs) as a superior approach to assessing the transportation impacts of development than a Traffic Impact Studies for individual developments.

A TID is a geographically - specific area that is defined by a boundary that will be identified in coordination with the local government, in which the traffic analysis will be completed for the entire area and transportation improvements will be identified if and when development occurs.

The creation of TIDs is a nationally recognized model. In Delaware, Westtown in Middletown is an example of a successful TID in which the Town of Middletown and DelDOT partnered to identify the transportation improvements needed within the boundary. Businesses looking to expand or relocate are attracted to this area because the traffic analysis has already been done and the improvements identified and some are in place.

The Department is working with Kent County on a TID in the City of Dover and Sussex County on the Henlopen TID in the Lewes area.

- **How lives have been improved:** TIDs are promoting economic development and providing businesses and the community certainty in the development process. This initiative has created jobs and improved the quality of life by linking land use and transportation in a responsible way.
- **Testimonial:** Town of Middletown, Johnson Controls, Amazon

Improved Customer Service

One of the culture changes occurring within the department is employees are becoming more customer service focused. We have stressed the importance of making decisions with a focus on how it will impact our customers. We have used performance management to track customer feedback and identify areas that needed improvement.

Transit Redesign: In an effort to improve DART transit services to create more convenient transportation options for all Delawareans, the department successfully implemented several changes to our transit system. These changes included expanding fixed route services in New Castle County and Kent County by offering extended hours and expanded weekend service, increasing fares, distinguishing services areas inside and outside the ADA area, and utilizing the existing 5310 program to work with our non-profit partners to provide alternative services for their clients. In addition, DTC has launched a flex service program providing connections between Georgetown, Millsboro and Lewes as an alternative for people to travel to a destination one mile off of a fixed route, as opposed to using paratransit. DTC is proactively working with major businesses in the state to make sure there is adequate transportation to their facilities for their employees. DTC has been working in conjunction with several major employers in the state to provide bus routes specifically for their employees. This new route is being paid for jointly between DTC and the employer. Examples of this initiative include Amazon in Middletown, and JP Morgan Chase in Wilmington, Mountaire in Millsboro and the Walmart Distribution Center in Smyrna.

Investing in the Future of Transit

- **Newark Regional Transportation Center**
The design and construction for an enhanced and improved passenger rail station in Newark just west of the existing SEPTA rail station. The station will provide Americans with Disabilities Act (ADA)-compliant high-level platforms, expand parking, and provide significantly improved passenger amenities including a station building with bathrooms. The project is envisioned to be the first phase of additional potential improvements to the

new station. Potential future phases would provide additional improvements to further enhance and expand passenger rail service, including MARC Service.

- **Claymont Regional Transportation Center**

The Claymont Regional Transportation Center (CRTC) will be the focal point of a comprehensive redevelopment of the former Claymont Steel site with the potential to add jobs and improve transportation options for northern New Castle County. The preliminary engineering phase for CRTC commenced in January of 2016. The project was awarded a \$10 million Transportation Investment Generating Economic Recovery (TIGER) grant from the U.S. Department of Transportation (DOT) to support engineering and construction. The CRTC will replace the existing Claymont Train Station on Myrtle Avenue, and will provide a state of the art multi-modal commuter rail station which will be completely 100% ADA-compliant with elevators, pedestrian bridge, high level platforms, and expanded parking capacity.

- **Wilmington Transit Moving Forward**

In August 2014 the Advisory Group for WTMF issued a final report of Principles and Opportunities for improving transit services in and around Wilmington. DTC has implemented many of the service recommendations and has identified several capital projects that will improve transit services. These projects include enhancements to Rodney Square, the design of a new transit shelter, enhancements to transit stops and amenities on 4th Street from Church Street to Union Street, adding a southbound bus/bike lane on Orange Street and the construction of an off-street transit hub and parking garage adjacent to the Wilmington Train Station.

- **Lewes Transit Center**

Beginning in May 2017, the Lewes Transit Center will provide another 224 park and ride spaces to Delaware's resort towns. The new maintenance facility that will be completed in FY18 will allow DTC to operate year round services in eastern Sussex County along with improving the efficiency of paratransit services in this area.

