

BEDFORD-MERRIMACK 16100
OPEN ROAD TOLLING CONVERSION AT THE BEDFORD TOLL PLAZA

TOWN: Bedford
STATE NO: 16100
FUNDING: Turnpike (Non-Federal)
PROGRAM: Turnpike System Priority Capital Program

DATE: January 10, 2018
ROUTE: F. E Everett Turnpike
LEAD PERSON: David S. Smith, P.E.
LEAD BUREAU: Turnpikes
CONSULTANT: HNTB, Inc.

DESCRIPTION: This project consists of converting the F. E. Everett Turnpike toll plaza in the Town of Bedford to an Open Road Tolling (ORT) facility. Improvements include plaza widening (one toll booth on east side only), rehabilitation of the entire toll plaza to remain, roadway widening and ORT implementation. The conversion will require the demolition of six toll lanes (5 booths) in the center of the plaza to accommodate the four ORT lanes (two 12'-lanes and 10' shoulders in each direction).

PROJECT FUNDING: This project is 100% Turnpike funded under the Turnpikes "Capital Program" under the current revenue structure. No toll increase is needed to support this project.

PROJECT INITIATED: Legislatively approved by the 2015-2024 TYP.

PROJECT PURPOSE AND NEED: The conversion to ORT will increase throughput capacity at the plaza, increase safety, mobility and reduce emissions and energy use. The Bedford plaza averages 1.4 million vehicle transactions per month and is largely a commuter corridor experiencing peaks during weekend and holiday periods.

PROJECT ESTIMATE JUSTIFICATION: The conceptual estimate developed in support of the "AET vs ORT Feasibility Study" and subsequently used for the ORT project's incorporation into the TYP, assumed only "implementation" of the ORT facility. As the project progressed and more details became known regarding the condition of the facility, additional items and elements of the improvements were included for "rehabilitation of the facility to provide for a 25-30 year life span of the facility". This change in perspective led to additional costs not included in the conceptual estimate, as well as escalated costs as a result of the change in perspective and realization of the entire plaza needs. They are as follows:

INITIAL CONSTRUCTION COST:		\$ 8,113,000
ADDITIONAL COSTS (not captured in the Conceptual Estimate)		
Advanced Traffic Management Systems	\$ 1,152,000	
Concrete Pavement Slab Replacement	\$ 250,000	
Toll Plaza Canopy Painting	\$ 300,000	
Toll Plaza Tunnel Repairs	\$ 250,000	
Maintenance Ramps and Signal Modifications	\$ 250,000	
Misc Item Additions (lighting, bridge work, etc.)	\$ 348,000	
Additional Pavement Cost (TCP and Gap)	\$ 450,000	<u>\$ 3,000,000</u>
ESCALATED COSTS (vs. Conceptual Estimate)		
Mobilization Cost Increase	\$ 352,000	
Engineering Variance from Initial Estimate	\$ 510,000	
Traffic Control Items	\$ 450,000	
Toll Plaza Rehabilitation	\$ 850,000	
Toll Plaza Modifications	\$ 1,000,000	
Toll Plaza Building Modifications	\$ 100,000	
Cost Escalation due to Inflation (2% over 3-years)	<u>\$ 625,000</u>	<u>\$ 3,887,000</u>
TOTAL CONSTRUCTION COST:	Total	\$15,000,000

ANTICIPATED ADVERTISING DATE: November 6, 2018
ANTICIPATED CONSTRUCTION COMPLETION DATE: June 2020



GRAPHIC SCALE

