

## Draft Recommendations

### INTRODUCTION

The MPO used sketch planning analysis, stakeholder input, and a range of supporting data to evaluate existing conditions and identify opportunities along the Benner Pike corridor. Based on this work, a set of corridor recommendations was developed to address observed needs and support long-term corridor function. The recommendations are presented in no priority order and are described in greater detail below.

The study recommendations are organized around five major themes:

- A. Safety
- B. Roadway Capacity
- C. Traffic Operations
- D. Land Use
- E. Multimodal Transportation

In the recommendation tables, each row presents:

- The recommendation number (for reference only)
- A recommendation statement
- Its priority level (high, medium, or low)
- The rationale for the recommendation

- An estimated planning-level cost range:
  - \$ = <\$25,000
  - \$\$ = \$25,000 to \$250,000
  - \$\$\$ = \$250,000 to \$1,000,000
  - \$\$\$\$ = \$1,000,000 to \$5,000,000
  - \$\$\$\$\$ = > \$5,000,000
- The agency that would lead the recommendation's implementation:
  - Benner Twp = Benner Township
  - CCMPO = Centre County Metropolitan Planning Organization
  - PennDOT = Pennsylvania Department of Transportation
  - Spring Twp = Spring Township
- Proposed timing:
  - Short = Implement within 1–4 years
  - Med = Implement within 4–7 years
  - Long = Implement within 7+ years
  - Ongoing = No specific timeframe

**SAFETY RECOMMENDATIONS**

#	Study Recommendation	Priority	Description	Cost	Lead/Support	Timing
A1	Evaluate posted speed limits as development occurs along Benner Pike.	Medium	Monitor the appropriate posted speed along Benner Pike as context evolves over time. Perform engineering studies to evaluate the appropriate corridor speed and utilize FHWA’s USLIMITS2 Web-based tool to determine speeds based on roadway and area characteristics. Implement posted speed modifications based on study recommendations.	\$	PennDOT	Ongoing
A2	Upgrade signal equipment.	High	Upgrade signal equipment to provide flashing yellow arrow (FYA) signal heads and retroreflective backplates at Amberleigh Lane and Stonecrest Drive (and FYAs at all others).	\$\$	Benner Twp/ PennDOT	Short
A3	Implement access management strategies along Benner Pike.	High	<ul style="list-style-type: none"> <li>• Prior to implementation of corridor capacity improvements, evaluate and implement access management strategies, including:</li> <li>• Consolidate driveways where multiple access points exist.</li> <li>• Install curb to reduce access point width to current design standard if feasible relative to business parking areas.</li> </ul> <p>Provide right-turn bays or wider shoulder where right-of-way exists to allow slower-moving turning vehicles to decelerate in the turn lane or shoulder, thus avoiding speed differentials with through traffic along Benner Pike.</p>	\$\$ - \$\$\$	Benner Twp/ PennDOT	Ongoing
A4	Monitor crash occurrences along the corridor.	Medium	<p>Prior to implementation of capacity and operational improvements, monitor the corridor for additional spot safety improvements as needs arise, such as the following:</p> <ul style="list-style-type: none"> <li>• Implement left-turn restrictions to and/or from driveways.</li> </ul>	\$ - \$\$	Benner Twp/ PennDOT	Ongoing

#	Study Recommendation	Priority	Description	Cost	Lead/Support	Timing
			<ul style="list-style-type: none"> <li>Modify driveway usage to right-in/right-out only.</li> </ul>			
A5	Conduct a traffic operations study at the Water Street (PA 550) intersection with Willowbank Street.	Medium	Recurring congestion and queue spillback at this location can extend onto Benner Pike, increasing delay, creating safety concerns, and undermining access management efforts along the corridor. A focused intersection study would identify targeted operational, safety, and access improvements to reduce spillback and improve reliability on Benner Pike.	\$	CCMPO/ Spring Twp	Med

