

Lehigh Valley Transportation Study

SUBJECT: I-78 Passing Lane

COUNTY..... Lehigh & Northampton	FED.-AID SYSTEM..... On-NHS
S.R./SEC. 78/21M	DECADE OF INVESTMENT No
A.D.T..... 95,126	CAPITAL BUDGET No
TRUCK A.D.T. 15,169 (16%)	DETOUR LENGTHN/A
MPMS NUMBER..... 110184	EST LET DATE.....6/21/2018
LENGTH61.71 miles	OPEN TO TRAFFIC..... 10/31/2019

DESCRIPTION/LOCATION:

This project will address the poor International Roughness Index (IRI), structural distresses and deteriorating condition of Interstate 78 from the Berks/Lehigh County Line to the Delaware River Joint Toll Bridge Commission (DRJTBC) jurisdiction near the New Jersey state line. The work will take place in Weisenberg, Upper and Lower Macungie, South Whitehall, Salisbury, and Upper Saucon Townships and the City of Allentown in Lehigh County, and Lower Saucon and Williams Townships and the City of Bethlehem in Northampton County.

REQUEST:

Approve the addition of the Construction phase to the 2017 LVTS TIP in the amount of \$4,300,000.

TOTAL ESTIMATED COST:

Funding	PE	FD	UTL	ROW	CON	Total
Federal	\$15,000	\$0	\$0	\$0	\$4,300,000	\$4,315,000
State	\$0	\$0	\$0	\$0	\$0	\$0
Local	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$15,000	\$0	\$0	\$0	\$4,300,000	\$4,315,000

REQUESTED COST: CONSTRUCTION

Funding	Approved	Requested	Net Change
Federal(NHPP Toll)	\$0	\$4,300,000	\$4,300,000
State (581)	\$0	\$0	\$0
Local	\$0	\$0	\$0
Total	\$0	\$4,300,000	\$4,300,000

DISCUSSION:

1. The average eastbound IRI is 112, while the westbound IRI is slightly worse at 126. Both directions have 26 segments that have an IRI greater than 150. The average Overall Pavement Index (OPI) for the eastbound and westbound lanes are 88 and 90, respectively.
2. I-78 from the Berks/Lehigh County Line to State Route 100 was listed as District 5-0's top priority project for the Interstate Steering Committee (ISC) presentation in the winter of 2015. The deteriorating conditions were first observed in late 2014 and early 2015. A project (MPMS# 101866) was let on June 22, 2017 to address the travel lanes via patching

and resurfacing. This project will address the passing lanes within the same limits and include resurfacing to tie the two patched areas together.

3. This project will also address failed and faulty concrete slabs from the end of the I-78 Auxiliary Lane-Lehigh project (MPMS# 104147) just east of the State Route 100 interchange through Lehigh and Northampton Counties to the end of the project limits at the DRJTBC's jurisdiction. These limits include the District's current #1 ISC priority project (MPMS# 109318), which extends from the Easton Road Overpass (State Route 2006) to the State Route 33 Interchange. Northampton County Maintenance addressed two of the worst sections with bituminous patching in June 2017. More slabs have deteriorated significantly since then and the District will continue its patching operations while the ISC request is being reviewed.
4. Concrete patching throughout the project is planned for a 15-inch depth. The passing lane from the Berks/Lehigh County Line to the SR 100 interchange will receive a 2-inch mill and overlay using Stone Matrix Asphalt (SMA) wearing course, with sawing and sealing for any patching areas. A waiver request is being drafted for CO approval to use bituminous material and will be included as part of the project checklist. All work is planned to be performed at night and the cost adjustments have been adjusted to reflect this.
5. The final cost estimate for the Construction phase is \$4,300,000, which includes Construction Inspection and Maintenance and Protection of Traffic (MPT).
6. The projected life for the patching work ranges from 10 to 15 years, while the overlay has a lifespan of 8 to 10 years. The proposed treatments will address the immediate concerns and provide a solution until the condition of the road can be assessed for a larger scale treatment as part of the ISC project (MPMS# 109318).

