Issues and Needs

Throughout the development of this Plan, various issues and needs were identified related to transportation planning and programming. These came up during our initial data collection / analysis and the first two rounds of public outreach relating to Goals and Objectives and Issues and Needs, respectively. These were then reviewed with our Long Range Transportation Plan Steering Committee prior to being included in the Plan. The results are summarized below.

Planning Today for Tomorrow

The transportation system is constantly changing to try to meet the needs of all users for all modes of transportation. Maintaining and improving the existing transportation system helps address issues related to safety, congestion, and mobility. Funding is a major factor in our ability to address issues identified within the transportation system in Berks County. And, funding is always changing.

The Infrastructure Investment and Jobs Act (IIJA), enacted in November 2021, provided \$350 billion nationally for Federal highway programs over the 5-year period from fiscal years 2022 through 2026. Additionally, several new and existing competitive grant programs were provided to help fund other various types of transportation projects and activities. The IIJA provided a slight increase in the Reading MPO's funding allotments for highway, bridge, and transit projects. As of the writing of this plan, there is no new transportation funding bill that has been passed and IIJA has not been reauthorized. Based on statewide guidance, funding for future years is assumed to remain at fiscal year 2026 allotment levels.

Through IIJA and contributions of discretionary grant funding through PennDOT, RATS has continued to pursue major improvements to major corridors such as US 222 and US 422 while, at the same time, addressing some of the needs related to safety, maintenance, and mobility. Despite an increase in funding, RATS continues to have finite resources to invest in transportation and unfortunately can not build and fix everything desired. RATS, along with PennDOT, has created investment priorities so that we can effectively utilize any and all available resources. This means that for the future, we will continue to not only focus resources on maintaining the existing infrastructure but also making proactive investments to make the transportation system safer and work better for you.

Safety and Modernization

Safety is the highest priority of this plan. Many factors can influence safety including demographics, driving behavior, and driver education. The young and mature driver age

groups continue to have increases in crashes. Young drivers have less experience, and mature drivers are impacted by visual, cognitive, and physical skill deterioration. There was a 30 percent increase in crashes involving age 16 drivers, a 34 percent increase in crashes involving age 17 drivers, and a nearly 21 percent increase in crashes involving age 75 and over drivers.

RATS employs a systematic approach to prioritizing projects. Safety related projects are evaluated using current PennDOT crash and safety data, the RATS Annual Traffic Safety Report, comparing crash rates against statewide crash rates for roads with similar characteristics, and against current PennDOT District 5-0 safety concerns and guidelines. Generally, prioritization is given to locations where crash incidents occur most frequently and the number of severe crashes is greater. These locations are evaluated and generally require a multidisciplinary approach to improving traffic safety through engineering, education, and enforcement. Additional information on project prioritization can be found in Chapter 4 of this plan.

RATS, in coordination with PennDOT, has implemented roundabouts at numerous intersections across Berks County. Roundabouts are a proven safety countermeasure in reducing the severity of crashes as well as providing operational benefits. Construction of the County's first roundabout was at the intersection of Routes 222 and 662 and was completed in 2019. Roundabouts continue to be planned and programmed at appropriate intersections in both the RATS TIP and RATS LRTP to address issues related to safety, congestion, and reliability.

Another area concerning safety includes the lack of available truck parking along major roadways leading into and through Berks County. The issue results from changes in laws that restrict the number of hours that truck drivers may operate as well as the overall increased volume of truck traffic.

The concern is not only a local issue but is a statewide and national issue as well. At the Federal level, FHWA developed a Truck Parking Development Handbook in 2022 (INSERT LINK WHEN AVAILABLE) to aid in identifying truck parking issues and relevant regulations, factors influencing truck parking demands, and providing a quantitative approach for estimating truck parking demand including a cost-benefit analysis of truck parking developments and practices for siting truck parking facilities.