Transportation Network Companies: With the evolution of the new ride share transportation networks, the department has had to modify our regulations to accommodate this new business practice, while not negatively impacting the existing taxi/limo industries. We have successfully entered into MOU's with Uber and Lyft and modified our regulation to allow these companies to operate in the state.

Environmental Sustainability: Through the installation of solar panels, HVAC and lighting improvements, DTC has reduced energy consumption by 24% since 2008. In 2016, the Department was awarded \$2 million grant to purchase six all electric buses to be used in Kent County. The buses improve fuel efficiency by nearly 400% and have zero emissions.

DTC has entered into Public Private Partnership with Roush CleanTech to purchase propane fueled paratransit buses. The buses provide significant savings in fuel and reduce greenhouse gas emissions. DTC has purchased 55 of the buses and plans to purchase an additional 75 buses on FY 17. By the end of the Markell Administration, 50% of our paratransit buses will be propane. Roush CleanTech funded the construction of fueling stations in Georgetown and Mid-County.

- **How lives have been improved:** Transit redesign (including flex service and extended hours of service) initiatives are connecting riders with job opportunities, shopping, entertainment, medical services.
- **Data:**
 - Increased SEPTA service by 16% since FY08.
 - Fixed Route Services were increased by 23% since 2008.
 - On-time performance has increased from 82% in 2010 to 88% in 2016.
 - Partnerships with Easter Seals and CHEER will reduce our paratransit trips annually by 26,000.
 - The abandoned call rate for paratransit reservations has dropped from over 17% in FY10 to under 3% for FY16
- **Testimonial:** Easter Seals, CHEER, Dover Mall management, Wilmington Downtown Visions, JPMC, Amazon employee

Division of Motor Vehicles (DMV): Since FY2009, the Division of Motor Vehicles has been delivering on its mission to provide first class service in the first state. The division has implemented several programs to improve customer service, while maintaining its important role in ensuring safety on the roadways, secure identity management, efficient toll collections, and ensuring clean and safe motor vehicles are operating in Delaware roads. Delaware was the first state to fully implement the federal Real-ID Act of 2005 in a way that allowed customers to still walk out of the DMV with a compliant driver license on the same day of service. Initiatives such as self-service kiosks, online vehicle registration renewal, increasing the driver license expiration from 5 to 8 years, print-on-demand temporary tags for auto dealers, opening a new state-of-the-art LEED Silver certified facility in Delaware City, co-locating our DMV call center and E-ZPass customer service center in downtown Dover, and increased outreach to our sensitive populations have all attributed to the ever-improving positive customer experience provided at the DMV.

The DMV's relentless commitment to customer service continued during the summer of 2016 when the *DMV on the Go* was launched. This is DMV's newest effort in diversifying the service options customers have to choose from. This new unit, a fully equipped "DMV office on wheels," has two service counters and three driver license testing stations and enables us to take our services to our customers, saving them valuable time.

Driving Privilege Card: The passage of SB 59, which enabled Delaware residents who do not have legal presence in the United States to obtain a Driving Privilege Card (DPC) and legally operate a motor vehicle with the State of Delaware, is well under way. Since January of 2016:

- 3,522 applicants have been processed (had correct documentation at the time of appointment)
- 3,097 passed all validation points and took the written test
- 3,065 documents have been issued (left DMV with a DPC learner permit or full DPC)

Finally, the DMV continues its outreach efforts by regularly attending community events, conducting interviews on Hispanic radio, regularly updating our comprehensive website that can be translated into many languages, and distributing extensive printed publications.

