FRANKLIN COUNTY

2045 Long-Range Transportation Plan

Final Plan

April 2023

Franklin County Metropolitan Planning Organization

English

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Franklin County Transportation Timeline

1831	Cumberland Valley Railroad (CVRR) incorporated
1837	CVRR reaches Chambersburg
1924	First segments constructed of US 30/Lincoln Highway - the first transcontinental highway in the U.S.
1940	PA Turnpike opens
1960	First segments of I-81 constructed
1969	Franklin County's population exceeds 100,000
1995	Conrail donates former rail corridor to Cumberland Valley Rails-to-Trails Council
2000	BicyclePA Route S designated
2003	Daily vehicle-miles traveled (DVMT) exceeds 4 million for the first time
2005	I-81 Exit 17 constructed
2007	CSX opens intermodal yard in Chambersburg
2008	Franklin County Rural Planning Organization designated
2013	Franklin County RPO redesignated as a Metropolitan Planning Organization
2013	Norfolk Southern opens intermodal yard in Greencastle
2025	I-81 Exit 12 interchange slated to open

Chairman's Message

The adoption of our county's latest long-range transportation plan comes at a time of tremendous change.

The passage of the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law, or BIL, in November 2021 injected an additional $13 billion over the law's five-year life into Pennsylvania transportation. Of that amount, $14.59 million was dedicated to Franklin County, which allowed us to add 15 previously deferred projects to our transportation construction program.

Nevertheless, challenges remain. Although there are millions available in new federal dollars through formula and discretionary programs, local governments are struggling to raise the local match required to secure new federal funds. Soaring inflation is diminishing our buying power. Franklin County's population continues to surge—numbers from the 2020 U.S. Census reveal that the county registered its 23rd consecutive decennial population increase since its founding in 1784. This translates to growing demand for transportation infrastructure and services, and is reflected in changes to our landscape, as warehousing, distribution, and intermodal centers consume our farms and open spaces.

As we look ahead, we can expect to grapple with the economic and transportation changes that were wrought by the COVID-19 pandemic and its aftermath. The following influences are expected to change how we plan for the county's future:

- Federal performance-based planning and programming requirements;
- Shifting approaches and technologies related to transportation asset management;
- Increased focus on resiliency of the transportation system relative to weather-related events;
- Expansion of mobility options, including deployment of new technology and changes in land-use patterns;
- The imperative to address the needs of both our urban and rural communities; and
- Challenges in generating local matching funds to secure the new federal funding being made available through IIJA/BIL.

This document, our latest long-range transportation plan, provides us with a framework for addressing these challenges to ensure that our transportation system remains a strategic asset for our county's continued mobility and economic vitality. I invite your review of the plan and ask you to join us as we work together to ensure we maintain a dependable and sustainable transportation system for Franklin County.

Sam Cressler, Chairman

Franklin County
Metropolitan Planning Organization

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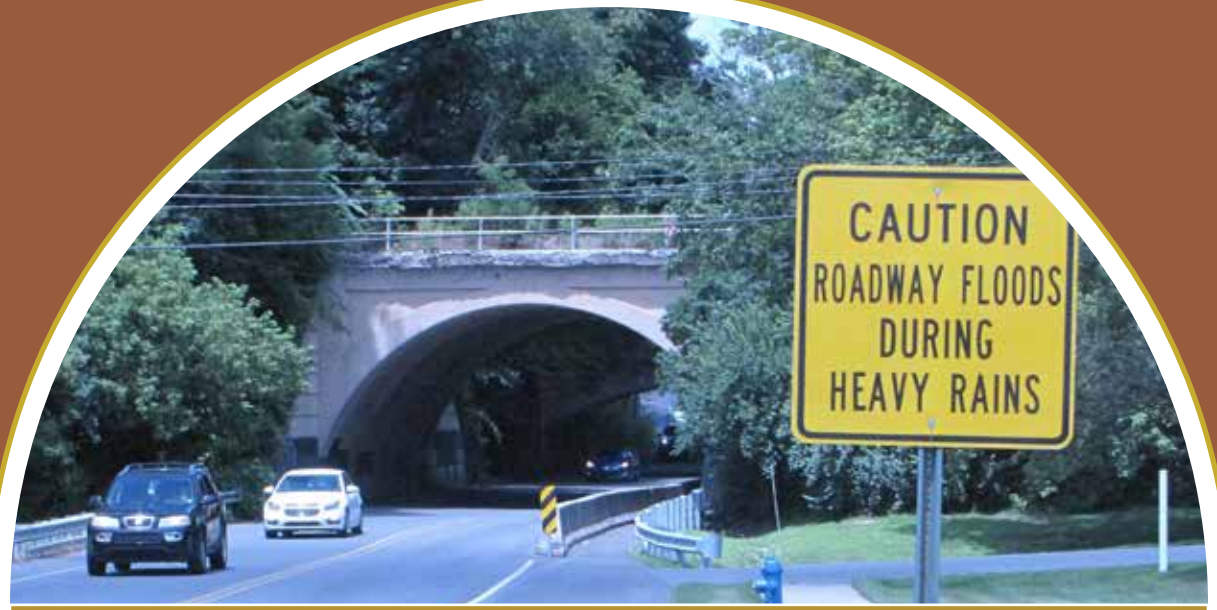


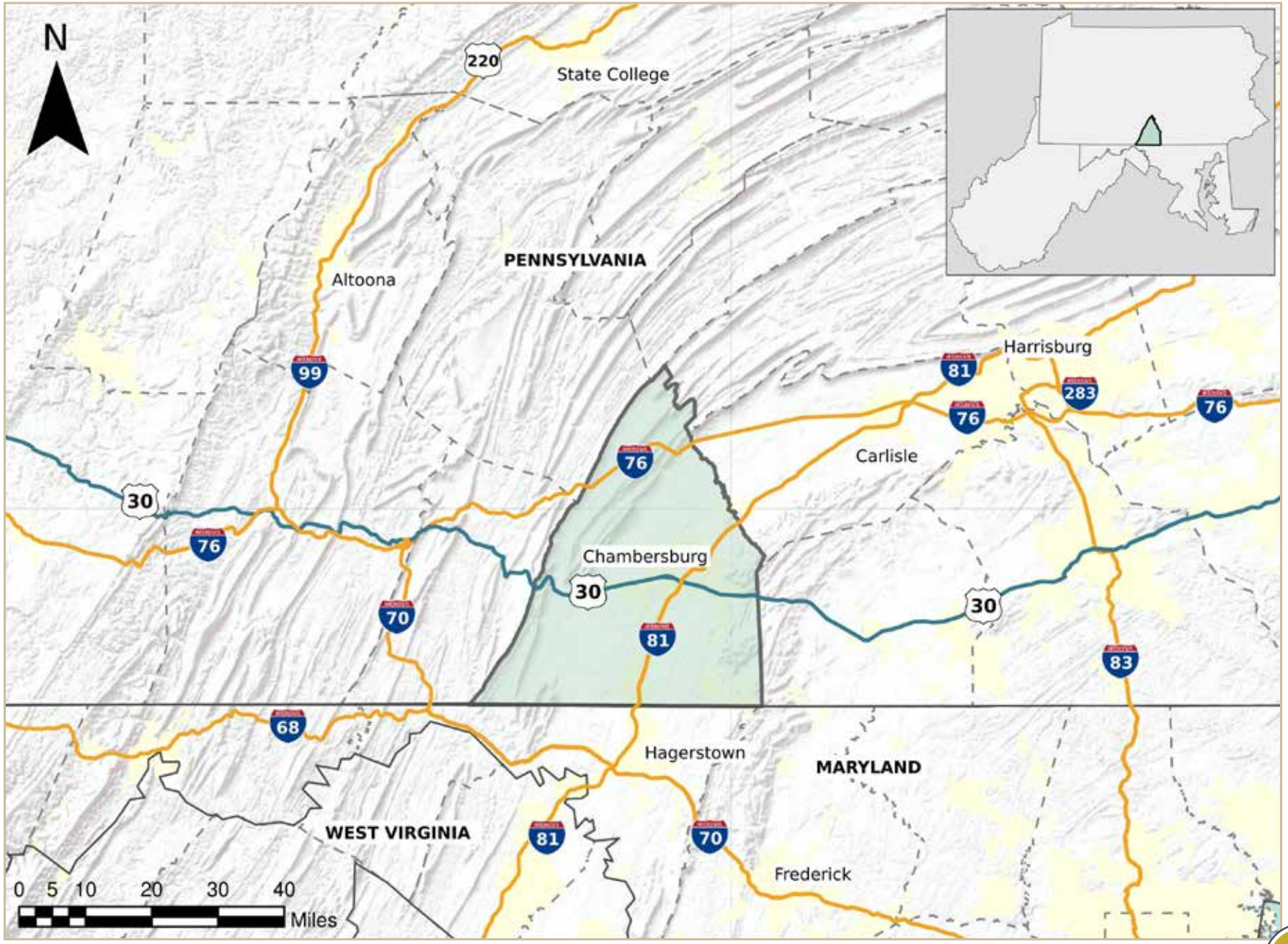
Introduction

Geographic Position

Overview

- Located in South Central Pennsylvania, Franklin County is 772 square miles in size and features a largely rural landscape. It is situated on Pennsylvania's southern border: the Mason-Dixon line marks its boundary with Washington County in Maryland (Figure 1).
- The county is located within Pennsylvania's Ridge-and-Valley region, distinctive for its fertile farmland and thin-soil landscape. During the early part of the nation's history, the "Great Valley" served as a major travel corridor from the East Coast to the nation's interior. Today, it serves as a conduit for highways such as US 11 and Interstate 81.
- The county's most populous municipality is Chambersburg Borough, which had 21,903 residents as of the 2020 U.S. Census. Other urban centers include Greencastle, Waynesboro, and Shippensburg, which straddles the county's border with neighboring Cumberland County.
- Franklin County includes the Chambersburg-Waynesboro Micropolitan Statistical Area, one of 20 such regions in Pennsylvania. It borders two surrounding Metropolitan Statistical Areas (MSAs), those of the Hagerstown-Martinsburg MSA and the Harrisburg-Carlisle MSA.
- Franklin County is considered part of the Northeast Megalopolis, a geographical area defined by the Regional Plan Association indicating a large scale of regional economies, shared natural resources, interconnected transportation systems, and densely developed urban populations stretching from Boston, MA, to Richmond, VA.
- The county is adjacent to the federally designated Appalachian Region, which includes surrounding counties such as Fulton and Perry. The county's western border with Fulton County features a 1,500-foot-high escarpment (long cliff) which has historically been a barrier to east-west transportation.
- The center of the county is located within a 90-minute drive of jobs and attractions in suburban Baltimore and Washington, D.C.
- The county's strategic position within major market areas and along the Interstate 81 corridor make it an attractive location for warehousing and distribution centers.

Figure 1: Franklin County's Geographic Position



LRTP Purpose

What is an LRTP?

The long-range transportation plan (LRTP) establishes goals and potential projects to improve the transportation system in Franklin County, consistent with the county's overall vision. The LRTP considers a 25-year planning horizon and provides a framework for making transportation decisions that will support the county's desired future.

Specifically, the LRTP inventories and assesses the county's current land use, transportation patterns, and the operations of all transportation modes. The LRTP identifies needed improvements to the multimodal transportation system—highway/bridge, rail, air, transit, bicycle, and pedestrian facilities—to facilitate a desired long-term outcome.

The LRTP is guided by the Franklin County Metropolitan Planning Organization (MPO) and serves several key functions, including:

- Serving as the transportation element of the Franklin County Comprehensive Plan;
- Guiding the MPO's decisions on project prioritization for the Transportation Improvement Program (TIP);
- Advising the county's 22 municipalities on local and regional planning decisions that impact transportation;
- Fulfilling federal and state transportation laws and regulations; and
- Reflecting the needs and priorities of Franklin County's residents, visitors, and businesses.

What is an MPO?

A metropolitan planning organization (MPO) is a transportation policy-making body comprised of representatives of local government and transportation agencies that own, operate, and fund transportation infrastructure. Federal law requires the formation of an MPO in any urbanized area with a population greater than 50,000; Franklin County became an MPO due to population growth reflected in the 2010 U.S. Census. MPOs ensure that decisions and spending on transportation projects and programs are based on a "continuing, comprehensive, and cooperative" (3C) planning process that reflects the needs and priorities of the county. MPOs administer federal and state funding for transportation projects and programs, consistent with the approved LRTP.

Why Develop an LRTP for Franklin County?

Developing and regularly updating an LRTP is a prerequisite to receiving federal transportation funding. Further, it helps ensure that transportation investment decisions are made strategically and considered in light of their long-term effect on the county.

Transportation decisions profoundly shape the county's direction and growth. An LRTP helps determine what improvements are needed to guide the county in a cohesive, agreed-upon direction for the future. Without this solid direction, growth would occur in an unplanned and incremental manner, likely to the detriment of what makes Franklin County a great place in which to live, work, or visit.

The Secretary of Transportation on behalf of the Governor of Pennsylvania designated Franklin County as an MPO on March 27, 2013.

The MPO succeeded the Franklin County Rural Planning Organization (RPO), which was established in May 2009.

What are the MPO's responsibilities?

The Metropolitan Planning Organization (MPO) is the official transportation planning organization for Franklin County recognized by the Pennsylvania Department of Transportation (PennDOT) and the Federal Highway Administration (FHWA). Federal law and regulations establish five core functions of an MPO.

- Prepare and maintain a Long-Range Transportation Plan considering a period of at least 20 years.
- Involve the general public and all significantly affected sub-groups residing in Franklin County in the four core functions listed previously.
- Establish and manage a fair and impartial setting for effective regional decision-making in the transportation planning area.
- Develop a Transportation Improvement Program (TIP)—a short-range (four-year) program of transportation improvements based on the LRTP.
- Identify and evaluate alternative transportation improvement options by using data and planning methods to generate and evaluate alternatives.

Trends and Implications

Demographics

Overview and Key Trends

- Franklin County had a 2020 population of 155,932. Since 2010, the county has added approximately 6,000 people (Table 1; Figure 3).
- Many Franklin County communities have been growing. In 2020, Greene Township recorded the highest population increase in absolute numbers, adding more than 1,700 new residents since 2010. Chambersburg Borough added an additional 1,635 residents (Figure 4).
- Orrstown Borough experienced the highest percentage of population loss over the past decade, with a loss of 18 percent (48 people). Warren Township had the next-greatest population loss over the same period with an 11 percent decrease (41 people).
- Population projections from the economic and demographic forecasting firm Woods & Poole estimate Franklin County's population to grow to 191,022 in 2050 (Figure 3).
- By 2050, nearly a quarter of the county's population (23.6 percent) is expected to be age 65 or older.

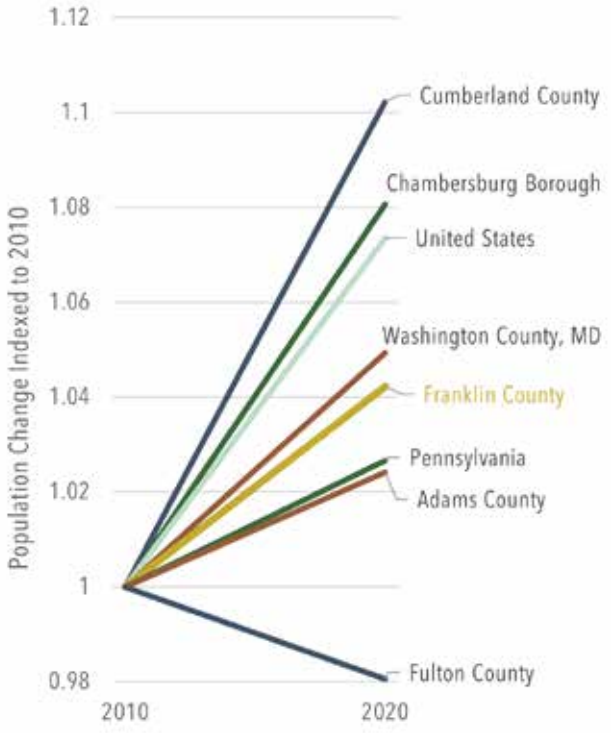
Table 1: Population Growth by County, 2010-2020

County	Percent Growth
Cumberland	10.2%
Lebanon	7.3%
Lancaster	6.5%
Dauphin	6.8%
Washington, MD	4.9%
Franklin	4.2%
Adams	2.4%
Fulton	-1.9%

Source: U.S. Census Bureau

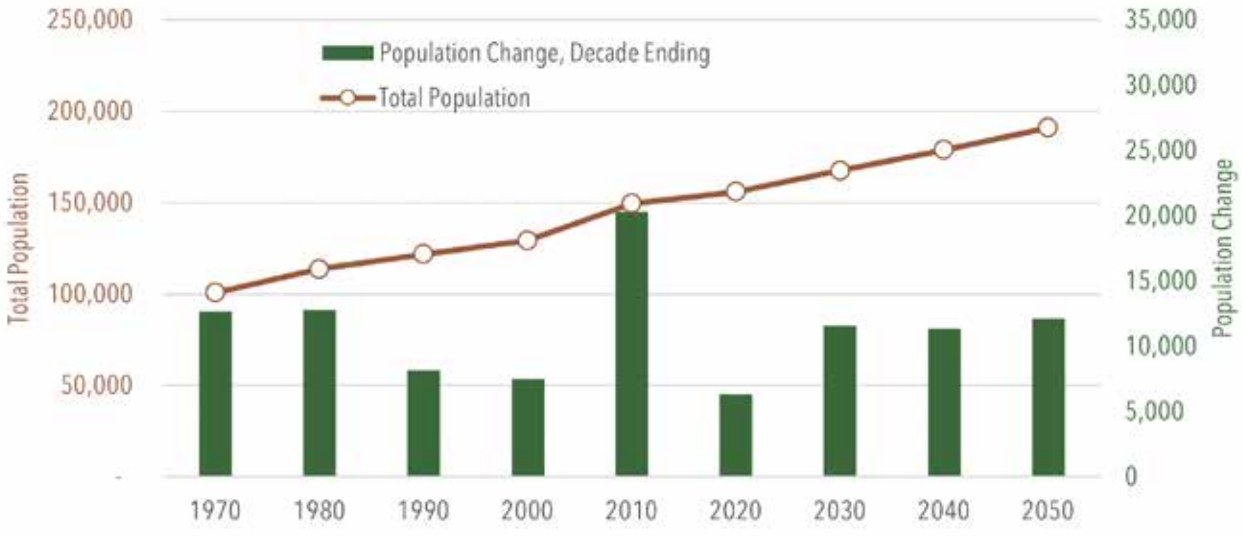
- In 2019, the county's median age was 41.8 years, similar to Pennsylvania's median age of 40.8 years.

Figure 2: Population Change, Indexed to 2010



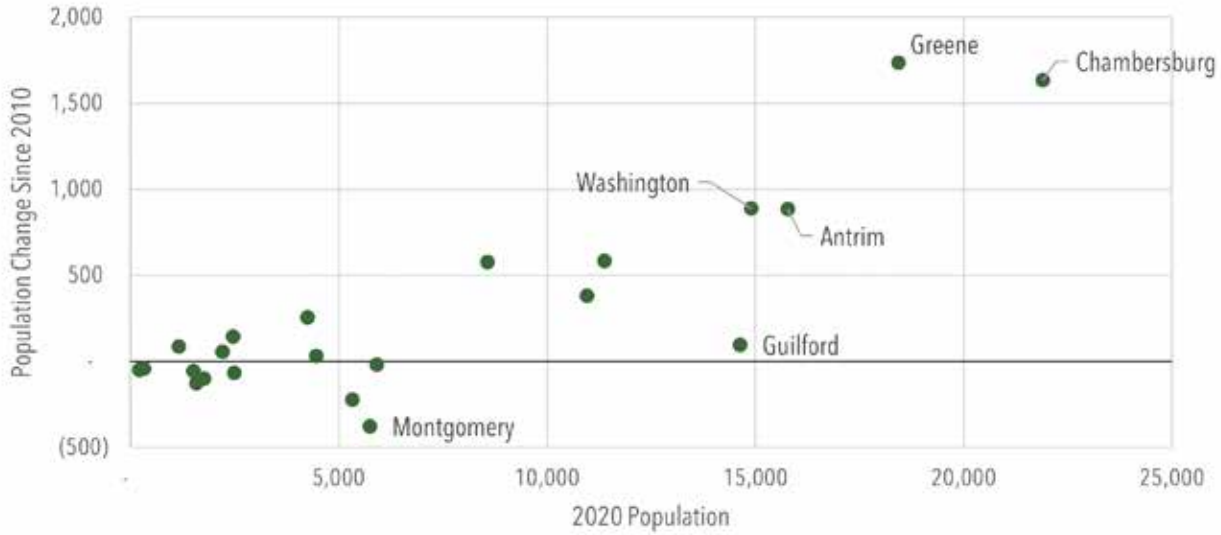
Source: American Community Survey

Figure 3: Historical and Forecasted Population Change, 1970-2050



Source: American Community Survey; Woods and Poole

Figure 4: Population Change by Municipality, 2010-2020



Source: American Community Survey

Planning Implications

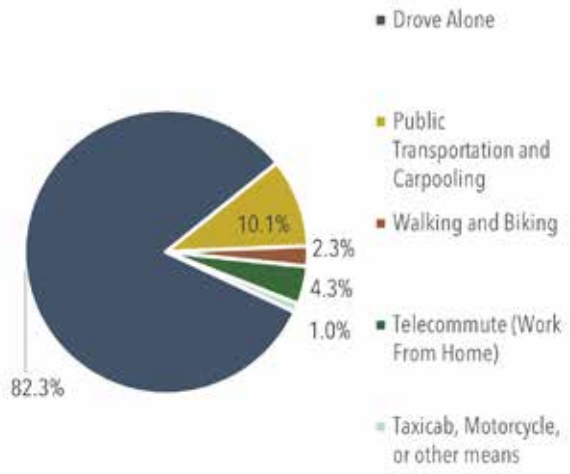
- As Franklin County's population continues to grow, the transportation system will require additional services and capacity to accommodate greater demand for travel. This emphasizes the need to maintain transportation infrastructure in a state of good repair to support growth over time.
- Growth in the senior population translates to the need for more public transportation services and a highway system that is more predictable to use, with greater reflectivity, maintenance, and protection of traffic in work zones, and improved signage, among other considerations.

Socioeconomics

Overview and Key Trends

- Between 2014 and 2019, Franklin County's total job count increased by 5.3 percent, adding more than 3,500 jobs over the five-year period. As of July 2022, the county had a labor force of 77,500. Woods and Poole forecasts show the county's total employment reaching 115,337 by 2050.
- The county's unemployment rate of 3.5 percent (July 2022) is the 11th-lowest in Pennsylvania.
- Just over half of Franklin County's resident workers commute out of the county for employment, while the remaining 49 percent are employed within the county. Eighty-two percent of the county's workforce commutes by driving alone. (Figure 5).
- Four major industry sectors account for more than half of Franklin County's employment: Health Care and Social Assistance (16.7 percent), Manufacturing (15.6 percent), Retail Trade (12.2 percent), and Transportation and Warehousing (11.9 percent).
- The U.S. Government is the county's top employer (Figure 6). In Greene and Letterkenny townships, Letterkenny Army Depot employs more than 3,600 people.

Figure 5: Journey to Work, 2019



Source: American Community Survey

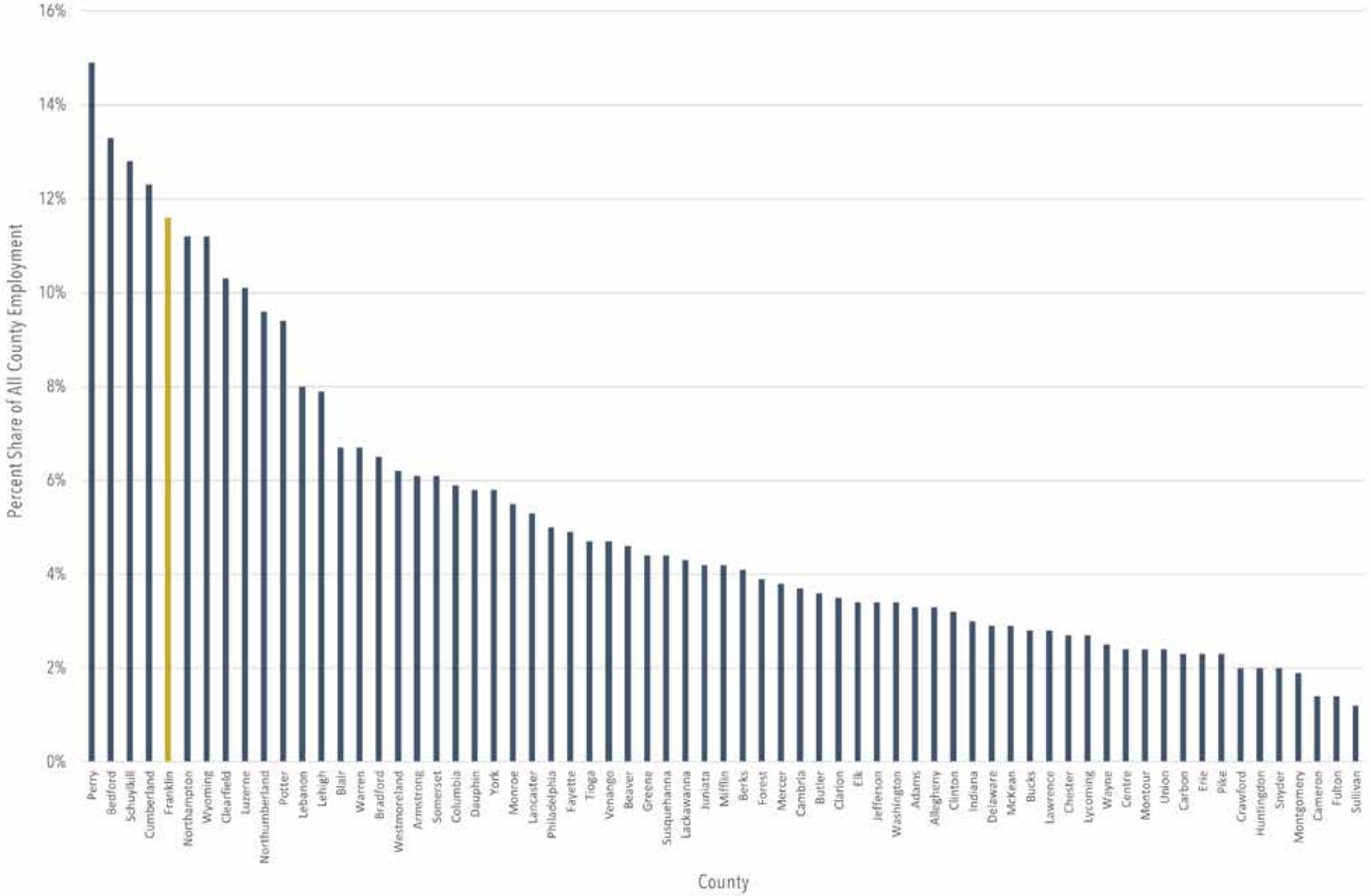
- Location Quotient (LQ) is a metric that compares an industry's share of local-level employment to its share at the state level. An LQ greater than one indicates that an industry is a driver of local economic growth. In Franklin County, industries such as Agriculture, Forestry, Fishing and Hunting, Transportation and Warehousing, Manufacturing, and Public Administration are key economic drivers (Figure 7; Table 2).

Figure 6: Top 10 Employers (as of December 2021)

1. **Federal Government**
2. **Chambersburg Hospital**
3. **Target Corporation**
4. **Chambersburg Area School District**
5. **Manitowoc Crane Group**
6. **Summit Physician Services**
7. **WalMart Associates**
8. **Ventura Foods**
9. **Ingram Distribution Management**
10. **Franklin County**

Source: PA Work Stats, December 2021

Figure 7: Transportation and Warehousing: Share of Total Employment by Pennsylvania County, 2019



Note: Data based on workers' place of employment
Source: U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD)

Table 2: Employment by Location Quotient

Industry Sector	Location Quotient	% of Total Employment
Agriculture, Forestry, Fishing and Hunting	4.37	2.0%
Transportation and Warehousing	2.10	11.9%
Manufacturing	1.59	15.6%
Public Administration	1.32	5.6%
Retail Trade	1.17	12.2%
Administration & Support, Waste Management and Remediation	1.09	5.7%
Accommodation and Food Services	1.04	6.8%
Other Services (excluding Public Administration)	0.93	2.9%
Construction	0.89	4.0%
Arts, Entertainment, and Recreation	0.88	1.1%
Health Care and Social Assistance	0.87	16.7%
Educational Services	0.76	6.4%
Mining, Quarrying, and Oil and Gas Extraction	0.75	0.3%
Wholesale Trade	0.56	2.1%
Real Estate and Rental and Leasing	0.55	0.6%
Utilities	0.55	0.3%
Professional, Scientific, and Technical Services	0.45	3.0%
Finance and Insurance	0.38	1.9%
Information	0.25	0.4%
Management of Companies and Enterprises	0.24	0.6%

Source: PA Work Stats, December 2021

LQ > 2.0	1.0 < LQ < 2.0	LQ < 1.0

Planning Implications

- As job growth continues, Franklin County will see increased demand on its transportation system as residents and commuters travel in and out of the county for work. This increase underscores the need to maintain state and local transportation infrastructure in a state of good repair to support growth over time.

Roadway Network

Overview and Key Trends

- Franklin County's roadway system comprises more than 1,700 linear miles of roadway. While most of this mileage is locally owned (Figure 10), approximately 80 percent of travel is carried by state-owned roadways.
- Of the county's roadway network, only 405 miles are on the Federal-Aid System.
- Interstate 81 constitutes only 25.8 linear miles of the county's roadway network, yet it accommodates 43 percent of all travel, attesting to its strategic importance to the county's mobility. Additionally, the roadway network includes 14.7 linear miles of the Pennsylvania Turnpike, including two interchanges at Willow Hill in Metal Township and Blue Mountain in Lurgan Township. These interchanges have the smallest volumes on the Turnpike system.
- Travel on Franklin County's roadways has remained steady in recent years. For the decade ending 2021, the county's roadway network carried an annual average of 3.92 million daily vehicle-miles traveled (DVMT). In 2020, travel demand in the county fell to 3.5 million DVMT, a 13 percent decline from the previous year due to the COVID-19 pandemic (Figure 11).
- The National Highway System (NHS) was established in 1995 to designate highways that are a vital priority for the nation's economy, defense, and mobility. Within Franklin County, this network includes Interstates 76 and 81, US 30 in its entirety, PA 316 from US 30 to I-81, US 11 from US 30 to PA 997, and PA 997 from US 11 to I-81 (Figure 8).
- In February 2019, FHWA certified a portion of PA 16 as a Critical Rural Freight Corridor (CRFC). The certification makes PA 16 eligible for National Highway Freight Program funding, allowing the MPO to prioritize these dollars toward projects that will improve freight movement and efficiency.
- There are 48.7 miles of locally owned, federal-aid-eligible roadway in the county. Notable examples include Kriner Road in Guilford Township (Figure 9). A complete list is available in Appendix G.
- There are currently no state or federally designated byways in Franklin County.

Figure 8: National Highway System Roadways in Franklin County

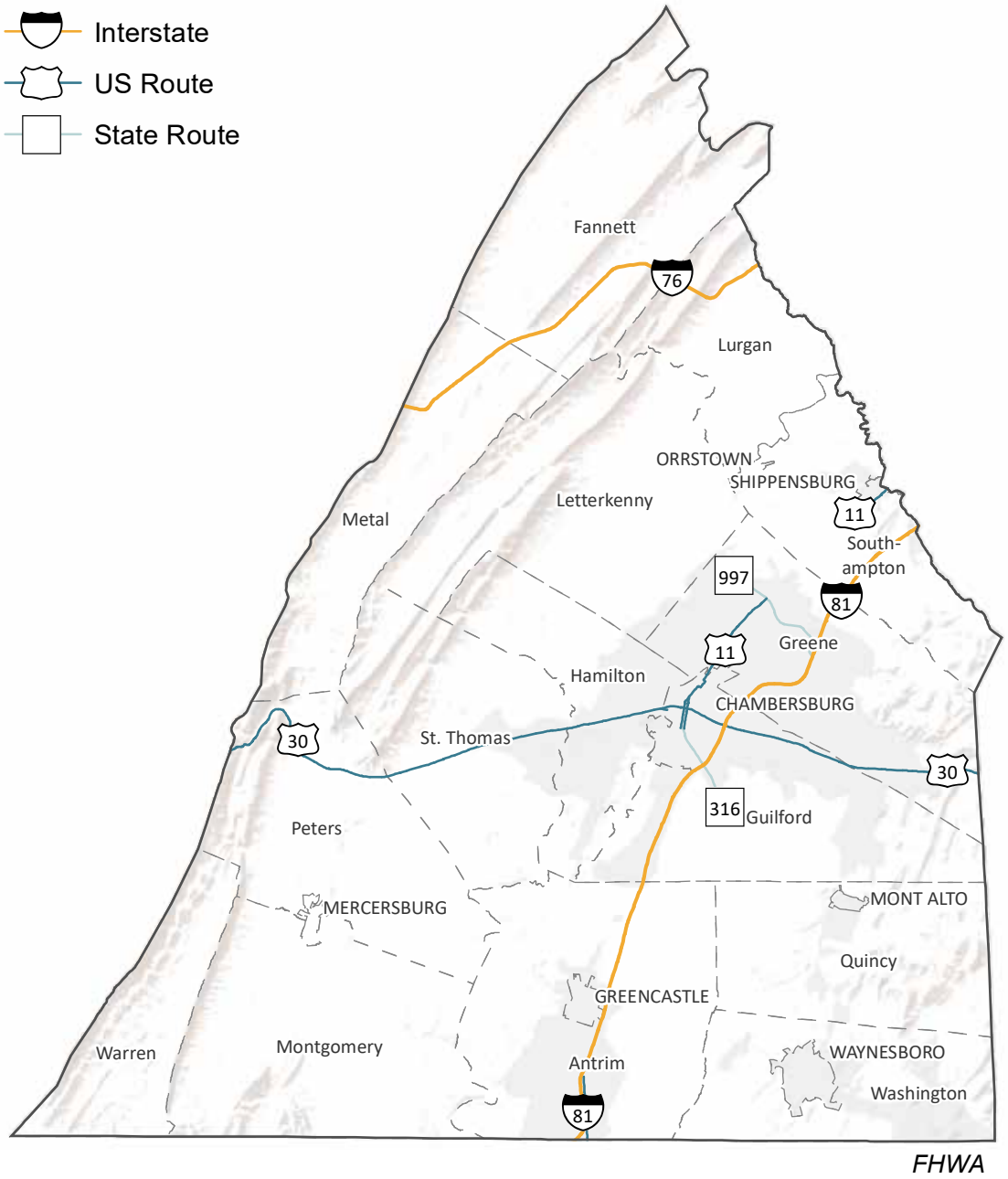


Figure 9: Local Roads on the Federal-Aid System

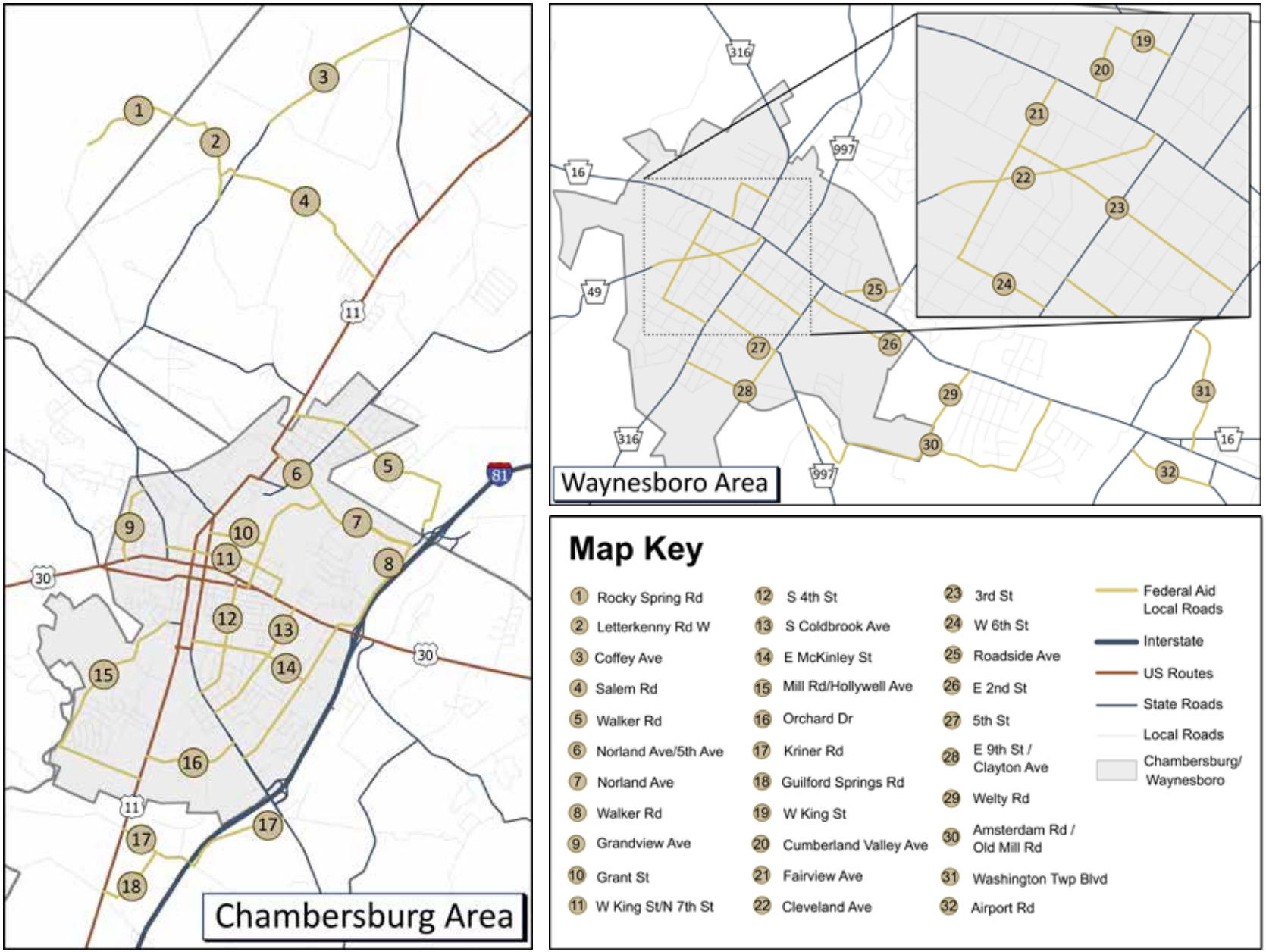
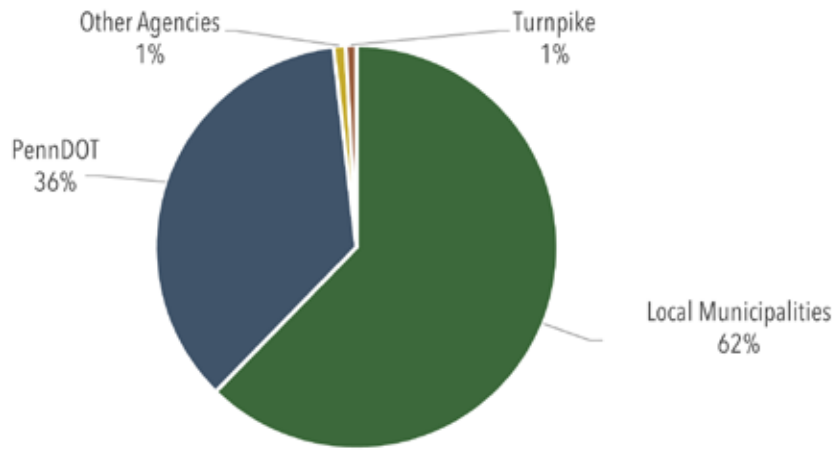
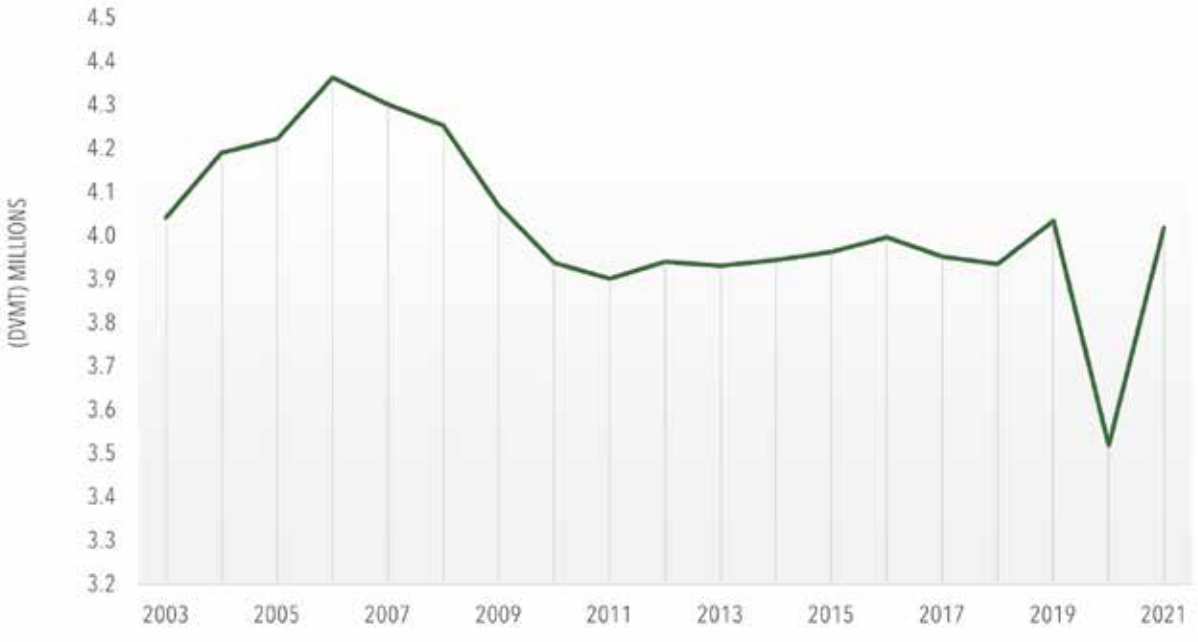


Figure 10: Roadway Mileage by Ownership



Source: PennDOT Highway Statistics, 2020

Figure 11: Daily Vehicle Miles of Travel (DVMT), 2003-2021



Source: PennDOT Highway Statistics, 2021

Planning Implications

- In a growing county such as Franklin County, the roadway network serves as the backbone of the transportation system.
- Understanding federal-aid requirements is critical in the delivery of federal-aid projects at the state and local levels. Municipal and state partners must work with the MPO, PennDOT, and FHWA to successfully manage locally administered federal-aid projects.