In 2023, the Pennsylvania Transportation Advisory Committee (TAC) developed the Expanding Truck Parking in Pennsylvania study to analyze the need for truck parking across the state of Pennsylvania

(https://talkpatransportation.com/perch/resources/documents/tac-truck-parking-12-14-

2023-compressed.pdf). The study identifies corridors within the state with the greatest need for truck parking. As a result of the TAC study, PennDOT announced in 2025 that additional truck parking locations will be added across Pennsylvania. By the end of 2026, over 1,200 truck parking spots at 133 locations across the Commonwealth will be established along Interstate on-ramps with good sight distance, weigh stations, and various other locations within the highway right-of-way. Additionally, the Pennsylvania Turnpike is evaluating truck parking location opportunities along its' system that could result in an additional 600 truck parking spaces. Finally, the Eastern PA Freight Alliance Infrastructure Plan (EPFA) recommends conducting a County-wide truck parking study to identify locations that may support truck parking in Berks County.

Additional Freight Considerations

With Berks County's location in proximity to major metropolitan areas and the significant growth in warehouse and logistics developments, freight movement by truck has significantly increased. Expansion of these facilities has grown to include not just the I-78 corridor, but other highways in Berks County including but not limited to PA 61, PA 100, PA 183, PA 645, US 422 and US 222. While some highways can accommodate large truck volumes, other roadways may not be suitable for truck traffic. Large trucks using local roads has become an issue during situations involving detours or simply the truck GPS providing inaccurate information to the truck driver seeking the shortest route to their destination regardless of existing road limitations.

The Eastern PA Freight Alliance Infrastructure Plan (EPFA), adopted by RATS in 2024, is a guiding document for future investments and policies aimed at mitigating the impacts of freight traffic within the region and identifies and includes issues and needs related to truck parking. The plan includes regional recommendations and local recommendations that address freight infrastructure and policy guidelines that address existing and future challenges.

State of Good Repair

Most of the modern Berks County transportation system was constructed between 1920 and 1970 with some bridges built before the 20th Century; the majority of the interstate highways in the County were constructed in the 1950s and 1960s. Most roads have been incrementally improved or repaired at one point or another; however, they are continuously subject to increased traffic and heavier loads than they were designed to handle.

As a result, a major priority is to preserve and maintain the existing transportation system and infrastructure with a primary focus on paving and upgrading existing roads. RATS is committed to making investments to preserve, maintain, address safety issues, and

maximize the use of the existing transportation system before making investments to expand the capacity of the transportation system. In addition, RATS relies on PennDOT District staff and their expertise to provide informed decisions using Lowest Life Cycle Cost (LLCC) to conduct well-timed preservation activities to extend the life of a transportation asset to help minimize maintenance and infrastructure improvement costs.

System Productivity and Efficiency

Berks County is located at the crossroads of Pennsylvania's transportation system. The County is within one day's drive of numerous major metropolitan areas and major economic centers. Today, Interstate 78 – where 30% to 42% of traffic is trucks and Route 222 into Lehigh County is 10% to 21% trucks – are congested corridors according to RATS' Congestion Management Process (CMP).

Pennsylvania's multimodal freight transportation system carries 1.1 billion tons of freight, valued at \$1.6 trillion, and is projected to grow to nearly 1.9 billion tons at a value of over \$3.7 trillion by 2040. In 2011, trucks handled 76 percent of the tons moved in, out, internally, and through the state and 82% of the value. This is expected to grow to 80 percent and 86 percent, respectively, by 2040. Pennsylvania's Freight Movement Plan (FMP) is currently being updated with an anticipated completion of June 2026.

The potential conflict of competing for capacity, mobility, and accessibility within an aging transportation network must be balanced so that the growing volume of commuter and freight movement within the region can be accommodated without major capacity-adding projects. New road infrastructure is not able to keep up with this increase in travel demand – in fact; it is impractical to build enough roads and infrastructure to accommodate it.

The RATS Congestion Management Process (CMP), updated in 2025, evaluates congestion on 33 key corridors throughout Berks County. Three corridors were defined as Highly Congested and an additional 19 corridors were defined as Moderately Congested. The CMP provides recommended 'management' solutions corridors by targeting financial resources to provide strategies to address the congestion that are faster and less expensive to implement than constructing a new road.

PennDOT and RATS will need to continue and accelerate the expansion of the Intelligent Transportation Systems (ITS) network in the County. The advancement of ITS technologies is expected to bring significant improvement in transportation system performance, including reduced congestion and increased safety and traveler convenience with the provision of real time information to travelers. The use of ITS and the Freeway Service Patrol deployed in Berks County will aid in detecting collisions and other incidents on

specific roads in the County, coordinating emergency response, and notifying motorists. These activities will shorten the duration of incidents and minimize congestion that can result.