## ROADWAY CAPACITY RECOMMENDATIONS

#	Recommendation	Priority	Description	Cost	Lead/Support	Timing
<b>B1</b>	Consider alternative intersection designs.	Medium	As development occurs along the corridor and existing signalized and stop-controlled intersections are either added or modified, consider alternative intersection designs.	\$\$\$	Benner Twp / PennDOT	Med
<b>B2</b>	Implement a five-lane Benner Pike cross-section.  (Note: B2 and B3 are mutually exclusive.)	High	<ul style="list-style-type: none"> <li>Widen to two through lanes each direction with a center two-way left-turn lane.</li> <li>Provide additional dedicated turn bays at intersections to accommodate increased turning movements both along Benner Pike and on the minor street approaches.</li> <li>Incorporate access management through the design process to consolidate driveway and side street access.</li> <li>A "Complete Streets" approach to future corridor design should be followed.</li> </ul>	\$\$\$\$\$	CCMPO/ PennDOT	Med
<b>B3</b>	Implement a six-lane Benner Pike cross-section with median control.  (Note: B2 and B3 are mutually exclusive.)	High	<ul style="list-style-type: none"> <li>Widen to three through lanes each direction with a raised median and dedicated left- or U-turn bays.</li> <li>Incorporate access management through the design process to consolidate driveway and side street access.</li> <li>Provide additional turn bays at intersections to accommodate increased turning movements on minor street approaches.</li> </ul>	\$\$\$\$\$	CCMPO/ PennDOT	Long
<b>B4</b>	Improve the I-99 interchange.	Med	<ul style="list-style-type: none"> <li>Widen Benner Pike to two through lanes each direction while maintaining a raised median and dedicated left- and right-turn bays through the interchange area.</li> </ul>	\$\$\$\$ (Assumes no I-99 bridge replacement)	CCMPO/ PennDOT	Long

#	Recommendation	Priority	Description	Cost	Lead/Support	Timing
			<ul style="list-style-type: none"> <li>Conduct a detailed study to determine the need for and feasibility of ramp improvements between I-99 to the south and PA 150 to the north.</li> </ul>			
B5	Evaluate, plan, and construct local parallel roadways to provide land use connectors along the Benner Pike corridor to accommodate local traffic interactions.	High	<p>This recommendation should be carried out in conjunction with development of an Official Map (Recommendation D1).</p> <p>Prepare an engineering study to determine the feasibility of constructing parallel connector roadways on the <u>west</u> side of Benner Pike to connect the following:</p> <ul style="list-style-type: none"> <li>Paradise Road and Hawknest Way near Rolling Ridge Drive</li> <li>Hawknest Way near Rolling Ridge Drive and Fishburn Hill Road</li> <li>Fishburn Hill Road and Quarry Street</li> <li>Quarry Street and future development opposite Stonecrest Drive</li> </ul> <p>Prepare an engineering study to determine the feasibility of constructing parallel connector roadways on the <u>east</u> side of Benner Pike to connect the following:</p> <ul style="list-style-type: none"> <li>Rishell Hill Road and Rolling Ridge Drive</li> <li>Barrington Lane and Stonecrest Drive</li> </ul>	\$\$\$\$	CCMPO/ Benner Twp	Short
B6	Ensure that bicycle and pedestrian accommodation is maintained and enhanced with the expanded lane configurations.	High	Continuing to have marked crosswalks, accessible curb ramps, pedestrian push buttons, and appropriate signal timing will keep the corridor safe and accessible. Install sidewalks to provide pedestrian access and connections.	\$\$\$	CCMPO	Long