Functional Classification

Overview and Key Trends

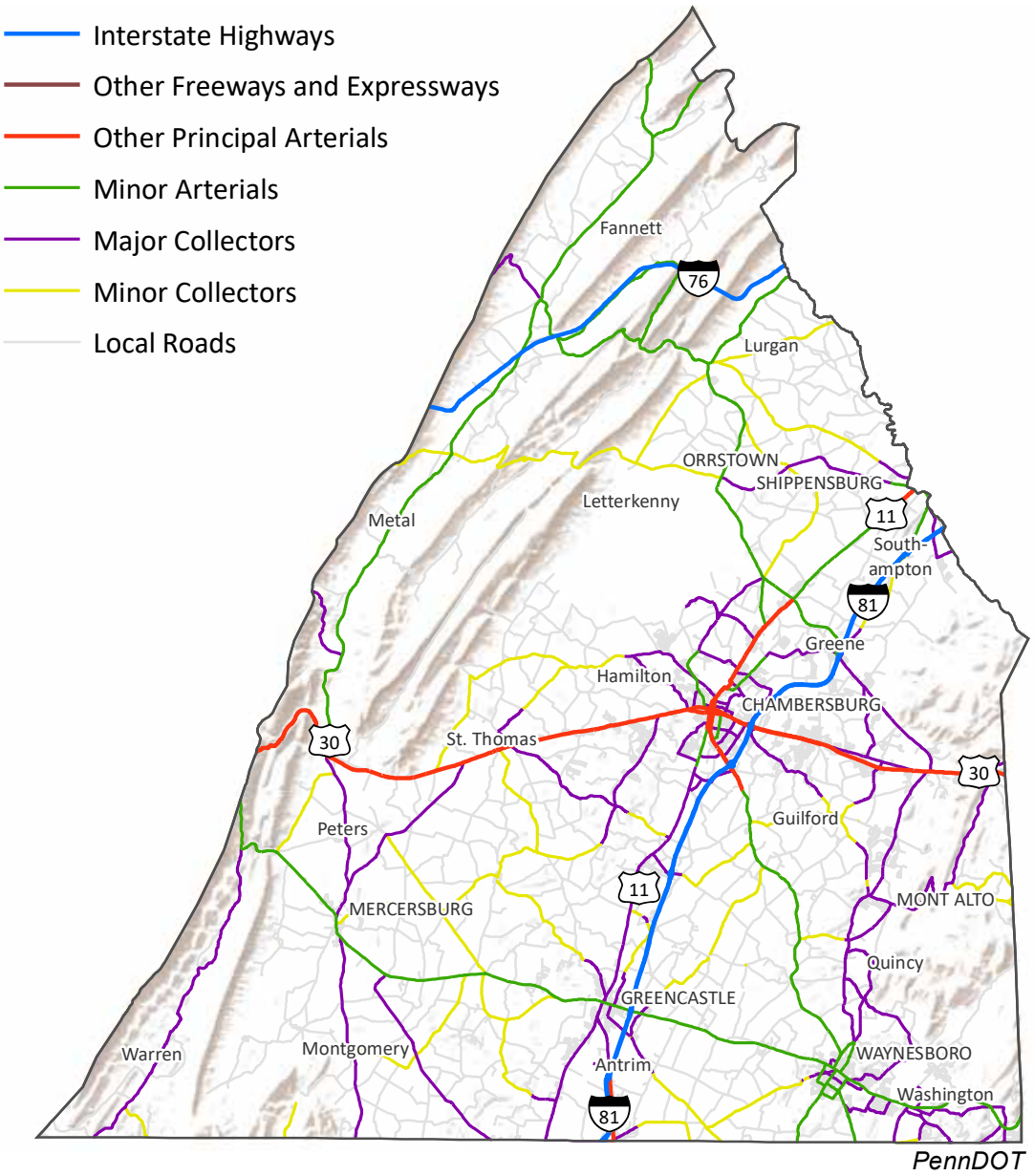
- Functional classification represents an important nexus between transportation and land use.
- Franklin County's most recent functional classification update was completed in 2017. The existing classification scheme is closely aligned with federal recommendations for a rural system. The county continues to work closely with PennDOT to maintain roadway classifications (Figure 12; Table 3). Additional information regarding functional classification procedures can be found on PennDOT's Traffic Information webpage.
- All roadways offer two primary functions: mobility (moving through an area efficiently) and accessibility (connections to residences, businesses, and workplaces). Interstates, for example, provide high mobility but low accessibility, whereas local streets primarily provide access.

Table 3: Franklin County Roadways by Functional Classification

Functional Classification		Linear Miles	Percentage of Network	FHWA-Recommended Rural System	Share of All Travel
Federal-Aid	Interstates	40.6	2.4%	1-2%	43.0%
	Other Freeways and Expressways	0.0	0.0%	0-2%	0.0%
	Other Principal Arterial	43.0	2.5%	2-6%	10.5%
	Minor Arterial	135.1	7.9%	3-7%	16.7%
	Major Collector	201.5	11.8%	9-19%	14.4%
Non-Federal-Aid	Minor Collector	135.1	7.9%	4-15%	4.2%
	Local	1,158.8	67.5%	64-75%	10.6%
	Total	**1,714.1**	**100%**	**N/A**	**100%**

Source: PennDOT Highway Statistics, 2021

Figure 12: Franklin County Functional Classification



Planning Implications

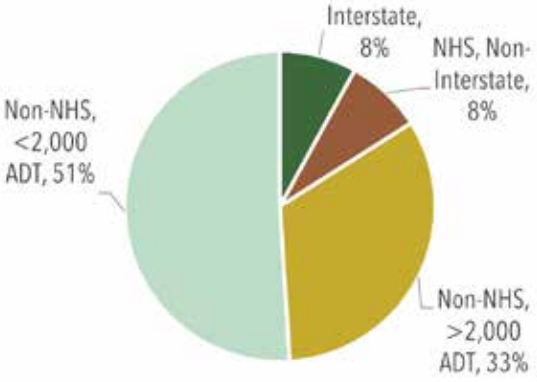
- Functional classification helps determine eligibility for many federal funding sources. The county's average yearly share of National Highway Performance Program (NHPP) funding ($969,000) for the 2023 TIP period underscores the importance of keeping its functional classification system up to date to maximize federal funding potential.

Roadway Conditions

Overview and Key Trends

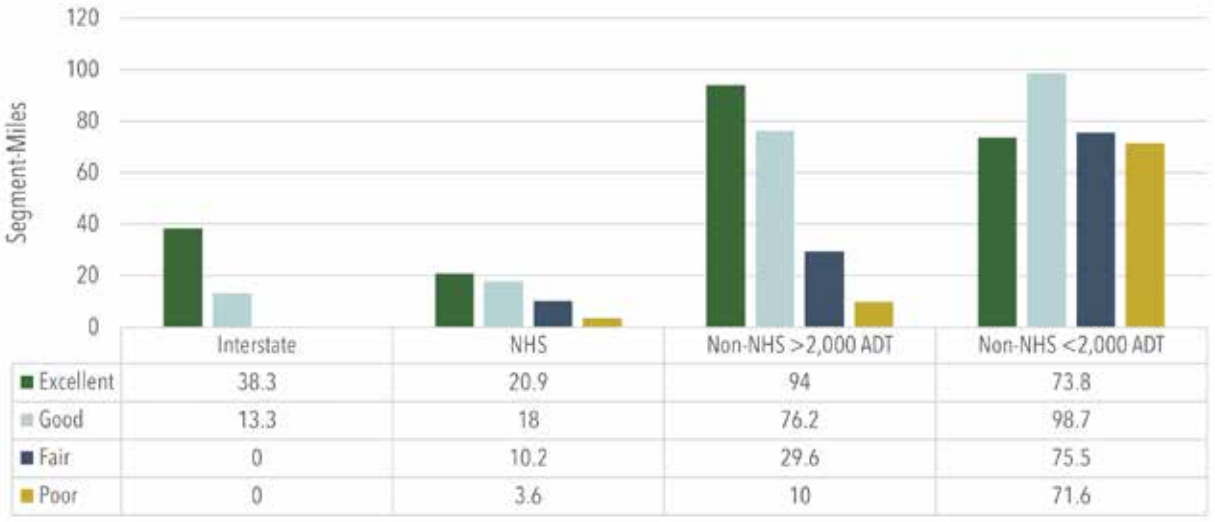
- PennDOT organizes the state's roadways into four Business Plan Networks (BPNs): (1) Interstates; (2) NHS, Non-Interstate; (3) Non-NHS, > 2,000 Average Daily Traffic (ADT); and (4) Non-NHS < 2,000 ADT. Of these networks, more than half of Franklin County's roadway mileage is comprised of BPN 4, Non-NHS routes with less than 2,000 ADT (Figure 13).
- The International Roughness Index (IRI) indicates the level of roughness of the pavement surface, while Overall Pavement Index (OPI) is a measure of a roadway's pavement condition and how well a surface can carry stress.
- When measured in IRI ratings, Franklin County's pavements are in good condition with nearly 70 percent of all pavements rated "good" or "excellent." This exceeds the statewide total of 56.6 percent. Roadways with "poor" IRI ratings in the county are commonly found on Non-NHS roadways with < 2,000 ADT (Figure 14 and Figure 15).
- When measured in OPI ratings, 80 percent of all pavements are in "good"

Figure 13: Roadway Mileage by Business Plan Network, 2020



Source: PennDOT

Figure 14: IRI Ratings by Business Plan Network, 2020

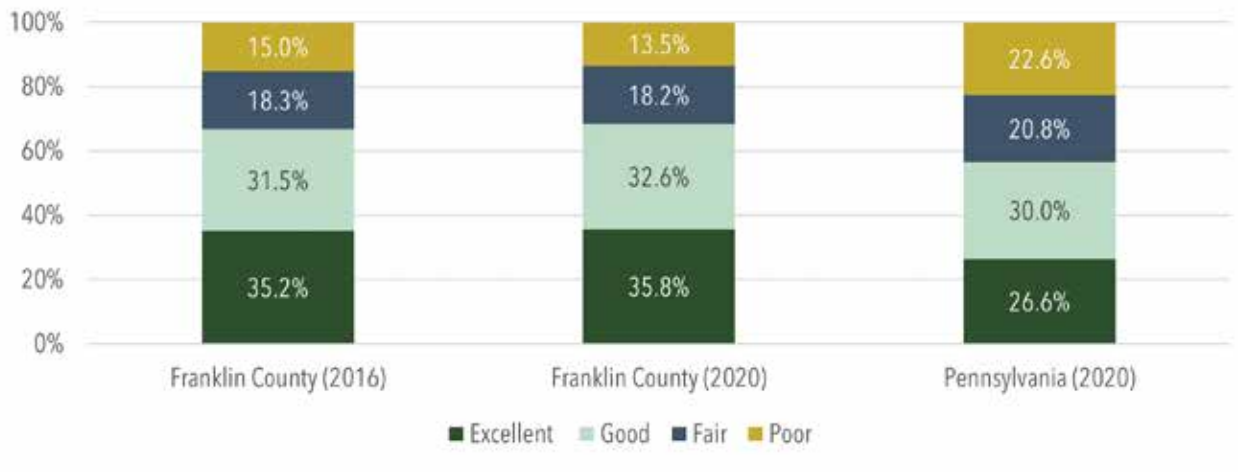


	Interstate	NHS	Non-NHS >2,000 ADT	Non-NHS <2,000 ADT
Excellent	38.3	20.9	94	73.8
Good	13.3	18	76.2	98.7
Fair	0	10.2	29.6	75.5
Poor	0	3.6	10	71.6

Source: PennDOT

or "excellent" condition; however, total "good" condition miles have worsened by 7 percent. Most of this mileage is now rated as "fair" condition. Interstates and NHS Non-Interstate routes have maintained excellent conditions in recent years, with the NHS (BPN 2) having the most mileage in "poor" condition (Figure 16).

Figure 15: Roadway Condition by IRI Rating, Franklin County and Pennsylvania, 2016-2020



Source: PennDOT

Figure 16: Roadway Condition by OPI Rating, Franklin County and Pennsylvania, 2016, 2020

Source: PennDOT

Planning Implications

- Pavement conditions in Franklin County compare favorably to Pennsylvania statewide.
- While most pavements are in "good" to "excellent" condition, the trends indicate a greater need for roadway resurfacing on Non-NHS routes with <2,000 ADT.
- Continued collaboration among Franklin County, PennDOT, and local municipalities is vital in identifying roadways on the transportation network in need of resurfacing, reconstruction, or preservation as pavements steadily deteriorate.
- PennDOT and the MPO promote a "lowest life-cycle cost" approach in addressing infrastructure condition. This approach puts greater emphasis on timely maintenance for system preservation. It not only extends the life of pavements and bridges, but it lowers the total cost of maintaining the asset.

Roadway Safety

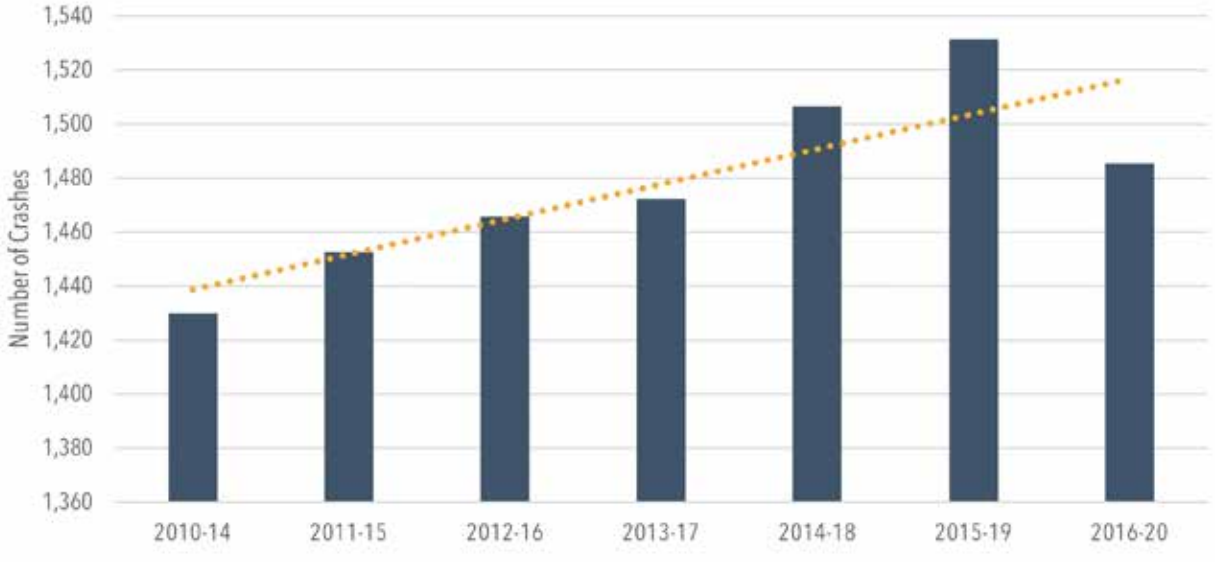
Overview and Key Trends

- For the five-year period ending 2021, Franklin County averaged 1,475 roadway crashes per year and 18 fatalities. The total number of annual crashes in the county has remained steady since 2010. Declines in total crashes and fatalities in 2020 are likely due to the reduced travel during the COVID-19 pandemic as a result of stay-at-home orders, business closures, and remote-work practices.
- Crashes involving those over the age of 65 have also remained steady—around 280 per year for the past five years. These crashes declined to an historic low of 211 in 2020, likely due to pandemic conditions (Figure 24).
- For the decade ending in 2021, the county experienced an average of 20 roadway fatalities per year. The most common crash types involving fatalities were lane-departure crashes (10 annually on average) and run-off-the-road crashes (8 annually on average).
- Fatal crashes involving a driver age 65 or older were also among the more common crash types, averaging 7.5 annually over the past decade.

Figure 17: Average Annual Roadway Fatalities

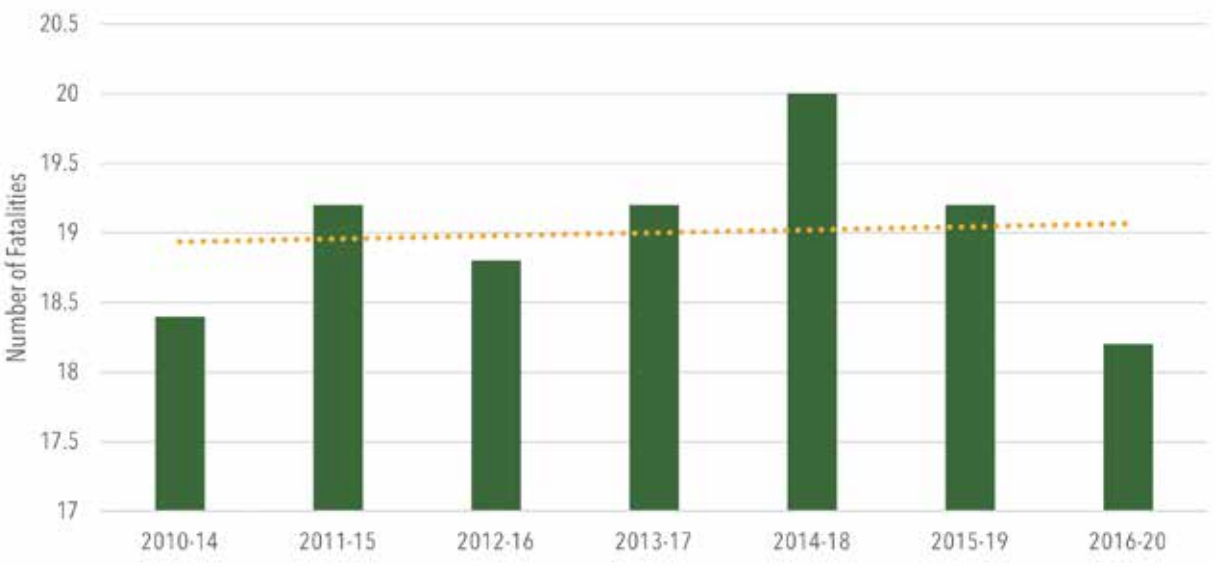
Source: Pennsylvania Crash Information Tool (PCIT)

Figure 18:Total Vehicle Crashes and Trend by Five-Year Average, 2010-20



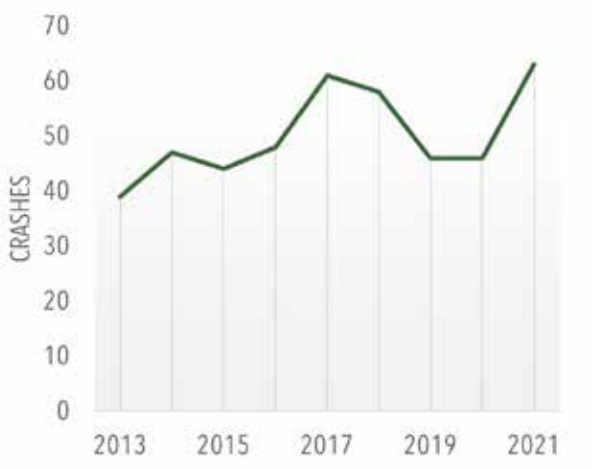
Source: Pennsylvania Crash Information Tool (PCIT)

Figure 19: Total Roadway Fatalities and Trend by Five-Year Average, 2010-20



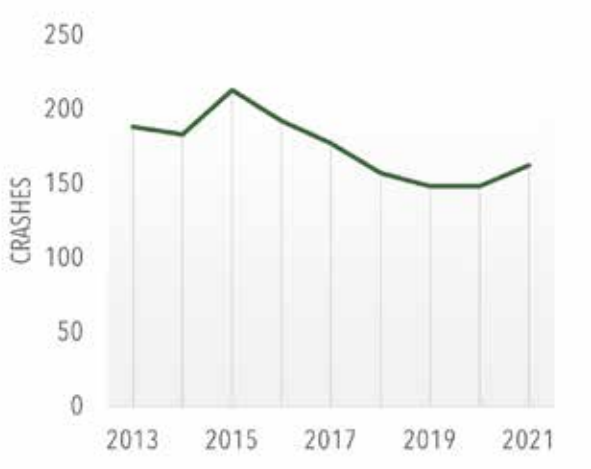
Source: Pennsylvania Crash Information Tool (PCIT)

Figure 20: Speeding Crashes



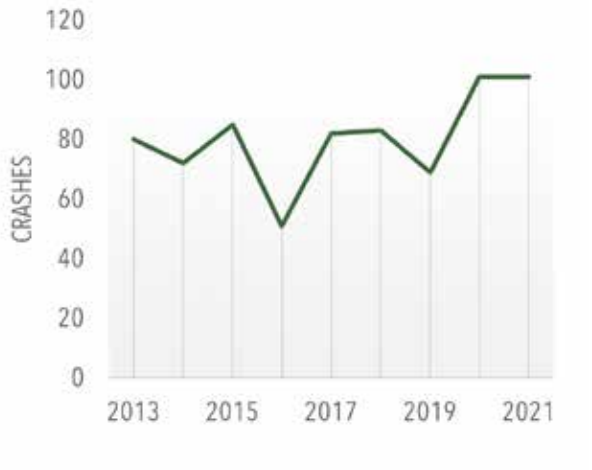
Source: Pennsylvania Crash Information Tool (PCIT)

Figure 21: Distracted Driving Crashes



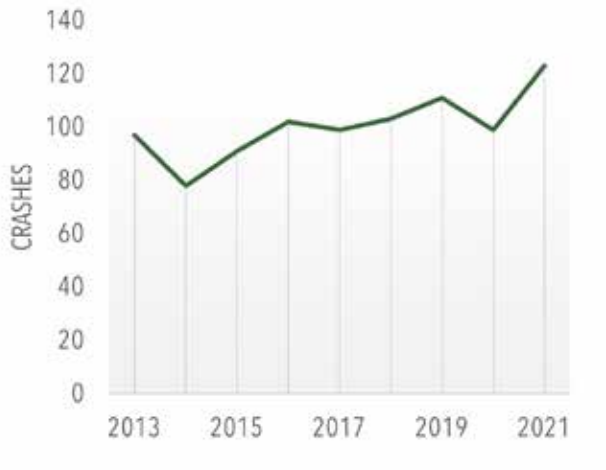
Source: PCIT

Figure 22: Aggressive Driving Crashes



Source: (PCIT

Figure 23: Heavy Truck Crashes



Source: PCIT

Figure 24: Total and Percentage of Crashes Involving Senior Drivers (65+), 2010-20

Planning Implications

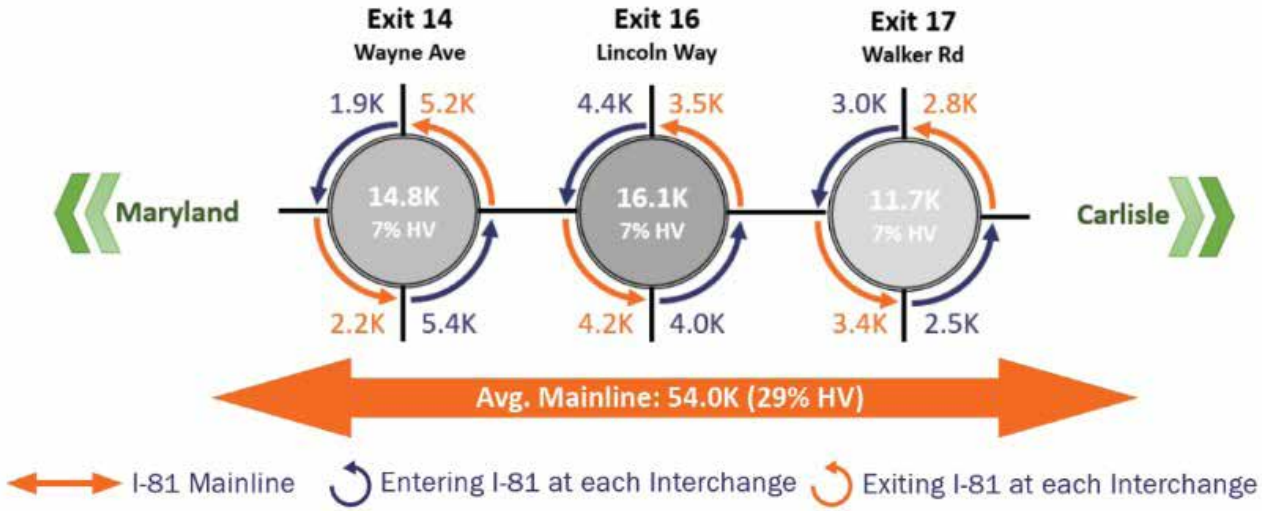
- Safety continues to be a top priority for the Franklin County MPO and PennDOT. To support the national aspirational effort to eliminate traffic fatalities by 2050, PennDOT has committed to a goal of reducing crashes by 1 percent per year. Safety targets are calculated based on rolling five-year averages to better reflect trends. While annual crash totals have remained fairly steady, the county's five-year average is trending upward despite a lower average in 2016-20. The five-year average trend for fatalities remains stable at 17.6 per year (Figure 19).
- Improved safety performance will require improvements in highway design, driver behavior, and enforcement mechanisms.
- Improvements in highway safety are not solely dependent on infrastructure improvements, but also on educational initiatives and the efforts of many organizations, as well as individual responsibility. This includes the safety of older drivers as Franklin County's senior citizen population increases.
- In 2022, PennDOT revisited its safety performance targets for the next two-year reporting period. The MPO continues to have the option to adopt the targets set by the state to support the attainment of statewide and national highway safety goals.

Interstate 81

Overview and Key Trends

- As one of the county's two interstate highways, Interstate 81 (I-81) provides north-south mobility for both people and freight. It is a key asset that contributes to the county's strategic geographic position, offering connections to other metropolitan areas, employment destinations, and markets in both Pennsylvania and Maryland.
- Approximately 43 percent of all travel that takes place within Franklin County occurs on I-81, attesting to its strategic importance.
- Each day, an average of 54,000 vehicles travel on I-81 through Franklin County, and 29 percent of that traffic is heavy-vehicle traffic. According to PennDOT's Traffic Information Repository, some segments of I-81 have nearly 40 percent truck traffic (Figure 26).
- The corridor continues to develop rapidly, largely consisting of commercial business parks and distribution centers. Interstate 81 provides ideal access to national markets and global gateways through its junction with the Pennsylvania Turnpike and major Class I rail lines. Many of the interstate's interchanges "between the Potomac and the Susquehanna" now host distribution centers.
- The interstate has been the subject of considerable evaluation and study. A 2018 analysis of the broader corridor throughout the PennDOT District 8-0 region from the Maryland line through Lebanon County determined that a widening of the interstate to six lanes

Figure 25: Interstate 81 Interchange Volumes: Selected Interchanges

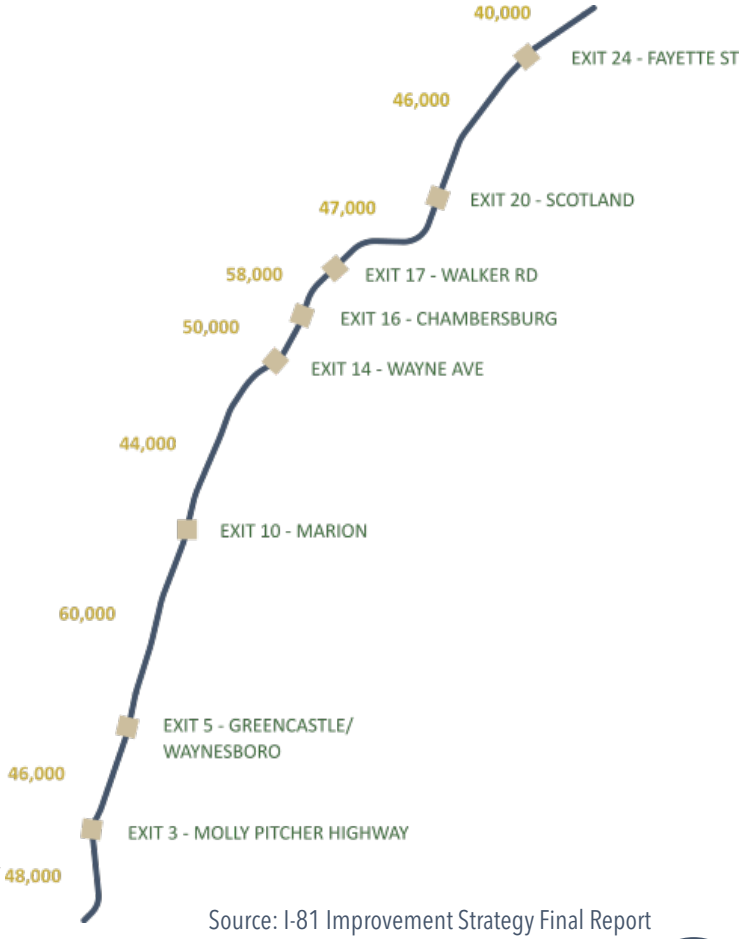


Source: I-81 Improvement Strategy Final Report

would cost more than $2.9 billion. Franklin County's share of a proposed widening would be $848 million.

- The Franklin County MPO, in partnership with PennDOT, FHWA, and neighboring MPOs in Harrisburg and Lebanon County, evaluated 100 miles of Interstate 81 for safety, congestion, condition, and access needs. The evaluation, known as the I-81 Improvement Strategy, identified the four-mile Greater Chambersburg Area segment as one of the top four focus areas in the corridor in need of improvement. This focus area included analysis of Exits 14 (Wayne Avenue), 16 (US 30 Lincoln Way), and 17 (Walker Road):
  - Exits 14 and 16 are experiencing ramp and ramp terminal (intersection) crashes in excess of similar roadways.
  - Mainline I-81 routinely experiences minor travel delay between exits 14 and 16, which contributes to operations and safety concerns.
  - Additional commercial and residential development near exits 14, 16, and 17 will increase traffic volumes at the interchanges.
  - Existing pavement and structures along several segments of I-81 were constructed in the 1960s and are approaching the end of their serviceable life span.
- In 2020, PennDOT completed a Preliminary Alternatives Analysis of Exit 5 in Antrim Township to evaluate interchange improvement options to improve safety and traffic operations at the interchange and the PA 16 corridor. The study identified and evaluated eight conceptual alternative options, with four of them retained for detailed operational and safety analysis. It concluded that three out of the four studied alternatives would lead to operational and safety improvements in the area, including the relocation of the northbound exit ramps to Antrim Church or Grindstone Hill Road or reconfiguring to a Single Point Urban Interchange (SPUI).
- PennDOT has established a reserve line item of $225 million for I-81 Improvement Strategy Projects during the 2023 Twelve-Year Program's (TYP's) third four-year period (2031-34).
- There is currently $700 million in unmet rehabilitation and reconstruction needs annually on Pennsylvania's interstates. PennDOT has planned a gradual increase in interstate funding over the next few years to meet federal bridge and pavement condition requirements. However, that will shift funding away from non-interstate highways and local roads.
- Moreover, there is an annual need of $1.2 billion statewide to meet cyclical asset management needs (routine maintenance to extend the life of interstate highways). The Commonwealth currently spends between $400 and $500 million per year on the interstate system. Interstate

Figure 26: I-81 Annual Average Daily Traffic, 2020



Source: I-81 Improvement Strategy Final Report

investment increased by approximately $150 million in FFY 2021 and will grow by $50 million a year until it reaches $1 billion in FFY 2028.

- Transportation electrification and use of alternative fuels are growing trends across the nation. PennDOT is in the process of developing an Alternative Fuel Corridor Deployment Plan for several interstate highway corridors, including I-81. As of early 2022, PennDOT identified I-81 through Franklin County as an alternative fuel corridor gap because there are no electric-vehicle charging stations. The nearest charging stations are located in Hagerstown and Carlisle. Pennsylvania will receive $170 million in federal dollars through FY 2026 to invest through the state's plan for deploying electric vehicle infrastructure.
- PennDOT will resurface a portion of I-81 from the Maryland line to Mile Marker 6 within the first four years of the 2023 TYP as part of a $16 million project.
- Over the past five years (2016-20), there have been a total of 631 crashes along the interstate in Franklin County. Of these crashes, there have been eight fatalities and 150 suspected injuries (30 severe, 120 minor).

Planning Implications

- As more warehousing and distribution centers are constructed in Pennsylvania, Franklin County can expect more commercial vehicles on the road, particularly on I-81 and surrounding interchange areas. This growth will require strategies to help manage freight traffic, such as additional parking areas.
- Emerging technologies will transform transportation over the next 20 years. Not only will local planning organizations need to prepare for connected and autonomous vehicles, but other technologies, including electric vehicles and delivery drones, will need to be considered in the planning process.
- The proliferation of probe vehicle data, such as INRIX and WAZE, has allowed transportation agencies to identify congestion hotspot areas easily and efficiently. PennDOT purchases vehicle speed data for all state-owned roadways, and Franklin County has access to this data.
- PennDOT's Interstate Steering Committee will draw from the recently completed I-81 Improvement Strategy as it maintains a statewide Interstate TIP.
- Formula funds from the 2021 Bipartisan Infrastructure Law (BIL) added programming capacity for 15 new projects to the MPO's TIP. Although PennDOT manages the Interstate TIP, these new funds provide an opportunity for the Franklin County MPO to invest in improvements on lower-tier roadways and bridges adjacent to I-81, improving system efficiency and highway safety.
- At the time of this plan's development, a new interchange at Guilford Springs Road (Exit 12) was in final design. While this new interchange was not included in the I-81 Improvement Strategy, it is being designed to improve truck access and vehicle flow from existing and future industrial development in the area. The MPO will continue to monitor progress on the project as it moves toward construction.

