Summary of Regional Transportation Trends and Issues

The update of the region’s long range transportation plan occurred against the backdrop of many trends and issues that affect planning for transportation within the region. A few of the more salient trends and issues are referenced within this section of the LRTP.

Federal Surface Transportation Reauthorization: MAP-21 and The FAST Act - The FAST Act era began in December 2015, when it was signed into law. The advent of federal surface transportation legislation MAP-21 in 2012 and its successor the FAST Act promoted a planning process that is more performance-based, and outcomes-oriented.

Planning Factors – The FAST Act required the addition of new planning factors related to “resiliency” and “travel and tourism.” The RPO’s updated LRTP includes strategies and performance measures related to these new planning factors.

An infusion of additional state dollars for transportation - Act 89 of 2013 was enacted in November of that year. The Act was Pennsylvania’s first major transportation legislation since Act 44 of 2007, and raised an additional $2.3 billion annually, including $1.65 billion for highways, and $476 million for transit. The Act also created a first-of-its kind, $144 million-per-year Multimodal Transportation Fund for local economic development. The new revenue comes from an increase in the sales tax on gasoline assessed at the wholesale level (by gradually eliminating the cap on taxable value and replacing it with a floor). While communities across the state have been quick to take advantage of the new funding program, there have been no award-winning projects from the North Central region. The inability of many North Central communities to be able to contribute a local cash match has been a factor.

On the federal side, the gas tax has not been raised since 1993. Inflation has since eroded the ability of federal dollars to keep pace with rising costs related to raw materials, legacy costs (pensions), and the growing size of the transportation system. Because of this, Pennsylvania was one of 23 states between 2012 and 2015 to increase its own transportation funding sources. While the FAST Act provided more predictable, long-term funding, it did not advance any new innovative policy that would govern the spending of new funds. This makes Pennsylvania’s transportation funding leadership even more critical to North Central’s mobility.

A rural and shrinking demographic - The North Central Rural Planning Organization region encompasses a rural portion of the state. The region in fact entails one of the most rural portions of Pennsylvania. Two of its counties – Cameron and Potter – are among the state’s least-populated. The region’s total estimated population (2016) is 218,600, down slightly from a 2010 figure of 224,780. The loss continues a general trend that has been in motion dating back 35 years and corresponds with small declines in the demand for travel.

Dependence on, and declining use of, the private automobile – North Central is a region that is reliant on the private automobile for personal mobility. The region in fact has 1,090 registered vehicles for every 1,000 residents (compared to the state rate of 875:1,000). The overall demand for travel within the region has also been continuing its decline since the Great Recession of 2007-09. The region’s roadway network in 2015 supported an average of just over 7 million daily vehicle miles of travel (DVMT), a decline of nearly 10 percent since 2008.
A decline in energy prices – Since peaking in 2008 at an historic high of $4.11 a gallon, gasoline prices have fallen back to earth. According to the Energy Information Association, the average price of gasoline in May 2017 for the Central Atlantic region was $2.43 per gallon. A glut in the world’s oil supply has been a positive development for motorists, but a negative one on drillers of natural gas in the region. Pennsylvania counties and municipalities have also been affected by this trend, as lower gas prices reduce the amount of impact-fee revenue generated from local drilling activity.

Bridge conditions – After experiencing a 33 percent rate of its state-owned bridges greater than eight feet in length being structurally deficient (by count) as recently as 2011, the region’s inventory of such structures is now down to 18 percent (Figure 3). The Rapid Bridge Replacement program took advantage of Pennsylvania’s new P3 tool in replacing approximately 558 bridges with more modern structures within three years. The contractor then will be responsible for maintenance for 25 years after their replacement. Locally-owned bridges (particularly those under 20 feet in length) continue to be a regional concern.