RATS remains committed to encouraging commuters to use transit through BARTA and ridesharing options through CommutePA. While the number of farepaying passengers has been increasing since 2021, BARTA saw equally increased ridership in senior citizens using BARTA Special Services. BARTA continues to plan for the expansion of outreach and services to meet the needs of this growing sector of the Berks County population in addition to other populations in Berks County.

Strategic Capacity Improvements

RATS will need to pursue strategic capacity improvements to improve the efficiency of the transportation system. Examples of such projects are the reconstruction of the obsolete West Shore Bypass (Route 422) around Reading and the widening of Route 222 North to the Lehigh County line to handle the increase in vehicle and truck traffic. These projects continue to move through the development process and are anticipated to move into construction in 2028 and late 2026/early 2027 respectively.

Alternative Fuels

A growing issue is the introduction of alternative fueled vehicles, primarily liquid propane gas (LPG) and electric (EV). In the past, these were somewhat of a novelty but over recent years the growth of this sector has had dramatic impacts on both the environment, by lowering emissions, and on tax revenues, by lowering the consumption of gasoline, the tax on which is a primary source of revenue for transportation improvements.

To combat the lower consumption of gasoline by these vehicles which leads to lowered tax revenues, Acts 85 and 149 were signed into law in 2024. These Acts modernize how EV owners support road and bridge maintenance across the state through a yearly Road User Charge (RUC), which replaces the Alternative Fuels Tax that EV owners were previously required to calculate and pay annually. The RUC came into effect for vehicles in April of 2025. PennDOT intends to adjust the fee each year based on the previous years' charge and the change in the consumer price index. The new RUC makes sure every driver pays their fair share to help maintain roads and bridges no matter what type of fuel they use.

The Reading MPO has been working with PennDOT and other stakeholders to designate roadways in Berks County for the Federal Highway Administration's (FHWAs) Alternative Fuel Corridor (AFC) Program. This program was designed to expand the nation's alternative

fueling network for electric, propane, and natural gas vehicles. In Berks County, three corridors, I-78, I-76 (the PA Turnpike), and US 422 have been designated. The designated routes are key state focus corridors for alternative fuel infrastructure and support regional and national travel and freight movement within Pennsylvania.

The Infrastructure Investment and Jobs Act (IIJA) contains specific funding to support the development of infrastructure to support the expansion of EVs. This statute was signed into law in November of 2021 and makes the most transformative investment in EV charging in United States (U.S.) history that aims to put the U.S. on a path to a nationwide network of 500,000 EV chargers that ensures a convenient, reliable, affordable, and equitable charging experience for all users. The IIJA is set to expire in September of 2026.

Further efforts have been made by PennDOT and the Department of Environmental Protection (DEP) to expand alternative fuel infrastructure throughout the state. The agencies have worked to support collaboration among city, regional and state agencies as well as other advocacy groups; develop partnerships to design, build, finance, operate and maintain alternative fuel stations; administer grant programs that are focused on the development of alternative fuel source infrastructure with an emphasis on the FHWA designated corridors; and educate and communicate the existence of this infrastructure to promote increased alternative vehicle usage.

Towards the end of 2023, PennDOT began tracking EV registrations quarterly by county and zip code. Berks County has consistently experienced .05% growth of electric vehicles quarterly since the initial collection date. Quarter 1 of 2025 shows 424,538 vehicles registered in Berks County. EVs represent 3,225 or 0.76% of all vehicles registered in Berks County. This places Berks County in the top third of Pennsylvania counties for percent of registered EVs. Out of the 6 surrounding counties, only two (Lebanon and Schuylkill) have lower percentages of EVs than Berks County, with neighboring Chester County being the highest in Pennsylvania at 2.69%. The Reading MPO acknowledges this growing market and will continue to support the efforts of state agencies and plan for the addition of alternatively fueled vehicles in Berks County.

Automated Vehicles, Highly Automated Vehicles, and Connected Vehicles

Automated vehicles (AVs) are vehicles capable of performing the functions required to operate a vehicle in traffic through the aid of various sensors and software. To receive this designation, a vehicle must perform driving tasks such as steering, accelerating, and braking without a human driver. Most new vehicles are equipped with some level of

automation such as adaptive cruise control and lane-centering technology. Highly automated vehicles (HAVs) are AVs that can operate in high- or full-automation mode, meaning no human is driving the vehicle when the automated driving features are engaged. Connected vehicles (CVs) use technology to communicate with each other, connect to transportation infrastructure, or obtain data through common systems. Many AVs are already connected but can operate without being connected.