Traffic Operations

Overview and Key Trends

- The role of planning for traffic operations continues to expand, with the increasing demand for travel along with limitations to funding for the transportation system's maintenance and operation. Since 2007, PennDOT has formally developed and maintained a Regional Operations Plan (ROP) to guide planning for transportation systems management and operations (TSMO). TSMO aims to improve operations, including traffic flow, thereby maximizing the capacity of the existing system.
- As part of this effort, PennDOT has organized the state into four planning regions. Franklin County is situated within the Eastern Region of PennDOT's TSMO network (Figure 27).
- In most cases, TSMO improvements cost less than traditional roadway expansion projects and can be implemented in a much shorter timeframe. These low-cost improvements yield a high return on investment and can directly target problem areas.
- Example TSMO improvements include retiming traffic signals to reduce congestion at signalized intersections, installing closed-circuit television (CCTV) cameras to monitor roadway conditions, and implementing Dynamic Message Signs (DMS) to disseminate traveler information.
- There are 121 traffic signals, 13 CCTV cameras, and four DMS located in Franklin County. Forty percent of the county's traffic signals are located in Chambersburg Borough (Figure 29). Traffic signals can improve the safety and efficiency of roadway networks for motorists as well as for transit, cyclists, and pedestrians. However, poor signal timing and/or poor coordination between signalized intersections can negatively impact traffic flow and the effectiveness of the signals.
- PennDOT owns and maintains park-and-ride lots adjacent to two interchanges along I-81: at Exit 20 in Greene Township and Exit 24 in Southampton Township. Both lots are accessible via PA 696.
- A law enacted in July 2022 provides an additional $5 million in grants to municipalities to install and maintain traffic signal technologies as part of the Traffic Signal Technologies Grants Program, which will be administered as a supplemental round under the Green Light-Go Program.

Figure 27: PA TSMO Regions

Figure 28: Franklin County Congestion, 2021

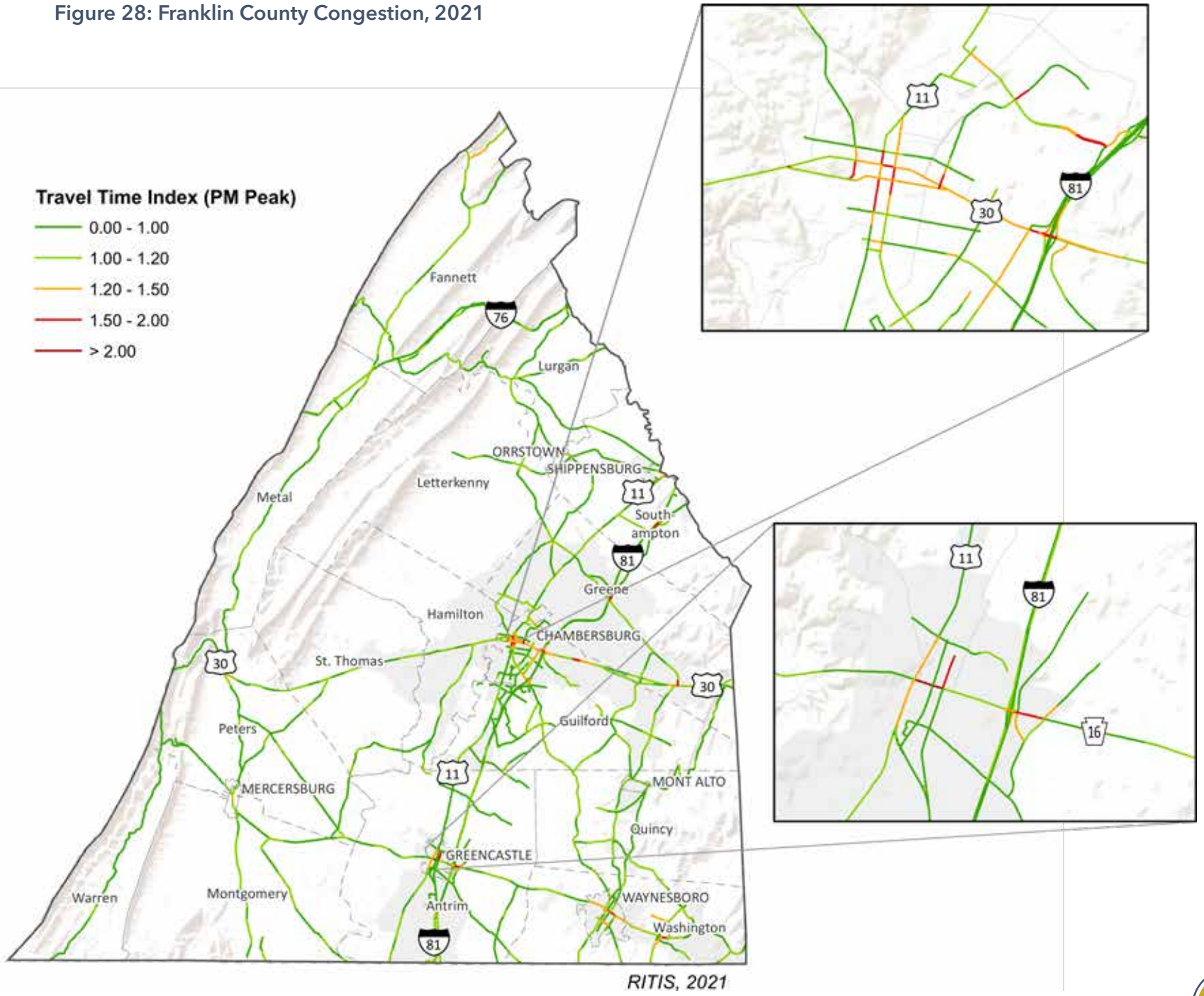


Figure 29: Traffic Signals, CCTV, and DMS Locations

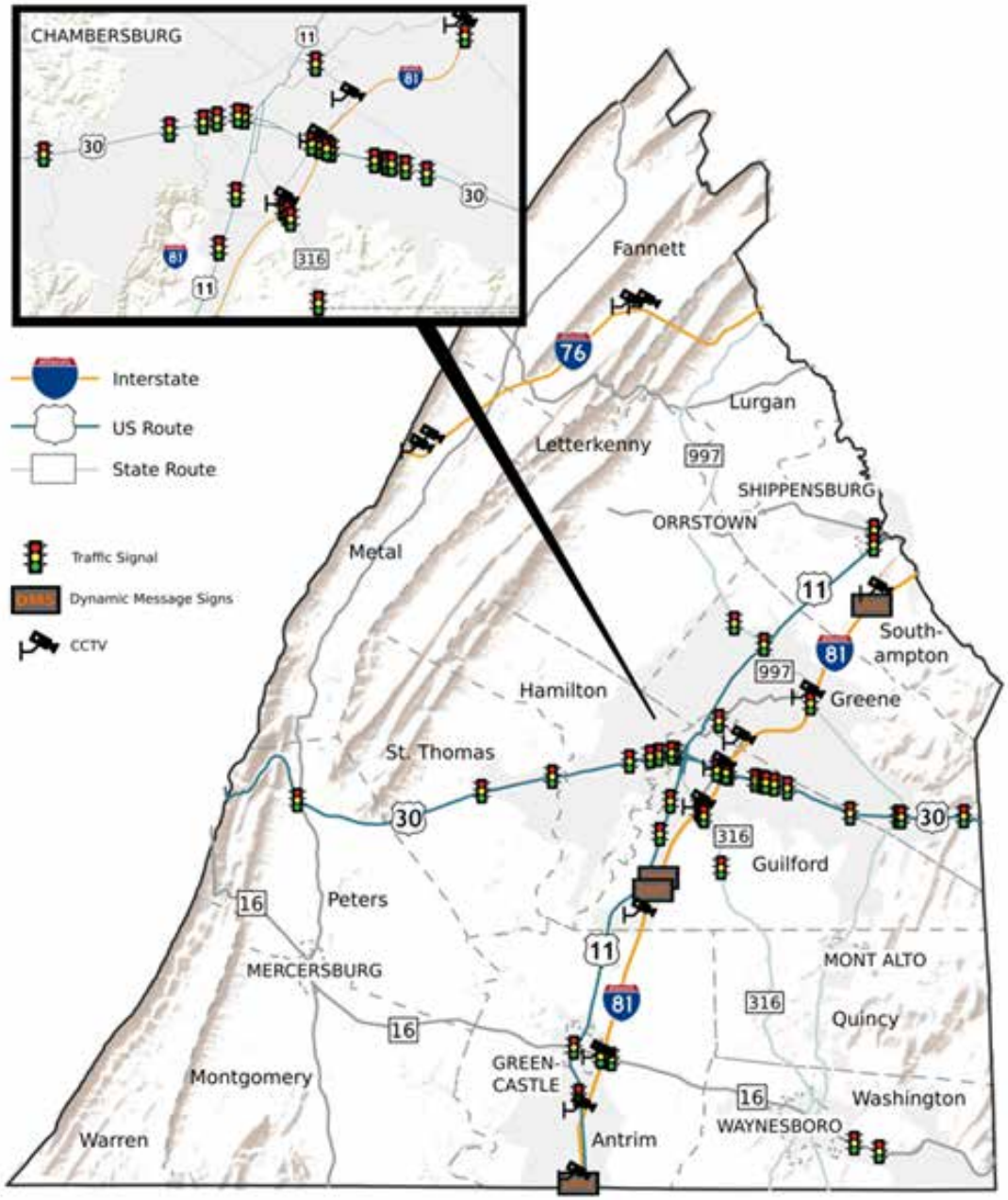
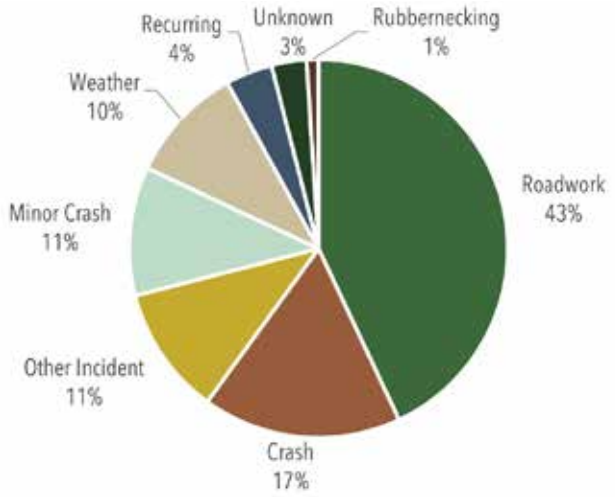


Figure 30: Causes of Congestion, Franklin County, 2021



PennDOT; INRIX data

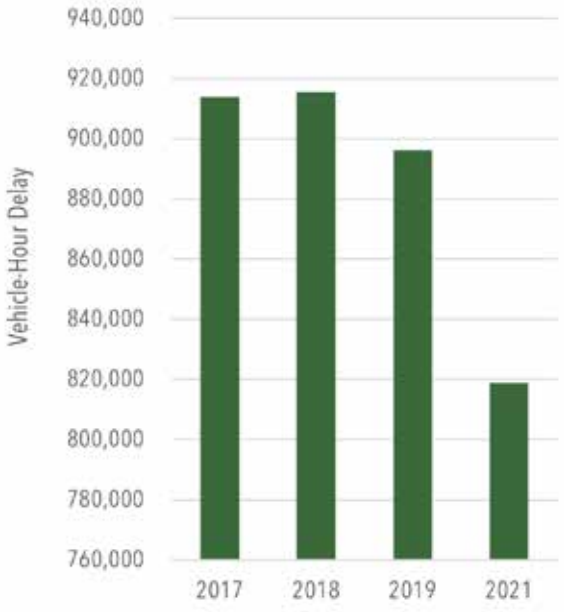
Table 4: Top Bottleneck Locations, Franklin County, 2021

Rank	Head Location	Average Max Length	Average Daily Duration	Total Duration	Volume Estimate	Total Delay
1	**US 30 W @ I-81**	0.4	4 h 51 m	73 d 23 h 49 m	10,352	13,171,541
2	**PA 16 W @ US 11/Molly Pitcher Hwy/Antrim Way**	0.31	9 h 25 m	143 d 9 h 53 m	5,700	12,762,733
3	**PA 16 W @ PA 316/Hagerstown Road/Potomac St**	1.11	1 h 33 m	23 d 18 h 11 m	8,079	11,459,250
4	**I-81 S @ US 30/Exit 16**	6.84	5 m	1 d 11 h 25 m	22,078	10,203,640
5	**I-76 W @ Tuscarara Tunnel (East)**	2.23	30 m	7 d 15 h 5 m	11,435	8,174,856
6	**I-81 N @ PA 914/Exit 10**	6.65	2 m	17 h 46 m	25,616	8,169,235
7	**I-81 N @ PA 997/Exit 20**	5.8	3 m	21 h 58 m	23,440	7,308,026
8	**US 30 E @ Franklin Farm Lane**	0.48	2 h 23 m	36 d 10 h 4 m	9,853	6,628,407
9	**US 30 W @ US 11/S Main Street**	0.33	5 h 32 m	84 d 8 h 46 m	6,015	5,487,898
10	**PA 16 E @ I-81**	0.12	10 h 20 m	157 d 4 h 48 m	5,403	5,117,641

PennDOT; INRIX data

- Data from RITIS reveal that motorists on Franklin County's roadways experience more than 800,000 vehicle-hours of delay per year (Figure 31). This is an improvement over pre-COVID data but still translates into lost productivity, increased opportunity costs, and diminished quality of life.

Figure 31: Total Vehicle-Hour Delay, Franklin County



Source: RITIS

Planning Implications

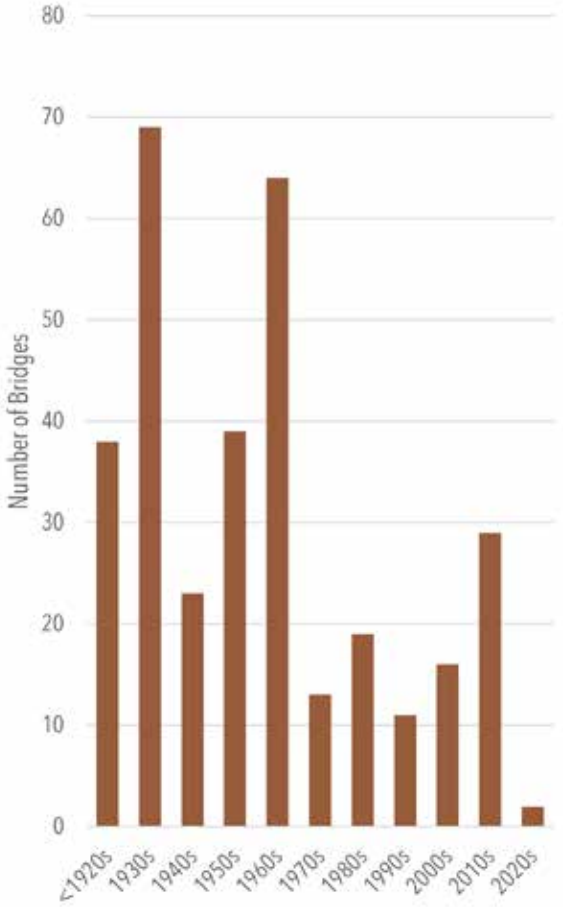
- Investments in traffic operations often yield a greater value per dollar spent versus capacity-adding projects, making operations a key area of focus for the MPO.
- While congestion may be decreasing somewhat due to a lessening demand for travel due to the pandemic and its aftermath (e.g., increase in telework, etc.), there are opportunities to address bottlenecks and congestion through the TSMO strategies identified by PennDOT in collaboration with the MPO.
- While the MPO is not required by FHWA to administer a Congestion Management Process (CMP), the availability of new crowd-sourced tools and data sources still allow the MPO to focus on the county's worst hot-spot locations for bottlenecks and congestion as part of its work program.
- The MPO can assist municipalities with improvements related to efficiency and operation of traffic signals by guiding them to funding programs such as Automated Red Light Enforcement Funding Program (ARLE), Green Light-Go, and the new Traffic Signal Technologies Grants Program created by Act 54 of 2022.
- Franklin County's ongoing participation in Commuter Services of Pennsylvania will aid workers and others in finding alternatives to traveling via single-occupant vehicle.
- Through its ROP, PennDOT has noted several TSMO-related planning needs in Franklin County, including:
  - The US 30 corridor through Franklin, Adams, and York counties is in need of Traffic Incident Management (TIM) during incidents.
  - Freeway Service Patrols on I-81/US 30.
  - Signal improvements on PA 16, Main Street in Waynesboro, for equipment upgrades and retiming.
  - Deploying CCTV and DMS to fill gaps in coverage.
  - The US 30 corridor has been identified as a candidate for inclusion in a statewide fiber optic network.
  - An Eastern Region Traffic Management Center Truck Parking Study is recommended to determine needs and locations for possible expansion of truck parking.

State-Owned Bridges

Overview and Key Trends

- There are 323 state-owned bridges greater than 8 feet long in Franklin County. Of these structures, 26 (8.1 percent) are rated as being in "poor" condition (Table 5). This aligns closely to the state average of 9.6 percent. The total number of bridges rated in "poor" condition has improved over the last five years (Figure 33).
- A meaningful measure of bridge condition is the share of bridge deck area considered in "poor" condition. The bridge deck area refers to the roadway surface that spans the length of the bridge. Within Franklin County, this rate is 4.3 percent, slightly better than the state average of 5.5 percent.
- Of these structures, three are posted (weight-restricted), while none are closed.
- The average age of state-owned bridges in Pennsylvania is 55. In Franklin County, the average age is 63 (Figure 32). Most bridges have a design life of approximately 50 years.
- Bridge construction activity over the last decade has doubled, adding 31 new bridges between 2011 and 2021. This is compared to just 16 newly constructed bridges in the decade prior.
- The MPO has $5.8 million available in state bridge funding as part of its 2023 TIP. Bridge dollars are commonly allocated based on the county's share of the state's total deck area.

Figure 32: State-Owned Bridges by Decade Constructed, Franklin County



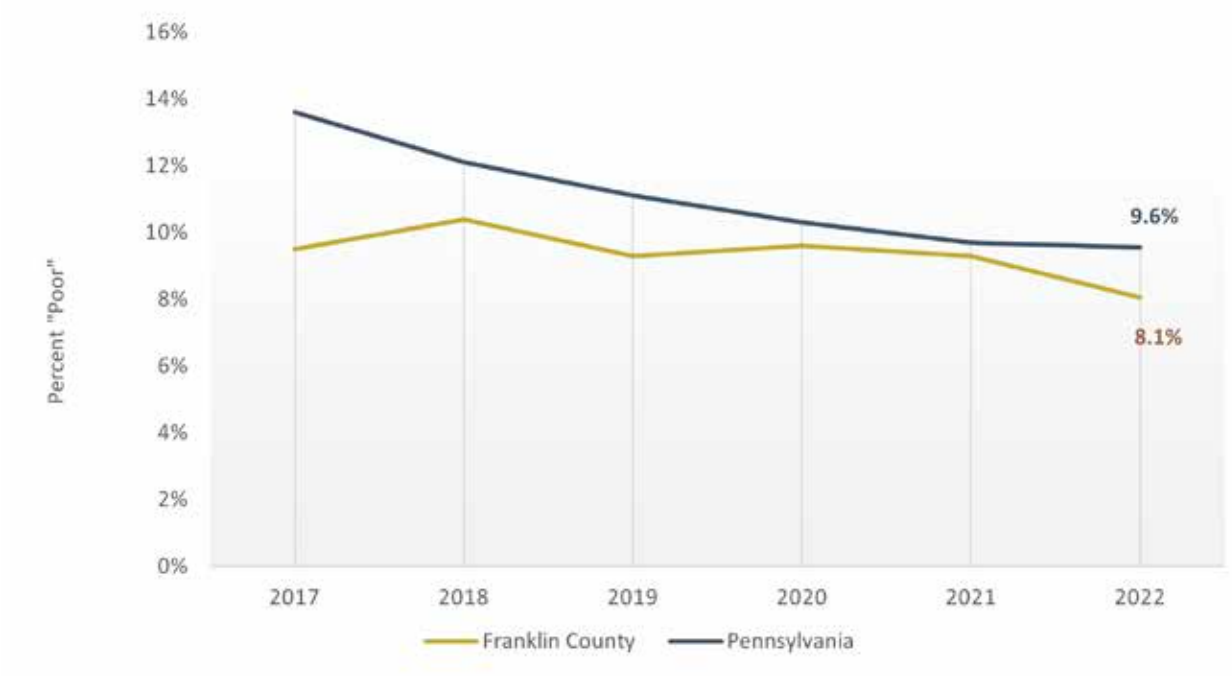
PennDOT Bridge Management System

Table 5: State-Owned Bridge Conditions, Franklin County and Statewide, June 2022

	Total Number	Good	Fair	Poor
By Count				
Franklin County	323	27.9%	64.1%	8.1%
Pennsylvania	25,446	34.4%	56.0%	9.6%
By Deck Area				
Franklin County	323	38.6%	57.1%	4.3%
Pennsylvania	25,451	29.8%	64.6%	5.5%

Source: PennDOT Bridge Management System, June 2022

Figure 33: Percentage of State-Owned Bridges Rated "Poor," Franklin County and Statewide, 2017-21



Source: PennDOT Bridge Management System

Planning Implications

- Recent warehousing developments and increased truck traffic may accelerate deterioration of the county's transportation assets. As truck sizes get larger and carry heavier loads, bridges may need additional preservation, rehabilitation, or repair.
- As the bridge inventory continues to age, the county will be faced with a greater stock of bridges in need of maintenance or rehabilitation attention. Depression-era bridges (built in the 1930s) comprise 21 percent of the county's bridge stock and will need to be replaced.

Local Bridges

Overview and Key Trends

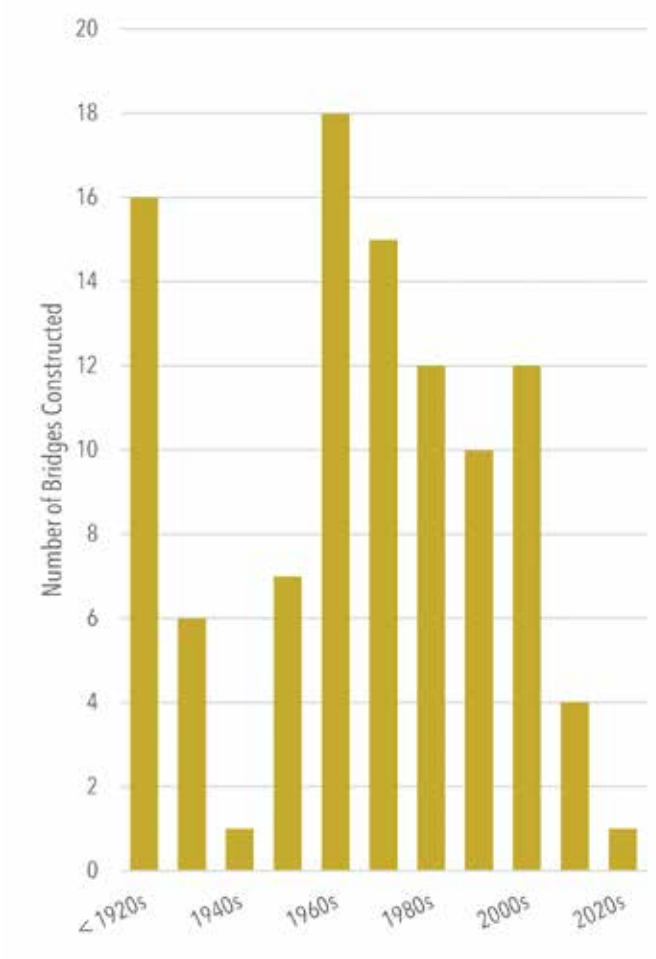
- PennDOT's Bridge Management System (BMS) notes that there are 102 total locally owned bridges greater than 20 feet long throughout Franklin County. Of these structures, one is closed and 14 are posted.
- Franklin County owns and maintains 92 local bridges, including 7 historic bridges (Figure 35, Table 6). When compared to other counties in South Central Pennsylvania, Franklin County owns and maintains the second-highest number of bridges in the region, just behind York County (Table 7).
- More than 60 percent of county-owned bridges are currently in "fair" condition. This exceeds the Pennsylvania state average of 49 percent. The number of county-owned bridges rated in "good" condition (15 percent) falls below the statewide average (26 percent) (Table 8).
- The share of "poor" condition, locally owned bridge deck area in Franklin County is 16 percent, better than the state average of 21.7 percent as reported by BMS.
- Franklin County's local bridge stock has an average age of 59, with nearly 18 percent of bridges constructed in the 1960s (Figure 34).
- Counties receive a portion of Liquid Fuels funding, as based on the original allocation established by the Liquid Fuels Act of 1931, which allocated one-half cent of fuel tax to counties. Distribution is based on each county's fuel consumption in the years 1927, 1928, and 1929 relative to statewide consumption in those years. An additional $5 million allocation was authorized by Act 44 of 2007 and is based on the ratio of square foot deck area of a county's owned bridges to the total statewide deck area of county-owned bridges.
- A listing of all county-owned bridges is provided in Appendix F.

Table 6: County-Owned Bridge Inventory

County Bridge Type	Count	Share of Total
Over 20-foot span	70	76.9%
Under 20-foot span	14	15.4%
Historic	7	7.7%
Total	91	100%

Source: Franklin County Bridge Program Capital Improvements Plan (2021)

Figure 34: Local Bridges by Decade Constructed, Franklin County



Source: PennDOT Bridge Management System

Figure 35: County-Owned Bridge Locations

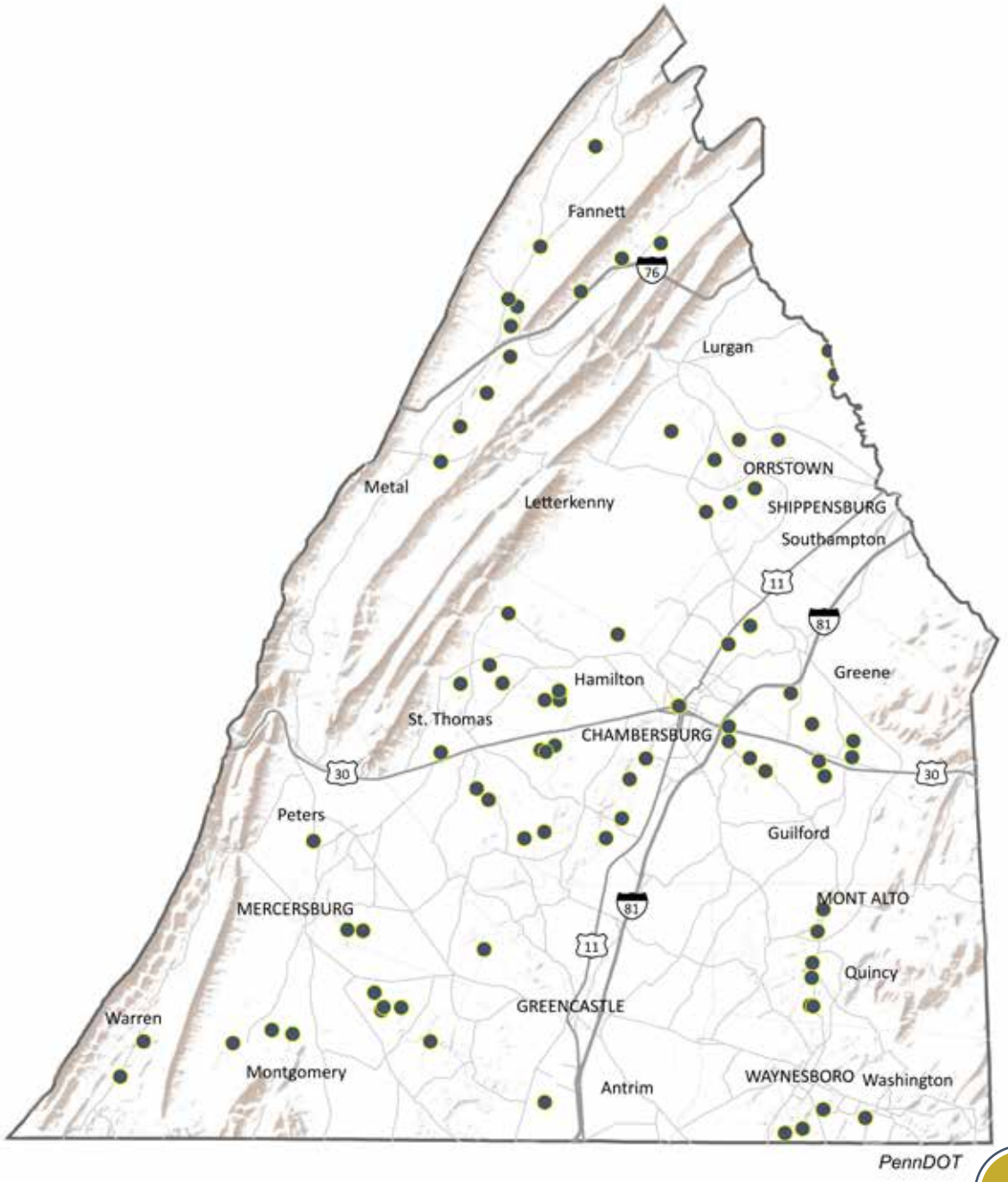


Table 7: County-Owned/Maintained Bridges, South Central Pennsylvania

County	Number of County-Owned and/or Maintained Bridges
York	104*
Franklin	92*
Lancaster	60
Dauphin	51
Adams	40
Cumberland	28*
Lebanon	13
Perry	12

*Includes bridges in joint ownership/maintenance responsibility with neighboring counties
Source: PennDOT Bridge Management System and County Bridge Program Capital Improvements Plan

Table 8: Franklin County-Owned Bridge Conditions

Bridge Condition	Franklin County	PA
Good	15%	26%
Fair	64%	49%
Poor	21%*	25%
Load Posted	12%	30%
Closed	0%	4%

*Includes historic bridges
Source: Franklin County Bridge Program Capital Improvements Plan (2021)

Planning Implications

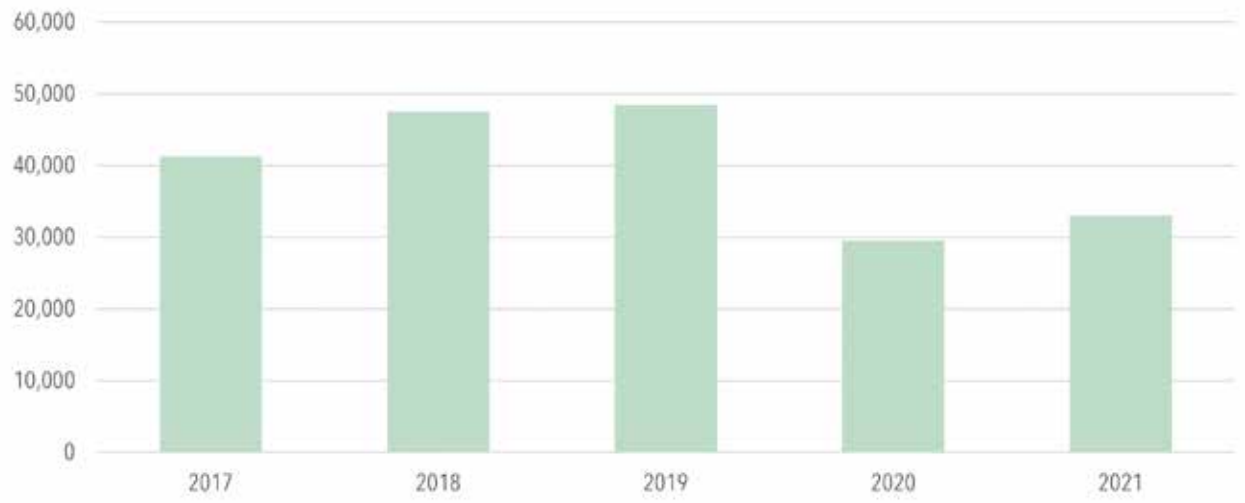
- Local bridges are commonly ineligible for federal transportation funds, except for the Off-System Bridge Program (currently valued at $3.4 million over the life of the MPO's 2023 TIP) for local bridges greater than 20 feet in length. This program establishes criteria for funding improvements to bridges that are not on the Federal-Aid System. The MPO has moved to suspend the required 5 percent local match for the 2023-26 TIP period, which will lessen the administrative challenges related to reimbursement agreements and allow the MPO to redirect state funding to other projects. The decision was based on guidance provided by FHWA in response to the Infrastructure Investment and Jobs Act of 2021.
- Act 89 of 2013 authorized counties to levy an optional $5 fee on vehicle registrations, which can be used for the construction, reconstruction, maintenance, and repair of public highways and bridges. (For Franklin County, this would translate into approximately $870,000 in annual revenue.) Although Franklin County has not enacted the $5 fee, it leverages other finance strategies to support local and county-owned bridges.
- Many of the bridges owned and/or maintained by Franklin County are reaching the end of their design life. These structures will need to be considered for preservation, rehabilitation, or replacement to avoid closure. Extended bridge closures can impact overall network connectivity for both passenger and goods movement.
- Franklin County will continue to assist its local government partners in identifying funding sources to address local bridge needs.

Public Transportation

Overview and Key Trends

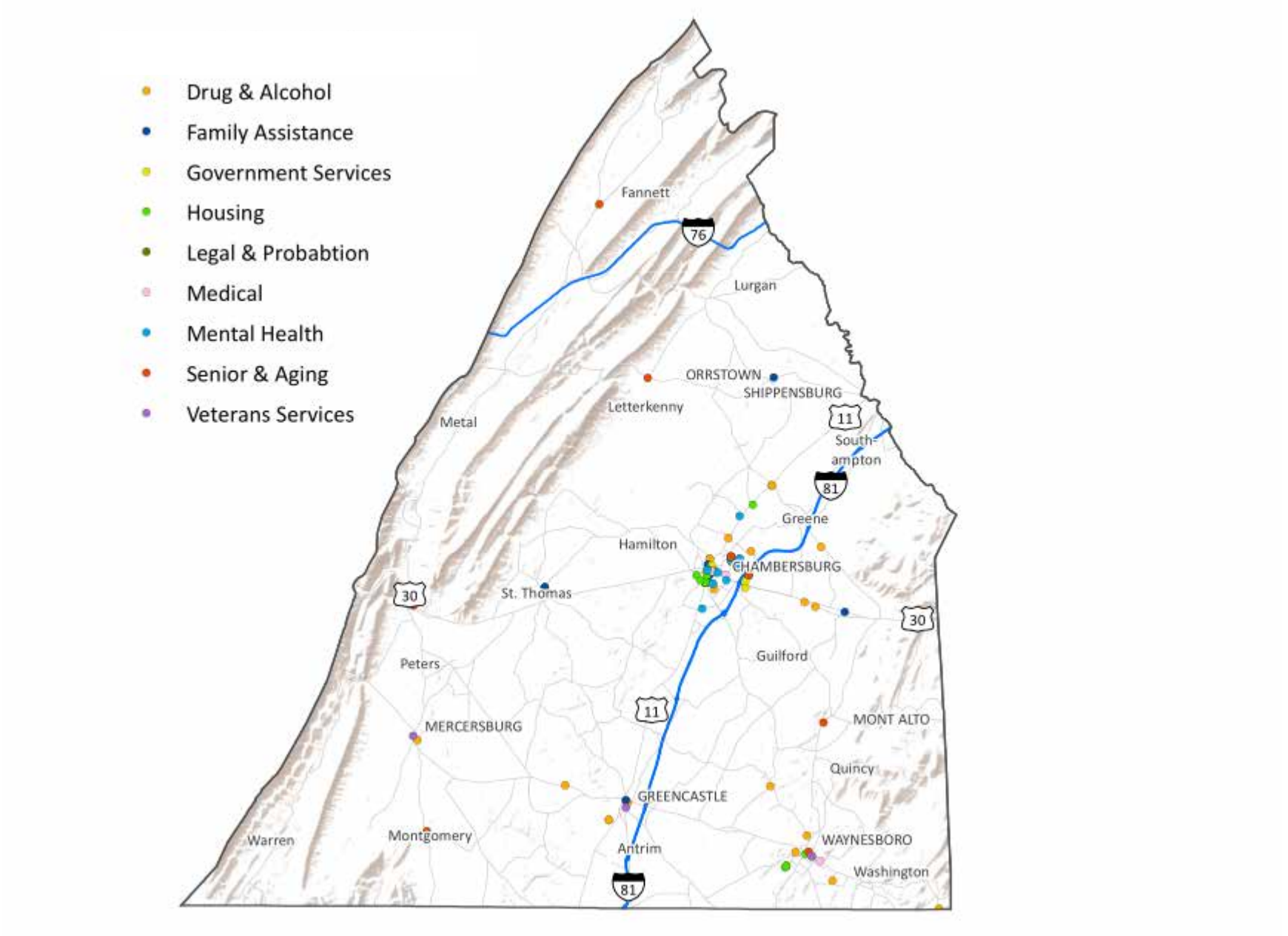
- Franklin County does not have county-wide fixed-route public transportation service. Capital Area Transit (CAT) provides fixed-route service in Shippensburg and has one Saturday route that runs from Shippensburg to Chambersburg Crossing Shopping Center.
- Shared-ride services are available for approved individuals through rabbittransit (Figure 36). Additionally, rabbittransit provides transportation for veterans through its Veterans Employment Transportation Program.
- PennDOT owns and maintains park-and-ride lots adjacent to two interchanges along I-81 in Franklin County: at Exit 20 in Greene Township and Exit 24 in Southampton Township. Both lots are accessible via PA 696.
- rabbittransit is collaborating with Franklin County on a three-year pilot for microtransit service in the Greater Chambersburg area. The new service, which had its first full month in September 2022, fills gaps in traditional service modes and is powered by a zone-based mobile app.
- The MPO completed an update of its Local Coordinated Human Service Transportation Plan in September 2021. Key stakeholders provided the foundation for updating the transportation inventory, identifying key destinations in the region, defining human service transportation challenges, and developing strategies to improve options for citizens receiving services within the county (Figure 37).

