SR 50 SECTION A28
ROUTE 50/CHARTIERS CREEK BRIDGE
WIDENING & INTERSECTION IMPROVEMENTS

APRIL 18, 2018

WELCOME
PUBLIC MEETING
INTRODUCTIONS

- PennDOT District 11-0
  - Cheryl Moon-Sirianni, P.E.,
    - District Executive
  - Doug Seeley, P.E.
    - Assistant District Executive
    - Design
  - Jason Zang, P.E.
    - Acting Assistant District Executive
    - Construction
  - Zachary Kamnikar, P.E.
    - Project Manager, Design
  - Todd Kravits, P.E.
    - Traffic

- David Conrad, P.E. – Utilities
- Tyler Mercer, P.E. – Environmental

- McCormick Taylor
  - John Petulla, P.E.
  - John Sada, P.E., PTOE
  - Jennifer Threats
AGENDA

• Project Background/Overview
• Traffic Data
• Hydraulic Analysis
• Environmental Assessment
• Proposed Improvements
• Construction Considerations & Traffic Control
• Proposed Schedule
• Questions & Answers
Project Background

- Project initiated by:
  - Route 50 Task Force, a partnership between:

- Concepts Developed
- Shared Funding
- PennDOT Begins Preliminary Engineering
- Project Status Meetings
PROJECT OVERVIEW

Project Limits

SR 0050
Millers Run Road

Washington Pike

Chartiers St.

SR 0050

BN 79 SB

I-79

18
PROJECT NEEDS

- Capacity deficiencies
- Congestion relief
- Structural Deficient Bridge (SR 50 over Chartiers Creek)
- Unacceptable Levels of Service
- Safety concerns
• Preliminary Engineering
  – Data Collection
    • Traffic Studies
    • Hydraulic Analysis
    • Environmental Studies
  – Project Needs
  – Design Concepts Refined
    • Right-of-way constraints limit widening on east side of bridge
**TRAFFIC DATA**

- **Existing & Future No-Build Traffic**
  - Average Daily Traffic (ADT)

<table>
<thead>
<tr>
<th>Route</th>
<th>2017</th>
<th>2040</th>
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</thead>
<tbody>
<tr>
<td>Route 50</td>
<td>24,725</td>
<td>27,700</td>
</tr>
<tr>
<td>Chartiers Street</td>
<td>8,800</td>
<td>10,000</td>
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</table>
EXISTING TRAFFIC

YEAR 2017 EXISTING AM AND PM PEAK HOUR VOLUMES

LEGEND

- MOVEMENT
- 555 (555) AM (PM) PEAK HOUR VOLUME
- STUDY INTERSECTION
- CRITICAL MOVEMENT

NOT TO SCALE | AS OF FEBRUARY 2017
### Future Intersection Queues

<table>
<thead>
<tr>
<th>Intersection/Movement</th>
<th>No-Build 2040 Est. Queue Length (ft)</th>
<th>Build 2040 Est. Queue Length (ft)</th>
<th>% Queue Reduction</th>
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<tbody>
<tr>
<td></td>
<td>AM</td>
<td>PM</td>
<td>AM</td>
</tr>
<tr>
<td>Route 50 (Washington Pike/Millers Run)/Route 3003 (Washington Pike) Driveway</td>
<td></td>
<td></td>
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<tr>
<td>Route 50 Southbound</td>
<td>1161</td>
<td>871</td>
<td>650</td>
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<tr>
<td>Route 3003 Northbound</td>
<td>1130</td>
<td>1196</td>
<td>858</td>
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<tr>
<td>Route 50 Eastbound</td>
<td>450</td>
<td>1191</td>
<td>534</td>
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<tr>
<td>Washington Pike/Chartiers Street/Church Street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chartiers Street Westbound</td>
<td>1149</td>
<td>688</td>
<td>552</td>
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<tr>
<td>Washington Pike Northbound</td>
<td>562</td>
<td>607</td>
<td>408</td>
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</tbody>
</table>
HYDRAULIC ANALYSIS

• Chartiers Creek within James G. Fulton Local Flood Protection Project (US Army Corps.)
• FEMA Classified Zone AE 100-yr flood plain
• FEMA restrictions prevent any increase to the 100-yr water surface elevation
• Bridge widened and beam depth reduced to meet FEMA requirements
HYDRAULIC ANALYSIS

- Drainage area to the bridge is 165 sq. miles
- Carries 18,600 cubic feet per second
- Project creates no adverse impacts to water quality, stream flow, fish/wildlife, and upstream/downstream properties
HISTORIC RESOURCES

- Bethany Presbyterian Church
- Chartiers Railway
PROPOSED IMPROVEMENTS

TO I-79/WASH. PIKE

TO STATION STREET

1’ OFFSET TO CONCRETE CURB

11’-0” TRAVEL LANE

CENTER LINE

11’-0” TURNING LANE

11’ TRAVEL LANE

1’ OFFSET TO SIDEWALK CONCRETE CURB

5’-0”

CHARTIERS STREET
PROPOSED IMPROVEMENTS

BRIDGE OVER CHARTIERS CREEK
OVERALL IMPROVEMENTS

SR 50 SECTION A28
ROUTE 50/CHARTIERS CREEK BRIDGE WIDENING & INTERSECTION IMPROVEMENTS

LEGEND
- NEWBURY DEVELOPMENT IMPROVEMENTS
- PROPOSED ROUTE 50 BRIDGE OVER CHARTIERS CREEK
- TRAVEL LANE
- SHOULDER
- SIDEWALK/PEDESTRIAN ACCESS
- DRIVEWAY ADJUSTMENT
- MUNICIPAL BOUNDARY
PROPOSED IMPROVEMENTS

SR 3003 (WASHINGTON PIKE)
CROSSINGS AT SOUTH FAYETTE
MIDAS

SR 50 (MILLERS RUN ROAD)
CONSTRUCTION TRAFFIC CONTROL

• **Minimal long-term** disruptions to normal traffic patterns

• Typical flagging operations and **short-term stoppages**
  – Weekend detours to demo and erect bridge using Accelerated Bridge Construction techniques

• **Peak hour contractor/work restrictions**
CONSTRUCTION CONSIDERATIONS

• Pedestrian & Business Access
  – To be maintained at all times during construction
  – Shuttles to be considered for pedestrians during weekend bridge closures
<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Concepts Developed by Task Force</td>
<td>Complete</td>
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<tr>
<td>Preliminary Engineering</td>
<td>Late Spring 2018</td>
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<tr>
<td>Final Design/ROW Acquisition/Utility Clearance</td>
<td>Early 2020</td>
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<tr>
<td>Construction Begins</td>
<td>Summer 2020</td>
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