Pennsylvania has emerged as a leading location for on-road testing of HAVs as they advance toward practical use. PennDOT has taken action to support Pennsylvania's leadership in HAV research through various initiatives such as installation of technology allowing HAVs to communicate with the infrastructure at select signalized intersections and development of uniform standards and practices for HAVs. PennDOT was involved early in the process and formed the Autonomous Vehicle Policy Task Force in 2016 to provide draft legislative policy recommendations for the testing of automated vehicles in Pennsylvania. Currently PennDOT is involved in the HAV Advisory Committee which identifies recommendations for Pennsylvania with the purpose of enhancing the safe and efficient movement of people and goods by advancing connected and automated vehicle technology.

Through direct involvement and research, PennDOT and the Pennsylvania Turnpike Commission have prepared documents and plans to better accommodate the rise and integration of these vehicle types. These include the Connected and Autonomous Vehicle 2040 Vision, The Statewide Connected and Automated Vehicles Strategic Plan, AV Testing Guidance, Vehicle Platooning Policy, and the Automated Vehicle Guidebook for Municipalities.

As HAVs become more common within Pennsylvania, they may begin to impact municipal policy and operations in various ways. The Automated Vehicle Guidebook for Municipalities identifies multiple topics of interest for municipalities to consider. Topics covered in this guidebook include safety, traffic enforcement, interacting with emergency service responders, infrastructure and risk management, potential fiscal impacts, planning, land use, zoning, and enhancing mobility.

Partial or complete automation of vehicles has the potential to provide a variety of benefits including but not limited to improved road safety, access for those who cannot drive, increased travel options, reduced driver stress, and reduced emissions. The Reading MPO acknowledges the potential benefits of these emerging vehicle types and will continue to

support the efforts of state agencies and plan for the accommodation and integration of AVs, HAVs, and CVs.

Electric Powered Micromobility

A rapidly growing issue throughout Berks County, primarily seen within Boroughs and the City of Reading is the increase of electric powered micromobility vehicles. The Federal Highway Administration (FHWA) is continuing micromobility research regarding safety, access, mobility, data, regulation, and funding. The FHWA defines micromobility as: "Any small, low-speed, human or electric-powered transportation device, including bicycles, scooters, electric assist bicycles (e-bikes), electric scooters (e-scooters), and other small, lightweight, wheeled conveyances."

Planning for small, low-speed, human powered transportation devices has been a continuous process for the Reading MPO with the first Bicycle and Pedestrian Plan being published in 2000 and the vision of the Reading Area Transportation Study to promote a well maintained and balanced multimodal transportation system that will safely and efficiently move people and goods. The electrification of these small, low speed transportation devices however, has created additional concern for the traveling public that shares transportation infrastructure with these vehicles.

A primary advantage to micromobility is the flexibility to solve first and last mile challenges and complete shorter trips than an enclosed, higher speed vehicle would be needed to complete. Electric powered micromobility vehicles can expand the range that human powered micromobility devices would typically travel, are more affordable than enclosed vehicles, reduce emissions, and noise pollution. These electric powered devices can also increase mobility for older adults or individuals with disabilities as they are less strenuous to operate.

Despite the benefits of electric powered micromobility vehicles, as popularity grows, so does the concern amongst the public as well as public officials. A large focus of concern is where these vehicles can ride and how fast. This safety concern is for those that operate these vehicles as well as those that share the travel space these vehicles use. An important aspect of safety in this context is education, regulation, and enforcement. It is important for users, officials, and enforcers to be aware of the incorporation of electric powered micromobility vehicles into the PA Vehicle Code and how electric powered micromobility

vehicles are regulated by traffic laws within the state of Pennsylvania. These laws address safety concerns such as maximum allowable speed, where they are allowed to be driven, as well as helmet, light, and passenger regulations. These also set a minimum age to operate and determine need for license, registration, and insurance.