Figure 36: Shared-Ride Trips by Franklin County Residents, 2016-21



Note: 2020 rides were impacted by the COVID-19 pandemic and restrictions that continued into 2021. The 2021 values reflect data through December 15, 2021. Source: rabbittransit

Figure 37: Human Services Destinations



Planning Implications

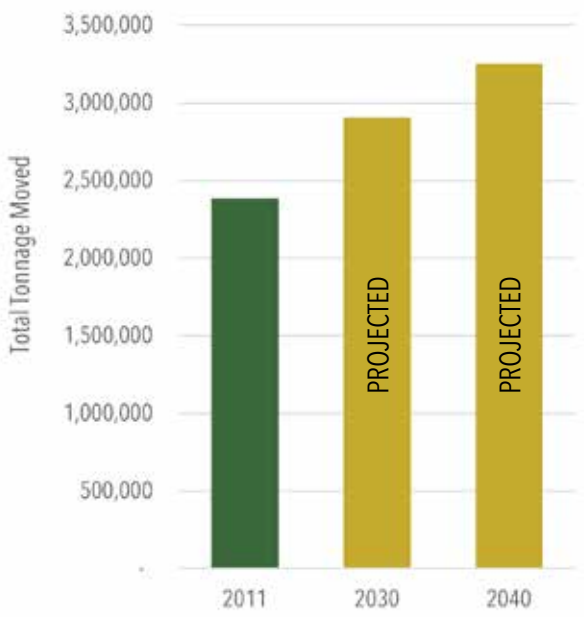
- Public transportation provides mobility services for those who choose to ride, do not own a car, or are unable to drive. A reliable and efficient system that connects to businesses, employers, recreation, and natural areas can support economic development and help attract new residents and businesses.
- Franklin County will continue its efforts to increase alternative modes for multimodal transportation and complete trip planning. Integrating transit, transportation demand management (carpooling and vanpooling), and bicycle and pedestrian accommodations and increasing the reliability and timeliness of services are examples of strategies that can contribute to increased ridership.
- In urbanized areas such as Chambersburg, the availability of public transportation correlates with reduced traffic congestion and improved air quality.
- The MPO is seeking to partner with its counterparts within PennDOT District 8-0 in the development of a comprehensive, multi-county human service transportation plan. Planning at this scale could create opportunities for transit connections that cross regional boundaries and may increase grant funding potential.
- Most users of shared-ride service are senior citizens and persons with disabilities (PwD). As the county's population continues to age, there will be higher demand placed on public transportation services to promote mobility and maintain a high quality of life.

Rail Freight

Overview and Key Trends

- Two Class I railroads operate in Franklin County: CSX Transportation (CSX) and Norfolk Southern (NS) (Figure 39). Both offer north-south connections, operating parallel to Interstate 81.
- There are no Class II railroads in Franklin County.
- Two Class III "shortline" railroads operate within the county, including the Pennsylvania and Southern Railroad (PSCC) and the Maryland Midland Railway (MMID).
- PSCC operates on the 38 miles of trackage owned by the Franklin County General Authority. Most of this network is in the Chambersburg area, primarily within the Letterkenny Army Depot. Key commodities transported by PSCC include aggregates, agricultural products, chemicals, food, metals, plastics, timber, automobiles, and heavy machinery.
- MMID operates 81 miles throughout Maryland, with only 0.4 miles passing through Franklin County. Connections to CSX are available in Maryland. Key commodities transported by MMID include aggregates, chemicals, and timber and related products.
- Franklin County has two major intermodal terminals that support goods movement transfers between rail and truck. Since 2007, CSX has operated an 85-acre intermodal terminal in Chambersburg while NS offers intermodal connections at its 200-acre Greencastle Intermodal Yard, located in Antrim Township and part of the railroad's "Crescent Corridor." CSX's existing terminal in Chambersburg is part of its multimillion dollar "National Gateway," a double-stack corridor to improve shipping between the East Coast and the Midwest through a public-private partnership.
- The Greencastle Intermodal Yard suspended operations in 2019 but reopened in September 2021 due to accelerating e-commerce growth and COVID-19 pandemic recovery. NS experienced pandemic-related traffic

Figure 38: Freight Moved by Rail (Tons), Franklin County, 2011-2040

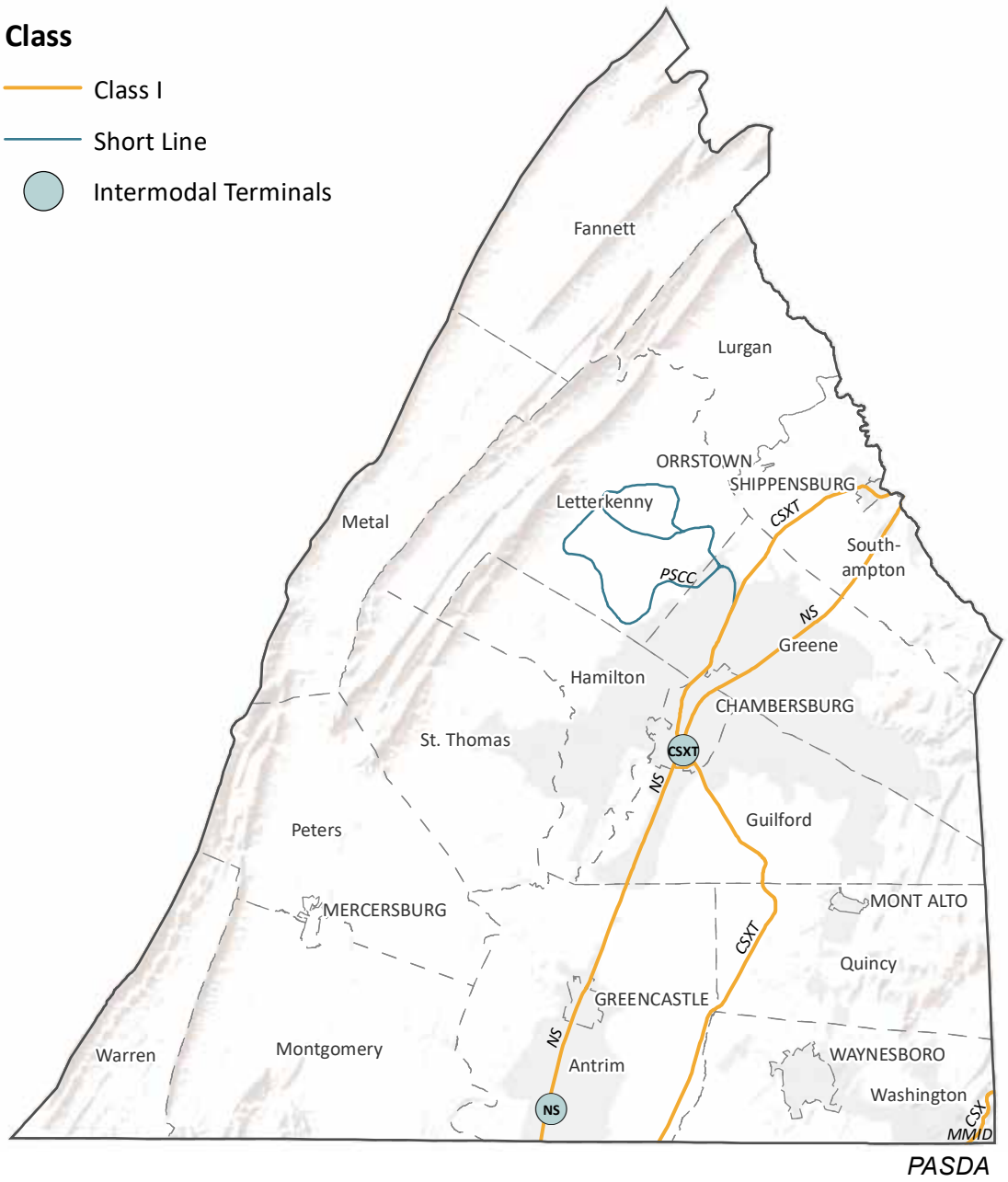


Source: IHS Global Insight – Transearch

declines which has included a collapse in coal volume, but the railroad is now moving more tonnage on fewer, longer trains.

- NS is exploring the concept of carrying more loads that could be moved via either truck or rail (known as "flexible freight") through its "Thoroughbred Freight Transfer" program as a way of converting more "less-than-truckload" truck traffic to rail.
- According to the latest projections by IHS Global Insight (2011), Franklin County's rail freight network is expected to move 3.25 million tons of freight in 2040 (Figure 38).
- For the decade ending 2021, Franklin County recorded six vehicular crashes involving trains. There were no fatalities over that same period.

Figure 39: Franklin County's Railroad Network



Planning Implications

- Rail freight transportation is essential to economic competitiveness and sustained economic growth. Railroads offer connections to national and global markets and have the added benefit of removing trucks from the roadway network, thus preserving pavement conditions and roadway capacity. Preserving and restoring railroad infrastructure is critical given its vital role in Franklin County's economy.
- The presence of the intermodal facilities fuels interest in the development of distribution centers around the respective "gateways" (National Gateway and Crescent Corridor).
- The railroad terminals expand capacity and improve service as intermodal demand continues to grow.
- PennDOT's Bureau of Rail, Freight, Ports, and Waterways administers two competitive public funding programs for railroad improvements: the Rail Freight Assistance Program (RFAP) and the Rail Transportation Assistance Program (RTAP). PennDOT awarded $31 million in funding statewide for 26 rail freight projects in 2020.
- During the pandemic, both retailers and manufacturers suffered from delays due to disruptions in the global supply chain. This has led to a greater emphasis on supply chains that are more reliable and resilient. It also translates into shippers exploring alternative modes to deliver greater value for their customers. This trend has given rail carriers an advantage over pre-pandemic shipping practices.
- The growth of e-commerce has also benefited rail carriers in that more freight is moving to large warehouses or distribution centers as opposed to smaller truckloads destined for smaller retail outlets. This trend has played to the railroad's strength. Norfolk Southern is second to BNSF in total intermodal traffic and its share of intermodal cargo is greater than any other Class I.
- Just a few miles north of Chambersburg, Harrisburg continues to grow in importance as a critical rail intermodal hub or drop point for NS, where westbound traffic originating in New York, Philadelphia, and Baltimore converges at the state's capital and where traffic from western points is dispersed. Harrisburg is part of the NS Premier Corridor, its busiest main line in the East using trackage acquired from its absorption of Conrail in 1999.
- Data from CoStar indicates that there is 27.3 million square feet (MSF) of industrial space available countywide, with a staggering 5.6 MSF under construction (or more than 20 percent of existing), suggesting that demand for freight transportation will continue to grow.

Figure 40: Franklin County Industrial Space

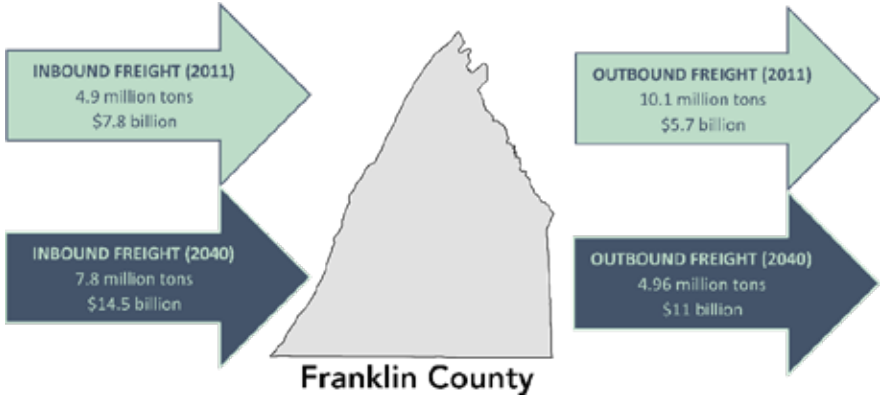
Source: CoStar

Goods Movement

Overview and Key Trends

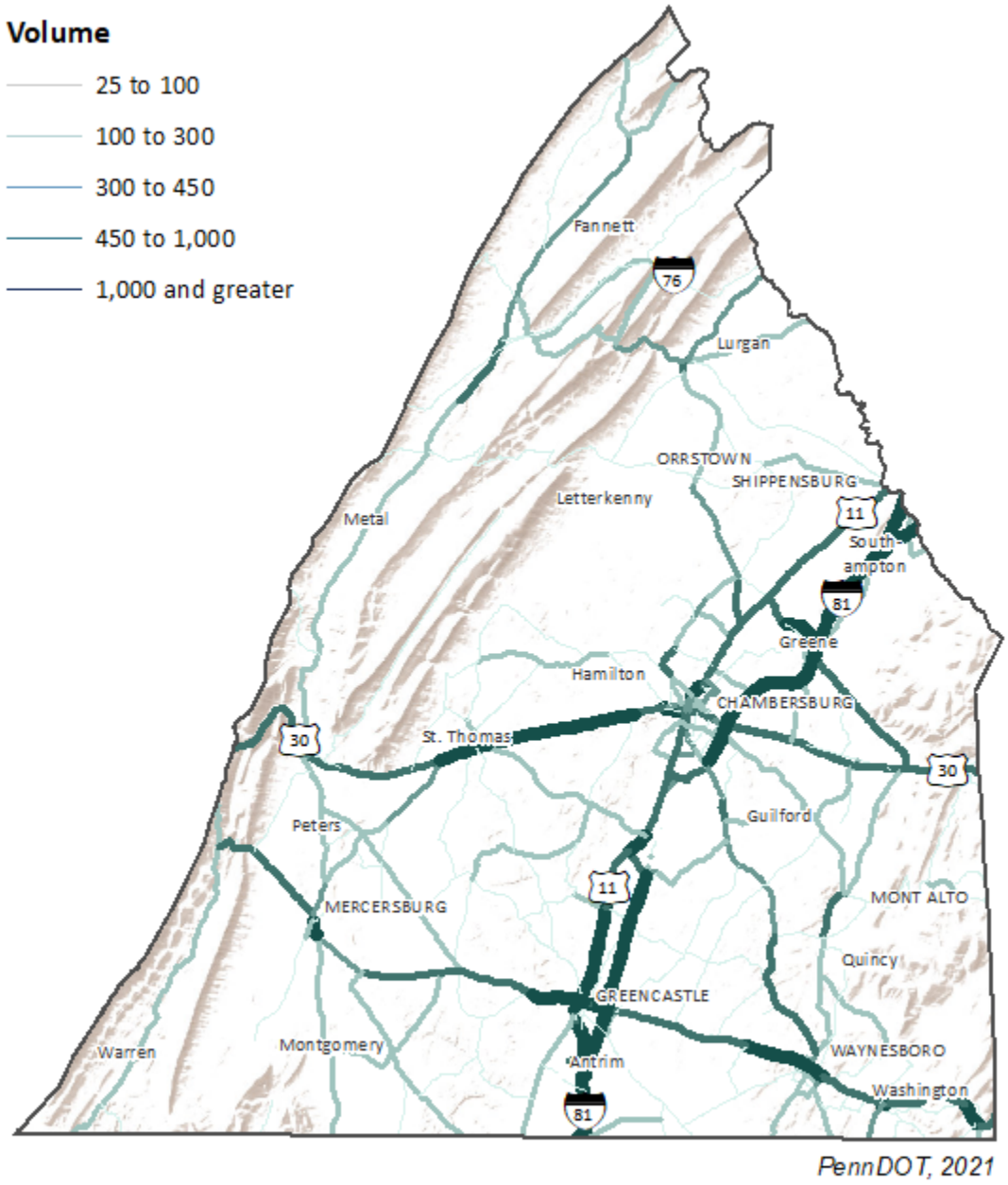
- According to the most recent data available from IHS Global Insight (2011), Franklin County generated more than 15 million tons of freight in 2011. By 2040, freight movement is projected to reach nearly 29 million tons, at $25.5 million in value.
- Nearly 85 percent of freight tonnage moved in and out of the county is transported by truck (Figure 43), with the remainder transported by rail or multiple modes.
- The county's top exported commodity is broken stone or rip rap, followed by grain. Franklin County's top import commodity is bituminous coal, with nearly 499,000 tons coming into the county in 2011. Nearly 5 million tons of freight were imported into Franklin County in 2011. By 2040, total imports are expected to exceed 7.7 million tons (Figure 41).
- Franklin County's top freight-generating companies include Chambersburg Waste Paper (307,600 outbound tons), Volvo Construction Equipment (253,200 outbound tons), and Manitowoc Crane Group (130,800 tons).
- As the LRTP was being developed, construction was underway on an approximately 1.5-million-square-foot Wal-Mart fulfillment center in Antrim Township near the Interstate 81 interchange with US 11. When completed, the facility will create 600 jobs. An additional 1.25 million square feet of warehousing is being proposed in the area.

Figure 41: Franklin County Freight Movement by Tonnage and Value, 2011-40



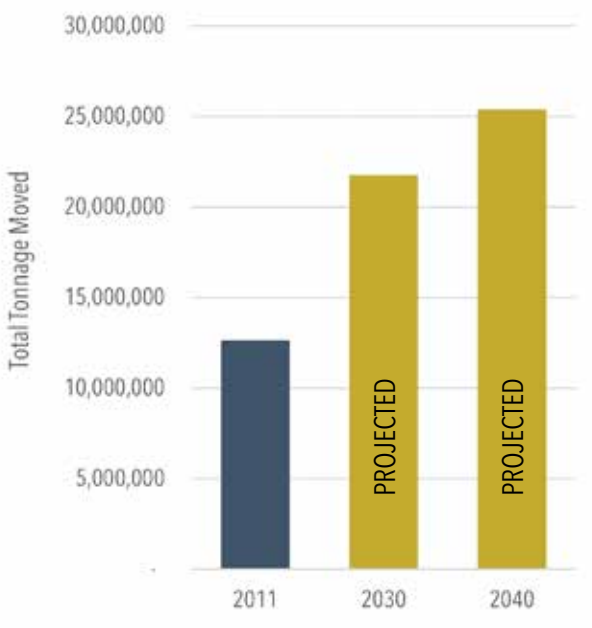
Source: IHS Global Insight - Transearch

Figure 42: Average Annual Daily Truck Traffic



Planning Implications

Figure 43: Freight Movement by Truck (Tons), Franklin County, 2011-40



Source: IHS Global Insight – Transearch

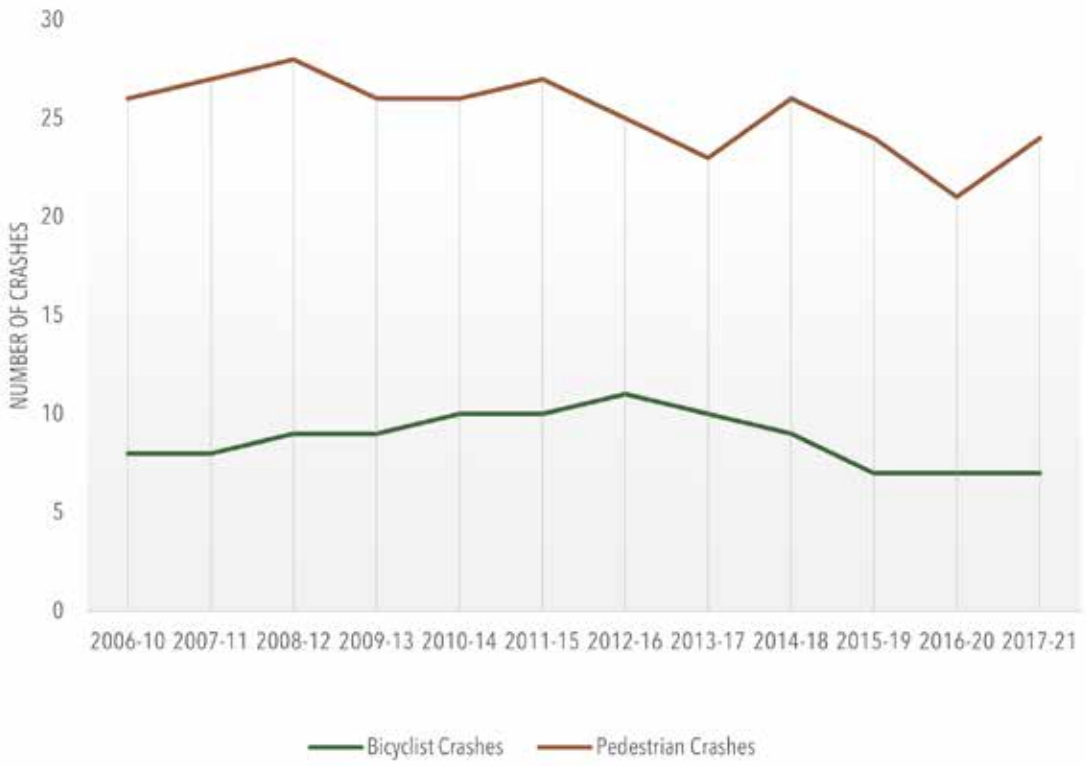
- The geographic position of Franklin County and the South Central Pennsylvania region offers close proximity to global economic gateways in New York, Philadelphia, and Baltimore.
- Transportation infrastructure in Franklin County will be expected to accommodate nearly 29 million tons of freight by 2040, nearly doubling the tonnage the system is currently moving. To thoroughly understand freight-related modal movement needs on the network, Franklin County must continue to engage freight and economic development stakeholders.
- Trucking will continue to be the dominant mode of freight movement in the county through the LRTP horizon, impacting the highway and bridge network. Ongoing planning for key freight networks such as the National Highway Freight Network and other critical corridors should continue to be a priority.
- The growth of e-commerce, accelerated by the COVID-19 pandemic, has elevated demand for warehousing and distribution centers—notably along the Interstate 81 corridor. This development pressure could lead to potential impacts on traffic patterns and reliability on Interstate 81 and lower-tier roadway networks. Certain assets may need to be modified to accommodate heavier and wider truckloads. Additional utility infrastructure (e.g., sewer, water, electric) will also be necessary for new facilities to operate.

Active Transportation

Overview and Key Trends

- Franklin County's active transportation network comprises on-road designated routes (BicyclePA Route S), sidewalks, and trails. Across the state and the nation, active transportation has risen in popularity over the last several years, particularly during the COVID-19 pandemic.
- According to the 2019 American Community Survey five-year estimates, bicycle and pedestrian travel accounts for a 2.3 percent share of journey-to-work trips.
- Over the past decade, crashes involving bicyclists or pedestrians have decreased, averaging 32 crashes annually. This decrease is notable with pedestrian crashes, which dropped from 32 crashes in 2018 to 16 in 2020 (Figure 44).
- Franklin County provides several trails and paths for walking and biking, including the Chambersburg Rail Trail, the Tuscarora Trail, the Appalachian Trail, and the 9/11 National Memorial Trail.
- Concurrent to this plan update, the MPO conducted a suitability analysis of portions of US 11, US 30, and select locally owned routes between the Maryland state line, Chambersburg, and Caledonia State Park for use by cross-state bicyclists. The analysis included an evaluation of a spur from Chambersburg to Shippensburg for a connection with the Cumberland Valley Rail Trail, which would provide a 9.5-mile extension to Newville in Cumberland County.
- The Borough of Chambersburg prepared a Pedestrian and Bicycle Improvements Plan in 2018 intended to educate readers about current infrastructure and active transportation trends. It highlights a series of improvements needed to foster a better-connected active transportation network.

Figure 44: Five-Year Average Bicyclist and Pedestrian Crashes, 2006-21



Source: Pennsylvania Crash Information Tool

Planning Implications

- Commuter and transit-based bicycle infrastructure is limited throughout Franklin County; however, efforts to expand pedestrian and bicycle networks can be made a priority through incorporation into TIP cycles, land use policy, zoning, and land development ordinances.
- Franklin County's expansive trail networks can link its communities with major destinations within and beyond county borders. Prioritizing connections to parks, natural areas, and employment and commercial centers will expand opportunities for transportation and recreation.
- The Franklin County MPO will continue to address high traffic speeds, bicycle lanes and facilities, driver and bicyclist education, and roadway and shoulder maintenance to improve safety.
- More comprehensive data is needed for the MPO to effectively plan for the transportation system needs of bicyclists and pedestrians. This data can be acquired through emerging commercial sources or through a bicyclist/pedestrian counting program.

Aviation

Overview and Key Trends

- The Franklin County Regional Airport is a public-use airport located in Greene Township. It is accessible by US 11 and Interstate 81. Owned and operated by the Susquehanna Area Regional Airport Authority (SARAA), this general aviation airport has 15 based aircraft and one 3,300-foot-long runway.
- As of 2019, the airport employs 29 staff and generates $1.86 million in total economic output. It handles more than 12,000 operations annually, which includes both takeoffs and landings.
- Franklin County Regional Airport supports the following activities:
  - Recreational Flying
  - Skydiving Instruction
  - Aircraft Maintenance
  - Agricultural Spraying
  - Aerial Inspections
  - Gateway for Visitors
  - Venue for Community Events
  - Law Enforcement and Prisoner Transport
  - Medical Transport
  - Forest Fire Fighting
- Further connectivity to international destinations is available through Harrisburg International Airport, a 64-mile drive from Chambersburg. Other commercial service passenger connections are available at Hagerstown Regional Airport, located 19 miles south in Washington County, MD.
- Airport Hazard Zoning protects public safety as well as airport viability. The airport hazard area of Franklin County Regional Airport includes zones in four municipalities: Letterkenny Township, Greene Township, Hamilton Township, and Chambersburg Borough. Of these communities, Greene Township is the only municipality that has adopted an Act 164 Airport Hazard Zoning ordinance.

Planning Implications

- The compatibility of airport land uses is important to both local government and the airport. Ensuring this compatibility through Airport Hazard Zoning requires strategic land use management approaches that protect the airport's viability. Franklin County can assist municipalities within the airport hazard area in enacting this important tool.

Performance Measures

Overview and Key Trends

- The Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation (FAST) Act promoted achieving measurable outcomes to ensure the effective use of federal transportation funds. The nation's newest surface transportation legislation, the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL), was passed in November 2021 and maintains this emphasis.
- Performance measures have been developed for Safety (PM-1), System Condition (PM-2), and System Performance (PM-3) (Table 9). PennDOT is responsible for developing state-level performance targets for each of these measures. All of the state's MPOs and RPOs have the option to support the state targets or establish their own. The Franklin County MPO has committed to supporting the state targets for all three measures (Tables 10, 11, and 12).
- For PM-1, FHWA will annually determine whether PennDOT has met or made significant progress toward meeting the established performance targets. The PM-2 and PM-3 measures include two- and four-year targets that PennDOT reports to FHWA every two years.

Table 9: Summary of Federal Performance Measures

Category	Performance Measure
Safety (PM-1)	• Number and Rate of Fatal Crashes • Number and Rate of Serious Injury Crashes • Number of Non-Motorized Fatalities and Serious Injuries
System Condition (PM-2)	• Percentage of Interstate Pavements in "Good" Condition • Percentage of Interstate Pavements in "Poor" Condition • Percentage of Non-Interstate NHS Pavements in "Good" Condition • Percentage of Non-Interstate NHS Pavements in "Poor" Condition • Percentage of NHS Bridge Deck Area Classified in "Good" Condition • Percentage of NHS Bridge Deck Area Classified in "Poor" Condition
System Performance (PM-3)	• Percentage of Reliable Person-Miles Traveled on Interstates • Percentage of Reliable Person-Miles Traveled on Non-Interstate NHS • Interstate System Truck Travel Time Reliability Index • Annual Hours of Peak-Hour Excessive Delay per Capita • Percentage of Non-Single-Occupancy-Vehicle (SOV) Travel • On-Road Mobile Source Emissions Reduction for CMAQ-funded Projects

Source: Federal Highway Administration

Table 10: Franklin County Baseline and Target Values for Safety (PM-1)

Performance Measure	Five-Year Rolling Average	
	Baseline (2017-2021)	Target (2019-2023)
Number of Fatalities	18.8	16.0
Fatality Rate	1.323	1.118
Number of Serious Injuries	68.4	77.2
Serious Injury Rate	4.815	5.393
Number of Non-Motorized Fatalities and Serious Injuries	8.4	9.9

Note: Future VMT estimated to hold level over next few years.

Source: PennDOT

Table 11: Statewide Baseline and Target Values for System Condition (PM-2)

Performance Measure	2017 Baseline	Two-Year (2019) Performance	Two-Year Target	Four-Year Original Target
Percentage of Pavements of the Interstate System in Good Condition		71.5%		60.0%
Percentage of Pavements of the Interstate System in Poor Condition		0.4%		2.0%
Percentage of Pavements of the Non-Interstate NHS in Good Condition	47.8%	49.0%		
Percentage of Pavements of the Non-Interstate NHS in Good Condition (Full Distress + IRI)		37.6%	35.0%	33.0%
Percentage of Pavements of the Non-Interstate NHS in Poor Condition	15.9%	15.2%		
Percentage of Pavements of the Non-Interstate NHS in Poor Condition (Full Distress + IRI)		2.0%	4.0%	5.0%
Percentage of NHS Bridges in Good Condition	23.7%	27.0%	25.8%	26.0%
Percentage of NHS Bridges in Poor Condition	5.1%	5.1%	5.6%	6.0%

Source: PennDOT

Table 12: Franklin County Reliability Performance (PM-3)

Performance Measure	2017	2018	2019
Interstate Reliability	100%	100%	100%
Non-Interstate Reliability	93.8%	96.5%	94.6%
Truck Travel Time Reliability Index			
Franklin County	1.08	1.11	1.09
Pennsylvania	1.34	1.39	1.36

Note: Reliability targets only apply statewide.

Source: PennDOT

Planning Implications

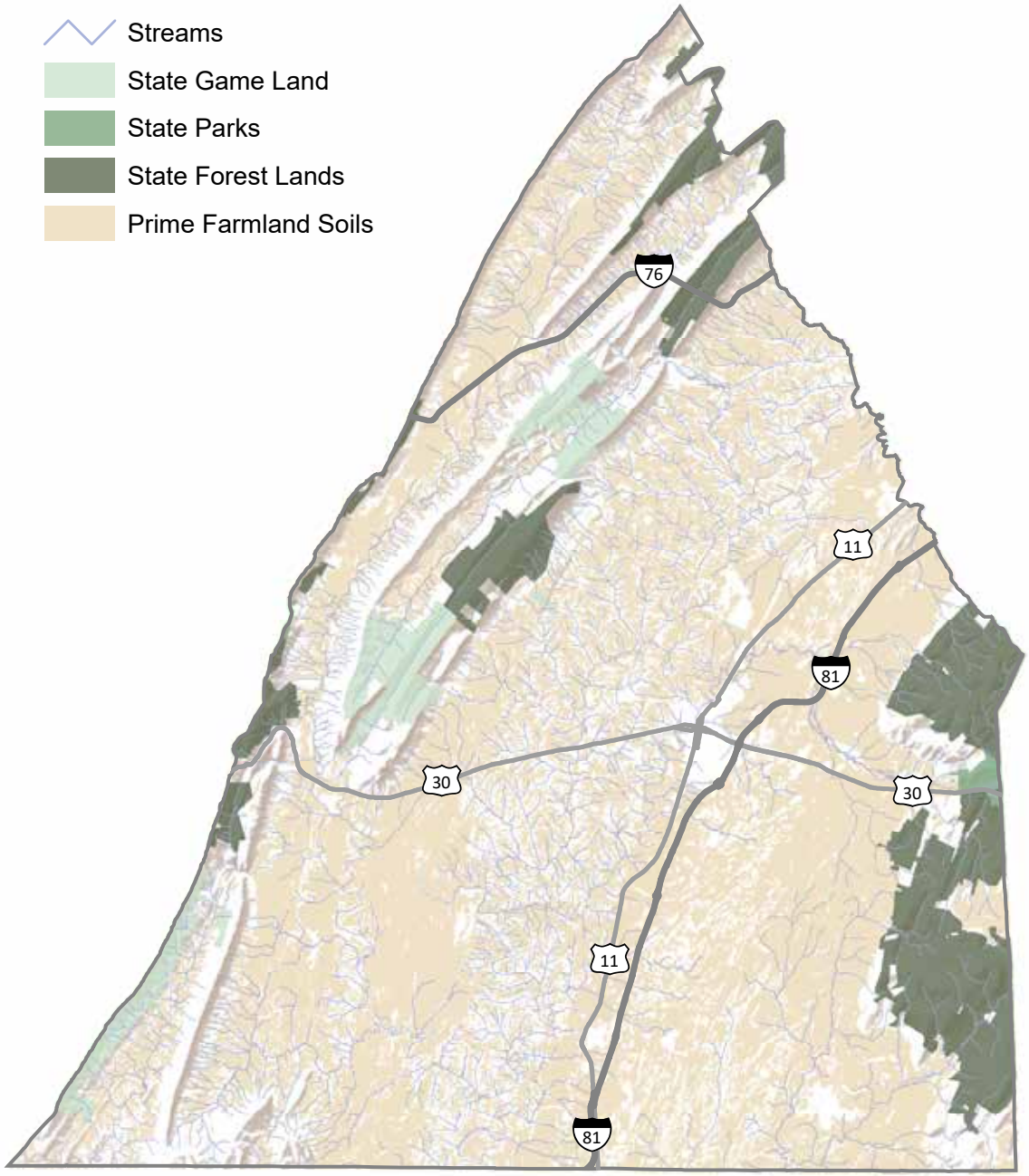
- IIJA upholds the strategic approach established by MAP-21 and the FAST Act, which is intended to help MPOs, state departments of transportation, and other decision-makers make the best investment decisions to optimize results.
- The Franklin County MPO aims to maximize return on investment for its limited transportation funding in a fiscally constrained environment. Performance measurement in long-range planning allows more effective tracking and reporting of the outcomes of the MPO's $13.9 million average annual investment in the region's transportation system.
- The MPO will continue to collaborate with both PennDOT and FHWA on performance measurement as PennDOT looks ahead to reporting its safety targets and serious injury data to FHWA by August 2023 for the Calendar Year 2022 target assessment.

Environmental Resources

Overview and Key Trends

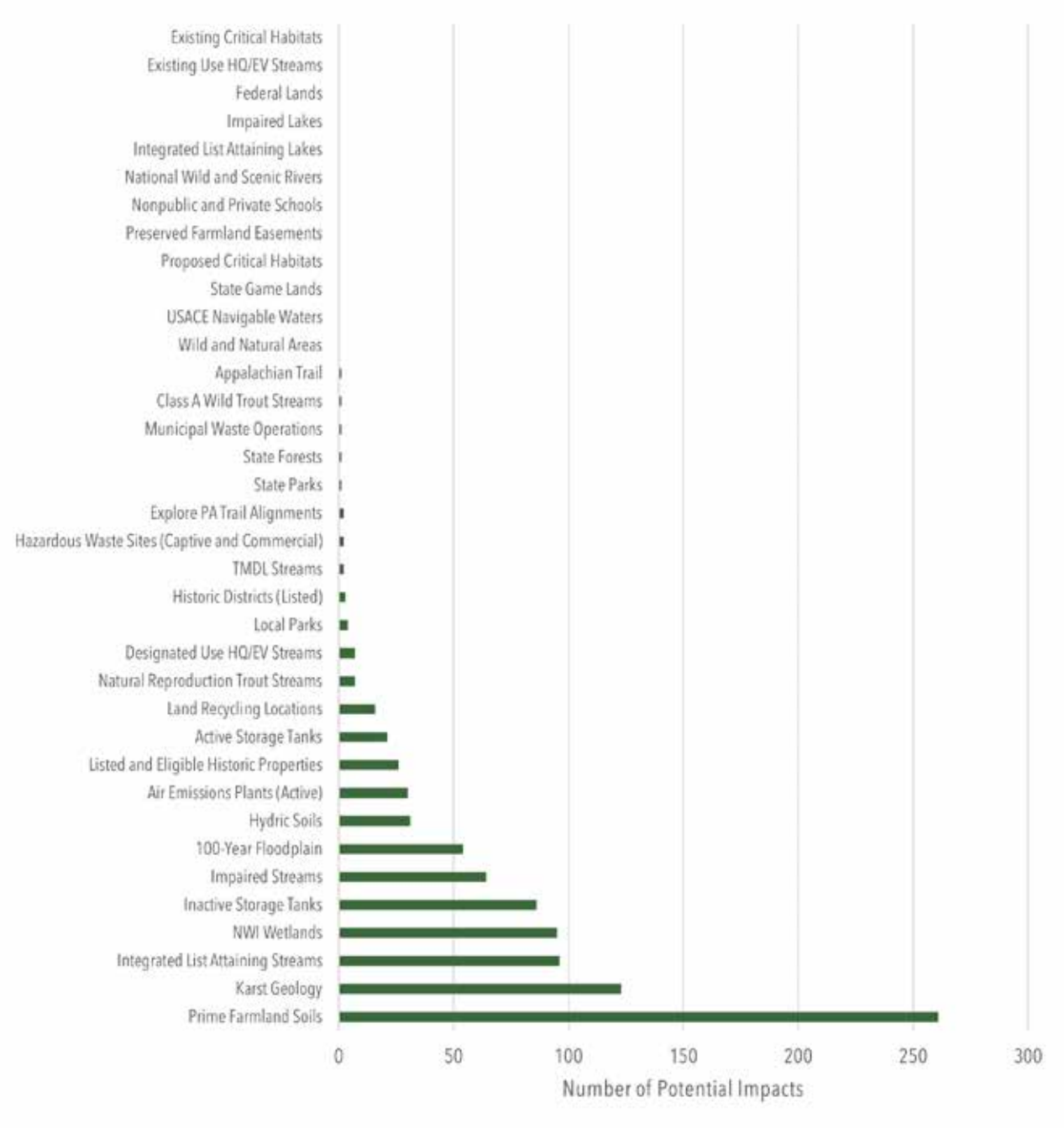
- Franklin County is rich in natural, cultural, and environmental resources, including high-quality streams, trails, prime farmland, forest and park lands, and historical districts (Figure 45). These resources offer recreational, aesthetic, economic, and environmental benefits.
- The MPO performed a high-level evaluation of the environmental resources that could be affected by the LRTP's projects and identified appropriate mitigation strategies as projects move through the project delivery process.
- The evaluation included a buffer analysis, which used the MPO's 2023 TIP as a sample list of projects. Buffers were applied based on those used in the Pennsylvania National Diversity Inventory (PNDI) environmental review process for transportation projects. Any project that included or implied new roadway construction or a new alignment had a 2,640-foot buffer applied, while all other project types included a 200-foot buffer. Environmental features or resources were considered "potentially impacted" if they intersected with any of these project buffers.
- The buffer analysis determined that features that have high potential for impact by the TIP include "Integrated List Attaining Streams" and prime farmland soils (Figure 46).
- In July 2022, the MPO conducted an outreach meeting with state and local environmental resource agencies where attendees provided insights on conservation concerns as well as potential strategies and data to incorporate into the LRTP. Agencies in attendance included the Pennsylvania Department of Conservation and Natural Resources, Pennsylvania Department of Agriculture, Pennsylvania Historical and Museum Commission, Franklin County Conservation District, PennDOT, and Federal Highway Administration.