- **How lives have been improved:** The customer has become the primary focus at DMV. Shorter wait times and expanded online capabilities have improved the public's experience and opinion of the DMV. This has been accomplished while overall customer volume has continued to increase.
- **Data:**
 - DMV serves over 940,000 customers annually.
 - Overall customer volume has grown since FY2009 as the DMV has seen an increase of nearly 90,000 vehicle registrations and over 110,000 driver license and ID card holders when compared to FY 2016.
 - Average wait times have decreased from 24 minutes in FY2009 to 13 minutes in FY2016.
 - In 2009, when we started tracking customer satisfaction, 78% of customers stated their overall experience was excellent or good, while 22% stated it was fair or poor. These numbers have dramatically improved. In 2016, 98% of customers stated their experience was excellent or good and only 1% stated it was fair.
 - E-ZPass Utilization has increased from 62% in 2009 to 72% in FY2016.
 - TransCore, DMV EZ Pass and DMV Call Center contractor, answered over 224,000 DMV phone calls and web chats in 2014 (their first year), over 314,000 in 2015, and is on pace to exceed that in 2016.
 - Online vehicle registration began in 2014 collecting \$432,000 in fees. This increased to \$839,000 in 2015 and will reach close to \$1,000,000 in 2016.
- **Testimonial:** DMV customer, car dealers

Development Coordination and Public Works: DelDOT recognizes the vital role we play in the success of economic development in the state. With the use of performance management we began tracking the length of time it took staff to review and comment on development plans. With this data, we set a performance goal that staff must provide comments on a plan within 45 days of receipt. To date, the staff is meeting this goal 100% of the time. This has provided the development community with predictability in the process. Through the review of our regulations under Executive Order #36, we identified regulations that need to be modified to better assist the business community. As a result we modified the multi-use path policy and created the Letter of No Contention (LONC) approval to process plans that have under 199 average daily trips. This process helps serve small businesses trying to develop or expand. In 2015 we started accepting electronic plan submissions and payments in an effort to streamline our process and shorten the review time. We also assigned a traffic engineer to the Development Coordination section to provide traffic comments in an effort to reduce the number of reviews and provide consistency. This fall we will hold our first Developers Summit, where we will meet with developers, engineers and land use attorneys to update them on the advances we have made in the review process, and to continue our dialogue on how we can improve our system.

- **How lives have been improved:** Development Coordination is now focused on how to better serve our customers in the development community. Developers now have more certainty in the process with improved review times. Process modifications now make it easier and cheaper for small businesses to get approvals.
- **Data:** In 2009, review times were taking 60 days. In 2015, reviews are occurring 100% of the time within 45 days. Since 2013, 162 LONC issued.

- **Testimonial:** Committee of 100, ACEC, Homebuilders, small business owner

Spending Taxpayer Dollars Wisely

Financial Stewardship: In recent years, the department has taken steps to improve its financial stewardship by controlling costs in our operating budget while employing innovative debt reduction and cash management strategies. Despite increasing the storm account by \$7M, the department's overall operating budget has decreased by 3.2% since FY12. The department has reduced its debt obligations by 43% (\$529 million) from a peak of \$1.2 billion in FY11 to under \$703 million in FY17, creating \$32.3 million in annual debt service savings. Even with the proposed borrowing planned for FY17 and FY19, the department will still manage to reduce our overall debt. The department has also maintained an investment grade credit rating of Aa2/AA+ from Moody's and Standard & Poor, amongst the highest rating for transportation agencies.

US 301 Financing: The department was successful in receiving Transportation Infrastructure Finance and Innovation Act (TIFIA) financing from USDOT for construction of the US 301 Mainline project. The agreed upon terms include a low-interest, direct loan not to exceed \$211.35 million.

The USDOT loan provides Delaware with several advantages crucial to the project's success, including: Below market interest rates; deferral of interest (five years) and principal payments (10 years) to meet increasing debt service payments as traffic and revenue accelerates, which allows for the creation of a reserve fund during the first five years of toll operation to create an additional financial margin of safety between the US 301 repayment obligations and the state's Transportation Trust Fund (TTF), which is securing the repayment; and reduces cost of capital, increases debt service coverage, and reduces the amount of toll revenue bonds required to fund construction.

Additional financing will be sought through the sale of toll revenue bonds later this year. The total estimated funding needed to construct the US 301 Mainline is \$470 million.

Financial assistance from the US Department of Transportation means two important things for the US 301 toll project. First, that the financial and traffic assumptions that underlie the cost recovery aspects of the toll road are workable and sound. The second is the project will receive the benefit of low cost financing and a deferred repayment schedule giving the road the time it needs to begin generating significant revenue.