FUNDING SOURCE:

1. The funding source for the Construction phase will be the LVTS Highway & Bridge Line Item Reserve (MPMS# 102201).

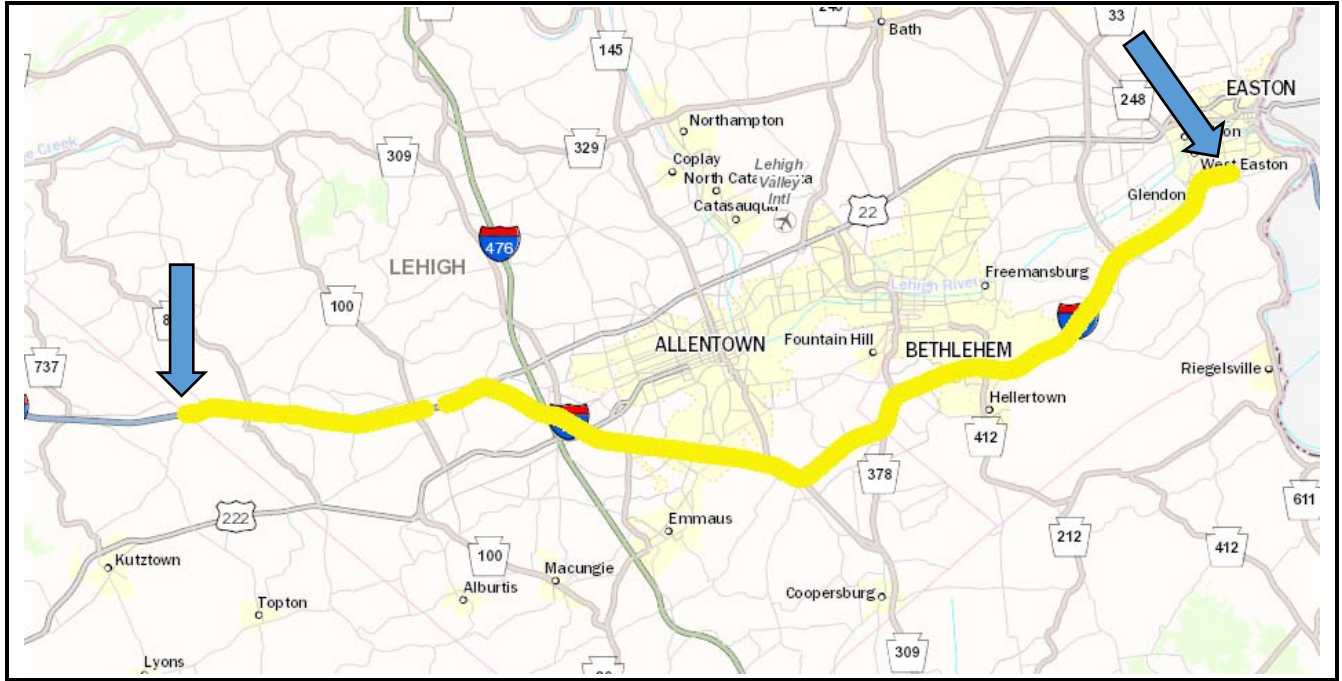
OPTIONS:

1. Approve the request to fund the Construction phase on the current TIP.
2. Deny the request and address the project later.

RECOMMENDATION:

Option 1

I-78 Passing Lane – Project Location Map



I-78 Passing Lane – Photos



**Westbound Passing Lane - Segment 0475 (Lehigh County)
Typical Pavement Condition**



**Eastbound Passing Lane – Segment 0470 (Lehigh County)
Typical Pavement Condition**

I-78 Passing Lane – Photos



**Eastbound Travel Lane – Segment 0524 (Lehigh County)
Concrete Patching Pavement Condition**



**Eastbound Travel Lane – Segment 0700
Typical Pavement Condition (Bituminous Patching Area)**