Figure 45: Environmental Features



Franklin County, PA DEP, PennDOT

Figure 46: Environmental Resources Impacted by LRTP Projects



Planning Implications

- With prime farmland being abundant throughout the region, the MPO can coordinate with PennDOT, its municipalities, and local farmers to reduce impacts on agricultural land by reducing takings, improving stormwater management, and maintaining access to working fields.
- The MPO will work with all local, regional, state, and federal organizations and agencies to avoid, minimize, or mitigate impacts from projects on the Twelve-Year Program (TYP) through the PennDOT Connects process.
- The MPO will coordinate with PennDOT on monitoring bridges and roadways prone to flooding as well as projects on infrastructure that provides critical connectivity to Plain Sect and other vulnerable populations.
- The MPO will continue to work on projects that close trail gaps. This will help strengthen the county's trail network and potentially make them eligible for additional funding.

Revenue Forecast

Overview and Key Trends

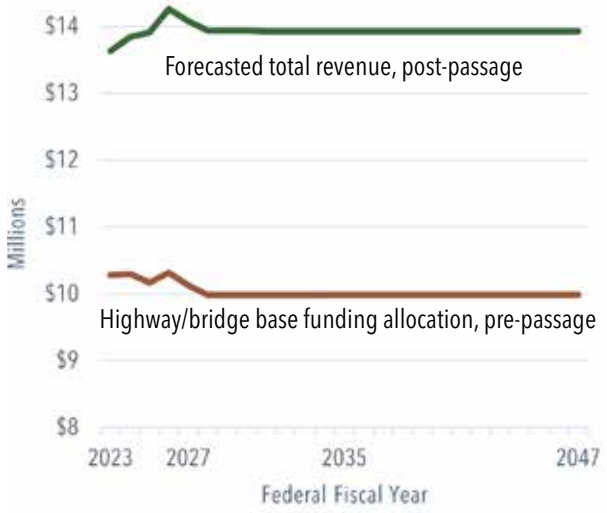
- Federal planning regulations (23 U.S.C. Section 134) require all MPOs to include a forecast of the revenue they could reasonably expect to receive over the life of the long-range transportation plan to ensure fiscal constraint.
- PennDOT works with FHWA and the state's MPOs and RPOs in issuing Financial Guidance biennially in sync with the launch of the regional TIP updates. This documentation provides the best estimates available for transportation funding over the longer term and reflects estimated revenues to the state's Motor License Fund.
- The IIJA added $14.59 million to Franklin County's program over the 2023 TIP, boosting its total from $41.06 million to $55.66 million (Table 13). Rising costs related to construction materials, fuel, and the availability of workers are expected to erode the federal windfall.
- Future discretionary dollars from both state and federal sources will also flow into Franklin County but are not accounted for in Table 13 or Figure 47, given their unpredictability.
- Pennsylvania's Interstate Management Program is administered and managed by PennDOT. As with other programs, the cost of the state's interstate needs continues to outpace available funding. The program is expected to receive approximately $70 million per year through the Bipartisan Infrastructure Law (BIL). This allocation continues overall growth in interstate investment, which is expected to grow to $1 billion by FFY 2028.
- Based on a conservative forecast and sustained IIJA funding levels, the Franklin County MPO is expected to receive nearly $350 million over the next 25 years in today's dollars. Revenue is expected to average nearly $14 million annually over the life of the LRTP (Figure 47).

Table 13: Revenue per Planning Period

Planning Period	Forecasted Revenue
TIP (2023-26)	$55.66 million
TYP (2023-34)	$167.26 million
LRTP (2023-47)	$348.35 million

Source: 2023 PennDOT Financial Guidance

Figure 47: Revenue Estimates, Pre- and Post-IIJA Passage, FFY 2023-47



Source: 2023 PennDOT Financial Guidance

Public Engagement

Overview and Key Trends

- As part of the countywide planning process, the MPO administered an online survey between March 28 and May 13, 2022, to collect public feedback on transportation issues and concerns. The MPO promoted the survey's availability through a press release and social media channels.
- The MPO also provided paper copies of the survey at a variety of locations countywide in an effort to reach a diverse audience. Both the online and paper survey were available. In total, 489 people completed the public survey.
- The survey included three sections, including: identification of top transportation priorities; a rating of potential strategies in support of the priorities; and identification of candidate projects (Figure 49). A total of 1,246 "pins," or map markers, were placed on an online interactive map. More than 850 of these included corresponding comments. The county released the survey results to the public in August 2022.
- The MPO also administered a 30-day public review and comment period and a public meeting on the LRTP, on December 6, 2022.

Figure 48: Public Preferences on Transportation Priorities

Survey Results: What are your preferred strategies for each priority area?

TRAFFIC OPERATIONS

1. Develop plans for addressing congestion.
2. Implement new technologies to improve safety and reduce congestion.
3. Upgrade and maintain connections to interstates in response to growth in industrial and commercial development within the county and in neighboring counties.

SAFETY

1. Conduct Road Safety Audits on corridors/intersections to identify low-cost, near-term improvements.
2. Reduce conflicts between motorized and non-motorized modes.
3. Improve predictability of work zones.

MAINTENANCE & PRESERVATION

1. Invest in roadway maintenance.
2. Invest in bridge maintenance.
3. Prioritize improvements on bridges that serve critical freight corridors (US 11, US 30, PA 16).

ENVIRONMENTAL

1. Address high-volume roadways and bridges prone to flooding.
2. Educate municipal governments on best practices for stormwater management.

BICYCLE AND PEDESTRIAN

1. Improve and encourage bicycle and pedestrian accessibility and walkability in downtown areas and large employment hubs.
2. Address sidewalk, trail, and bicycle network gaps that impact connectivity.
3. Construct separated bicycle/pedestrian facilities and shared-use paths (where feasible).

PUBLIC TRANSPORTATION

1. Investigate possibilities for instituting fixed-route bus service.
2. Explore the feasibility of additional public transportation options.
3. Improve connections with existing public transportation service in neighboring counties.

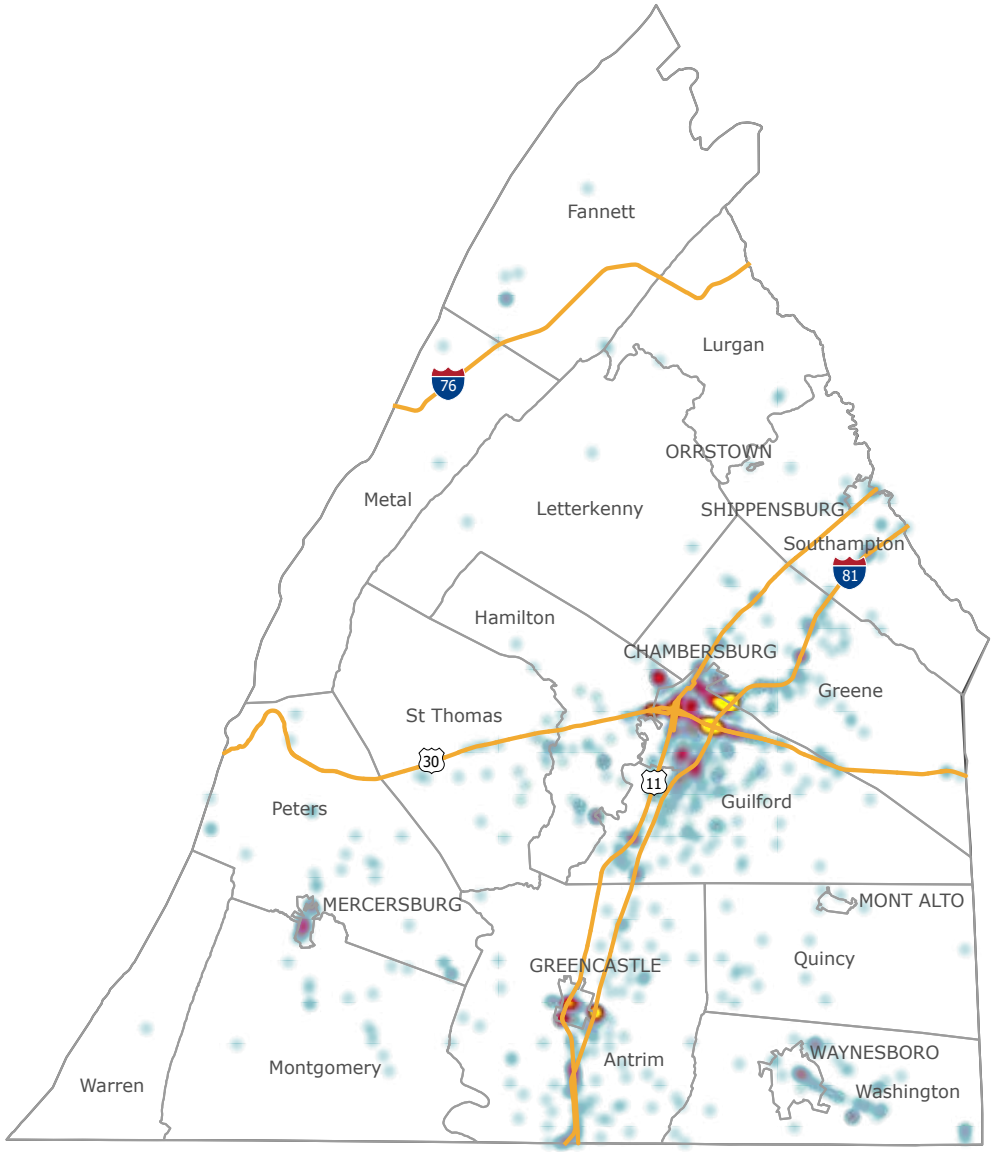
ECONOMIC DEVELOPMENT

1. Coordinate with PennDOT, developers, and local governments on access management strategies.
2. Educate municipal officials and developers on the transportation planning, programming, and project development process.
3. Assist local governments in their local land use planning efforts.

TRAVEL AND TOURISM

1. Support connections and access to tourism destinations, including parks, forests, historic/cultural attractions, and trails.
2. Improve signage and resources to better direct visitors to tourism destinations.
3. Engage the county's tourism organizations to identify any transportation barriers that could be addressed in future plans and programs.

Figure 49: Public Survey Interactive Map - Datapoints



Planning Implications

- The public's transportation planning priorities largely mirror that of PennDOT and the MPO, with safety and system maintenance being considered most important. Traffic operations also registered as a high priority with the public—optimizing the performance of operations on existing infrastructure, or relying on strategies other than costly capital projects for addressing safety and congestion.

Strategic Directions

Introduction

The implementation of the Franklin County Long-Range Transportation Plan will be guided by several overarching principles that provide a framework for plan implementation. The topic areas are listed below and directly mirror the policy ideas that were used to gauge public opinion through the MPO's surveys:

- **Safety**
- **Traffic Operations**
- **Bicycle and Pedestrian Accommodation**
- **Environmental**
- **Economic Development**
- **Maintenance and Preservation**
- **Public Transportation**
- **Travel and Tourism**

The strategies presented within this section are consistent with and build upon policies previously adopted in other county plans. The implementation of the long-range transportation plan will guide the activities of the MPO; its partners at the local, county, state, and federal levels; and the public.

Public responses to the MPO's LRTP survey support the strategic directions of the plan by placing the most emphasis on safety, economic development, and maintenance and development. When prioritizing program spending, the public's choices reflected the same three policy areas as priorities, but in a slightly different order: fixing the existing infrastructure (system maintenance), traffic management (reliable travel), and safety. Interestingly, the public's survey responses recognized the difficult choices the MPO faces in providing a balanced program, because no potential implementation strategy received less than three stars out of five. As a result, plan implementation addresses some needs in all the policy areas, while focusing more significant efforts on strategies to affect safety, reliable travel, and system maintenance, consistent with public sentiment. The MPO will continue to work with stakeholders at the local, state, and federal levels and the public to make the plan's vision a reality.

Safety

Safety across all transportation modes is the MPO's highest priority. The annual number of traffic fatalities has averaged 18 in recent years. Total roadway crashes continue to trend upward, even as the demand for travel has remained relatively constant (and even declined during the COVID-19 pandemic). Addressing safety will entail an array of strategies that include education, improved traffic operations, needed countermeasures, and strategic additions to network capacity. The MPO also continues to work with PennDOT to monitor safety performance targets in support of attaining statewide and national highway safety goals.

Conduct road safety audits on corridors/intersections to identify low-cost, near-term improvements.

The Franklin County MPO will also coordinate with PennDOT District 8-0 to identify locations for conducting roadway safety audits as part of its TIP development process. Additionally, the Safe Streets and Roads for All Grant Program (SS4A) funding aims to prevent roadways deaths and serious injuries. The Franklin County MPO will apply for this funding to conduct planning, design, and development activities in support of the Action Plan, in addition to carrying out projects and strategies identified in the plan.

Reduce conflicts between motorized and non-motorized modes (e.g., bicycles, pedestrians, etc.).

The MPO will seek to improve conditions for non-motorized users by working with PennDOT to implement low-cost opportunities to improve non-motorized safety and connectivity. The MPO will ensure that safety measures for non-motorized users are incorporated into programmed projects, when feasible.

Improve predictability of work zones.

Work zones are characterized by traffic pattern changes, the presence of construction workers, and work vehicles frequently entering and leaving construction areas. These factors create increased risk for crashes in work zones. The Franklin County MPO will continue to work with PennDOT to implement best practices to improve the predictability of work zones.

Identify roads used by horse-and-buggy travelers and agricultural traffic (e.g., tractors, farm equipment) for improvement.

Franklin County has a sizeable Plain Sect population and agricultural communities with distinct and unique transportation needs. Truck traffic has increased on county roads that are also heavily frequented by Plain Sect travelers using buggies and bicycles, and walking. The MPO will continue to work with the Plain Sect and agricultural communities to provide wider shoulders and safer intersection crossings on roads identified as priorities.

Explore the feasibility of Traffic Incident Management (TIM) training to improve clearance times, particularly on I-81.

Roadway closures impact emergency response time and the reliability of the county's roadways. Franklin County will seek to improve the emergency response capabilities of those who are responding to and clearing incidents from the county's roadways. Other efforts include improving Intelligent Transportation Systems (ITS) infrastructure, including weather information systems and dynamic messaging signs. New data and tools have provided valuable insight into incident management by helping identify the causes of non-recurring congestion. These include crashes, weather, and road construction.

Address safety at at-grade public railroad crossings.

According to FHWA, 94 percent of all rail-related injuries occur at railroad crossings or due to trespassing, and most of them are preventable. Working with federal, state, and local agencies, the MPO will collaborate with PennDOT to address and increase safety at railroad crossings.

Traffic Operations

The role of planning for improved traffic operations in transportation planning has increased in recent years in response to several related factors: the increased demand for travel in general, the lack of state and federal funding for major capital-intensive projects, and technological advances. The MPO continues to partner with PennDOT in these areas through such initiatives as the update and maintenance of a Regional Operations Plan (ROP), and planning for Transportation Systems Management and Operations (TSMO).

Fund and develop plans for measuring and addressing congestion.

The LRTP planning team used RITIS data to identify the county's top bottlenecks, based on the extent and duration of congestion. This data provides the MPO with a starting point for addressing the most critical locations where congestion relief is needed. The MPO should further explore PennDOT's data on estimated causes of congestion after it has been refined and released to better understand how it can be used for making decisions on reducing recurring and non-recurring congestion.

Implement new technologies to improve safety and reduce congestion.

Recommendations from the Eastern Regional Operations Plan (ROP) detailed elsewhere within this plan should be explored.

Upgrade and maintain connections to interstates in response to growth in industrial and commercial development within the county and in neighboring counties.

Interstate 81 accommodates approximately 43 percent of all travel demand within Franklin County, making it the county's most strategic roadway. It connects the county and its shippers and receivers to the broader state and national economies, with overland access to origins and destinations in other market areas. Planning and programming functions for the interstate are centralized within PennDOT; the MPO must continue its efforts to maintain proper connections and access to the interstate through the TIP process.

Improve Traffic Incident Management and first responder response times.

Incidents on Interstate 81 often have a deleterious effect on the county's mobility, causing delays on the mainline and congestion and safety concerns on parallel roadways. A Traffic Incident Management Strategy (TIMS) is needed for the length of Interstate 81 in Franklin County. Within these limits there are 10 full-access interchanges and nearly 26 miles of mainline from the Mason-Dixon Line to the Cumberland County border. Franklin County's neighboring MPO regions in Harrisburg and Lebanon have established TIMS teams to coordinate incident management strategies and enhance response times, including along the I-81 corridor. The Franklin County MPO could coordinate with those MPOs to discuss best practices.

An ideal TIMS program relies on efficient data collection, analysis, and reporting to measure performance and identify gaps that can be addressed. Other options to consider include Computer-Aided Dispatch, electronic crash reporting, traffic management center software, and smart devices that simplify data collection.

Explore cooperative management of traffic signals along priority corridors that cross municipal/county boundaries.

Traffic signals are typically installed by PennDOT and then owned and maintained by the host municipality. Signal equipment that is properly timed and maintained helps improve travel efficiency and reduces the cost of signal operation/maintenance over time. There are 121 signalized intersections county-wide, and of prime concern are the signals along commercial corridors that traverse multiple municipalities. Prime examples are the signalized corridors of US 11, US 30, and PA 316. New Traffic Signal Technologies grants passed by the General Assembly in July 2022 provide an additional $5 million statewide for municipalities to install and maintain traffic signal technologies such as adaptive signal control, detection, and communication technology.

Identify pre-established detours for use during incidents.

There is a need to compile traffic operations infrastructure assets and planned "colored" detour routes and present it in both spreadsheet and GIS output formats. Moreover, incident management needs (gaps and issues) need to be identified to improve the traffic operations environment.

Bicycle and Pedestrian Accommodation

The COVID-19 pandemic was an historic, disruptive event that changed much of the way we live, work, and travel. The health crisis fueled a greater public desire for active transportation and facilities. Interest in bicycle and pedestrian forms of travel as a mode of transportation and form of recreation has increased. Moreover, the MPO seeks to plan for facilities that encourage mode choice and reduce the county's dependence on the private automobile.

Improve and encourage bicycle and pedestrian accessibility and walkability in downtown areas and large employment hubs.

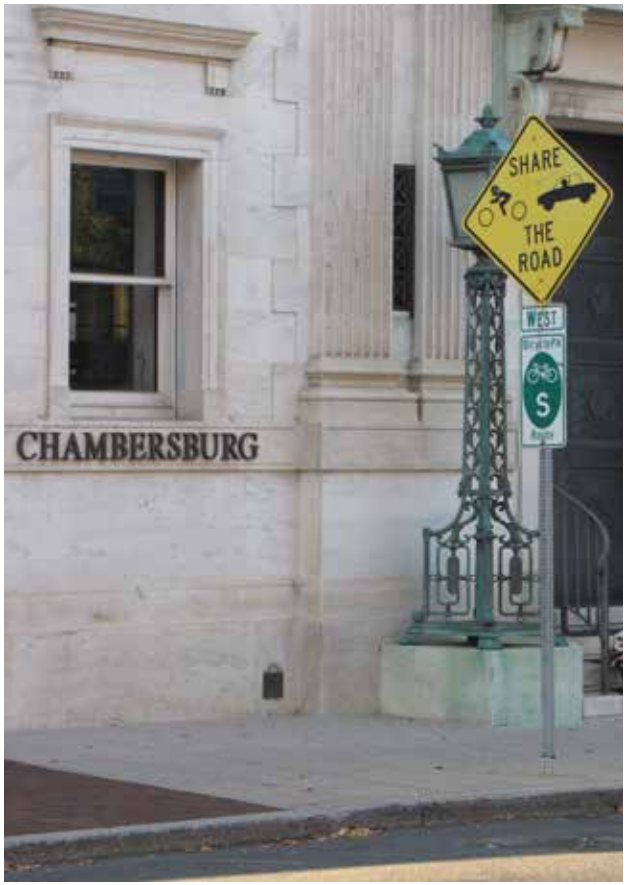
Bicycle and pedestrian facilities are critical infrastructure for accessibility and mobility. Developing this infrastructure also improves quality of life, connecting people while also improving their health and wellness. The MPO will seek to implement plans that encourage bicycle and pedestrian activity.

Address sidewalk, trail, and bicycle network gaps that impact connectivity.

A key component of improving bicycle and pedestrian safety and increasing micromobility is to connect gaps in sidewalk and trail networks. The MPO should make it a priority to address these concerns with the appropriate stakeholders. A key action item will include the designation of US Bicycle Route 11 through the county, in collaboration with PennDOT, the American Association of State Highway and Transportation Officials (AASHTO), and Adventure Cycling.

Construct separated bicycle/pedestrian facilities and shared-use paths (where feasible).

Greater separation of bicyclists and pedestrians from vehicular traffic can reduce fatalities and serious injuries for all users, while also encouraging greater use of non-motorized modes of transportation. Shared-use paths connect people to jobs, schools, parks, and other transportation routes. In addition to their transportation function, they offer opportunities for improving community health and wellness.



Install pedestrian "countdown" signal heads, particularly in areas that have a high population of seniors and people with disabilities.

Countdown signals help pedestrians judge whether there is sufficient time to cross, which can be especially helpful to mobility-challenged and elderly pedestrians. The MPO will work to identify appropriate crosswalks at which to install these signals.

IIJA/BIL includes a new Vulnerable Roadway Users (VRU) Special Rule. For Pennsylvania, at least 15 percent of the state's Highway Safety Improvement Program (HSIP) allocation must be spent on VRU-related projects. In Franklin County, the investment will be used to implement a system-wide safety improvement for VRUs by installing pedestrian countdown timers (PCTs). It will require several tiered projects based on the level of effort to install PCTs, which varies for each location. PennDOT District 8-0 took the lead for this effort in 2022.

Improve availability and accessibility of bicycle and pedestrian amenities (e.g., bike racks).

Expanded and improved bicycle and pedestrian infrastructure ensures that a network is in place to make biking and walking viable modes of travel that are safe and convenient. Strategies can support Safe Routes to School, Complete Streets, and Encourage Bicycling and Walking programs.

Develop an Active Transportation committee to help guide bicycle/pedestrian planning efforts.

An Active Transportation Advisory Committee, comprising bicyclists, pedestrians, and other active movers, can advise the MPO based on their own personal experiences and related work backgrounds with the goal of implementing an active transportation plan. Such a committee could help guide bicycle and pedestrian planning efforts at a local level and form a consortium for regional dialog and planning as it relates to active transportation.

Environmental

Transportation's impact on the environment remains a critical policy issue for the MPO. County planning staff will continue to work with all agencies to avoid, minimize, and mitigate impacts from transportation projects on the environment. The MPO's ongoing involvement in the PennDOT Connects process will further facilitate the identification of potential impacts of projects early in the preliminary design process so that agencies can be contacted to review and comment on strategies to reduce negative impacts.

Coordinate with the Franklin County Conservation District and other environmental resource agencies to incorporate best practices into transportation projects and planning (e.g., runoff control, green spaces, stormwater).

Consideration should be given to incorporating resiliency into the MPO's project prioritization process. Ongoing coordination with federal, state, and local environmental agencies is critical in prioritizing these vulnerable locations. Franklin County should partner with its municipalities and PennDOT to identify where stormwater infrastructure is lacking or could be improved on roadways with high levels of vulnerability in extreme rain and snow events. This reduces the need for emergency roadwork on critical highways and bridges and the need for emergency funds due to flood damage.

Address high-volume roadways and bridges prone to flooding.

The MPO continues to work toward improving the resiliency of its transportation network in the face of both natural and man-made disruptions. Part of this effort includes identifying high-volume roadways that are prone to flooding, which affects network reliability.

Educate municipal governments on best practices for stormwater management.

The MPO will work with municipalities to help advance MS4 or municipal separate storm sewer systems, countywide. These systems help protect water quality and manage runoff and flooding during storms. Helping to develop these programs throughout the county can help protect transportation infrastructure during severe weather events.

- **Plan for use of alternative fuels (e.g., electric-vehicle charging stations, etc.).**

Many states (including Pennsylvania) are currently in the process of developing National Electric Vehicle Infrastructure (NEVI) plans for developing essential charging corridors to help spur electric vehicle adoption. While PennDOT implements its NEVI plan for implementing electric-vehicle infrastructure, the MPO can prepare and identify which corridors will become electrified and prepare for this new infrastructure.

Economic Development

The MPO recognizes transportation's role in not only providing mobility and access, but also in maintaining and improving the county's economic competitiveness. In fact, this is one of the federal planning factors for transportation and one of the guiding principles in the county's planning and programming activity. The LRTP recognizes transportation's impact in connecting workers to jobs, consumers to commercial outlets, and the county's businesses and industries in general to consumer market areas both near and far. Within Franklin County, transportation is a major employment sector in its own right, constituting 11.6 percent of the county's total employment—more than double the state rate of 4.8 percent.

Coordinate with PennDOT, developers, and local governments on access management strategies.

A safe and efficient transportation system is a key component of an area's quality of life. It has direct bearing on mobility and the access of people and goods to employment, shopping, and recreation. Access management strategies help improve the safety and efficiency of traffic by reducing congestion and decreasing accidents while also preserving community character through site design and land use planning.

Educate municipal officials and developers on the transportation planning, programming, and project development process.

In conjunction with the PennDOT District 8-0 office, the MPO can hold regular outreach and information sessions with municipal governments and developers countywide to keep them up to date on transportation developments and inform them of the procedures that are required as part of the transportation planning process.

Assist local governments in their local land use planning efforts.

The Franklin County MPO should be involved in any comprehensive planning efforts spearheaded by municipal governments to help advise on local land use planning and the strategic placement and development of economic centers and design as it relates to transportation infrastructure.

Give funding priority to critical freight corridors (e.g., PA 16, US 30, US 11).

Franklin County's share of FHWA's priority freight designations includes portions of US 11 in Antrim Township (between Greencastle and I-81), PA 16 in Antrim Town-

ship (between I-81 and the Village of Shady Grove), and portions of PA 997, US 11, and PA 433 between I-81 and Letterkenny Army Depot. Even as these segments have been certified by FHWA and are eligible for National Highway Freight Program (NHFP) funding, the MPO may also consider elevating these and other priority freight segments for suballocating available TIP funding for these corridors.

Encourage development that supports multiple transportation options, such as walking, biking, and regional/community ridesharing.

Increased access to low-cost multimodal transportation options expands economic opportunity by giving non-drivers access to jobs, businesses, and other locations that are otherwise out of reach without a car. Multimodal transportation options also expand the labor force available to some businesses.

Develop a countywide freight plan.

The passage of MAP-21 and its successor legislation, the FAST Act, placed a greater emphasis on planning for goods movement. MPOs and DOTs alike have put forth plans and initiatives to address the growth of freight and its impact on public infrastructure. Surrounding MPO regions in Harrisburg and Hagerstown have already developed and adopted regional freight plans. The availability of additional federal funding through formula and new discretionary programs from IIJA/BIL, coupled with the explosive growth of warehousing and distribution centers in Franklin County, make this a critical action item for the future.

Maintenance and Preservation

With more than 1,700 linear miles of roadway and approximately 320 state-owned bridges (and more than 100 locally owned bridges), Franklin County has an extensive and mature transportation system. While there are a few major capacity-adding projects planned (a new Exit 12 on Interstate 81 being a prime example), the MPO will use new tools and techniques to invest in system maintenance and preservation. New approaches such as Lowest Life-Cycle Cost will provide needed attention to the system to extend the life of its transportation assets and provide the MPO with the greatest benefit for its limited transportation funding.

Invest in roadway maintenance.

The MPO will continue to work with PennDOT District 8-0 to fund and plan for resurfacing and pavement preservation activities. A regular investment in maintaining roadway pavements will reduce the need for large investments in roadway reconstruction projects. It will also reduce the need for road closures and lengthy detours. PennDOT's forthcoming asset management planning tool will include the county's unconstrained needs by each highway category on PennDOT's Business Plan Networks.

Invest in bridge maintenance.

The Franklin County MPO will continue to work with PennDOT District 8-0 to fund and plan for routine bridge maintenance activities. A regular investment in maintenance will reduce the need for large, one-time investments in necessary rehabilitation or replacement projects. The goal is to extend the useful life of an asset and prevent costly emergency repair situations. A source of sustainable funding for bridge maintenance should be identified and programmed on future TIPs. PennDOT is developing a Web-based asset management planning tool that will be accessible by the MPO. It will include the county's unconstrained needs by each highway category on PennDOT's Business Plan Networks, consistent with asset management principles in the Pennsylvania Transportation Asset Management Plan (TAMP).

Collaborate with municipalities to improve local bridge conditions.

Local bridges are often ineligible for federal transportation funds, with the exception of the Off-System Bridge program. It establishes criteria for funding improvements to bridges that are not on the Federal-Aid System. PennDOT is required to apply 15 percent of its annual funding allocation to these bridges. The Franklin County MPO will assist its municipal partners in addressing local bridge needs by maintaining a list of priority off-system bridges to refer to when federal funding is available. The MPO in August 2022 moved to waive the 5 percent local match for federal dollars for off-system bridges. This will give the MPO more flexibility with its TIP, and will assist municipalities that are still recovering from the impact of the COVID-19 pandemic.

Public Transportation

The MPO remains committed to planning for public transportation services for its residents. This included the adoption of a Local Coordinated Plan in July 2021, and the launch of a pilot program for microtransit (rabbittransit's "Stop Hopper" program) in August 2022. Public transportation is crucial to the county's transportation system, as it provides accessible and affordable transportation for people with limited mobility options. Planning for this mode should assess transportation needs for seniors, persons with disabilities, and low-income individuals; strategies and/or projects to address any gaps between current services and future needs; and priorities for implementation based on resources, time, and feasibility.

Investigate emerging and traditional transit options to make connections between residential areas and major commercial and employment centers.

Fixed-route bus service is an important element of the regional economy, providing people with mobility and access to employment, community resources, medical care, and recreational opportunities. The Franklin County MPO and regional partners will investigate possibilities for instituting fixed-route service.

Explore the feasibility of additional public transportation options (e.g., microtransit services, vanpools, employer sponsored shuttles).

The implementation of the new microtransit service ("Stop Hopper") serves as a two- to three-year pilot for the Greater Chambersburg area. The MPO will monitor the pilot's effectiveness and coordinate with rabbittransit, PennDOT, and the Franklin County Commissioners on its evolution.

Improve connections with existing public transit service in adjacent counties.

PennDOT and Franklin County MPO have worked together for many years to improve transportation infrastructure in the region. Moving forward, the MPO will continue to work with PennDOT to improve connections with adjacent transit agencies (e.g., Capital Area Transit) to create a region with more connected commercial and recreation hubs.

"When individuals have increased mobility options, they have increased possibilities to improve their quality of life. We're proud to offer the Stop Hopper as an affordable way to help riders in smaller, rural communities access the benefits of public transit."

– Rich Farr, Executive Director, SRTA

Support ridesharing (e.g., carpool, vanpool) programs that connect people to jobs and essential services.

Analysis of travel patterns in the county indicates several places that could serve as parking lots for ridesharing programs. The county should work with municipalities where appropriate to implement park-and-ride lots through the land development process and through partnerships with rabbittransit and Commuter Services.

Update the Local Coordinated Plan.

Since 2007, Coordinated Plans have been a crucial tool for regional multimodal transit planning. Coordinated Plan requirements place a large emphasis on stakeholder engagement and public involvement to ensure that the plan is designed by, and benefits, those who need and use public transportation. The MPO acknowledges the need to improve mobility throughout the county, including the interconnectedness of the county and the inter- and intra-county travel of residents. While the current plan serves as an administrative update of its predecessor, the next update should engage the public and transit stakeholders.

Travel and Tourism

The passage of the FAST Act in 2015 added new provisions for long-range transportation planning, including the enhancement of travel and tourism. The MPO recognizes the role that travel and tourism have on the transportation system, and the need for the system to be intuitive and easy to navigate for the county's visitors, as well as serving the county's many tourist destinations. Tourism continues to be a major industry, and especially so as the Baby Boomer generation transitions out of the workforce with more disposable income and a greater degree of mobility compared to previous generations.

Support connections and access to tourism destinations, including parks, forests, historic/cultural attractions, and trails.

Not only do trails, parks, and cultural attractions provide an opportunity for outdoor recreation, they can also provide a means of transportation or a commuting connection. By promoting the PA Department of Conservation and Natural Resources' (DCNR's) grant programs, the MPO can assist the county and local municipalities in securing funding for trail gap closures and enhancing local tourism and travel destinations.

Improve signage and resources to better direct visitors to tourism destinations, parks/forests/trails, etc.

In improving access and connectivity to tourism destinations and visitor centers, efforts can be made to improve the signage and resources at these facilities countywide.

Collect relevant transportation data related to tourism and use in transportation planning efforts.

Data related to tourism should be part of the planning and programming process to ensure that future projects and programs are supportive of the county's tourism industry. Ensuring the proactive involvement of tourism groups—such as the Franklin County Visitors Bureau—in the county's transportation planning process will help ensure tourism interests are being considered.