Similar to human powered micromobility devices, their electric powered counterparts rely on safe, connected, and well-designed bicycle and pedestrian infrastructure. Users also lack the protection of an enclosed vehicle and are considered vulnerable road users. The growing popularity and use of these devices displays the need to continue planning for and adding to the existing active transportation infrastructure of Berks County with an emphasis on safety and connectivity. The Reading MPO acknowledges this growing market and will continue to support the efforts of state agencies and plan for the addition of electric powered micromobility vehicles in Berks County.

Passenger Rail

Berks County does not currently have passenger rail service. Providing passenger rail service to destination hubs such as Philadelphia and New York could help alleviate issues on major roadways related to congestion, provide economic benefits, and increased job opportunities. While the Schuylkill River Passenger Rail Authority (SRPRA) completed the first step in the Corridor Identification and Development Program (CIDP), the Authority is still waiting on approval from the Federal Railroad Administration (FRA) to move into the second step of the program. The second step is where the SRPRA will develop a business plan, capital plan, and operating plan that will document the investment case for proposed passenger rail service. Funding through the CIDP is critical to continue evaluating and developing potential passenger rail service in Berks County.

Aviation

While The Reading Regional Airport (RRA) coordinates with Boscov's Travel to provide charter air service to Orlando, Florida, the airport does not currently offer general passenger air service. With other airports in proximity to Berks County residents, such as Lehigh Valley International Airport and Lancaster Airport that do provide commuter air service, the RRA currently concentrates on serving general aviation for recreational and business needs. Additionally, funding is limited for commuter air service and obtaining funding requires a need for commuter air service to be defined and demonstrated along with a precise plan for managing the service. The current Strategic Plan for the RRA focuses on establishing the airport as an economic hub and continually preparing for and considering future aviation needs.

Funding for Local Bridges

Bridges provide a means for traffic to cross depressions or obstructions that would otherwise impede the flow of traffic, providing connections across these barriers. Bridges can vary in length and width depending on the type of roadway the bridge is carrying. Fewer than 6% of state-owned bridges by Count are in poor condition and approximately 9% of state-owned bridges by Deck Area are in poor condition. Comparatively, local-owned bridges have significantly higher percentages of poor condition bridges by both Count (30.34%) and Deck Area (27.66%). Funding for local-owned bridges is limited and local-owned bridges must meet various criteria to receive funding for rehabilitation or replacement. In many instances, as part of the funding source requirements, a monetary match may be required. Many local municipalities lack the ability to meet those monetary match requirements for funding bridge maintenance and preservation activities. As part of RATS Transportation Improvement Program development process, every effort is made to incorporate funding for local-owned bridges to help reduce the number of local-owned bridges that are in poor condition.

The Active Transportation Network

As discussed in the non-motorized transportation section, the benefits of active transportation are staggering not only at the individual level but beyond, impacting economic, healthcare, and most importantly for this plan, transportation aspects. When opting for active transportation, vehicle miles traveled are reduced, lessening wear and tear on roadways. Fuel consumption is lowered leading to improved air quality. Safety on the roads is improved, as a result of fewer vehicles on the roadway which aids in reducing crashes and injuries.

The importance of active transportation and the corresponding network is further explored in multiple countywide plans as well as the primary focus of the <u>PennDOT Pennsylvania</u> Active Transportation Plan, PUB787 (4-20), and the <u>U.S. DOT Guide for Maintaining Active</u> Transportation Infrastructure for Enhanced Safety, FHWA-SA-23-005.

Within Berks County there are approximately 1,319 miles of sidewalks and 524 miles of trails. Maintaining, filling in missing gaps, and creating connections to the existing network are some of the main priorities of Berks County plans when considering the active transportation network. Beyond sidewalks and roadway shoulders, the trail network accommodates users for both recreation and commuting. The Schuylkill River Trail is identified in the Berks County Greenway, Park and Recreation Plan, Berks County Comprehensive Plan 2030 Update, and the Berks County Bicycle and Pedestrian Plan as a

trail of importance and the backbone of the offroad network in Berks County. The completion of this trail as well as providing safe connections to it is noted as a policy, recommendation, and a placemaking strategy in these plans.

RATS recognizes the importance of the active transportation network and the Schuylkill River Trail in Berks County. Also recognized is the need for funding the maintenance, completion, and connections to the existing network. Beyond the allocated funding for this network, RATS aims to continue working alongside key partners and provide assistance where applicable to organizations looking to advance the network throughout the county.