Freight transportation - In June 2016, the Panama Canal began accepting a new generation of giant ships. Massive new locks have been constructed at both ends of the canal, which has also been deepened and widened. The largest ships that could use the canal (Panamaxes) could carry 5,000 TEUs. Now, a Neo-Panamax class of ships can carry around 13,000 TEUs. More importantly to the North Central region, several east coast ports have been mobilizing for the changes an improved Panama Canal will bring. For example, port authorities in Baltimore and New York have been updating facilities to accommodate the larger Neo-Panamax vessels. In the case of New York, the port authority plans to spend $2.7 billion on enlarging its terminals and shipping lanes, including $1.3 billion to raise the 85-year-old Bayonne Bridge by another 64 feet. Of interest to the North Central RPO will be how well its roadway and rail network connect the region and its shippers and receivers to these expanded port facilities.

The FAST Act expanded upon the Primary Freight Network proposed under MAP-21 to a more comprehensive network that included all interstates. A National Highway Freight Network (NHFN) proposed through the FAST Act is a subset of a National Multimodal Freight Network (NMFN). Within the North Central region, new priority freight corridors, called Critical Rural Freight Corridors (CRFC), were identified as part of the update of the LRTP. The RPO identified 108 miles of candidate priority freight roadway segments (23.1 miles were “high” priority) that may soon be eligible for National Highway Freight Program (NHFP) funds. This development will expand eligibility of the RPO’s roadway network in receiving federal funding, and addresses the critical “first and last mile” segments so important to goods movement.

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4 As of July 3, 2017
5 The world’s largest container ships today can carry nearly 20,000 TEUs, but a majority of the world’s global fleet can fit through the canal.
Operations – While generally recognized by transportation planners for years, even the general public is now becoming aware that we cannot build our way out of congestion. Planning for Transportation Systems Management and Operations (TSM&O) is a rebranding of planning for operations, and increasingly becoming a more important facet of transportation planning work. PennDOT recently completed an inventory of all of the state’s signalized intersections, including 123 within the North Central region. This comprehensive data collection effort resulted in a GIS mapping interface that is available to municipalities, MPOs or RPOs, or contractors working on their behalf and contains detailed information on signal infrastructure conditions and available intersection signage to assist with operations planning. With new programs such as the Automated Red Light Enforcement Program (ARLE) and Green Light-Go, PennDOT and North Central are offering more resources than ever before on addressing the operational aspects of the transportation system. The Regional Traffic Management Center at PennDOT District 2-0 in Clearfield manages roadways in the region, including the entire Interstate 80 corridor.

Connected and Autonomous vehicles - The prospect of connected and autonomous vehicles operating on North Central roadways continues to draw closer to reality. As this plan was being developed, PennDOT commissioned a task force to develop policy guiding how autonomous vehicles should be tested within Pennsylvania. The emergence of this technology figures to change transportation as dramatically as the automobile did a century ago. The North Central RPO will need to continue to stay abreast of advances being made in the development and the eventual delivery of this technology.

Autonomous vehicles will affect many aspects of our society, including a likely increase in discretionary travel by groups that typically have low mobility (including the elderly and persons with disabilities), potential increases in commuter trip length (workers can be more productive while commuting), and influence the use of traditional public transportation as an alternative mode of travel. This does not begin to describe the impacts that the technology would have on the land use aspects of our communities, most notably parking demand.

Traffic Incident Management Coordination – Incidents on the region’s roadways can translate into congestion delay and safety concerns. Nowhere is the need for improved incident management more apparent than on Interstate 80, which carries a quarter of all of the region’s traffic. Incidents on the interstate often overwhelm adjacent communities and local road systems.

Open Data Web Portal – As part of a continuous effort to provide data for improved decision-making, the North Central Commission developed a data portal as a parallel task to the LRTP update. The web-based data portal will aid the Commission in future planning efforts, even as North Central and PennDOT seek to expand on PennDOT Secretary Richards’ efforts through “PennDOT Connects,” or enhancing community collaboration in planning. The tool is also expected to aid the Commission and PennDOT as it seeks to update the region’s outdated functional classification schema. All the data in the web portal is ESRI-consumable, and in some cases time-enabled to show trends in regional conditions.
Work zone on PA Route 153, Clearfield County