Appendices

Appendix A: Investment Plan (2023–2047)

Transportation Improvement Program (2023–2026)

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
99971	**Black Gap Rd Bridge PM**	Greene Township	Bridge Preservation Activities	Bridge preservation on PA 997 (Black Gap Road) over Conococheague Creek in Greene Township	$296,566
117156	**Swamp Fox Road over I-81**	Guilford Township	Bridge Preservation Activities	This project may consist of a bridge rehabilitation/replacement on PA 914 (Swamp Fox Road) over I-81 in Guilford Township.	$2,680,000
78690	**Fort Loudon Road over Buck Run**	Peters Township	Bridge Rehabilitation	This project may consist of a bridge rehabilitation/replacement on PA 75 (Fort Loudon Road) over Buck Run in Peters Township.	$800,000
116963	**Corner Road over Licking Creek**	Montgomery Township	Bridge Rehabilitation	This project may consist of a bridge rehabilitation/replacement on SR 3009 (Corner Road) over Licking Creek in Montgomery Township.	$1,264,000
117144	**US 30 Bridge over West Branch Conococheague**	Peters Township	Bridge Rehabilitation	This project may consist of a bridge rehabilitation/replacement on US 30 (Lincoln Highway) over the West Branch Conococheague Creek in Peters Township.	$2,545,000
19304	**West King Street Bridge**	Shippensburg Borough, Southampton Township	Bridge Replacement	Bridge replacement on US Route 11 over Norfolk Southern Railroad in Shippensburg Borough and Southampton Township	$9,888,600
63174	**Stone Bridge Road Bridge**	Metal Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on SR 4006 (Stone Bridge Road) over West Branch of Conococheague Creek in Metal Township.	$1,500,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
90839	**Rocky Mountain Creek Bridge**	Greene Township	Bridge Replacement	Bridge replacement on US Route 30 over Rocky Mountain Creek in Greene Township	$3,524,640
90847	**Rocky Mountain Road over Little Antietam**	Guilford Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on PA 233 (Rocky Mountain Road) over Little Antietam Creek in Guilford Township.	$500,000
90969	**Social Island Road Bridge**	Guilford Township, Hamilton Township	Bridge Replacement	Bridge replacement on SR 3012 (Social Island Road) over Conococheague Creek in Guilford and Hamilton Townships	$1,500,000
91343	**Social Island Road Bridge**	Guilford Township	Bridge Replacement	Bridge replacement on SR 3012 (Social Island Road) over Tail Race in Guilford Township	$750,000
101404	**Welsh Run Road over Welsh Run**	Montgomery Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on PA 995 (Welsh Run Road) over Welsh Run in Montgomery Township.	$800,000
116962	**Rockdale Road over Trib to Back Creek**	Peters Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on SR 3017 (Rockdale Road) over tributary to Back Creek in Peters Township.	$350,000
117071	**West King St over Falling Spring Creek**	Chambersburg Borough	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on West King Street over Falling Spring Creek in Chambersburg Borough.	$2,574,000
117072	**West King St over Conococheague**	Chambersburg Borough	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on West King Street over Conococheague Creek in Chambersburg Borough.	$2,284,000
117141	**Rolling Road over Tributary to Back Creek**	St. Thomas Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on SR 3028 (Rolling Road) over tributary to Back Creek in Saint Thomas Township.	$500,000
117142	**Black Gap Road over Mountain**	Greene Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on PA 997 (Black Gap Road) over Mountain Run in Greene Township.	$635,000
117143	**Hykes Road over I-81**	Antrim Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on SR 3014 (Hykes Road) over I-81 in Antrim Township.	$8,000,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
117157	**Newburg Road over Paxtons Run**	Lurgan Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on PA 641 (Newburg Road) over Paxtons Run in Lurgan Township.	$560,000
118004	**Cornertown Road over Conococheague Creek**	Greene Township	Bridge Replacement	This project may consist of a bridge rehabilitation/replacement on Cornertown Road (T-525) over Conococheague Creek in Greene Township.	$1,588,000
116146	**Chambersburg Signals Improvements**	Chamberburg Borough, Greene Township, Guilford Township, Hamilton Township, Peters Township	Existing Signal Improvement	Signal upgrades and interconnection improvements at 62 signalized intersections in Chambersburg Borough, Guilford and Hamilton Townships.	$679,770
106709	**PA 997 & SR 2015 Intersection**	Washington Township	Intersection Improvement	This project consists of intersection improvements at the intersection of PA 997 and SR 2015 (Tomstown Road) in Washington Township. This intersection improvement project has several potential solutions. Through the preliminary engineering phase, alternatives will be developed from line striping adjustments to realignment of Tomstown Road or Orchard Road to create a four-way intersection with the potential for a new signal and potentially a traffic circle.	$3,080,000
93055	**I-81 New Interchange (Exit 12)**	Guilford Township	New Interchange	This project consists of a new interchange (Exit 12) on I-81 at Guilford Springs Road overpass. Guilford Springs Road is a Township road. The bridge over I-81 is State-owned.	$29,895,301
90995	**Fort Loudon Road Resurface 2**	Mercersburg Borough, Montgomery Township	Resurface	Resurfacing on PA 75 from Licking Creek to PA 16 in Montgomery Township and Mercersburg Borough	$2,640,379
91184	**Old Route 16 Resurfacing**	Washington Township	Resurface	Resurfacing on SR 2010 (Old Route 16) from PA 16 to PA 16 in Washington Township	$2,450,000
92006	**I-81 Maryland to Mile 6**	Antrim Township	Resurface	Resurfacing on I-81 North and South from Maryland line to Milepost 6 in Antrim Township.	$14,600,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
113270	**Anthony Highway Resurface**	Greene Township, Guilford Township, Mont Alto Borough, Quincy Township	Resurface	Resurfacing on Anthony Highway (SR 997) from Lincoln Highway to Ash Street in Mount Alto Borough, Quincy, Guilford, and Greene Townships.	$2,460,116
102974	**South Third Street Crossing**	Guilford Township	RR Warning Devices	Install railroad warning devices on South Third Street at Norfolk Southern in Guilford Township	$267,800
114555	**Lincoln Way Intersection**	Chambersburg Borough, Hamilton Township	Safety Improvement	Safety improvements, potentially including an intersection realignment with lane widening or converting the intersection to a roundabout, at the intersection of US 30 (Lincoln Way) and SR 4013 (Sollenberger Road) in Hamilton Township and Chambersburg Borough	$2,730,000
118495	**CVRT Ext to West Shippensburg**	Southampton Township, Shippensburg Borough	Trail Project	This project may consist of extending the Cumberland Valley Rail Trail to the west end of Shippensburg from the trailhead at the intersection of Fort Street and North Earl Street to the trailhead on Orrstown Road in Southampton and Shippensburg Townships and Shippensburg Boroughs, Cumberland and Franklin Counties.	
				TOTAL	**$102,183,172**

Balance of the Twelve-Year Program (2027–2034)

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
63179	**SR 2016/I-81 Bridge**	Antrim Township	Bridge Preservation Activities	Bridge preservation on State Route (SR) 2016 (Clay Hill Road) over Interstate 81 in Antrim Township	$750,000
78692	**SR 641 over Trout Run**	Lurgan Township	Bridge Preservation Activities	Bridge preservation on PA 641 (Forge Hill Road) over Trout Run in Lurgan Township	$56,000
78699	**Lemar Road Bridge**	Peters Township	Bridge Preservation Activities	Bridge preservation on SR 3007 (Lemar Road) over West Branch Conococheague Creek in Peters Township	$650,000
78703	**Church Hill Road Bridge**	Peters Township	Bridge Preservation Activities	Bridge preservation on SR 3009 (Church Hill Road) over West Branch Conococheague Creek in Peters Township	$650,000
78714	**SR 2007 over Little Antietam**	Washington Township	Bridge Preservation Activities	Bridge replacement on SR 2007 over Little Antietam Creek in Washington Township	$655,000
99929	**Amberson Road Bridge 2**	Fannett Township	Bridge Preservation Activities	Bridge preservation on SR 4005 (Amberson Road) over branch of Conococheague Creek in Fannett Township	$170,000
99938	**Amberson Road Bridge 3**	Fannett Township	Bridge Preservation Activities	Bridge preservation on SR 4005 (Amberson Road) over tributary to Conococheague Creek in Fannett Township	$50,000
99964	**Bear Valley Rd over Broad Run**	Peters Township	Bridge Preservation Activities	Bridge preservation on SR 4005 (Bear Valley Road) over Broad Run in Peters Township	$55,000
99967	**Bino Road Bridge PM**	Antrim Township, Montgomery Township	Bridge Preservation Activities	Bridge preservation on SR 3004 (Bino Road) over Conococheague Creek in Montgomery and Antrim Townships	$405,000
100012	**PA16 Bridge PM 1**	Washington Township	Bridge Preservation Activities	Bridge preservation on PA 16 (Buchanan Trail) over East Branch of Little Antietam Creek east of Waynesboro in Washington Township	$180,000
100225	**Iron Bridge Road Bridge**	Washington Township	Bridge Preservation Activities	Bridge preservation on SR 2006 (Iron Bridge Road) over West Branch of Antietam Creek in Washington Township	$280,000
100245	**Mill Road over Carters Creek**	Warren Township	Bridge Preservation Activities	Bridge preservation on SR 3026 (Mill Road) over Carters Creek in Warren Township	$50,000
100249	**Mount Pleasant Road Bridge**	Greene Township	Bridge Preservation Activities	Bridge preservation on SR 1001 (Mount Pleasant Road) over Cold Spring Run in Greene Township	$70,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
100256	**Newburg Road/ Laughlin Run**	Lurgan Township	Bridge Preservation Activities	Bridge preservation on PA 641 (Newburg Road) over Laughlin Run in Lurgan Township	$110,000
100261	**Oregon Street over Steigers Run**	Montgomery Township, Peters Township	Bridge Preservation Activities	Bridge preservation on SR 3009 (Oregon Street) over Steigers Run in Montgomery and Peters Townships	$175,000
100267	**Rowe Run Road over Rowe Run**	Southampton Township	Bridge Preservation Activities	Bridge preservation on PA 433 (Rowe Run Road) over Rowe Run in Southhampton Township	$225,000
101401	**South Fayette Road Bridge**	Southampton Township	Bridge Preservation Activities	Bridge preservation on PA 696 (South Fayette Road) over Shirley Run in South Hampton Township	$80,000
101402	**Spring Run Road Bridge PM**	Fannett Township	Bridge Preservation Activities	Bridge preservation on PA 641 (Spring Run Road) over Dry Run in Fannett Township	$110,000
101403	**Stoney Battery Road Bridge**	Peters Township	Bridge Preservation Activities	Bridge preservation on SR 3011 (Stoney Battery Road) over Buck Run in Peters Township	$50,000
87447	**Stoney Battery Road Bridge**	Peters Township	Bridge Replacement	Bridge replacement on SR 3011 (Stoney Battery Road) over Buck Run in Peters Township	$900,000
87461	**Trib Conococheague Creek Bridge**	Antrim Township	Bridge Replacement	Bridge replacement on US 11 over a tributary to Conococheague Creek in Antrim Township	$223,000
87684	**Path Valley Bridge**	Metal Township	Bridge Replacement	Bridge replacement on PA 75 over Wet Weather Stream in Metal Township	$250,000
90812	**Buck Run Bridge**	Peters Township	Bridge Replacement	Bridge replacement on PA 16 over Buck Run in Peters Township	$400,000
90841	**Wet Weather Stream Bridge**	Metal Township	Bridge Replacement	Bridge replacement on PA 75 over Wet Weather Stream in Metal Township	$400,000
90845	**Little Antietam Creek**	Quincy Township	Bridge Replacement	Bridge replacement on PA 233 over Little Antietam Creek in Quincy Township	$400,000
91340	**Williamsport Pike Bridge**	Antrim Township	Bridge Replacement	Bridge replacement SR 3001 (Williamsport Pike) over tributary to Conococheaque Creek in Antrim Township	$200,000
92588	**Path Valley Road Bridge**	Fannett Township	Bridge Replacement	Bridge replacement on PA 75 (Path Valley Road) over branch of Tuscarora Creek in Fannett Township	$594,000
99942	**Back Road over Dry Run**	Fannett Township	Bridge Replacement	Bridge replacement on SR 4007 (Back Road) over Dry Run in Fannett Township	$1,000,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
100016	**Main Street Bridge 2**	Washington Township	Bridge Replacement	Bridge replacement on PA 16 (Buchanan Trail) over East Branch of Little Antietam Creek in Washington Township	$1,000,000
100023	**PA 16 over Red Run 1**	Washington Township	Bridge Replacement	Bridge replacement on PA 16 (Buchanan Trail) over Red Run in Washington Township	$600,000
100027	**PA 16 over Red Run 2**	Washington Township	Bridge Replacement	Bridge replacement on PA 16 (Buchanan Trail) over Red Run in Washington Township	$750,000
100028	**PA 16 over Red Run 3**	Washington Township	Bridge Replacement	Bridge replacement on PA 16 (Buchanan Trail) over Red Run in Washington Township	$600,000
100039	**PA 997 over Conodoguinet 3**	Letterkenny Township	Bridge Replacement	Bridge replacement on PA 997 (Cumberland Highway) over Conodoguinet Creek in Letterkenny Township	$850,000
100042	**Leitersburg Rd/ Marsh Run**	Antrim Township, Washington Township	Bridge Replacement	Bridge replacement on SR 2002 (Leitersburg Road) over Marsh Run in Washington and Antrim Townships	$750,000
100054	**US 11 over Muddy Run**	Antrim Township	Bridge Replacement	Bridge replacement on US 11 (Molly Pitcher Highway) over Muddy Run in Antrim Township	$600,000
100132	**US 11 over Wet Weather Stream**	Southampton Township	Bridge Replacement	Bridge replacement on US 11 (Molly Pitcher Highway) over Wet Weather Stream in Southampton Township	$600,000
100138	**Paxton Run Road Bridge 1**	Lurgan Township	Bridge Replacement	Bridge replacement on SR 4018 (Paxton Run Road) over Clippinger Road in Lurgan Township	$1,000,000
100143	**Paxton Run Road Bridge 2**	Lurgan Township	Bridge Replacement	Bridge replacement on SR 4018 (Paxton Run Road) over tributary to Conodoguinet Creek in Lurgan Township	$750,000
100165	**PA 316/Little Antietam Creek**	Washington Township	Bridge Replacement	Bridge replacement on PA 316 (Wayne Highway) over Little Antietam Creek in Washington Township	$950,000
100169	**PA 316 over Trib to W Antietam**	Quincy Township	Bridge Replacement	Bridge replacement on PA 316 (Wayne Highway) over tributary to West Antietam in Quincy Township	$850,000
100174	**US 30/Trib to Campbell Run**	St. Thomas Township	Bridge Replacement	Bridge replacement on US 30 (Lincoln Highway) over tributary to Campbell Run in Saint Thomas Township	$750,000

MPMS #	Project Name	Municipality(ies)	Improvement Type	Project Description	Estimated Construction Cost
95662	**I-81/Buchanan Trail Improvements**	Antrim Township	Existing Signal Improvement	This project includes installation of a new signal at the northbound ramps of I-81, including dectectors on the ramps to prevent backups on the mainline of I-81 and signal timing coordination with two other existing signals at Antrim Church Road/John Wayne Drive and Buchanan Trail in Antrim Township. This project will alleviate traffic congestion and improve traffic flow in the area.	
97964	**Path Valley Road Resurface #3**	Fannett Township	Resurface	Resurface PA 75 from PA 274 to the Huntingdon County line in Fannett Township.	$1,400,000
113285	**Sollenberger Road Resurface**	Hamilton Township	Resurface	Resurfacing on Sollenberger Road (SR 4013) from Lincoln Highway (US 30) to Edenville Road (SR 4009) in Hamilton Township	$1,556,502
113339	**Rocky Mountain Road Resurface**	Greene Township, Guilford Township	Resurface	Resurface PA 233 (Rocky Mountain Road) from SR 2024 (White Pine Road) to US 30 (Lincoln Way) in Guilford and Greene Townships	$2,110,000
116075	**Lincoln Way Resurface**	Peters Township	Resurface	Resurface US 30 (Lincoln Way) from the Fulton County line to PA 75 (Path Valley Road) in Peters Township	$2,035,000
116077	**Lincoln Way Resurface 3**	Chambersburg Borough, Guilford Township	Resurface	Resurfacing on US 30 (Lincoln Way) from SR 2029 (Falling Spring Road) to a tributary of the Conococheague Creek in Guilford Township	$2,515,000
				TOTAL	**$28,804,502**

Countywide Line Items, Out Years (2035–2047)

In lieu of specific projects, line-item amounts were determined for the plan's "out years" (2035-2047) in consultation with PennDOT District 8-0 and Central Office. The MPO used PennDOT's 2023 Financial Guidance documentation for the 2023 program to determine the shares of funding to go toward three project types: Highway, Bridge, and Safety.

The MPO determined shares based on funding available for specific funding programs, i.e., "Highway" amounts based on funding allocations from NHPP, STP, and State Highway; "Bridge" amounts based on State Bridge and Off-System Bridges; and "Safety" from HSIP. The shares resulted in a 66/23/11 split, respectively, as shown in the following table.

Item	Estimated Share of Funding	Percentage
Highway	$229,911,000	66%
Bridge	$80,120,500	23%
Safety	$38,318,500	11%
TOTAL	**$348,350,000**	**100%**

Appendix B: Illustrative Projects

Note that the following projects are unfunded, and illustrative only. The MPO will consider the candidates from this project listing as future programs are being developed.

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Municipality (Carryover)	Greene Township	**N. Chambersburg Improvement Project Phase II (NCIP II)**	Extend Fifth Avenue from Parkwood Drive to Kohler Road	$2,100,000	The Township submitted a Commonwealth Financing Authority MTF Program Grant Request for $1.4 million for the project. The Township is prepared to provide the necessary local match funds if granted.
Municipality (Carryover)	Greene Township	**Kohler Road and Walker Road Intersection**	Install traffic signal	Engineering: $50,000	
Construction: $225,000	Guilford Township	**I-81 Exit 10 (Marion, PA 914)**	Fix sightlines for exit ramps	Engineering: $100,000 Construction: $500,000	

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Public Survey	Chambersburg Borough, Guilford Township	**I-81 Exit 16 (Lincoln Hwy/US 30)**	Interchange redesign	Exit Ramp Lane Addition for Left Turns Engineering: $145,000 Construction: $663,000 Dual Left Turns on US 30 to Entrance Ramps Engineering: $1,888,000 Construction: $17,299,000 Reconfigure to DDI Engineering: $1,090,000 Construction: $4,878,000 Reconfigure to Single Point Urban Interchange Engineering: $1,723,000 Construction: $15,778,000	From I-81 Improvement Strategy Playbook - https://www.i81southcentralpa.com/
Public Survey	Greencastle Borough, Antrim Township	**I-81 Exit 5 (PA 16, Greencastle)**	Redesign interchange or install traffic signal at NB exit	Redesign Interchange Engineering: $750,000 Construction: $5,000,000 Install Traffic Signal Engineering: $50,000 Construction: $225,000	
Public Survey	Chambersburg Borough, Guilford Township	**I-81 Exit 14 (Wayne Ave) to Exit 16 (Lincoln Hwy/US 30)**	Resurfacing	Engineering: $300,000 Construction: $2,000,000	
Public Survey	Chambersburg Borough	**Norland Ave under Norfolk Southern Bridge**	Regrade to fix flooding and increase clearance	Engineering: $100,000 Construction: $500,000	
Public Survey	Greene Township	**Woodstock Rd under Norfolk Southern Bridge**	Regrade to fix flooding and increase clearance	Engineering: $100,000 Construction: $500,000	
Public Survey	Greencastle Borough	**Norfolk Southern Bridge over W. Baltimore Street**	Repair/replace bridge and improve stormwater management	Engineering: $750,000 Construction: $5,000,000	

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Public Survey	Chambersburg Borough	**Grant St. & 5th Ave.**	Install traffic signal	Engineering: $50,000 Construction: $225,000	
Public Survey	Hamilton Township	**Letterkenny Rd. & Edenville Rd.**	Intersection redesign	Engineering: $250,000 Construction: $1,000,000	
Public Survey	Greencastle Borough	**Williamsport Pike & US 11**	Intersection redesign	Engineering: $250,000 Construction: $1,000,000	
Public Survey	Chambersburg Borough	**Norland Ave**	Improve signal timing	Engineering: $50,000 Construction: $30,000	The corridor has 8 traffic signals; 3 have emergency preemption.
Public Survey	Chambersburg Borough	**Orchard Drive at CSX Crossing**	Lessen train-induced congestion (grade separation)	Engineering: $1,500,000 Construction: $10,000,000	
Public Survey	N/A	**Unspecified**	Bicycle detection at traffic signals	N/A	No specified location; however, the MPO could study these items further.
Public Survey	N/A	**Unspecified**	Increase recreational pathways	N/A	
Public Survey	N/A	**Unspecified**	Install EV chargers	N/A	
Public Survey	Guilford Township	**US 30 (near I-81)**	Add sidewalks to access businesses near I-81	$41 per linear foot	Unclear of extents so unit price for construction provided. Assumes between S. Coldbrook and Willowbrook (1.06 mi or 5,597 linear feet – $459,000).
Public Survey	Antrim Township	**US 11 to Greenmount Road**	Construct a bypass road	Engineering: 20% of construction Construction: $92.25 per square yard of new road	Unclear of extents so a unit price is provided.
Public Survey	Antrim Township	**Greenmount Road to Milnor Road**	Construct a bypass road	Engineering: 20% of construction Construction: $92.25 per square yard of new road	Unclear of extents so a unit price is provided.
Public Survey	Antrim Township	**North and South Young Road**	Connect the two roads to be one continuous road	Engineering: $200,000 Construction: $1,000,000	

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Public Survey	Antrim Township, Greencastle Borough	**US 11 to Leitersburg Road**	Construct a bypass road	Engineering: 20% of construction Construction: $92.25 per square yard of new road	Unclear of extents so a unit price is provided.
Public Survey	Antrim Township	**US 11 over I-81**	Widen bridge	Engineering: $750,000 Construction: $5,000,000	Assumes widening from 35 feet to 55 feet
Public Survey	Chambersburg Borough, Hamilton Township	**Commerce Street**	Regrade to address flooding issues	Engineering: 20% of construction Existing Road Demo: $7.85 per square yard of existing road New Roadway: $92.25 per square yard	Unclear of extents so unit price provided.
Municipality	Antrim Township	**I-81 Exit 3**	Full-service interchange	Engineering: $1,500,000 Construction: $10,000,000	
Municipality	Guilford Township	**Archer Drive**	Extend Archer Drive to Swamp Fox Road	Engineering: 20% of construction Construction: $92.25 per square yard of new road	Unclear of extents so a unit price is provided.
Municipality	Chambersburg Borough	**US 11 (NB)**	Relocate US 11 NB from Garfield Street to Derbyshire Street	Engineering: $180,000 Construction: $900,000	Pending PennDOT MTF Application
Municipality	Chambersburg Borough	**Loudon Street (US 30 E)**	Make Loudon Street one-way EB to alleviate congestion between downtown Chambersburg and Sollenberger Rd/Loudon St/Lincoln Way interchange	Engineering: $50,000 Construction: $100,000	Engineering costs will be higher if traffic study is required.
Municipality	Chambersburg Borough	**Black Avenue**	Widen Black Avenue between US 30 EB (Queen St) and US 30 WB (Lincoln Way) to provide more convenient interconnection between US 30 E and US 30 W.	Engineering: $100,000 Construction: $500,000 ROW Acquisition: $100,000	Project requires acquisition of one tax parcel (drive-through teller station for M&T Bank); Borough owns the balance of the Black Avenue ROW. Will need to include reconfiguration of the parking area in the adjacent Borough-owned Shoppers Parking lot to allow for widening.

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Municipality	Chambersburg Borough	**West Chambersburg Blvd**	Proposed "commercial truck bypass to enhance connectivity between US 30 and US 11 without truck traffic going through downtown Chambersburg"	Engineering: $450,000 Construction: $3,000,000	
Municipality	Chambersburg Borough	**Chambersburg Rail Trail – Greene Township Trail Extension**	The Greene Township Trail Connection project begins within the Borough of Chambersburg, approximately 500 feet east of S. Penn Hall Drive and would continue along the rail corridor to Northwood Park in Greene Township. The approximately 1-mile-long trail would include a 10- to 12-foot-wide shared-use path with 2-foot buffers on each side. The major crossings along the trail are Siloam Road and Philadelphia Avenue.	Engineering: $150,000 (2018) Construction: $800,000 (2018)	
Municipality	Chambersburg Borough	**Chambersburg Rail Trail – Rail Trail "Gravel Road" Extension**	The Rail Trail "Gravel Road" Extension links the northern terminus of the existing rail trail to Wilson College Equestrian Complex and Wilson's internal trails. This portion of the trail extends approximately 0.5 mile. The proposed rail trail extension would include a 10- to 12-foot-wide shared-use path with 2-foot buffers on each side. This connection includes one roadway crossing at the W. Commerce Street/Hood Street intersection.	Engineering: $70,000 (2018) Construction: $400,000 (2018)	
Municipality	Chambersburg Borough	**Chambersburg Rail Trail – Rail Trail to Stevens Elementary**	Provide a multi-purpose 10- to 12-foot-wide shared-use path connection between the existing Rail Trail and Stevens Elementary School campus. The connection would include a link to the cul-de-sac at Progress Road improvements and signage.	Engineering: $25,000 (2018) Construction: $150,000 (2018)	

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Municipality	Chambersburg Borough	**Chambersburg Rail Trail – Southern Rail Trail Extension**	The project would extend the southern terminus of the existing rail trail to Fifth Ward neighborhoods and commercial area (Wayne Avenue). The connection would include multi-purpose 10- to 12-foot-wide shared-use path improvements extending the existing rail trail to Wayne Avenue. Improvements could also include some on-road improvements, crossings, and signage.	Engineering: $150,000 (2018) Construction: $950,000 (2018)	
Municipality	Chambersburg Borough	**Chambersburg Rail Trail – Norland Avenue to Grant Street ("Future Redevelopment")**	The Norland Avenue to Future Redevelopment trail will be constructed between Norland Avenue and the future Grant Street commercial development, which is approximately 1.1 miles long. The proposed trail will utilize a 10- to 12-foot-wide shared-use path with 2-foot buffers on each side of the trail. The proposed trail connection will evaluate a potential link from the trail down to Norland Avenue.	Engineering: $160,000 (2018) Construction: $850,000 (2018)	
Municipality	Chambersburg Borough	**3rd Street Greenway Trail (Grant St. to Montgomery Alley)**	The 3rd Street Greenway trail begins 900 ft. north of Lincoln Highway and terminates at Grant Street. The trail would run approximately 1/4 mile in length. The proposed trail will utilize a 10- to 12-foot-wide shared-use path with five-foot buffers on each side of the trail.	Engineering: $60,000 (2018) Construction: $300,000 (2018)	$359,235 construction cost when inflated to Sept 2022 CPI and rounded

Source	Municipality	Project Name/ Location	Project Description	Planning-Level Cost Estimate	Notes
Municipality	Chambersburg Borough	**McKinley Street East-West Connection**	This critical connection would include on-road or off-road improvements, or a combination of both, to provide a bicycle friendly link between the Middle School Campus/Memorial Park, the High School Campus, Mike Waters Park, and the existing Rail Trail. Improvements could include removal of existing on-street parking, bicycle lane, sidewalk improvements, crosswalks, intersection improvement, pavement markings, and signage.	Engineering: $250,000 (2018) Construction: $1,700,000 (2018)	Pending traffic study; Construction cost $2,036,000 when inflated to Sept 2022 CPI
Municipality	Chambersburg Borough	**Southgate Shopping Center Redevelopment**	The Southgate Shopping Center Redevelopment Initiative involves the reclamation and redevelopment of the Southgate Shopping Center into a mixed-use residential neighborhood. As part of the initiative, the plan connects W. Washington Street to E. Queen Street as a way of maintaining commercial traffic away from the residential neighborhood. A series of continuous sidewalk allows pedestrians to walk safely. These are connected to the Chambersburg Rail Trail that connects the plan to the regional context.		Chambersburg is using American Rescue Plan Act of 2021 grant funding for this initiative. In February 2022, Borough Council authorized purchase of the property for $4,500,000. http://www.borough.chambersburg.pa.us/government/southgate_english.html

Appendix C: Air Quality Determination

Transportation Conformity Determination Report

1997 Ozone NAAQS

Transportation Conformity Determination
Franklin County

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APPENDIX A: Regionally Significant Project List (Franklin County)

Executive Summary

As part of its transportation planning process, the Franklin County Metropolitan Planning Organization (FCMPO) completed the transportation conformity process for the updated 2045 Long Range Transportation Plan (LRTP) and the FY 2023-2026 Transportation Improvement Program (TIP). This report documents that the TIP and LRTP meets the federal transportation conformity requirements in 40 CFR Part 93. Note the TIP has not changed from previous conformity determinations.

Clean Air Act (CAA) section 176(c) (42 U.S.C. 7506(c)) requires that federally funded or approved highway and transit activities are consistent with ("conform to") the purpose of the State Implementation Plan (SIP). Conformity to the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. EPA's transportation conformity rules establish the criteria and procedures for determining whether metropolitan transportation plans, TIPs, and federally supported highway and transit projects conform to the SIP.

On February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in *South Coast Air Quality Mgmt. District v. EPA* ("*South Coast II*," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone national ambient air quality standard (NAAQS) and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. These conformity determinations are required in these areas after February 16, 2019. Franklin County was maintenance at the time of the 1997 ozone NAAQS revocation on April 6, 2015 and was also designated attainment for the 2008 ozone NAAQS on May 21, 2012. Therefore, per the South Coast II decision, this conformity determination is being made for the 1997 ozone NAAQS.

This conformity determination was completed consistent with CAA requirements, existing associated regulations at 40 CFR Parts 51.390 and 93, and the *South Coast II* decision, according to EPA's *Transportation Conformity Guidance for the South Coast II Court Decision* issued on November 29, 2018.

1.0 Background

1.1 Transportation Conformity Process

The concept of transportation conformity was introduced in the CAA of 1977, which included a provision to ensure that transportation investments conform to a State Implementation Plan (SIP) for meeting the Federal air quality standards. Conformity requirements were made substantially more rigorous in the CAA Amendments of 1990. The transportation conformity regulations that detail implementation of the CAA requirements were first issued in November 1993, and have been amended several times. The regulations establish the criteria and procedures for transportation agencies to demonstrate that air pollutant emissions from metropolitan transportation plans, transportation improvement programs and projects are consistent with ("conform to") the State's air quality goals in the SIP. This document has been prepared for State and local officials who are involved in decision making on transportation investments.

Transportation conformity is required under CAA Section 176(c) to ensure that Federally-supported transportation activities are consistent with ("conform to") the purpose of a State's SIP. Transportation conformity establishes the framework for improving air quality to protect public health and the environment. Conformity to the purpose of the SIP means Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funding and approvals are given to highway and transit activities that will not cause new air quality violations, worsen existing air quality violations, or delay timely attainment of the relevant air quality standard, or any interim milestone.

1.2 National Ambient Air Quality Standards

The CAA requires the EPA to set NAAQS for pollutants considered harmful to public health and the environment. A nonattainment area is any area that does not meet the primary or secondary NAAQS. Once a nonattainment area meets the standards and additional redesignation requirements in the CAA [Section 107(d)(3)(E)], EPA will designate the area as a maintenance area.

Franklin County is currently designated as a maintenance area under the 1997 8-hour ozone NAAQS. The county is in attainment of the 2008 and 2015 8-hour ozone, 2006 24-hour $PM_{2.5}$ and 2012 annual $PM_{2.5}$ NAAQS. Transportation conformity requires nonattainment and maintenance areas to demonstrate that all future transportation projects will not prevent an area from reaching its air quality attainment goals.

1997 8-hour Ozone NAAQS

The EPA published the 1997 8-hour ozone NAAQS on July 18, 1997 (62 FR 38856), with an effective date of September 16, 1997. An area was in nonattainment of the 1997 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeded the NAAQS of 0.08 parts per million (ppm). On May 21, 2013, the EPA published a rule revoking the 1997 8-hour ozone NAAQS, for the purposes of transportation conformity, effective one year after the effective date of the 2008 8-hour ozone NAAQS area designations (77 FR 30160).

On February 16, 2018 the D.C. Circuit reached a decision in South Coast Air Quality Management District v. EPA, Case No. 15-1115. In that decision, the court vacated major portions of the final rule that established procedures for transitioning from the 1997 ozone NAAQS to the stricter 2008 ozone NAAQS. By court decision, Franklin County was designated as an "orphan" maintenance area since the area was maintenance for the 1997 ozone NAAQS at the time of its revocation (80 FR 12264, March 6, 2015) and was designated attainment for the 2008 NAAQS in EPA's original designations for this NAAQS (77 FR 30160, May 21, 2012).

2008 and 2015 8-hour Ozone NAAQS

The EPA published the 2008 8-hour ozone NAAQS on March 27, 2008 (73 FR 16436), with an effective date of May 27, 2008. EPA revised the ozone NAAQS by strengthening the standard to 0.075 ppm. Thus, an area is in nonattainment of the 2008 8-hour ozone NAAQS if the 3-year average of the individual fourth highest air quality monitor readings, averaged over 8 hours throughout the day, exceeds the NAAQS of 0.075 ppm. Franklin County was designated as an attainment area under the 2008 8-hour ozone NAAQS, effective July 20, 2012 (77 FR 30088).

In October 2015, based on its review of the air quality criteria for ozone and related photochemical oxidants, the EPA revised the primary and secondary NAAQS for ozone to provide requisite protection of public health and welfare, respectively (80 FR 65292). The EPA revised the levels of both standards to 0.070 ppm, and retained their indicators, forms (fourth-highest daily maximum, averaged across three consecutive years) and averaging times (eight hours). Under the Clean Air Act, the EPA administrator is required to make all attainment designations within two years after a final rule revising the NAAQS is published. Franklin County is in attainment of the 2015 8-hour ozone NAAQS.

2.0 FCMPO LRTP and TIP

The Long Range Transportation Plan (LRTP) serves as the official transportation plan for a metropolitan area. The LRTP documents the current and future transportation demand and identifies long-term improvements and projects to meet those needs. The LRTP was recently updated by the FCMPO to guide decision-making about transportation improvements in the county. The planning factors specified in federal

regulations provide the framework for developing the LRTP. In addition, PennDOT provides guidance to help MPOs prepare LRTPs, and local policies and plans play a role in LRTP development to ensure transportation investments address current and future needs. The Franklin County LRTP includes projects from the Pennsylvania Department of Transportation (PennDOT) Twelve Year Program (TYP).

In addition, MPOs and Rural Planning Organizations (RPOs) each develop a TIP at the local level, which reflects the first four years of the PennDOT TYP. The Statewide Transportation Improvement Program (STIP) covers the entire state and includes the individual TIPs representing each Planning Partner. Federal Law requires TIPs to be updated at least every four years. Pennsylvania's MPOs and RPOs update their TIPs every two years during the TYP update process.

The February 16, 2018, South Coast vs. EPA Court decision did not vacate EPA's revocation of the 1997 ozone standard and the decision does not change the area's attainment status. Therefore, while such areas might be required to meet conformity requirements as part of anti-backsliding controls, such areas are not considered nonattainment or maintenance areas under the Transportation Planning Rule (23 CFR 450.104). Such areas continue to complete 5-year plan update cycles as described in 23 CFR 450.324(c). The 5-year metropolitan transportation plan update cycle continues to apply from the date of the most recent MPO metropolitan transportation plan adoption (not the most recent FHWA/FTA conformity determination). While these areas have a 5-year plan cycle for transportation planning purposes, as a result of the court decision they must still meet the 4-year frequency requirements for conformity determinations on TIPs and LRTPs as required by 40 CFR 93.104.

Appendix A provides a listing of the regional significant projects that are funded in the TIP and LRTP within Franklin County. Regionally significant projects include transportation projects (other than exempt projects as defined under 40 CFR 93.126-127) that are on a facility which serves regional transportation needs.

3.0 Transportation Conformity Process

Per the court's decision in *South Coast II*, beginning February 16, 2019, a transportation conformity determination for the 1997 ozone NAAQS will be needed in 1997 ozone NAAQS nonattainment and maintenance areas identified by EPA[1] for certain transportation activities, including updated or amended TIPs and LRTPs. Once US DOT makes its 1997 ozone NAAQS conformity determination, conformity will be required no less frequently than every four years. This conformity determination report addresses transportation conformity for the FCMPO 2023-2026 TIP and 2045 LRTP.

[1] The areas identified can be found in EPA's "Transportation Conformity Guidance for the South Coast II Court Decision, EPA-420-B-18-050, available on the web at: www.epa.gov/state-and-local-transportation/policy-and-technical-guidance-state-and-local-transportation .

4.0 Transportation Conformity Requirements

4.1 Overview

On November 29, 2018, EPA issued **Transportation Conformity Guidance for the South Coast II Court Decision**[2] (EPA-420-B-18-050, November 2018) that addresses how transportation conformity determinations can be made in areas that were nonattainment or maintenance for the 1997 ozone NAAQS when the 1997 ozone NAAQS was revoked, but were designated attainment for the 2008 ozone NAAQS in EPA's original designations for this NAAQS (May 21, 2012).

The transportation conformity regulation at 40 CFR 93.109 sets forth the criteria and procedures for determining conformity. The conformity criteria for TIPs and LRTPs include: latest planning assumptions (93.110), latest emissions model (93.111), consultation (93.112), transportation control measures (93.113(b) and (c), and emissions budget and/or interim emissions (93.118 and/or 93.119).
For the 1997 ozone NAAQS areas, transportation conformity for TIPs and LRTPs for the 1997 ozone NAAQS can be demonstrated without a regional emissions analysis, per 40 CFR 93.109(c). This provision states that the regional emissions analysis requirement applies one year after the effective date of EPA's nonattainment designation for a NAAQS and until the effective date of revocation of such NAAQS for an area. The 1997 ozone NAAQS revocation was effective on April 6, 2015, and the *South Coast II* court upheld the revocation. As no regional emission analysis is required for this conformity determination, there is no requirement to use the latest emissions model, or budget or interim emissions tests.

Therefore, transportation conformity for the 1997 ozone NAAQS can be demonstrated by showing the remaining requirements in Table 1 in 40 CFR 93.109 have been met. These requirements, which are laid out in Section 2.4 of EPA's guidance and addressed below, include:

- Latest planning assumptions (93.110)
- Consultation (93.112)
- Transportation Control Measures (93.113)
- Fiscal constraint (93.108)

4.2 Latest Planning Assumptions

The use of latest planning assumptions in 40 CFR 93.110 of the conformity rule generally applies to a regional emissions analysis. In the 1997 ozone NAAQS areas, the use of latest planning assumptions requirement applies to assumptions about transportation control measures (TCMs) in an approved SIP. However, the Franklin County SIP maintenance plan does not include any TCMs.

[2] Available from https://www.epa.gov/state-and-local-transportation/policy-and-technical-guidance-state-and-local-transportation

4.3 Consultation Requirements

The consultation requirements in 40 CFR 93.112 were addressed both for interagency consultation and public consultation.

As required by the federal transportation conformity rule, the conformity process includes a significant level of cooperative interaction among federal, state, and local agencies. For this air quality conformity analysis, interagency consultation was conducted as required by the Pennsylvania Conformity SIP. This included conference call(s) or meeting(s) of the Pennsylvania Transportation-Air Quality Work Group (including the Pennsylvania Department of Transportation (PennDOT), DEP, EPA, FHWA, FTA and representatives from larger MPOs within the state).

Meeting and conference calls were conducted quarterly in 2022 to review all planning assumptions and to discuss the template and content for transportation conformity analyses in 1997 ozone orphan areas.

The TIP, LRTP and associated conformity determination has undergone the public participation requirements as well as the comment and response requirements according to the procedures established in compliance with 23 CFR part 450, FCMPO's Public Participation Plan, and Pennsylvania's Conformity SIP. The draft document was made available for a 30-day public review and comment period, which included a public meeting.

4.4 Fiscal Constraint

The planning regulations, Sections 450.324(f)(11) and 450.326(j), require the transportation plan to be financially constrained while the existing transportation system is being adequately operated and maintained. Only projects for which construction and operating funds are reasonably expected to be available are included. The FCMPO, in conjunction with PennDOT, FHWA and FTA, has developed an estimate of the cost to maintain and operate existing roads, bridges and transit systems in the region and have compared the cost with the estimated revenues and maintenance needs of the new roads over the same period. The FCMPO TIP and LRTP has been determined to be financially constrained.

5.0 Conclusion

The conformity determination process completed for the FCMPO TIP and LRTP demonstrates that these planning documents meet the Clean Air Act and Transportation Conformity rule requirements for the 1997 ozone NAAQS.

Appendix A

Regionally Significant Project List

Franklin County

Project Name	Description
FY 2023-2026 Highway-Bridge-Transit TIP	
I-81 New Exit 12 Interchange (MPMS 93055)	This project consists of a new interchange (Exit 12) on I-81 just north of the Guilford Springs Road overpass.
PA997 & SR2015 Intersection (MPMS 106709)	This project consists of intersection improvements at the intersection of PA 997 and SR 2015 (Tomstown Road) in Washington Township. This intersection improvement project has several potential solutions including line striping adjustments and realignment of Tomstown Road or Orchard Road to create a 4-way intersection with the potential for a new signal and potentially a traffic circle.
Lincoln Way Intersection Safety Improvements (MPMS 114555)	This project consists of safety improvements, potentially including an intersection realignment with lane widening or converting the intersection to a roundabout at the intersection of US 30 (Lincoln Way) and SR 4013 (Sollenberger Road) in Hamilton Township and Chambersburg Borough.
Chambersburg Signals Improvement Phase 2 (MPMS 116146)	This project consists of upgrades of signals and interconnect improvements at 62 signalized intersections in Chambersburg Borough, Guilford and Hamilton Townships.
2045 Long Range Transportation Plan	
I-81 / Buchanan Trail Improvements (MPMS #95662)	This project includes installation of a new signal at the northbound ramps of I-81, including detectors on the rams to prevent backups on the mainline of I-81 and signal timing coordination with two other signals.