**TRAFFIC OPERATIONS RECOMMENDATIONS**

#	Recommendation	Priority	Description	Cost	Lead/Support	Timing
<b>C1</b>	Monitor and optimize signal operations.	High	Conduct a traffic study consistent with TE-153 (Pennsylvania Traffic Signal Systems Solutions Toolbox) to determine whether modifications to the coordinated signal system are warranted. Items to consider include adding or removing signals from the coordinated system. Monitor and repair/upgrade signal detection as needed to support optimized operations.	\$\$	Benner Twp/ PennDOT	Med
<b>C2</b>	Enhance signal operations and incident-response capabilities along Benner Pike to support its role as a priority diversion corridor during I-99 disruptions by integrating its signal system into PennDOT’s Regional Traffic Management Center (RTMC).	High	Benner Pike serves as a key arterial adjacent to I-99 and is likely to experience increased traffic volumes during freeway incidents, closures, or special events. Treating the corridor as a priority operational route, consistent with PennDOT’s “super-critical corridor” approach, would allow for proactive management of congestion and improved travel time reliability. This includes leveraging signal infrastructure and operational tools to better accommodate surges in diverted traffic while maintaining safe access for local users.  Connecting the PA 150 traffic signal system to the District 2-0 Regional Traffic Management Center (RTMC) via the planned I-99 closed-circuit television (CCTV) cameras would enable an Integrated Corridor Management Plan and allow for remote incident management plan applications. To facilitate implementation, ensure installation of high-resolution controllers and upgrade detection, as needed.	\$\$ - \$\$\$	Benner Twp/ PennDOT	Med
<b>C3</b>	Evaluate adaptive signal timing and implement, if warranted.	Medium	Evaluate the effectiveness of planned Miovision Traf-Ops software after implementation. Maintain use of Traf-Ops or upgrade to Miovision Adaptive (or other signal timing management software) to maximize	\$\$	Benner Twp/ PennDOT	Med

#	Recommendation	Priority	Description	Cost	Lead/Support	Timing
			the use of the latest technologies after completion of TE-153 (Pennsylvania Traffic Signal Systems Solutions Toolbox) to determine if adaptive control is warranted.			
<b>C4</b>	Replace counter stations to support volume data collection.	Medium	Consistent with the PennDOT 2025 Regional Operations Plan for the Central RTMC Region, replace the antiquated traffic volume counter stations at PA 150 @ I-99.	\$\$	PennDOT (Bureau of Planning & Research)	Med
<b>C5</b>	Install I-99 pre-entry notification signage along Benner Pike.	Low	Evaluate appropriate locations and install Dynamic Message Signs (Type A) along PA 150 prior to the I-99 on-ramps to inform drivers of potential upcoming incidents to facilitate route choice.	\$\$	PennDOT	Med
<b>C6</b>	Develop incident signal timing plans.	Low	Develop signal timing plans for Benner Pike signalized intersections for use in the event of an I-99 incident after implementation of previous strategies, including incorporation of Benner Pike signals into the RTMC.	\$ - \$\$	Benner Twp/ PennDOT	Med
<b>C7</b>	Install cameras for Benner Pike video monitoring.	Medium	Install cameras capable of pan/tilt/zoom on candy-cane-shaped poles to provide monitoring along Benner Pike at locations with CCTV after inclusion in the RTMC. This would allow for on-demand signal timing adjustments in the event of an incident.	\$\$ - \$\$\$	Benner Twp/ PennDOT	Med

## LAND USE RECOMMENDATIONS

#	Recommendation	Priority	Description	Cost	Lead	Timing
<b>D1</b>	Establish an Official Map.	High	<p>An Official Map is a planning tool that would identify local parallel and auxiliary roadways that support inter-parcel movement, reducing the need for short trips to enter Benner Pike. Designating side-road and parallel routes (a grid network) can help manage access along Benner Pike by shifting local circulation, employee access, and low-speed or recreational trips away from the main corridor, thereby reducing unnecessary turning movements and short local trips. This approach can improve safety and traffic flow on Benner Pike, preserve its function as a through roadway, and provide clearer guidance for future development and access decisions.</p> <p>(Resource: Pennsylvania Department of Community and Economic Development (DCED) <a href="#">Municipal Assistance Program Guidelines, March 2022</a>)</p>	\$	Benner Twp	Short
<b>D2</b>	Promote mixed-use and transit-supportive development patterns.	High	Encourage mixed-use development to shorten trip lengths, support transit use, and increase the viability of walking and bicycling for trip-making through the corridor.	\$	Benner Twp	Ongoing
<b>D3</b>	Concentrate freight-intensive uses near the interchange.	High	Revisit municipal ordinances to ensure freight activity is concentrated near the interchange with I-99 to minimize truck traffic on Benner Pike. This would include industrial, warehousing and distribution, and manufacturing uses.	\$	Benner Twp	Short
<b>D4</b>	Participate in PennDOT's Partnership Program.	High	Under this action, Benner Township would sign a Memorandum of Understanding (MOU) with prospective developers, committing them to participate in PennDOT's Partnership Program. The Township would then enter into a Partnership agreement with PennDOT—setting the stage to pass	\$	Benner Twp	Ongoing