- **How lives have been improved:** The department's financial stewardship has allowed us to put more funding into the capital program, thus creating more jobs and improving the transportation network.
- **Data:** Overall debt reduction; debt as a percentage of revenue
- **Independent Validation:** Moody's and Standard & Poor; USDOT
- **Testimonial:** Council on Transportation

Technology Advancement and Innovation

Promoting innovation and enhancing our technological capabilities has been at the forefront of the Department's thinking. Our citizens expect that we are using their tax dollars as efficiently and

innovatively as possible. As a result, we have encouraged staff to find innovative methods of delivering projects, maintaining the transportation network and providing services. In 2015, we hired a Director of Technology and Innovation to oversee the department's Information Technology needs and help each division identify innovative concepts and assist with their implementation. Below are a few examples of the advancements we have made in technology and innovative initiatives we have undertaken.

DelDOT App: The DelDOT App provides up-to-the-minute, reliable traffic data that comes directly from DelDOT's Transportation Management Center (TMC). By using the interactive traffic map, you can view:

- Live video from 150 traffic cameras
- Travel times for the heaviest-traveled roadways
- Report an Issue
- Round-the-clock travel advisories (incidents)
- Delay-at-a-glance traffic
- Roadway weather
- Travel restrictions and closures
- Addition of DRBA's Cameras on I-295
-

Snow Plow Tracker: During snow events, through the DelDOT App and website, the public can see where all 300 DelDOT snow plows are deployed and track the roads they have cleared.

DelDOT Weather/Event Web Information: During weather or special events, through our DelDOT.Gov website, the public can see a summary of weather and event related information from our TMC and other important partners, like DEMA, Governor's Office, and related Tweets

Snow Responsibility Map: During every snow season, there are always a lot of questions about which roads DelDOT is responsible for plowing and which are the responsibilities of the homeowners associations. The Department has created a mapping tool that shows the responsibility for snow removal.

DTC Bus Stop Locator: Transit riders can now view all of the DTCs bus stops on an interactive map that also provides the most up to date schedule information for that location.

DelDOT Gateway: In 2016, the Department launched the DelDOT GATEWAY on our website as a way to make it easier for the public to learn about the Department and about the state of Delaware online. The GATEWAY provides maps of transit routes, pavement projects, trails and pathways, traffic counts, and much more. The tool was created to simplify the interface between the vast amount of data that the Department has and those who may need it. The Department and the public have moved beyond tables and charts and now want to see data relative to a map location. DelDOT is leveraging the tools and support of First Map to deliver DelDOT specific information to the public. The GATEWAY will help both the general public and DelDOT internal staff be more informed and efficient. Much like the current DelDOT App that provides the public with real time information concerning the performance and operation of the transportation system, the GATEWAY allows one-stop access to more static data sets. As the interface evolves, it will allow decision makers to have access to information on all platforms, which will enable more streamlined and informed decisions.

- **How lives have been improved:** Providing information to the public and decision makers to enable more streamlined and informed decisions.
- **Data:**
 - DelDOT.Gov Website Stats
 - 2011-2013: Visitors 1,892,976
 - 2014 - 2016: Visitors 12,479,568
 - Most Visited Pages: Live Traffic, DelDOT.Gov, Toll Rates, Doing Business with DelDOT, View Permit, Projects, Mobile
 - Mobile App Stats
 - The total downloads for iOS from 9/1/2014 to 8/31/2016 is 16,300
 - The total downloads for Android from 9/1/2014 to 08/31/2016 is 15,027
- **Testimonial:** DTC Transit users, Member of the General Assembly, Members of the Public

Innovating Contracting Methods: Design Build and Construction Manager/General Contractor are two innovating contracting methods the Department has deployed in an effort to increase efficiency in development of our projects. Both procurement methods take advantage of contractor input during the design stage which tends to generate solutions that are more readily constructible, can save time in the overall project schedule and may ultimately decrease costs through a reduced amount of change orders.