Appendix D: Environmental Justice Assessment

Introduction

The public involvement efforts for MPO/RPOs are guided by several federal mandates to ensure nondiscrimination in federally funded activities. These mandates are designed so that planning and public involvement activities are conducted equitably and in consideration of all citizens, regardless of race, nationality, sex, age, ability, language spoken, or economic status. These mandates include:

- **Title VI of the Civil Rights Act of 1964** – Title VI of the Civil Rights Act states that "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefit of, or be subjected to discrimination under any program or activity receiving federal financial assistance." MPOs are committed to providing open and inclusive access to the transportation decision-making process for all persons, regardless of race, color, or national origin.
- **Executive Order on Environmental Justice** (Executive Order 12898 February 11, 1994) – Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. MPOs/RPOs are committed to providing opportunities for full and fair participation by minority and low income communities in the transportation decision-making process.
- **Americans with Disabilities Act (ADA)** – The Americans with Disabilities Act of 1990 stipulates involving persons with disabilities in the development and improvement of services. Sites of public involvement activities as well as the information presented must be accessible to persons with disabilities. MPOs/RPOs are committed to providing full access to public involvement programs and information for persons with disabilities. All public meetings are held in ADA-accessible locations. With advance notice, special provisions can be made for hearing-impaired or visually impaired participants.
- **Executive Order on Limited English Proficiency** – Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency," was signed on August 11, 2000. Recipients of federal funding "are required to take reasonable steps to ensure meaningful access to programs and activities by LEP person." MPOs/RPOs will make special arrangements for the provision of interpretative services upon request.

FHWA recently introduced the Environmental Justice Core Elements Methodology to ensure an MPO/RPO can meaningfully assess the benefits and burdens of plans and programs. Franklin County is committed to following the Core Elements approach, which includes efforts to:

- Avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
- Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

By integrating the Core Elements into the planning process, state and local agencies are better equipped to carry out the investment strategy and project selection. The EJ process should be comprehensive and continuous with each task informing and cycling back to influence the next step.

Identifying Minority and Low-Income Populations

In developing its 2045 Long Range Transportation Plan (LRTP), Franklin County conducted an Environmental Justice Benefits and Burdens analysis. A distributive geographic analysis was conducted to identify the locations and concentrations of minority, low-income and other Traditionally Underserved Populations (TUP).

The identification of these populations is essential to establishing effective strategies for engaging them in the transportation planning process. When meaningful opportunities for interaction are established, the transportation planning process can effectively draw upon the perspectives of communities to identify existing transportation needs, localized deficiencies, and the demand for transportation services. Mapping of these populations not only provides a baseline for assessing impacts of the transportation investment program, but also aids in the development of an effective public involvement program.

Table EJ-1: Profile of Low-Income and Minority Populations, 2019

Demographic Indicator	Franklin County Population	Franklin County Percentage
Total	154,147	100%
White, Non-Hispanic	134,210	87.07%
Minority	18,373	11.93%
Black or African American, non-Hispanic or Latino	5,376	3.49%
American Indian and Alaska Native, non-Hispanic or Latino	388	0.25%
Asian alone, non-Hispanic or Latino	1,262	0.82%
Native Hawaiian and Other Pacific Islander, non-Hispanic or Latino	22	0.03%
Some other race, non-Hispanic or Latino	906	0.59%
Two or more races, non-Hispanic or Latino	3,131	2.03%
Hispanic or Latino	8,473	5.49%
Low-Income Households	5,246	3.40%
Low-Income Population	14,050	9.11%
Other Potentially Disadvantaged Populations		
Limited English Proficiency (LEP)	931	0.60%
Persons with a Disability	21,920	14.30%
Female Head of Household with Child	2,674	4.40%
Elderly (65 years or older)	29,673	19.20%
Carless Households	3,405	5.60%

Source: 2015-2019 ACS 5-Year Estimates

Minority population is defined as any readily identifiable group of Black, Hispanic, Asian American, American Indian, and Alaskan Native who live in geographic proximity and who would be similarly affected by a proposed FHWA program, policy, or activity. Low-income population is defined as any readily identifiable group of persons at or below the Department of Health and Human Services poverty guidelines who live in a geographic proximity who would be similarly affected by a proposed FHWA program, policy, or activity. As shown in Table EJ-1, based on the 2015-2019 American Community Survey (ACS) data, minority persons in Franklin County make up nearly 14 percent of the total population. The number of persons in poverty is just above 9 percent of the total regional population.

Table EJ-2 identifies the total population by race and low-Income category. The White, Non-Hispanic category has the highest population in the county and most individuals that are low-Income, however, the category's overall low-income percentage is about 9 percent, which is about the same as the county average of 9.25 percent. In contrast, nearly 25 percent of the Hispanic population and nearly 72 percent of the Native Hawaiian category is considered low income.

Condition Assessment

In order to meaningfully analyze benefits and adverse effects of the transportation program, Franklin County has examined the existing conditions of transportation assets throughout the county and safety performance measures among the minority and low-income populations. These data assessments allow the county to track changes in crashes, poor condition bridges, and poor pavement mileage in the region and identify safety gaps and distribution disparities between minority and low-income populations.

Table EJ-2: Population Tabulations by Racial/Ethnic Groups and Low-Income Categories

		Franklin County
White	**Total:**	140,800
	Low-Income	12,746
	% Low-income	9.05%
Black	**Total:**	5,376
	Low-Income	787
	% Low-income	14.64%
American Indian	**Total:**	388
	Low-Income	0
	% Low-income	0.0%
Asian	**Total:**	1,262
	Low-Income	26
	% Low-income	2.06%
Native Hawaiian	**Total:**	22
	Low-Income	17
	% Low-income	77.27%
Some Other Race	**Total:**	906
	Low-Income	79
	% Low-income	8.72%
Two or More	**Total:**	3,131
	Low-Income	395
	% Low-income	12.62%
Hispanic or Latino origin (of any race)	**Total:**	8,473
	Low-Income	1,956
	% Low-income	23.09%
Total Population		154,147
Total Low-Income		18,373

Source: 2015-2019 ACS 5-Year Estimates

Bridges

Tables EJ-3 and EJ-4 provide the number and percentage of bridges by condition and by the concentration of minority and low-income population. Comparing the distribution of total bridges and poor condition bridges between low and high minority and low-income areas helps provide insights on potential equity issues. For areas with higher minority population shares, the percentage of total bridges and poor bridges is 27.2% and 28.5%, respectively. For areas with higher shares of low-income population, the percentage of total bridges and poor bridges is 26.2% and 34.4%, respectively. In both cases the share of poor condition bridges is near the percentage of total bridges in minority and low-income areas. The data does not indicate any disproportionate impacts to those communities related to bridge asset conditions.

Table EJ-3: Distribution of Poor-Condition Bridges by Minority Population Intervals

	Ratio of Minority Population Percentage in Census Block Group (bridge location) to Regional Average Minority Percentage				
	0.0 – 0.5 Very Low Minority %	0.5 – 1.0 Low Minority %	0.0 – 2.0 Medium Minority %	2.0 – 4.0 High Minority %	> 4.0 Very High Minority %
Bridges	362	149	148	41	2
Share of Bridges	51.6%	21.2%	21.1%	5.8%	0.3%
Poor-Condition Bridges	30	11	13	5	0
Percent Poor-Condition Bridges	8.3%	7.4%	8.8%	12.2%	0.0%
Share of Total Poor-Condition Bridges	50.8%	18.6%	22.0%	8.5%	0.0%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

Table EJ-4: Distribution of Poor-Condition Bridges by Low-Income Population Intervals

	Ratio of Low-Income Population Percentage in Census Block Group (bridge location) to Regional Average Low-Income Percentage				
	0.0 – 0.5 Very Low Low-Income %	0.5 – 1.0 Low Low-Income %	0.0 – 2.0 Medium Low-Income %	2.0 – 4.0 High Low-Income %	> 4.0 Very High Low-Income %
Bridges	222	301	124	49	13
Share of Bridges	31.3%	42.5%	17.5%	6.9%	1.8%
Poor-Condition Bridges	18	24	14	7	1
Percent Poor-Condition Bridges	8.1%	8.0%	11.3%	14.3%	7.7%
Share of Total Poor-Condition Bridges	28.1%	37.5%	21.9%	10.9%	1.6%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

All Reportable Crashes

Tables EJ-5 through EJ-8 show the number and percentage of crashes in Franklin County from 2015-2019 in areas of varying minority and low-income shares. This data is reviewed to identify if any disproportionate numbers of crashes occur in areas with high shares of minority or low-income population. As shown in Table EJ-5, about 42 percent of the total crashes occur within block groups that have higher shares of minority population, while nearly 58 percent of crashes occur in block groups with lower shares of minority population. Similarly, nearly 36 percent of crashes occur within block groups that have higher shares of low-income populations, while 64 percent of crashes occur in block groups with lower shares, as shown in Table EJ-6. This data does not indicate disproportionate impacts for minority or low-income populations related to total crashes, fatalities or serious injuries.

Table EJ-5: Distribution of Crashes by Minority Population Intervals, 2015-2019

	Ratio of Minority Population Percentage in Census Block Group (crash location) to Regional Average Minority Percentage				
	0.0 – 0.5 Very Low Minority %	0.5 – 1.0 Low Minority %	0.0 – 2.0 Medium Minority %	2.0 – 4.0 High Minority %	> 4.0 Very High Minority %
Reportable Crashes	3,144	2,493	2,768	1,021	295
Share of Total Reportable Crashes	32.3%	25.6%	28.5%	10.5%	3.0%
Crash Fatalities	68	27	33	7	3
Share of Total Crash Fatalities	49.3%	19.6%	23.9%	5.1%	2.2%
Crash Suspected Serious Injuries	173	98	115	19	2
Share of Crash Suspected Serious Injuries	42.5%	24.1%	28.3%	4.7%	0.5%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

Table EJ-6: Distribution of Crashes by Low-Income Population Intervals, 2015-2019

	Ratio of Low-Income Population Percentage in Census Block Group (crash location) to Regional Average Low-Income Percentage				
	0.0 – 0.5 Very Low Low-Income %	0.5 – 1.0 Low Low-Income %	0.0 – 2.0 Medium Low-Income %	2.0 – 4.0 High Low-Income %	> 4.0 Very High Low-Income %
Reportable Crashes	3,251	3,030	2,314	884	276
Share of Total Reportable Crashes	33.3%	31.1%	23.7%	9.1%	2.8%
Crash Fatalities	51	44	30	7	4
Share of Total Crash Fatalities	37.5%	32.4%	22.1%	5.1%	2.9%
Crash Suspected Serious Injuries	136	131	111	34	5
Share of Crash Suspected Serious Injuries	32.6%	31.4%	26.6%	8.2%	1.2%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

However, the bicycle and pedestrian crashes shown in Tables EJ-7 and EJ-8 show much higher numbers and percentages in areas with a higher share of minority populations. This may be a result of higher levels of pedestrian and bicycle activity and usage in those areas. Franklin County will continue to review and evaluate safety needs for these populations in its planning process.

Table EJ-7: Distribution of Bicycle or Pedestrian Crashes by Minority Population Intervals, 2015-2019

	Ratio of Minority Population Percentage in Census Block Group (crash location) to Regional Average Minority Percentage				
	0.0 – 0.5 Very Low Minority %	0.5 – 1.0 Low Minority %	0.0 – 2.0 Medium Minority %	2.0 – 4.0 High Minority %	> 4.0 Very High Minority %
Bicycle or Pedestrian Crashes	52	68	70	47	18
Share of Total Bicycle or Pedestrian Crashes	20.4%	26.7%	27.5%	18.4%	7.1%
Source: 2015-2019 ACS 5-Year Estimates, PennDOT					

Table EJ-8: Distribution of Bicycle or Pedestrian Crashes by Low-Income Population Intervals, 2015-2019

	Ratio of Low-Income Population Percentage in Census Block Group (crash location) to Regional Average Low-Income Percentage				
	0.0 – 0.5 Very Low Low-Income %	0.5 – 1.0 Low Low-Income %	0.0 – 2.0 Medium Low-Income %	2.0 – 4.0 High Low-Income %	> 4.0 Very High Low-Income %
Bicycle or Pedestrian Crashes	69	77	63	41	14
Share of Total Bicycle or Pedestrian Crashes	26.1%	29.2%	23.9%	15.5%	5.3%
Source: 2015-2019 ACS 5-Year Estimates, PennDOT					

Pavement Condition

Tables EJ-9 and EJ-10 identify the number and percentage of roadways with poor International Roughness Index (IRI) and with poor Overall Pavement Index (OPI) within minority and low-income population block group intervals. Poor pavement condition data in Franklin County may indicate a need for increased roadway resurfacing and reconstruction. The data indicates that poor rated IRI and OPI pavement occurs at nearly equal amounts between areas with and without high shares of low-income and minority populations. The data does not indicate any disproportionate impacts to those communities related to pavement conditions.

Table EJ-9: Distribution of Federal-Aid Roadways by Minority Population Intervals, 2015-2019

	Ratio of Minority Population Percentage in Census Block Group (road location) to Regional Average Minority Percentage				
	0.0 – 0.5 Very Low Minority %	0.5 – 1.0 Low Minority %	0.0 – 2.0 Medium Minority %	2.0 – 4.0 High Minority %	> 4.0 Very High Minority %
Federal-Aid Road Segment Miles	137.21	64.17	75.11	21.08	4.79
Share of Federal-Aid Road Segment Miles	45.4%	21.2%	24.8%	7.0%	1.6%
Federal-Aid Road Segment Miles with Poor IRI	2.18	3.62	4.43	2.75	1.59
Percent of Federal-Aid Road Segments with Poor IRI	1.6%	5.6%	5.9%	13.0%	33.2%
Share of Total Federal-Aid Road Segment Miles with Poor IRI	15.0%	24.8%	30.4%	18.9%	10.9%
Federal Aid Road Segment Miles with Poor OPI	0.67	2.89	3.93	2.55	1.65
Percent of Federal-Aid Road Segments with Poor OPI	0.5%	4.5%	5.2%	12.1%	34.4%
Share of Total Federal-Aid Road Segment Miles with Poor OPI	5.7%	24.7%	33.6%	21.8%	14.1%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

Table EJ-10: Distribution of Federal-Aid Roadways by Low-Income Population Intervals, 2015-2019

	Ratio of Low-Income Population Percentage in Census Block Group (road location) to Regional Average Low-Income Percentage				
	0.0 – 0.5 Very Low Low-Income %	0.5 – 1.0 Low Low-Income %	0.0 – 2.0 Medium Low-Income %	2.0 – 4.0 High Low-Income %	> 4.0 Very High Low-Income %
Federal-Aid Road Segment Miles	100.30	100.13	78.24	42.76	5.18
Share of Federal-Aid Road Segment Miles	30.7%	30.7%	24.0%	13.1%	1.6%
Federal-Aid Road Segment Miles with Poor IRI	5.27	1.06	2.41	2.96	2.20
Percent of Federal-Aid Road Segments with Poor IRI	5.2%	1.1%	3.1%	6.9%	42.4%
Share of Total Federal-Aid Road Segment Miles with Poor IRI	37.9%	7.6%	17.3%	21.3%	15.8%
Federal-Aid Road Segment Miles with Poor OPI	4.60	1.20	2.85	2.37	2.16
Percent of Federal-Aid Road Segments with Poor OPI	4.6%	1.2%	3.6%	5.5%	41.6%
Share of Total Federal-Aid Road Segment Miles with Poor OPI	34.9%	9.1%	21.6%	18.0%	16.4%

Source: 2015-2019 ACS 5-Year Estimates, PennDOT

Benefits & Burdens of the 2045 Long-Range Transportation Plan

Franklin County reviewed transportation projects located in areas that were determined to have higher than average minority and low-income levels. When evaluating the potential benefit or burden of a project, it should be noted that each type of project has a unique set of impacts and will affect individual populations differently. For example, maintenance projects tend to cause the least amount of impact on the population since they typically involve highway resurfacing or repaving work on existing roadways. Although these projects can cause delayed travel time and transit service, traffic detours, and work zone noise and debris, the projects are typically shorter in duration and result in improvements to the functionality of the roadway network by providing smoother driving surfaces and new roadway markings. While most bridge projects are identified as either a rehabilitation or replacement, both types of projects can lend itself to significant traffic detours, traffic delay, and noise. However, the benefits of these types of improvements result in safer bridge structures, improved roadway conditions and updated signage.

Capacity projects, which can involve the addition of new lanes to existing roadways, new roadways to the existing network, or at times the realignment of intersections or interchanges, in an effort to provide for more traffic mobility. Special attention needs to be made when planning capacity projects, especially to low-income and minority populations. Not only can these projects result in right-of-way acquisitions to account for the additional capacity, but also construction impacts are normally more severe due to longer construction periods, travel pattern shifts, and delayed travel times among others. The consequences of the completion of capacity projects can involve the loss of property, increased traffic volumes, and decreased air quality, while other benefits can include improved transit service time, decreased travel delay, and safer roadway conditions which will result in improved quality of life for all residents and users of the roadway system.

Of all locatable projects on Franklin County's 2045 LRTP, the number of projects in minority or low-income areas is lower than the number of projects located in non-minority and non-low-income areas. Tables EJ-11 and EJ-12 depict the types of projects and funding investments in each minority/income interval. Figures EJ-1 and EJ-2 illustrate the geographic proximity between different LRTP projects and the concentrations of minority and low-income populations by Census block groups based on 2015-2019 ACS data. Franklin County will continue to evaluate needs and investment opportunities in these areas to ensure all communities share in transportation investment benefits.

Table EJ-11: Distribution of Locatable Projects by Minority Population Intervals

		Ratio of Minority Population Percentage in Census Block Group (project location) to Regional Average Minority Percentage				
		0.0 – 0.5 Very Low Minority %	0.5 – 1.0 Low Minority %	0.0 – 2.0 Medium Minority %	2.0 – 4.0 High Minority %	> 4.0 Very High Minority %
Roadway Projects	Amount of Funding	$22,166,265.00	$50,766,303.00	$69,139,767.00	$36,825,306.00	$4,315,770.00
	Per Capita Funding	$376.30	$1,334.66	$1,839.61	$2,515.73	$866.27
	Number of Projects	5	8	7	2	1
Bridge Projects	Amount of Funding	$33,422,600.00	$22,729,205.92	$14,289,205.92	$9,788,000.00	$0.00
	Per Capita Funding	$567.39	$597.56	$380.19	$668.67	$0.00
	Number of Projects	37	13	10	5	-
Safety Projects	Amount of Funding	$0.00	$5,810,000.00	$5,810,000.00	$2,730,000.00	$0.00
	Per Capita Funding	$0.00	$152.75	$154.59	$186.50	$0.00
	Number of Projects	-	2	2	2	-
All Projects	Amount of Funding	$55,588,865.00	$79,305,508.92	$89,238,972.92	$49,343,306.00	$4,315,770.00
	Per Capita Funding	$943.69	$2,084.96	$2,374.39	$3,370.90	$866.27
	Number of Projects	42	23	19	9	1

Figure EJ-1: Concentrations of Minority Populations by Census Block Groups & LRTP Project Locations

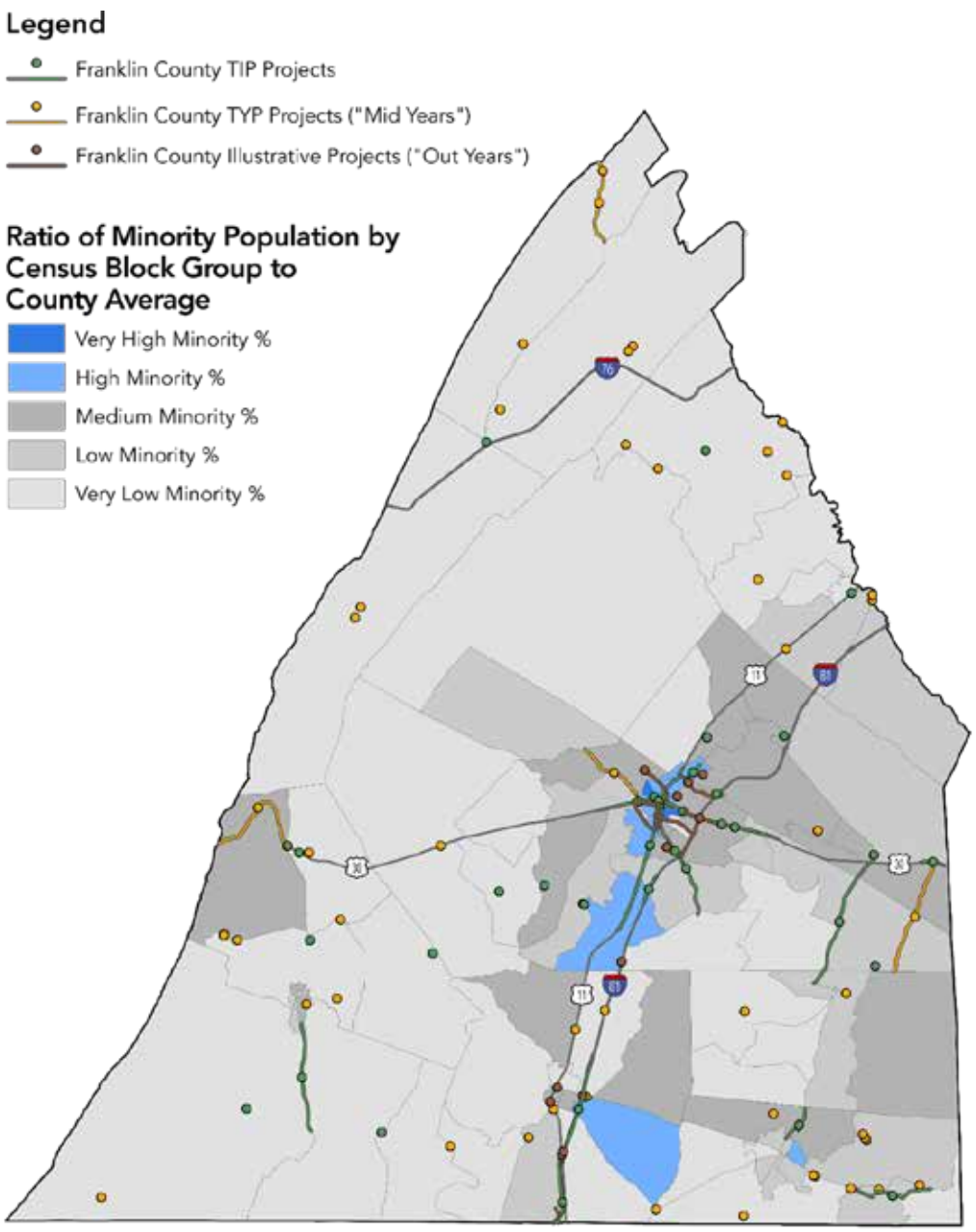
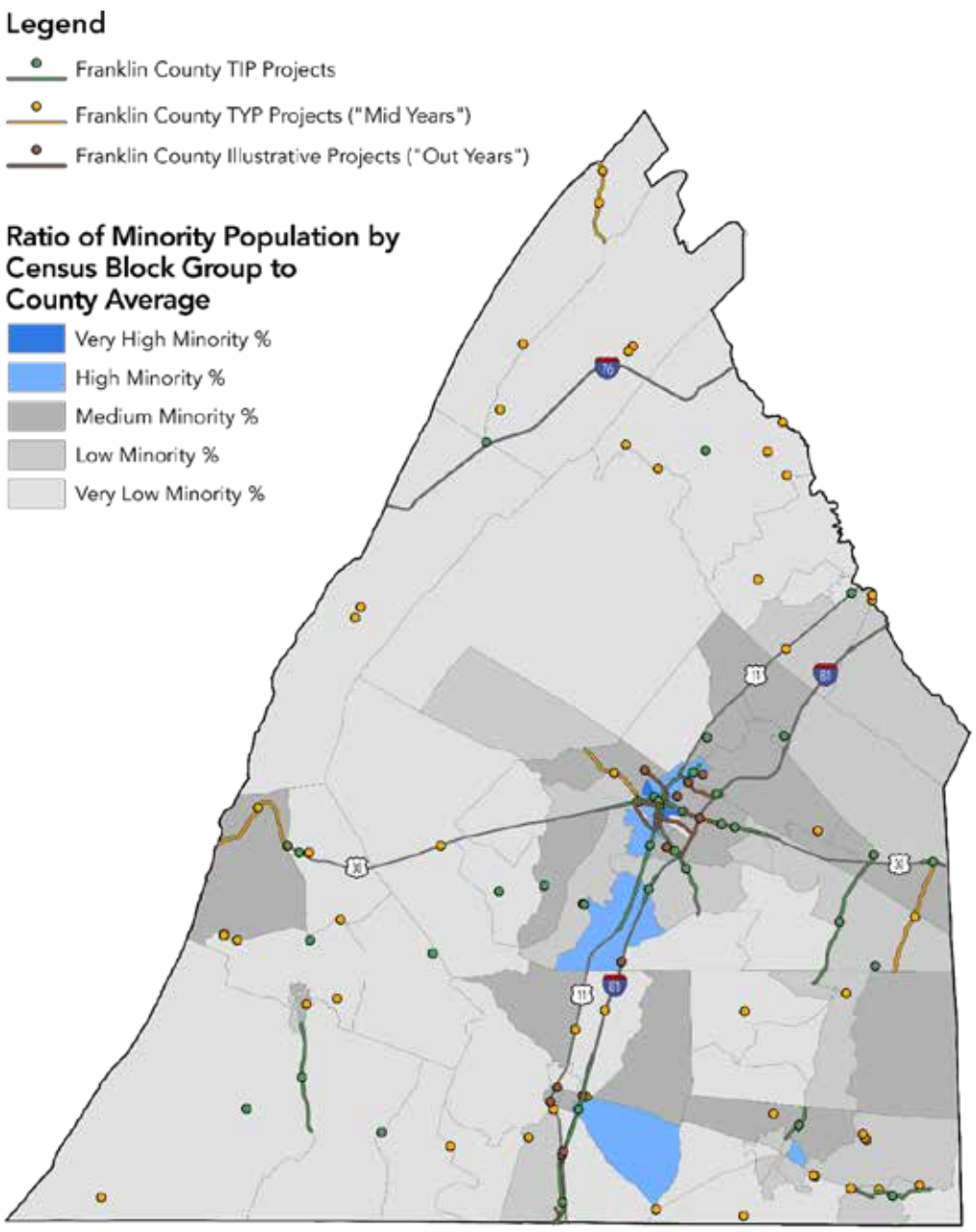


Table EJ-12: Distribution of Locatable Projects by Low-Income Population Intervals

		Ratio of Low-Income Population Percentage in Census Block Group (project location) to Regional Average Low-Income Percentage				
		0.0 – 0.5 Very Low Low-Income %	0.5 – 1.0 Low Low-Income %	0.0 – 2.0 Medium Low-Income %	2.0 – 4.0 High Low-Income %	> 4.0 Very High Low-Income %
Roadway Projects	**Amount of Funding**	$88,918,566.00	$75,440,126.00	$59,376,924.00	$6,649,886.00	$1,139,005.00
	Per Capita Funding	$1,820.98	$1,503.09	$1,529.39	$515.81	$991.30
	Number of Projects	7	20	6	4	1
Bridge Projects	**Amount of Funding**	$44,987,805.92	$28,261,906.66	$12,771,205.92	$6,952,000.00	$0.00
	Per Capita Funding	$921.31	$563.10	$328.95	$539.25	$0.00
	Number of Projects	20	47	13	5	-
Safety Projects	**Amount of Funding**	$2,730,000.00	$2,730,000.00	$2,730,000.00	$3,080,000.00	$0.00
	Per Capita Funding	$55.91	$54.39	$70.32	$238.91	$0.00
	Number of Projects	2	1	1	1	-
All Projects	**Amount of Funding**	$136,636,371.92	$106,432,032.66	$74,878,129.92	$16,681,886.00	$1,139,005.00
	Per Capita Funding	$2,798.21	$2,120.58	$1,928.66	$1,293.97	$991.30
	Number of Projects	29	68	20	10	1

Figure EJ-2: Concentrations of Low-Income Populations by Census Block Groups & LRTP Project Locations



Appendix E:
System Performance (2021)

2021 Performance Measures Annual Report -- Pavements

Franklin

*** Change for 2021, MAP-21 miles expressed in lane miles.**

Current MAP-21 Pavement Performance by Business Plan Network (Based on Total PA Lane Miles*)

Business Plan Network	MAP-21 Pavement Performance Measure											
	Good				Fair		Poor				Missing (Max 5%)	
	Lane Miles	%	2023 Target	2025 Target	Lane Miles	%	Lane Miles	%	2023 Target	2025 Target	Lane Miles	%
Interstate	24.2	23.05%	-	42%	80.9	76.95%	0.0	0.00%	-	2%	0.0	0.02%
NHS, Non-Interstate	43.1	35.23%	30%	23%	77.9	63.63%	1.4	1.14%	2%	3%	1.9	1.50%

- MAP-21 pavement performance measures required for FHWA reporting include four distress components which translate to good, fair, or poor condition scores. See table on reverse of this page for distresses and thresholds. Three conditions apply to each pavement type. A pavement 10th-mile section is considered in good condition if all three distress components are rated as good. A pavement 10th-mile section is considered in poor condition if two or more of its three distress components are rated as poor.
- FHWA requires that no more than 5 percent of a state's NHS Interstate lane-miles be in poor condition. Additionally, state DOTs are required to establish targets.
- FHWA has not established a minimum condition for NHS non-Interstate roadways, but requires the state DOT to establish targets.
- FHWA requires that no more than 5 percent of a state's mileage be unreported or missing.
- Conditions are assessed and analyzed for pavement "sections" that cannot exceed 0.10 miles in length, which differs from PennDOT's historic segment level data.
- MAP-21 performance measures apply to all Interstate and NHS Non-Interstate miles in PA, regardless of ownership. Therefore, PA Turnpike and local-owned miles are in Statewide totals, but not in each District's totals. Local-owned miles are included in MPO/RPO totals as appropriate.
- MAP-21 rulemaking requires that states develop and implement a risk-based asset management plan to achieve and sustain a state of good repair over the life cycle of transportation assets and to improve or preserve the condition of the NHS. Asset Management encompasses two related means of doing so: making infrastructure last as long as reasonably possible, and keeping up on preservation activities to minimize costlier major repairs. Together, these practices extend the life of assets and reduce the cost of maintaining them in the desired state of good repair. This is known as operating the network at the lowest life-cycle cost (LLCC).
- MAP-21 performance measures are not to drive planning and programming, but rather be an indication of performance achieved by states operating at the LLCC.

Current Pavement Smoothness (IRI) Summary by Business Plan Network (Based on PennDOT Segment Miles)

Business Plan Network	Excellent		Good		Fair		Poor		Median	Tested
	Seg-Mi	%	Seg-Mi	%	Seg-Mi	%	Seg-Mi	%	IRI	Seg-Mi
Interstate	37.3	72.19%	13.8	26.82%	0.5	0.99%	0.0	0.00%	60	51.6
NHS, Non-Interstate	21.7	41.63%	18.9	36.15%	8.1	15.57%	3.5	6.65%	86	52.2
Non-NHS, ≥ 2000 ADT	92.3	44.01%	74.5	35.52%	31.9	15.23%	11.0	5.24%	107	209.6
Non-NHS, < 2000 ADT	70.9	22.14%	101.5	31.69%	74.5	23.24%	73.4	22.92%	162	320.4
Total - Roadway	222.2	35.06%	208.7	32.93%	115.0	18.15%	87.9	13.87%	126	633.8

Current Overall Pavement Index (OPI) Summary by Business Plan Network (Based on PennDOT Segment Miles)

Business Plan Network	Excellent		Good		Fair		Poor		Median
	Seg-Mi	%	Seg-Mi	%	Seg-Mi	%	Seg-Mi	%	OPI
Interstate	1.6	3.00%	48.5	94.07%	1.5	2.93%	0.0	0.00%	91
NHS, Non-Interstate	4.9	9.35%	31.8	60.91%	11.1	21.25%	4.4	8.49%	85
Non-NHS, ≥ 2000 ADT	49.2	23.48%	91.2	43.53%	64.4	30.73%	4.7	2.26%	85
Non-NHS, < 2000 ADT	91.2	28.47%	168.2	52.50%	52.1	16.25%	8.9	2.79%	79
Total - Roadway	146.9	23.17%	339.8	53.61%	129.1	20.36%	18.1	2.86%	83

Total Miles

PennDOT Seg-Mi	PA Lane Miles
51.6	105.2
52.6	124.2
210.1	
329.1	
643.4	

- The IRI and OPI data presented herein is segment level.
- For the Interstate and NHS, Non-Interstate Business Plan Networks, the IRI and OPI data is for 2021. For the Non-NHS Business Plan Networks, the IRI and OPI data for most recent year captured, either 2020 or 2021.
- PennDOT has historically classified Good Interstate IRI as ≤100, and Poor Interstate IRI as >150; for NHS Non-Interstate, Good is ≤120 and Poor is >170. This practice is maintained in the IRI data presented herein, but differs from the MAP-21 definitions defined in the table on the reverse of this page.

Current Out-Of-Cycle (OOC) Assessment by Business Plan Network (Based on PennDOT Segment Miles)

Business Plan Network	High Level Bituminous		Low Level Bituminous				Concrete				Potentially Past DSL
	Seg-Mi	OOC Mi[1]	Seg-Mi	OOC Mi[2]	OOC Mi[3]	Total	Seg-Mi	OOC Mi[4]	OOC Mi[5]	Total	Seg-Mi
Interstate	39.03	36.23	0.00	0.00	0.00	0.00	12.57	0.00	0.00	0.00	35.23
NHS, Non-Interstate	56.76	34.86	0.00	0.00	0.00	0.00	0.65	0.11	0.11	0.11	28.92
Non-NHS, ≥ 2000 ADT	176.96	95.31	47.79	23.62	11.11	23.62	0.00	0.00	0.00	0.00	
Non-NHS, < 2000 ADT	66.85	51.46	240.30	121.20	86.67	121.20	0.99	0.53	0.99	0.53	
Total - Roadway	355.28	134.68	271.87	145.16	87.57	200.61	14.20	0.00	1.10	1.10	

- Out-Of-Cycle Categories:
  - 1 - High Level Bituminous Pavement with Age > 12 Years or > 17 Years with Interim Surface Seal
  - 2 - Low Level Bituminous Surface with Age > 7 Years
  - 3 - Low Level Bituminous Pavement with Age > 20 Years or no Structural Layers
  - 4 - Concrete Pavements with Age > 30 Years
  - 5 - Concrete Pavements with Age > 20 Years and No Concrete Pavement Restoration (CPR)
- Total Low Level OOC represents the miles that are OOC for either Category 2 or 3. Segments that are OOC for both categories are not double counted. Total Concrete OOC represents the miles that are OOC for either Category 4 or 5. Segments that are OOC for both categories are not double counted.
- Pavement Potentially Past Design Service Life is defined a pavement structure age greater than 40 years, and OOC according to any of the categories. This indicates that, even though the surface is OOC, the pavement may be in need of more than resurfacing or CPR due to it's overall age.

2018-MPO/RPO, 8/10/2022

· The IRI miles and Total PennDOT miles include bridge lengths.
The Total PA miles, used for MAP-21, do not include bridge lengths.
The Treatment Network miles do not include bridge lengths.

