

A Bicycle and Pedestrian Connectivity and Complete Streets Analysis of Flemington Borough and Raritan Township

Executive Summary

HART Commuter Information Services

Background/ Need for Analysis:

Facilitating and improving conditions to allow for safe non motorized transportation has long been a goal of both the Borough of Flemington and Raritan Township. Flemington Borough, by its compact design makes it a walkable community and an activity center for the larger and more sprawling Raritan Township. A quick analysis of population and crash data illustrates that while Flemington Borough accounts for only 3. 2% of Hunterdon County's population, it is the site of 12% of Hunterdon County's pedestrian crashes and 26% of the bike crashes. Raritan Township is home to 17% of the county's population and has 25% of the pedestrian crashes and 17% of the bicycle crashes.

The two municipalities have understood for many years that providing for better bicycle and pedestrian access will only benefit the two communities; offering a higher quality of life for residents and increasing safety.

Challenges:

Highways: The Flemington/Raritan area lies at the junction of 3 state highways and traveling across their 2-5 lanes is often intimidating for someone not in an automobile. This study is organized around Route 202 and Route 31 with an emphasis on the border between Flemington and Raritan.

Jurisdictions: Roads in the study area are managed by the State, County, Flemington Borough or Raritan Township, which has often resulted in disconnected improvements.

Methodology:

The Analysis reviewed ten existing documents, five written since 2008, which related to transportation and/or the relevant government entities. These provided a starting point and demonstrated that many of the same concerns and recommendations have continued.

Bicycle and Pedestrian crashes from 2003-2010 were analyzed using Plan4 Safety developed by the Center for Advanced Infrastructure Technology at Rutgers University.

Field work was conducted to flesh out the recommendations of previous studies, identify network gaps and opportunities. This included a simple survey of curb ramps and bicycle safe storm grates.

In order to address the barrier effect of the state highways, the study was focused around the Route 202 and Route 31 corridors. Major intersections on these corridors act as "Gateways" between the two municipalities. This study and its recommendations are organized around these Corridors and Gateways. Beside the state highways, a few other major roads between Flemington Borough and Raritan Township were examined closely as well and also classified as gateways.

Preliminary costs estimates and potential funding sources were researched. Funding sources have been listed by eligibility, grant size and typical project types.

Opportunities/Recommendations:

Several of the most significant opportunities are listed below in brief. Focus is on low cost fixes and improvements which could be implemented in the near term. Bicycle improvements are referred to as "Enhancements".

Note that the estimated costs are very preliminary and are based largely on unit costs. Estimates include only construction costs, not design or permitting. Details and further recommendations are provided in the full report.

Priority Pedestrian Connections & Improvements

Route 202 at Voorhees Corner Road/Church Street

Recommended Improvements (all on west leg):

- Complete crosswalks
- Convert existing islands to proper Pedestrian Refuge Islands
- Install a Pedestrian Signal

Cost estimate: <\$20,000

Stakeholders: NJDOT, Raritan Township



The existing crosswalk at Voorhees Corner Road & Route 202 doesn't have sufficient standing space or any curb ramps

Route 202 & Reaville Avenue

Recommended Improvements:

- Install Pedestrian signals (3 legs)
- Install Curb ramp on south and west corners and connect to sidewalk
- Add a crossing on northeast leg with high visibility crosswalk and pedestrian signal

Cost estimate: <\$10,000

Stakeholders: NJDOT, Flemington Borough



The existing crosswalk doesn't connect to the sidewalk (taken from the sidewalk)

Route 31 at Walter E. Foran Boulevard

Recommended Improvements:

- Add a Crosswalk and pedestrian signal on the north leg

Cost estimate: <\$5,000

Stakeholders: NJDOT, Hunterdon County, Raritan Township



A pedestrian signal head with a countdown display

Route 202 Sidewalk

Recommended improvement:

- Install a sidewalk on the north side of Route 202 from Reaville Avenue to Commerce Street

