

# dvrpc | JOHNSON TROLLEY MISSING LINK 2014 FEASIBILITY STUDY

## PROJECT FACT SHEET

#### **PROJECT BACKGROUND**

WSP was contracted by Lawrence Township, which utilized funding from a Delaware Valley Regional Planning Commission (DVRPC) grant to conduct a feasibility study to evaluate engineering alternatives for connecting the northern and southern sections of the Johnson Trolley Trail Corridor. The Study included public involvement activities, evaluation of existing conditions, and feasibility analysis of alternatives. A Final Report was submitted in June 2014.



#### DESCRIPTION AND PROBLEM STATEMENT

The Interstate 295 (I-295) corridor presents a significant barrier to north/south travelers through Lawrence Township, particularly for bicyclists and pedestrians. The six-lane limited access Interstate highway bisects the partially refurbished Johnson Trolley Line, which creates sections north and south of the interstate. As a result, access for pedestrians and bicycles between the township's residential areas, schools, villages, main street centers, Rider University, and numerous parks and community amenities is severely constrained. Within the study area, only U.S. Route 206 provides north-south access across the highway via an overpass. The right-of-way (ROW) and other roadway connections present numerous constraints to bicyclists and pedestrians, including limited shoulders, sidewalk and crosswalk gaps, high travel speeds, large trucks, heavy traffic volumes, and vehicle merging and weaving movements at the I-295 interchange. These constraintscreate barriers for biking and walking.

The Johnson Trolley Trail is a part of a larger, regional off-road multi-use trail system, which includes the Circuit Trails, the Lawrence Hopewell Trail and the D&R Canal Tow Path Trail. The missing link between the northern and southern sections of the Johnson Trolley Line over I-295 is a critical gap in the regional network and was the focus of the Study.

#### **EXISTING CONDITIONS**

Within the project area, crashes and deficiencies were reviewed for the existing path. A Crash Data analysis was evaluated for crashes from 2006 to 2012 and portions of 2013. Nine crashes occurred during the analysis period – six pedestrian crashes and three bicyclist crashes. One of the pedestrian crashes was fatal. In addition to crashes, the bicycle and pedestrian deficiencies include: lack of pedestrian scale corridor lighting, lack of bicycle-compatible shoulders on the roadways at some locations, and inconvenient/unsafe path at an interchange.

#### **DESIGN CONSIDERATIONS**

The alternatives reviewed were performed with the following design considerations:

**ROW:** The Johnson Trolley ROW is approximately 50 feet wide. The southern segment of the study area is approximately 1,700 feet long, extending from Rider University to I-295. This portion is bounded by Rider University to the west, and by single family homes to the east. NJDOT ROW abuts the Johnson Trolley parcel to the north. The northern segment of the study area begins at I-295 and extends approximately 500 feet north from Denow Road, with aerial utilities lining the path and residential properties to the west and east.

**Utilities:** The Public Service Electric and Gas Company (PSEG) owns and operates numerous aerial power lines throughout the study area. A high-voltage transmission tower lies to the north of Denow Road with transmission lines running eastwest through the study area.

**Geotechnical:** All alternatives needs to consider soil type conditions and a high groundwater elevation.

**Environmental:** The project area includes wetlands, flood hazard area, work near a stream, and has a documented habitat for the Blue Heron and Cooper's Hawk (species of special concern).

Land Use: Proposed improvements should consider and allow for potential widening/expansion of I-295.

#### **PUBLIC INVOLVEMENT**

The project steering committee included representatives from Lawrence Township, local advocates such as the Main Street and the Friends of Lawrence Greenways, Rider University, DVRPC, Mercer County Engineering and Planning, and NJDOT to provide guidance and feedback.

A Public Information Center (PIC), held on May 28, 2014 at the Lawrence Municipal Building, provided an open forum for all residents, stakeholders, and concerned citizens to learn about the study and provide input.



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#### **ALTERNATIVE DEVELOPMENT**

Several alternatives were considered to provide direct and convenient access between the northern and southern portions of the Johnson Trolley Trail Corridor via a new trail crossing of I-295. Below is information on each of the developed alternatives.

Option 1 - Interim Trail Improvements Connecting Through West Long Drive (Total Cost \$1.264M): Option 1 involves extending the southern portion of the Johnson Trolley Trail Corridor to Interstate 95. To reduce capital costs, rather than construct a bicycle and pedestrian bridge over I-95, the trail would turn right south of I-95 and run parallel to the I-95 rightof-way to the West Long Drive cul-de-sac, where it would connect to the local street network.

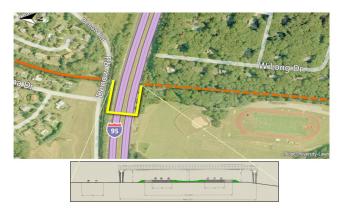


Option 2 - Existing Alignment with Straight Bridge (Total Cost \$8.109M): This option links the northern and southern sections of the Johnson Trolley Trail Corrdior via a bicycle and pedestrian bridge over I-95. The proposed bridge would follow the Johnson Trolley Line alignment, spanning both I-95 and Denow Road. The total proposed bridge length is 735 feet, composed of seven spans.

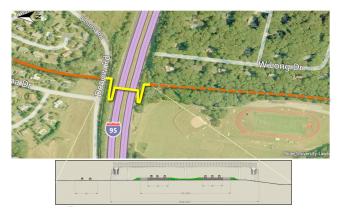


Option 3 - Offset Alignment with U-Shaped Bridge (Total Cost

(\$6.890M): Option 3 links the northern and southern sections of the Johnson Trolley Trail Corridor via a bicycle and pedestrian bridge over I-95. The proposed bridge is a U-shaped structure with the I-95 crossing offset approximately 310 feet west of the Johnson Trolley Trail Corridor. The approach ramps would be located along the I-95 right-of-way between I-95 and Rider University and between I-95 and Denow Road. The total proposed bridge length is 642.5 feet, composed of six spans.



**Option 4 - Offset Alignment with Switchbacks (Total Cost \$6.635M):** Option 4 links the northern and southern sections of the Johnson Trolley Trail Corridor via a bicycle and pedestrian bridge over I-95. The proposed bridge has switchback approaches with the I-95 crossing offset approximately 95 feet west of the Johnson Trolley Line. The approach ramps would be located along the I-95 right-of-way between I-95 and Rider University and between I-95 and Denow Road. The total proposed bridge length is 650 feet, composed of eight spans.



#### **NEXT STEPS**

Stakeholders and public participants deemed options 2, 3, and 4 as the most feasible alternatives. The next step in the process is for NJDOT to choose a Preferred Alternative and advance Preliminary Engineering.