Diverging Diamond Interchange: By the end of 2016, the Department will open the first ever Diverging Diamond Interchange (DDI) in the state at SR 72/SR 1. Within this type of interchange, traffic briefly drives on the left side of the road to allow left turn movements to occur without crossing oncoming traffic or stopping. A DDI has few conflict points, reducing the opportunity for crashes.

Accelerated Bridge Construction: In the fall of 2016, the Department will use the first accelerated bridge construction method to replace the deck on the I-95 NB bridge over Rt. 1. By using accelerated bridge construction, the major portions of the bridge are constructed offsite and then placed into position. This method reduces the disruption to traffic, since most of the construction is done offsite.

High Friction Surface Treatment: Over the past year, the Department implemented the use of High Friction Surface Treatment (HFST) at various locations throughout the state, which is designed to give vehicles better traction navigating curves during wet conditions. While drivers may experience an uneven or coarse ride over these sections, by placing a thin layer of specially engineered, durable, high friction aggregates on the surface of pavement, the HFST aggregate systems creates a long lasting, skid resistance, extremely durable surface. This treatment is capable of withstanding everyday roadway demands, such as heavy braking and even snowplowing.

High-intensity Activated crosswalk (HAWK) Signal: These signals were developed to be used at locations that do not meet the criteria for a traditional traffic signal. They provide a reasonably safe way for pedestrians to cross the roadway, while being less disruptive to traffic. The signal is only activated when a pedestrian approaches the signal and presses a button, like they would at a traditional signalized crosswalk. Once it is activated, the signal will go through a series of stages that will stop traffic long enough for pedestrians to safely cross the roadway. Traffic will then be

allowed to proceed and the signal will reset itself until activated again. When the signal is not active, it will be dark to allow traffic to move freely. This new type of signal is another tool we can use to ensure the safety of our citizens as they cross our roadways at intersections that would traditionally be outfitted with only a flashing yellow beacon or a crosswalk without a traffic signal. There are currently four up and running: SR 72 & Farm Lane; SR 8 & Dover HS; SR 1 & SR 1A/Rehoboth Avenue; and SR 1 & Holland Glade Road.

Innovation Station: Innovation Station is DelDOT's new web-based suggestion box where employees can submit ideas that will be reviewed on a timely basis, resulting in meaningful feedback as to how and whether the idea can move forward toward implementation. The ideas may involve saving time, saving money, improving quality or enhancing customer outcomes.

- **How lives have been improved:** Using innovative methods for contracting and construction will result in fewer impacts to the traveling public with reduced lane closures and shorter construction time.
- **Data:**
 - **Diverging Diamond Interchange:** By using Design Build, we will save approximately 1.5 years by shortening the design timeframe.
 - **Accelerated Bridge Construction:** The work will be completed in 6 weeks verse several months and will require less lane closures.
- **Testimonial:** Delaware Contractors Association; residents along SR72/SR1; Dover High School

Legacy Project

US 301 Mainline: There is one project that the department undertook this year that is all encompassing of the goals listed throughout the Legacy Document, the US 301 Mainline. In January of 2016, the department started construction of the US 301 Mainline, a four-lane tolled highway from the Maryland State Line to Delaware State Route 1 just south of the C&D Canal. The new U.S. 301 Mainline will improve safety, manage truck traffic, and reduce congestion; support approved and proposed economic development in southern New Castle County (a key Delaware growth area); enhance the region's ability to compete for economic development; create needed jobs; improve local access to the Northeast Corridor Rail (Amtrak), commuter rail (SEPTA) and bus (DART) services; improve livability in the region; reduce fuel consumption and greenhouse gas emissions and use advancements in technology.

- **Jobs Created:** The construction cost of the project is \$410M, which will result in the creation of 6,500 indirect and direct jobs.
- **Safety:** Over a recent 13 Year Period, there were almost 1,600 crashes, with 23 fatalities in the US 301 Corridor. The fatality rate is 64% higher than the State Average and 67% higher than the National Average for similar roadways. The improvements will address this crash history by separating local and through traffic, especially regional truck traffic.
- **Technology:** The new U.S. 301 will use All Electronic Tolling technology to receive toll payments.