Cost estimate: <\$15,000

Stakeholders: NJDOT, Raritan Township, Flemington Borough



Existing footpath along Route 202 where sidewalk is recommended

Route 31 Sidewalk

Approved sidewalk project:

- Build new sidewalk on Route 31 from Church Street to Pennsylvania Avenue on east side

Recommended Inclusion:

- Add a crosswalk and pedestrian signal to the north leg of Route 31 & Church Street

Cost estimate: unknown, approved by NJDOT June 2010, funding approval pending

Stakeholders: NJDOT, Raritan Township, Flemington Borough

Crosswalks

Recommended improvements:

- Upgrade painting of crosswalks located on Route 202 and Route 31 from “double rail” to “continental” design for added visibility.
- Provide crosswalks on all four sides of major intersections unless prohibited by the traffic pattern or negligible demand is observed or anticipated

Cost estimate: +/- \$600-800 per crosswalk;
(<\$2,200 for each intersection)

Stakeholders: NJDOT, Raritan Township,
Flemington Borough



A standard crosswalk pattern (left) and a continental pattern (right)

Priority Bicycling Improvements/Enhancements

Raritan Township

Church Street/Voorhees Corner Road

Recommended improvement:

- Extend Voorhees Corner Road bike lane across Route 31 into Flemington Borough through lane narrowing and restriping (likely only the westbound bike lane due to existing sidewalks and curbs)
- Improve the crossing of Route 202 with “Bike Pockets” and ensuring the islands don't interfere with cyclist passage

Cost estimate: <\$5,000 for bike lane extension; <\$5,000 for bike pockets

Stakeholders: NJDOT, Hunterdon County, Raritan Township, Flemington Borough

Reading Road, Case Boulevard and Reaville Avenue

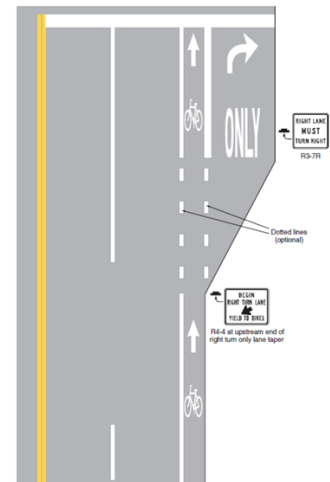
Recommended improvement:

- Stripe bike lanes on Reading Road
- Stripe bike lanes on Case Boulevard
- Stripe Bike lanes on Reaville Road between Hart Boulevard and Yorkshire Drive/Wellington Avenue

Cost estimate: <\$10,000 for each road

Stakeholders: NJDOT, Raritan Township

Figure 9C-4. Example of Bicycle Lane Treatment at a Right Turn Only Lane



A Bike Pocket allows cyclists to go straight while worrying less about crossing paths with vehicles

South Main Street

Recommended improvement:

- Widen pavement and stripe bike lanes
- Improve westbound crossing of Route 202

Cost estimate: \$80-100,000

Stakeholders: NJDOT, Hunterdon County, Raritan Township, Flemington Borough



The merge of South Main Street (left) and traffic exiting Route 202 (right) is uncomfortable for cyclists

Flemington Borough

Recommended improvement:

- Shared Lane with signage and/or “sharrows” on Main Street and North Main Street (to keep cyclists off the sidewalk and reduce crashes)

Cost estimate: <\$10,000

Stakeholders: Flemington Borough

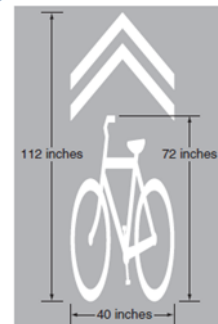


Main Street, Flemington



Share the Road Signage and pavement “Sharrows” which show where on the road to bike

Figure 9C-9. Shared Lane Marking



HART Commuter Information Services
Serving commuters, business and community

www.hartma.com

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HART is a nonprofit transportation management association. Our mission is to promote all forms of sustainable transportation to those who live, work or play in Hunterdon County, NJ. Our work includes promoting carpooling/vanpooling, public transportation options, providing traffic alerts to commuters, and advocating for bicycling and walking.