New Castle Industrial Track Trail
Delaware’s Bicycle Highway
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Opportunity to complete an active transportation connection from the City of New Castle to the City of Wilmington

Seven miles (when complete)

Only two at-grade road crossings

Dense suburban and urban land use

Critical segment of the East Coast Greenway

Partnership between DelDOT & New Castle County
OVERALL NETWORK

Connects to existing active transportation networks

Tourism potential for Wilmington Riverwalk

- Redeveloped riverfront with shopping & restaurants
- Easy access to downtown
- Transit connections, including Amtrak
- Highlights Wilmington’s historic shipbuilding industry
## OVERALL NETWORK

**Modal choice for commuters**

**Bicycling versus driving**

<table>
<thead>
<tr>
<th>Route</th>
<th>Length</th>
<th>Bicyclist at 12 mph</th>
<th>Bicyclist at 20 mph</th>
<th>Motorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Track Trail</td>
<td>6.4 miles</td>
<td>32 min</td>
<td>19 min</td>
<td>N/A</td>
</tr>
<tr>
<td>SR 141 and US 13</td>
<td>6.2 miles</td>
<td>31 min*</td>
<td>19 min*</td>
<td>14 min**</td>
</tr>
<tr>
<td>SR 9/A St</td>
<td>6.2 miles</td>
<td>31 min*</td>
<td>19 min*</td>
<td>18 min**</td>
</tr>
<tr>
<td>I-95 via SR 141</td>
<td>7.7 miles</td>
<td>N/A</td>
<td>N/A</td>
<td>11 min**</td>
</tr>
</tbody>
</table>

* Does not include delay at traffic signals.

** As estimated by Google Maps. May be longer during peak hours.
PHASE 1

Two mile section

Rail trail; former Industrial Track freight line

State-owned right of way

American Recovery and Reinvestment Act (ARRA) funding

Extremely fast-track schedule

Survey & concept and final design in 5 months

Completed in 2010
PHASE 1

Unsignalized, mid-block crossing at Boulden Boulevard

Daily traffic = 14,000 vehicles/day

High peak-hour volumes

Speeds averaging 40 mph

Shift alignment to nearby signal?
BOULDEN BOULEVARD DESIGN CONSTRAINTS

Environmental permitting constraints

Potter’s Field Cemetery

600 feet
PHASE 1

NCHRP Report 562: Improving Pedestrian Safety at Unsignalized Crossings

- Best practices for evaluating uncontrolled crosswalks
- Required data collection
  - Traffic volumes
  - Crossing distance
  - Trail user volumes (anticipated)
PHASE 1

Toolbox of Treatments

“Enhanced” devices

- Signs and high-visibility markings

“Active” devices

- User-actuated flashing beacons
- User-actuated rectangular rapid flash beacons (RRFB)

“Red indication” devices

- Pedestrian crosswalk signal
- HAWK signal
**PHASE 2**

1.5 mile section

New Castle County designed & is currently constructing

Will extend along the abandoned rail right of way to the south bank of the Christina River

Completion anticipated in 2013
PHASE 3

1.5 mile section

Feasibility Study completed in summer 2012

Challenging segment

• Crossing Christina River

• Tidal wetlands

• In-service rail line

Opportunity for a signature bicycle and pedestrian bridge
PHASE 3
PHASE 3

Option 1:

- Rail with trail condition within rail right of way
- Former second track within upland area
- No wetland impacts

Option 2 (if rail with trail not allowable):

- Shift trail into wetland area
- Construct boardwalk with Thru-Flow decking
PHASE 3

Discussions with rail owner on-going

Ultimately connect to Environmental Education Center & Wilmington Riverwalk

Completion timeline TBD
FILLING IN THE GAPS

Gap #1: Interstate 295 & US 13 Interchange
FILLING IN THE GAPS

Gap #1: Interstate 295 & US 13 Interchange

- Trail underpasses incorporated into current construction projects
- Completion anticipated in 2016
FILLING IN THE GAPS

Gap #2: Connecting to New Castle
FILLING IN THE GAPS

Gap #2: Connecting to New Castle

Another unsignalized, mid-block crossing

No nearby signal

Higher traffic volumes = 16,000 vehicles/day

Similar speeds of 40 mph
Gap #2: Connecting to New Castle

Follow-up evaluation on flashing beacons installed during Phase 1 (Boulden Blvd.)

- Motorist yielding percentage in 20% range
- Average national rate about 50%
- However, nationally rates vary widely from 10% to 91%
**Filling in the Gaps**

**Gap #2: Connecting to New Castle**

**How to Improve?**

Research shows yielding compliance rates of 80% and higher for rapid flash beacons (RRFB).

Will install the first RRFB in Delaware once trail demand grows.
SUMMARY

Measurable progress on all segments

- Completed: Phase 1
- Under construction: Phase 2
- In design: Gap #1 & Gap #2
- In planning: Phase 3

Anticipated completion in 2016 at the earliest

Benefits include economic, environmental & health

Creating active and vibrant communities