#	Recommendation	Priority	Description	Cost	Lead	Timing
			<p>a portion of future corridor improvement costs on to the developer.</p> <p>PennDOT would assign an MPMS number to Benner Pike, indicating that a project has been entered into PennDOT's central inventory. (Having an MPMS number demonstrates that a candidate project is eligible to be considered for placement on the state 12-Year Program or Transportation Improvement Program (TIP).)</p>			

**MULTIMODAL TRANSPORTATION RECOMMENDATIONS**

#	Recommendation	Priority	Description	Cost	Lead	Timing
E1	Improve accommodation of bicyclists and pedestrians.	Medium	Sidewalks are discontinuous throughout the corridor. With a variety of mixed uses throughout the corridor, Benner Pike would benefit from improved bicycle and pedestrian accommodation. Install sidewalks, and a wide shoulder or bicycle lane, as part of upcoming localized projects and as part of any corridor-wide capacity improvements.	\$\$-\$\$\$	Benner Twp/ property owners/ Centre County	Ongoing
E2	Incorporate transit considerations as part of any widening of Benner Pike.	Medium	Coordination with local transit operators is needed to preserve and enhance transit functionality along the corridor. This includes evaluating opportunities to reinstate or support transit service at desired stop locations near Giant, Graystone/Sheetz, Econolodge, and Rock Rimmon Road, as well as considering transit signal priority or designated drop-off and pick-up areas where appropriate. Together, these improvements would support multimodal mobility, accommodate future transit needs, and align corridor operations with long-term land use and access management goals.	\$\$	CCMPO/ Local Transit Operators/ Benner Twp	Ongoing
E3	Expand commuter services and employer-based programs.	Low	Partner with Commute PA and major employers to promote carpooling and aligning work schedules to facilitate ridesharing. CCMPO receives \$2 million in CRP funding on its 2027 TIP for initiatives that reduce greenhouse gas emissions. <sup>1</sup>	\$	CCMPO	Med
E4	Evaluate the need for a park-and-ride facility.	Low	Origin-destination analysis demonstrates substantial commuter flows between the study area and the greater State College Region. Developing a park-and-ride facility in an optimal location could intercept commuter traffic upstream of the Benner Pike corridor and reduce corridor demand.	\$\$-\$\$\$	CCMPO	Med

<sup>1</sup> Carbon Reduction Program

#	Recommendation	Priority	Description	Cost	Lead	Timing
E5	Explore PSU game-day shuttle partnerships.	Low	Coordinate with local hotels to provide event-based shuttle service.	\$	Public transportation providers/ For-profit providers	Med
E6	Improve safe, multimodal access to Fisherman's Paradise.	Low	The lack of a continuous, dedicated non-motorized connection between Bellefonte, Fisherman's Paradise, and PA 150 is a significant gap in the township's non-motorized network and contributes to ongoing safety concerns. Improving safe access to Fisherman's Paradise, through enhanced bicycle and pedestrian connections, clear wayfinding, and safe roadway crossings, would help address these conflicts while supporting recreational access and broader corridor connectivity.	\$\$	Benner Twp	Long