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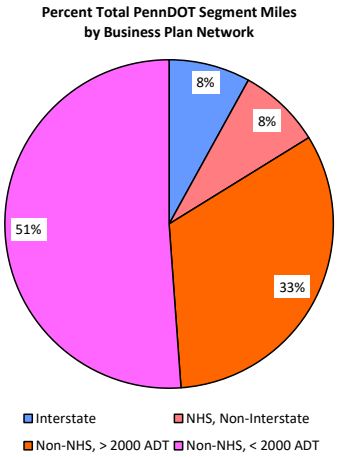
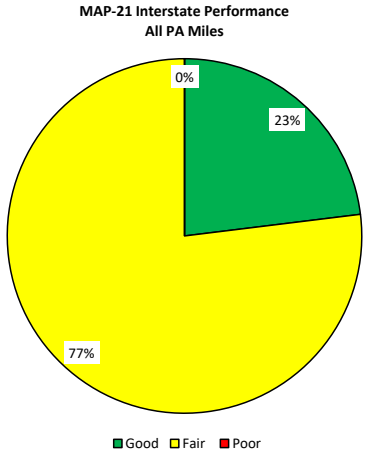
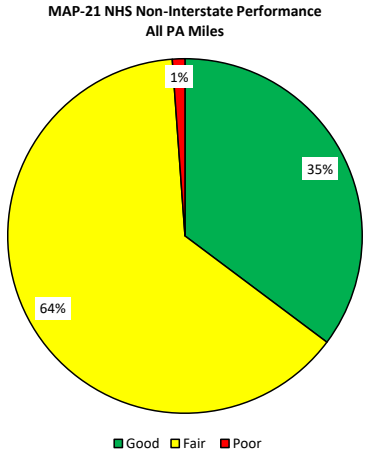
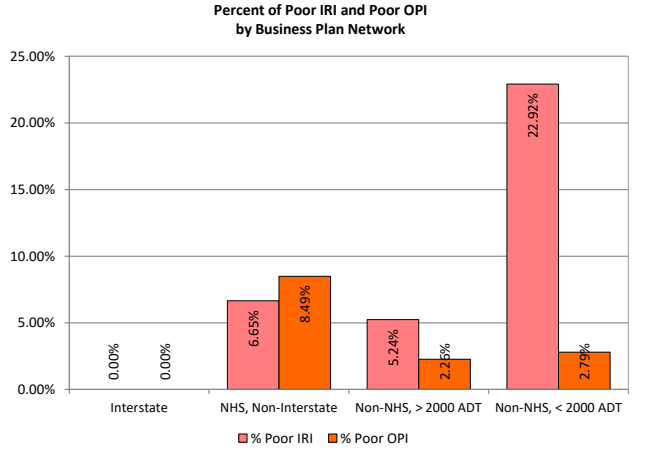


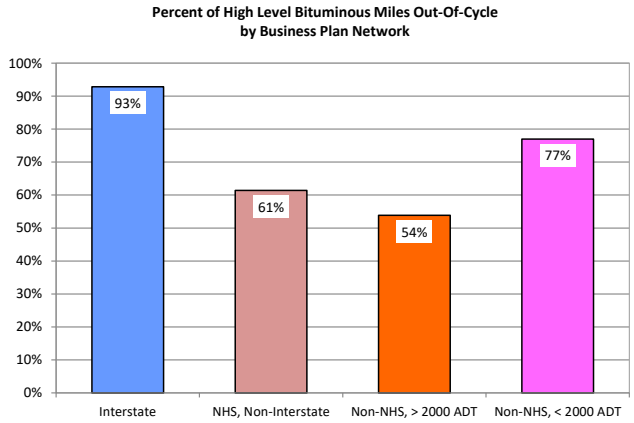


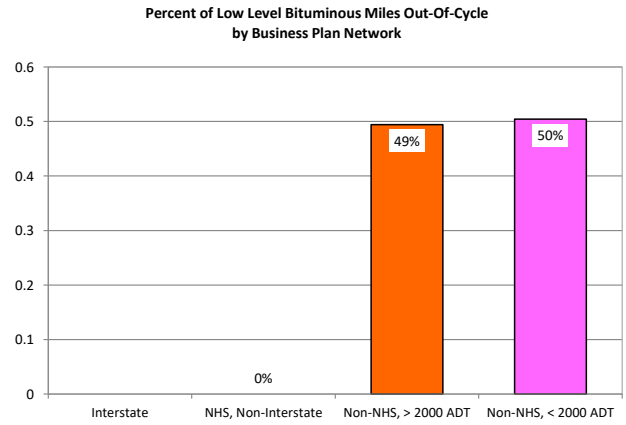


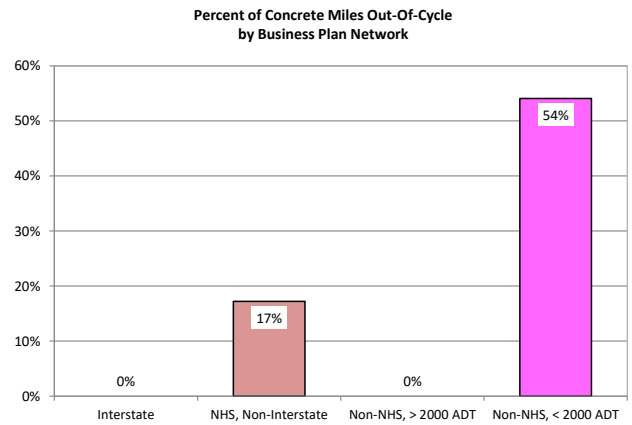
MAP-21 Pavement Conditions and Thresholds

Rating	Good	Fair	Poor
IRI (inches/mile)	<95	95–170	>170
Cracking Percentage	<5	CRCP: 5–10 Jointed: 5–15 Asphalt: 5–20	CRCP: >10 Jointed: >15 Asphalt: >20
Rutting (inches)	<0.20	0.20–0.40	>0.40
Faulting (inches)	<0.10	0.10–0.15	>0.15









2018-MPO/RPO, 8/10/2022

MAP-21 Bridge Performance by Business Plan Network (Based on all NHS Bridge Owners Greater than or Equal to 20' in Length)

MAP-21 Bridge Performance Measure												
	Good				Fair				Poor			
Business Plan Network	Count	Count %	Deck Area (Msf)	Deck Area %	Count	Count %	Deck Area (Msf)	Deck Area %	Count	Count %	Deck Area (Msf)	Deck Area %
Interstate	7	28.00%	0.077	44.84%	18	72.00%	0.095	55.16%	0	0.00%	0.000	0.00%
NHS, Non-Interstate	5	33.33%	0.037	47.96%	6	40.00%	0.030	38.61%	2	13.33%	0.007	8.88%
Total NHS	12	30.00%	0.114	45.80%	24	60.00%	0.125	50.05%	2	5.00%	0.007	2.74%

	Map-21 Goal	End of Year 2021 Value	2021 Target	2023 Target	2025 Target
Total NHS Deck Area Poor %	10.00%	2.74%	6.75%	7.25%	5.00%

Business Plan Network	Count	Deck Area (Msf)
Interstate	25	0.173
NHS, Non-Interstate	15	0.077
Total NHS	40	0.250

- MAP-21 bridge data is assessed and analyzed by National Bridge Inventory Standards (Bridges 20' and greater), which differs from PennDOT's 8' and greater reporting.
- MAP-21 performance measures apply to all Interstate and NHS Non-Interstate bridges in PA, regardless of ownership. Therefore, PA Turnpike and local-owned bridges are included in totals.

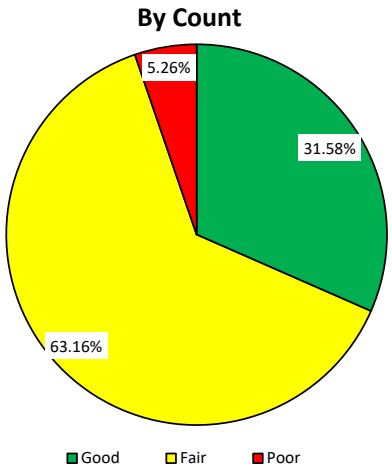
- MAP-21 bridge performance measures required for FHWA reporting include good, fair, or poor condition scores for each bridge. A bridge is considered to be in good condition if the minimum condition rating of the deck, superstructure, substructure, or culvert ratings is 9, 8, or 7, fair if the minimum condition rating is 6 or 5, and poor if the minimum condition rating is 4 or less.
- FHWA requires that no more than 10 percent of a state's total NHS Bridge Deck Area be in poor condition. Additionally, state DOTs are required to establish biennial targets for poor deck area.
- FHWA has not established a minimum condition for Interstate only bridges or NHS non-Interstate bridges, but requires the state DOT to establish targets.
- FHWA requires that no more than 5 percent of a state's bridge data be unreported or missing.
- MAP-21 rulemaking requires that states develop and implement a risk-based asset management plan to achieve and sustain a state of good repair over the life cycle of the asset to improve or preserve the condition of the NHS. Asset Management encompasses two related means of doing so: making infrastructure last as long as reasonably possible through keeping up on preservation activities to minimize costlier major repairs, and utilizing a structure for its entire service life. These practices allow the department to operate to lowest life cycle cost (LLCC) on the network level.
- MAP-21 performance measures are not to explicitly drive planning and programming, but rather be an indication of performance achieved by states operating at the LLCC.

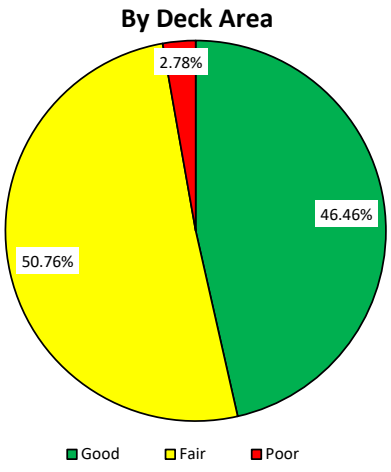
Business Plan Network	Total Bridge Count	Total Deck Area (Msf)	Aver. Bridge DA (sf)	Closed Bridges	Posted Bridges	Poor Count	% Poor by Count	Poor-Deck Area (Msf)	% Poor by Deck Area	Non-Poor Bridges with a "5" Condition Rating
State ≥8'; Interstate/Ramps	28	0.1278	4,565	0	0	0	0.00%	0.0000	0.00%	7
State ≥8'; NHS (non-Interstate)	27	0.0850	3,146	0	0	8	29.63%	0.0108	12.71%	7
State ≥8'; non-NHS > 2000 ADT	111	0.2308	2,079	0	1	7	6.31%	0.0035	1.50%	38
State ≥8'; non-NHS < 2000 ADT	157	0.2872	1,829	0	2	14	8.92%	0.0186	6.49%	44
Total - State Bridges (≥8')	**323**	**0.7307**	**2,262**	**0**	**3**	**29**	**8.98%**	**0.0329**	**4.50%**	**96**
Local≥20'	102	0.1698	1,665	1	12	17	16.67%	0.0265	15.58%	36

Reducing Rate of Deterioration through Investment (Non-Replacement) (Based on 8' and greater)

Business Plan Network	Annual New Poor Count (Poor "on")	Annual New Poor Count (Poor "off")	Annual New Poor DA (Poor "on")	Annual New Poor DA (Poor "off")	Preservation (million$)	Preservation (#bridges)
State ≥8'; Interstate/Ramps	0	0	0.00%	0.00%	$0.00	0
State ≥8'; NHS (non-Interstate)	0	1	0.00%	1.59%	$0.17	1
State ≥8'; non-NHS > 2000 ADT	0	0	0.00%	0.00%	$0.00	0
State ≥8'; non-NHS < 2000 ADT	0	0	0.00%	0.00%	$0.00	0
Total - State Bridges (≥8')	**0**	**1**	**0.00%**	**0.18%**	**$0.17**	**1**
Local≥20'	0	0	0.00%	0.00%	$0.00	0

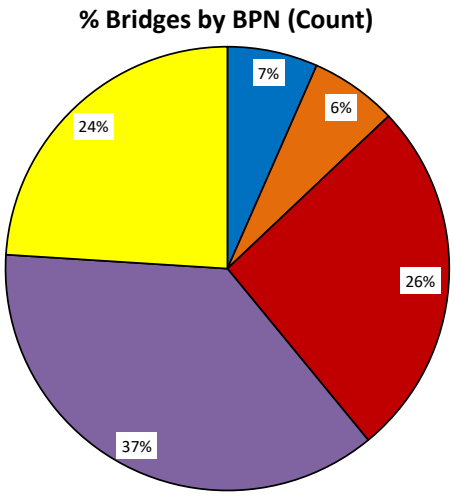
MAP-21 Bridge Performance (Based on all NHS Bridge Owners Greater than or Equal to 20' in Length)



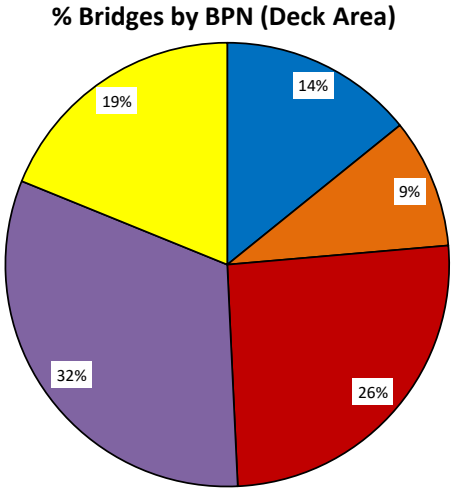


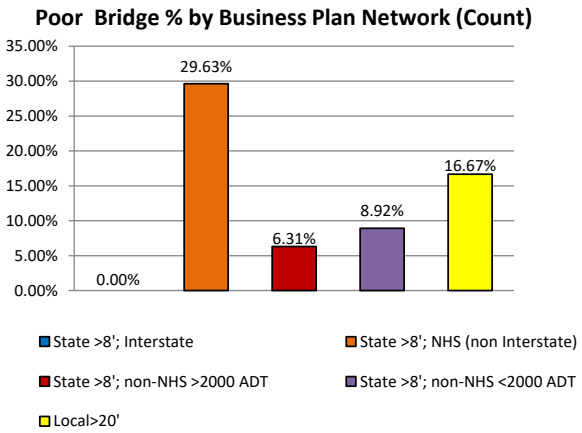
End of Calendar Year 2021 Status of Bridges in Region (Based on 8' and greater)

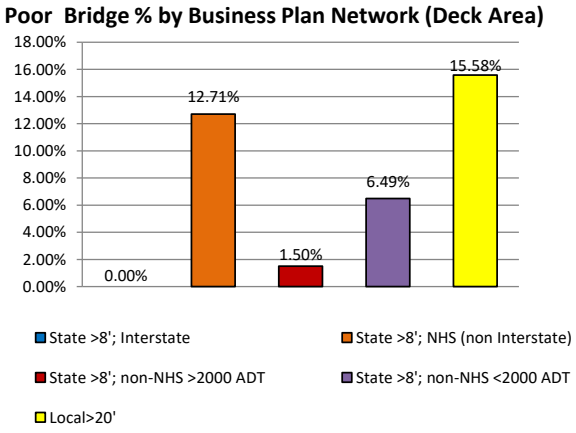
PennDOT Data 8' and Greater By Business Plan Network



PennDOT Data 8' and Greater By Business Plan Network







Appendix F: Interstate TIP

Route	Project	Project Title	Phase	Area	FFY 2023 Costs	FFY 2024 Costs	FFY 2025 Costs	FFY 2026 Costs
I-81	92006	I-81 Maryland to MM6	F	IMAN		$100,000		
I-81	92006	I-81 Maryland to MM6	P	IMAN	$54,636			
I-81	92006	I-81 Maryland to MM6	+C	IMAN			$12,554,777	$3,399,037

Source: PennDOT, August 24, 2022
Note: "+" indicates the project qualifies for TOLL funds

Appendix G: County-Owned Bridges (with ADT)

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28720103403088	Co. Bridge #88	KUHN RD	CONCOCHEAGUE CREEK	140	2520.0	P/S, I beams	1959	OPEN	Fair	400
28720205653958	Co. Bridge #114	T-565; Main St.	UNT to West Dry Run	52	1346.8	Concr. en-cased steel, I beams	1924	OPEN	Fair	100
28720205683055	Co. Bridge #55	T-568 DRY RUN ROAD	DRY RUN	25	375.0	P/S, Slab (solid)	1959	POSTED	Fair	100
28720205683955	Co. Bridge #55A	DRY RUN ROAD	DRY RUN	37	751.1	Steel, I beams	1930	OPEN	Fair	350
28720205693058	Co. Bridge #58	T-569 SHEAR-ER ROAD	DRY RUN	42	609.0	Steel, I beams	1974	OPEN	Fair	150
28720205723056	Co. Bridge #56	T-572 MILL ROAD	CONOCO-CHEAGUE CRK.,W. BR.	46	860.2	P/S, Box beam - adj	1964	OPEN	Fair	50
28720205753057	Co. Bridge #57	NEW BRIDGE ROAD	CONOCO-CHEAGUE CREEK W.BR	46	864.8	P/S, Box beam - adj	1964	OPEN	Fair	100
28720205833059	Co. Bridge #59	T-583 CROSS ROAD	DOYLESTOWN STREAM	42	915.6	Steel, I beams	1968	OPEN	Fair	210
28720205863054	Co. Bridge #54	Store Lane	W. Br. Conco-cheague Cr	40	1096.0	P/S, Box beam - (spread)	2015	OPEN	Good	250
28720305163007	Co. Bridge #7	COLD SPRING RD	CONOCO-CHEAGUE CREEK	114	3591.0	P/S, Box beam - adj	1983	OPEN	Fair	500
28720305193003	Co. Bridge #3	BRINDLE RD	CONOCO-CHEAGUE CREEK	92	2760.0	P/S, Box beam - adj	1973	OPEN	Fair	350
28720305203002	Co. Bridge #2	WOOD-STOCK RD	CONOCO-CHEAGUE CREEK	86	2709.0	P/S, Box beam - (spread)	1978	OPEN	Fair	250

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28720305233008	Co. Bridge #8	T-523 Brookens Rd.	Cold Spring Run	20	584.0	Concrete(precast), Box culvert	2000	OPEN	Fair	401
28720305253005	Co. Bridge #5	CORNERTOWN RD	CONOCOCHEAGUE CREEK	96	2016.0	P/S, Box beam - (spread)	1961	OPEN	Poor	600
28720305283004	Co. Bridge #4	SYCAMORE GROVE RD	CONOCOCHEAGUE CREEK	107	3370.5	P/S, Box beam - (spread)	1991	OPEN	Fair	400
28720404683012	Co. Bridge #12	BRIAR LANE	FALLING SPRING CREEK	34	1071.0	P/S, Slab (solid)	1979	OPEN	Fair	200
28720405073017	Co. Bridge #17	Wilkson Lane	Trib. Conococheague Ck.	20	556.0	Concrete(precast), Box culvert	1992	OPEN	Fair	1,268
28720405083018	Co. Bridge #18	Lincoln Ter	Trib to Conococheague Ck	20	556.0	Concrete(precast), Box culvert	1992	OPEN	Fair	1,036
28720405084002	Co. Bridge #18	LINCOLN ROAD	TRIBUTARY TO CONOCOCHEAG	23	639.4	Concrete(precast), Box culvert	1992	OPEN	Fair	1,000
28720405143019	Co. Bridge #19	QUARRY RD	FALLING SPRING CREEK	43	1354.5	P/S, Box beam - adj	1987	OPEN	Fair	500
28720405153015	Co. Bridge #15	GARMAN DR	FALLING SPRING CREEK	33	1039.5	P/S, Slab (solid)	1974	OPEN	Fair	600
28720504553025	Co. Bridge #25	LEHMAN RD	CONOCOCHEAGUE CREEK	156	2698.8	Steel, I beams	1941	OPEN	Fair	300
28720504563024	Co. Bridge #24	T-456 ETTER ROAD	E BR CONOCOCHEAGUE CR	83	1228.4	Steel, I beams	1904	OPEN	Good	100
28720504643029	Co. Bridge #29	T-464 RUMLER ROAD	TRIB OF DENNIS CREEK	26	624.0	Concrete(in place), Rigid frame	2003	OPEN	Fair	25
28720504673023	Co. Bridge #23	TALLOW HILL RD	CONOCOCHEAGUE CREEK	67	2103.8	P/S, Box beam - adj	1955	OPEN	Fair	450
28720504813022	Co. Bridge #22	T481 BOYER MILL RD	CONOCOCHEAGUE CREEK	160	5904.0	P/S, I beams	2003	OPEN	Fair	2,250
28720505333028	Co. Bridge #28	CROTTLESTOWN RD	BACK CREEK	50	1370.0	P/S, Box beam - (spread)	1959	OPEN	Fair	350

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28720505393929	Co. Bridge #29A	KEEFER RD	ROCKY SPRING BRANCH	43	1182.5	P/S, Box beam - (spread)	1998	OPEN	Fair	250
28720505923027	Co. Bridge #27	TWIN BRIDGE RD	DENNIS CREEK	43	1178.2	P/S, Box beam - (spread)	2012	OPEN	Good	307
28720605883053	Co. Bridge #53	SANDY MOUNTAIN RD	CONODOGUINET TRIBUTARY	25	690.0	Concrete(in place), Slab (solid)	1993	OPEN	Fair	200
28720605983049	Co. Bridge #49	IRON BRIDGE ROAD	LEHMAN RUN	66	2079.0	P/S, Box beam - adj	1973	OPEN	Fair	100
28720606033050	Co. Bridge #50	T-603 LIME-KILN RD	MUDDY RUN	68	1883.6	P/S, I beams	1967	OPEN	Fair	275
28720606353051	Co. Bridge #51	T-635 PARK ROAD	CONODOGUINET CREEK	86	2150.0	P/S, I beams	1962	OPEN	Fair	100
28720706283063	Co. Bridge #63	HICKORY RUN ROAD	CONODOGUINET CREEK	57	957.6	P/S, Box beam - adj	1963	POSTED	Poor	125
28720706423066	Co. Bridge #66	BURNT MILL ROAD	CONODOGUINET CREEK	109	1689.5	Alum, Iron, Truss - thru	1885	POSTED	Poor	250
28720706463065	Co. Bridge #65	T-646 W. CREEK RD	PAXTON RUN	43	1354.5	P/S, Box beam - (spread)	1978	OPEN	Good	200
28720805603112	Co. Bridge #112	T-560 CREEK ROAD	CONOCO-CHEAGUE CREEK W.BR	106	3339.0	P/S, I beams	1967	OPEN	Fair	222
28720805603113	Co. Bridge #113	T-560 CREEK ROAD	CONOCO-CHEAGUE CREEK W.BR	108	1836.0	Steel, I beams	1950	OPEN	Fair	222
28720805623115	Co. Bridge #115	HILL ROAD	CONOCO-CHEAGUE CREEK W.BR	68	1230.8	Masonry, Arch deck - closed	1825	OPEN	Fair	250
28720840043116	Co. Bridge #116	Fannettsburg Road	W.BR.CONOCO-CHEAGUE CREEK	100	2170.0	Masonry, Arch deck - closed	1825	POSTED	Fair	541
28720903073118	Co. Bridge #118	SHIMP-STOWN RD	LICKING CREEK	77	1909.6	P/S, Box beam - adj	1960	POSTED	Poor	300
28720903083119	Co. Bridge #119	GARNES RD	W BR CONOCO-CHEAGUE CREEK	141	4512.0	P/S, Box beam - adj	1970	OPEN	Fair	150
28720903083124	Co. Bridge #124	PUNCH BOWL RD	LICKING CREEK	60	1980.0	P/S, Box beam - adj	1966	OPEN	Fair	200

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28720903133122	Co. Bridge #122	CLAYLICK RD	LICKING CREEK BRANCH	27	850.5	P/S, Box beam - (spread)	1997	OPEN	Good	100
28720903283120	Co. Bridge #120	ANDERSON RD	LICKING CREEK	74	1050.8	Timber, Truss - thru	1883	POSTED	Fair	100
28720903283128	Co. Bridge #128	ANDERSON ROAD	CONOCO-CHEAGUE CREEK W BR	83	1543.8	Masonry, Arch deck - closed	1820	POSTED	Poor	150
28720903303121	Co. Bridge #121	T-330 Heisey Road	W Br Conoco-cheague	129	3534.6	P/S, Box beam - (spread)	2021	OPEN	Good	257
28720903343125	Co. Bridge #125	COOL HOL-LOW RD	W BR CONCO-CHEAGUE CREEK	163	2868.8	P/S, I beams	1967	OPEN	Fair	250
28721003333098	Co. Bridge #98	MCFARLAND RD	CONOCO-CHEAGUE CREEK,W.BR	113	3423.9	P/S, Box beam - adj	1964	OPEN	Fair	75
28721003333104	Co. Bridge #104	MCFARLAND RD.	JOHNSTON RUN	36	990.0	P/S, Box beam - adj	1982	OPEN	Fair	300
28721004053101	Co. Bridge #101	DICKEY'S RD	BUCK RUN	47	1494.6	Concr. en-cased steel, I beams	1925	OPEN	Poor	500
28721103873078	Co. Bridge #78	NUNNERY ROAD	W BR LITTLE ANTIE-TAM CRK	51	1606.5	P/S, Box beam - adj	1982	OPEN	Good	300
28721103873978	Co. Bridge #78A	NUNNERY ROAD	NUNNERY CREEK	38	1197.0	P/S, Box beam - adj	1982	OPEN	Fair	275
28721103913076	Co. Bridge #76	T391 HESS BENEDICT	W BR LITTLE ANTIE-TAM CRK	36	1008.0	Concrete(pre-cast), Box culvert	2002	OPEN	Fair	300
28721103973075	Co. Bridge #75	T-397 MT ZION ROAD	W BR LITTLE ANTIE-TAM CRK	30	840.0	Concrete(pre-cast), Box culvert	2002	OPEN	Fair	300
28721103993074	Co. Bridge #74	T-399 STA-MEY HILL	W BR LITTLE ANTIE-TAM CRK	26	728.0	Concrete(pre-cast), Box culvert	2002	OPEN	Good	350
28721204203037	Co. Bridge #37	T-420 KELLER RD	CAMPBELL RUN	35	1099.0	P/S, Box beam - adj	1997	OPEN	Fair	200
28721204213035	Co. Bridge #35	T-421 GEHR RD	CAMPBELL RUN	42	1327.2	P/S, Box beam - adj	1974	OPEN	Good	275

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28721204583033	Co. Bridge #33	T458 JACK MILLS RD	BACK CREEK	104	2620.8	P/S, Box beam - (spread)	1976	OPEN	Fair	200
28721204583039	Co. Bridge #39	HADE RD	BACK CREEK TRIB	43	1419.0	Concrete(pre-cast), Box beam - adj	1930	OPEN	Fair	1,100
28721204583042	Co. Bridge #42	TWIN BRIDGE RD	WILSON RUN	37	1091.5	P/S, Box beam - (spread)	1976	OPEN	Good	400
28721204593032	Co. Bridge #32	T-459 GRAPE-VINE RD	BACK CREEK TRIB	30	606.0	Concr. en-cased steel, I beams	1929	OPEN	Fair	250
28721204623043	Co. Bridge #43	T-462 PECK-MAN DR	WILSON RUN	42	1327.2	P/S, Box beam - adj	1985	OPEN	Fair	150
28721204643045	Co. Bridge #45	COBLE ROAD	WILSON RUN	33	1056.0	P/S, Box beam - (spread)	1971	POSTED	Fair	300
28721204673040	Co. Bridge #40	RACE TRACK RD	BACK CREEK TRIB	42	1155.0	P/S, Box beam - (spread)	1964	OPEN	Fair	1,000
28721204713034	Co. Bridge #34	CAMPBELLS RUN ROAD	CAMPBELL RUN	25	682.5	P/S, Slab (solid)	1977	OPEN	Fair	140
28721204783044	Co. Bridge #44	WENGER ROAD	WILSON RUN	33	867.9	P/S, Channel beams	1962	POSTED	Fair	200
28721204863026	Co. Bridge #26	LEAFMORE RD	BACK CREEK	90	2232.0	P/S, Box beam - adj	1959	POSTED	Poor	600
28721204893046	Co. Bridge #46	T-489 COM-MUNITY RD	WILSON RUN	24	576.0	Concrete(in place), Rigid frame	2005	OPEN	Fair	200
28721306043060	Co. Bridge #60	T-604 MUD-DY RUN RD	MUDDY RUN	40	700.0	Steel, I beams	1963	OPEN	Poor	275
28721403043105	Co. Bridge #105	SYLVAN DRIVE	LITTLE COVE CREEK	96	2860.8	P/S, I beams	1964	OPEN	Fair	150
28721406853109	Co. Bridge #109	SYLVAN DRIVE	LITTLE COVE CREEK	62	1953.0	P/S, I beams	1975	OPEN	Fair	100
28721503293094	Co. Bridge #94	AMSTERDAM ROA	RED RUN CREEK	54	1755.0	P/S, Box beam - adj	1964	OPEN	Fair	250
28721503633090	Co. Bridge #90	LYONS ROAD	E.BR.LITTLE ANTIE-TAM CR	103	3038.5	P/S, Box beam - adj	1981	OPEN	Fair	300

Bridge ID	Structure Name	Feature Carried	Feature Intersected	Length (Feet)	Deck Area (SF)	Structure Type	Year Built	Post Status	Overall Cond.	ADT
28721503633091	Co. Bridge #91	GOODS DAM RD	E. BR. ANTIETAM CRK	73	2263.0	P/S, Box beam - adj	1975	OPEN	Fair	200
28721503653093	Co. Bridge #93	T365 Welty Road	E BR LITTLE ANTIE-TAM CRE	47	1518.1	P/S, Box beam - adj	1964	OPEN	Fair	400
28740140003130	Co. Bridge #130	WEST KING STREET	FALLING SPRING CREEK	64	3923.2	Concrete(in place), Slab (solid)	1918	OPEN	Poor	3,535
28740140003131	Co. Bridge #131	WEST KING STREET	CONOCO-CHEAGUE CREEK	59	2696.3	Masonry, Arch deck - closed	1828	OPEN	Fair	3,700

Source: PennDOT Bureau of Operations, September 2022

Appendix H: Locally Owned Federal-Aid-Eligible Roadways

Name	Begin	End	Total Linear Mileage
3rd St	Fairview Ave	Clayton Ave	1.11
5th St	S Potomac St	Clayton Ave	0.62
Airport Rd	Midvale Rd	Rt 550	0.75
Antrim Commons Dr	Molly Pitcher Hwy	NS / Greencastle	0.73
Blairs Valley Rd	Whitetail Resort	Pennsylvania boundary	1.77
Charmian Rd/Monterey Ln	Buchanan Trail E	Buchanan Trail E	1.56
Cleveland Ave	W 5th St	W Main St	0.98
Coffey Ave	Letterkenny Rd	PA 997	1.89
Cumberland Valley Ave	W Main St	W King St	0.32
E 2nd St	Clayton Ave	E Main St	0.93
E 9th St/Clayton Ave	S Potomac St	E 5th St	1.00
E McKinley St	S 2nd St	Stouffer Ave	1.33
Fairview Ave	W 6th St	W Main St	0.87
Grandview Ave	Lincoln Hwy	N Franklin St	0.86
Grant St	N 2nd St	5th Ave	0.60
Grindstone Hill Rd	Leitersburg Rd	PA 16	1.17
Guilford Springs Rd/WCN Dr	Molly Pitcher Hwy	Kriner Rd	0.83
Kriner Rd	Molly Pitcher Hwy	Rt 316	2.02
Leitersburg Rd	Marsh Rd	Pennsylvania boundary	0.93
Letterkenny Rd West	Rocky Spring Rd	Letterkenny Rd	0.86

Name	Begin	End	Total Linear Mileage
Mill Rd/Hollywell Ave	S Main St	W South St	2.88
N Carl Ave	Baltimore St	N Antrim Way	0.17
Norland Ave	Walker Rd	5th Ave	1.15
Norland Ave	Walker Rd	St Paul Dr	0.84
Norland Ave/5th Ave	Edgar Ave	E Queen St	2.13
Orchard Dr	S Main St	Rt 316	1.05
Roadside Ave	E Main St	Northeast Ave	0.52
Rocky Spring Rd/Salem Rd Ext	S Patrol Rd/Letterkenny Rd W	Letterkenny Rd	1.67
Roland Ave	Philadelphia Ave	Scotland Ave	0.59
S 4th St	Rt 316	E Queen St	1.29
S Coldbrook Ave	Rt 316	Lincoln Hwy	1.46
Salem Rd	Filmore Dr	Philadelphia Ave	0.40
Salem Rd	Letterkenny Rd	Filmore Dr	1.62
W 6th St	Fairview Ave	S Potomac St	0.43
W King St	Cumberland Valley Ave	N Grant St	0.26
W King St/N 7th St	N Franklin St	Lincoln Way E	1.55
Walker Rd	Scotland Ave	Rte 316	4.83
Washington Twp Blvd	Old Forge Rd	Old Rte 16	1.16
Welty Rd	Amsterdam Rd	PA 16	0.66
Welty Rd/Amsterdam Rd/Old Mill Rd	PA 997	PA 16	2.92

Source: PennDOT and calculations

Appendix I: Public Comment Summary and Response

Plan Section (Page Number)	Comment	Response
Active Transportation (pg. 51)	Bicycle Route S through Franklin County is mentioned. This route, especially as it follows Route 30 westward from Fayetteville through Chambersburg requires an in-depth suitability study. There are no dedicated bicycle lanes or sidewalks on either side of the highway for a major part of the route westward from Fayetteville to the intersection of I-81. This is an especially dangerous route for cyclists or pedestrians with 45 MPH speeds allowed and heavy motorized traffic. At the present time, this section of Route S should not be considered a suitable cross-state bicycle route and alternative routes should be considered.	Acknowledged. Safety for all users and modes, including bicyclists and pedestrians, continues to be a top priority for the MPO and PennDOT in planning and programming efforts. An evaluation of Bicycle Route S could be something the MPO could examine in the future depending on funding availability.
Active Transportation (pg. 51)	Recent legislation at the federal level created the Neighborhood Access and Equity Grant Program which will provide over $3 billion in competitive grants to improve connectivity in communities and to increase community involvement in transportation planning (Rails-to-Trails Conservancy), Planners should consider this legislation as funding source for active transportation planning.	Acknowledged. The MPO will further explore new federal programs from the IIJA/BIL as they become available to support its goals for the transportation system.
Public Engagement (pg. 62)	While I very much appreciate your emphasis on completing and adding to the few multi-use rail trails and cross country bike routes in Franklin County, I would like some emphasis to planning "Complete Streets" in municipalities such as Chambersburg, Waynesboro, Greencastle, Shippensburg and Mercersburg. As the AARP Public Policy Institute, Planning Complete Streets for an Aging America states: "America needs streets designed to be safe and convenient for travel by automobile, foot, bicycle and transit regardless of age or ability. As the nation ages, Complete Streets planning presents an opportunity to increase the safety and availability of older adults' travel options."	The MPO includes Complete Streets approaches as a potential strategy for improving availability and access to active transportation amenities under the Bicycle and Pedestrian Accommodation goal area in the Strategic Directions section. The MPO will coordinate with PennDOT and its communities on potential areas that could benefit from Complete Streets approaches and/or elements.

Plan Section (Page Number)	Comment	Response
Public Engagement (pg. 62)	Suggest an Active Transportation committee in the MPO or County Planning organization with representatives (individuals, schools, colleges, institutions, specific communities, industrial/commercial entities) from the county to review and suggest studies or projects.	Agreed. The Strategic Directions section includes the establishment of an Active Transportation Committee as a strategy under the Bicycle and Pedestrian Accommodation goal area.
Safety (pg. 66)	When repaving or restructuring secondary roads through communities or residential areas, allow for wide shoulders or sidewalks to be included in the design to avoid conflict with motorized traffic. The recent reconstruction of the road and bridges through Scotland, PA is a good example.	The MPO will continue to coordinate with PennDOT and local communities through the PennDOT Connects process as roadway repaving/reconstruction projects are programmed on the TIP. These discussions could include the potential to add wider shoulders where feasible.
Safety (pg. 66)	Appreciate a study of long stretches of major roads in populated areas that have no pedestrian crossings or intersection traffic signals (controlled or otherwise). One example is Philadelphia Ave. (US-11) between Sunset Pike intersection and Norland Ave/Edgar St. intersection. Suggest add to Illustrative Project List.	Acknowledged. The MPO identifies a strategic direction of improving the availability and accessibility of bicycle and pedestrian amenities within the plan and will continue to coordinate with municipalities to identify and advance projects that work toward achieving safer, more accessible facilities and expanded active transportation networks.
Appendix B: Illustrative Project Listing (pg. 90)	Not sure what is meant by "Illustrative Project Listing." Are these under active consideration and funding is anticipated?	Illustrative Projects are projects that are identified transportation needs; however, they do not currently have funding dedicated to them as part of the TIP.
Appendix B: Illustrative Project Listing (pg. 90)	Plan mentions improving traffic signals and safety of intersections. There are at least two intersections in Chambersburg that have traffic signals that do not recognize bicycles stopped waiting for signals to change (Commerce St. at Philadelphia Ave, Edgar St. at Philadelphia Ave.). Suggest add to the Illustrative Project List.	Acknowledged. Comment to be forwarded to PennDOT District 8-0.
General	The formulas used for county liquid fuels bridge funding are very dated. This is something that should be referenced in any sections of the plan that discuss bridges.	A new bullet discussing the Liquid Fuels funding allocation has been added to the Local Bridges section.
General	The MPO recently completed a study to determine alignments for a proposed US Bicycle Route 11 through Franklin County. This effort also examined alignments for a spur to Shippensburg. Southampton Township will not support the alignment for the Shippensburg Spur as determined in the study. It is preferred to use the Cumberland Valley Rail Trail as it expands westward from Shippensburg toward Chambersburg.	The MPO and PennDOT will be conducting follow-up meetings with municipalities along both the alignment and spur route identified as part of the US 11 Bicycle Route Study of 2022 prior to any designation efforts. This study makes note of the future CVRT extension and the spur could be redesignated in the future to follow that alignment.

Plan Section (Page Number)	Comment	Response
General	When considering walking and biking conditions, it is important to also consider factors beyond constructing these facilities. Maintenance in the wintertime and police protection tend to be an afterthought and should be a consideration in the plan and when considering transportation projects.	Acknowledged. Safety for all users and modes continues to be the MPO and PennDOT's top priority in planning and programming.
General	While there has been some improvement with bridges on our transportation system, attendees said that Pennsylvania has some of the worst roads in the nation. The plan needs to establish priorities for Franklin County—there has been much discussion regarding walking and bicycle trails while pavement conditions continue to worsen.	Agreed. While the plan does not establish a prioritization process, it is an effort the MPO would like to pursue in the coming years.
General	Franklin County is experiencing a lot of growth, particularly with warehousing and distribution centers. Because of this, there is a lot of traffic growth occurring on Interstate 81. To address this, an intermodal lane should be considered.	The plan includes a section dedicated to I-81 as it continues to be a route of importance to Franklin County. The MPO participated in a multi-MPO effort that evaluated I-81 from the Maryland Line to Interstate 78 in 2020. In the next year, the MPO will be conducting a secondary study/evaluation of I-81 for just the stretch in Franklin County to establish county-level priorities.
General	In addition to the revenue forecast, there needs to be some documentation that illustrates the expected costs that come from the LRTP project listing. There should also be some illustration that the expected costs equal the expected revenues in order to show that the plan is fiscally constrained.	The expected costs of plan's "out years" beyond the TYP have been addressed as countywide line items in Appendix A. These line items were established in coordination with PennDOT District 8-0 and PennDOT Central Office and were derived using PennDOT's 2023 Financial Guidance documentation.
General	A recommendation to include language taglines.	Language taglines have been added to the inside of the plan's front cover.
General	According to the regs, the report should "evaluate the condition and performance of the transportation system with respect to the performance targets and the progress achieved by the MPO in meeting the performance targets in comparison with system performance recorded in previous reports, including baseline data."	Pavement and bridge system performance reports are included under Appendix E: System Performance Reports.

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