

Section 4: Recommendations

A combination of routes is recommended to make a comfortable and convenient connection between Downtown Columbia and the Patuxent Branch Trail. The C1/A2 route (sewer line pathway between Downtown and Stevens Forest Road) should be combined with either the C2 (sewer line route adjacent to Allview Estates) or B2 route (pathway adjacent to Broken Land Parkway) to form this connection.

Both the C2 and B2 routes are feasible, however further community engagement (for C2) and further traffic analysis (for B1) is recommended.

Below is a summary of the reasons this is the preferred route:

- The B and C routes are relatively flat, making bicycling and walking much easier than other alternatives.
- The segments would provide efficient connections between Downtown and the Patuxent Branch Trail. The B and C routes are approximately 2.5 miles, compared to the A and D routes, which are approximately 3 and 4 miles, respectively.
- This route would provide several hundred homes currently isolated by major roadways (Broken Land Parkway, RT 29 and RT 32) with a direct, off-road path connection to Downtown Columbia. This includes under-crossings of Stevens Forest Road, RT 29 and RT 32, all of which meet the minimum clearance requirements for a shared-use path (which is eight feet of clearance, as defined by the *AASHTO Guide for the Development of Bicycle Facilities*).

Both routes are feasible from an environmental standpoint. The pathway can be designed to ensure a no-rise condition for the Little Patuxent River. If the C2 route is chosen, it will be located in a corridor that has already experienced significant grading and leveling due to sewer line construction. Flooding is not expected to be a concern, as other sections of the Patuxent Branch Trail are located in similar proximity to the river and are not experiencing significant impacts from flooding. However, it will be necessary for the County to maintain the pathway, as is done with other trails, including the Patuxent Branch Trail (Refer to the Maintenance Schedule in Section 5 for a summary of recommended annual maintenance procedures)

The C route has the potential to promote and create environmental education opportunities, because of its location along the Little Patuxent River stream valley. This could include interpretive signage, ecological educational programming, and stream restoration projects. Some aspects of environmental restoration could be incorporated into the pathway design, such as restoration of several drainage structures that have failed along the former roadbed on the north side of RT 29.

If the B2 route (along Broken Land Parkway) is chosen, there are a number of solutions that can be explored to repurpose roadway space to provide more comfortable and safe accommodations for pedestrians and bicyclists. Given the width of the median, as well as the extra capacity on Broken Land

Parkway, it would be possible to accommodate a shared-use path as well as transit vehicles in this corridor. There are a series of solutions that can be explored to repurpose roadway space to provide more comfortable and safe accommodations for pedestrians and bicyclists. Given the width of the median, as well as the extra capacity on Broken Land Parkway, it could be possible to accommodate a shared-use path, as well as and transit vehicles, in this corridor. Potential solutions could be; implementing strategies to more effectively align the capacity of the roadway to automobile traffic volumes; or securing additional ROW. These would require high levels of public engagement, traffic analysis and engagement with landowners.

Recommended Phasing

Design and construction phasing for the connections will depend on the amount of funds available for initial construction, and developing a Phase 1 project that is logical and serves clear origin and destination points. For those reasons, the combination of Segments C1 and A2 are recommended for a Phase 1 route. This would provide a shared-use pathway from Downtown Columbia to Stevens Forest Road, and therefore would serve the needs of many people who seek to avoid walking along Broken Land Parkway at the RT 29 Interchange to access Downtown Columbia. It will be important to build the A2 section of this route (along Stevens Forest Road), as this segment is needed to connect to the bike lanes on Stevens Forest Road and connect to the Oakland Mills community.

An existing sewer line maintenance spur connection extends from the limits of C1 (south of the Broken Land Parkway underpass) and connects, at grade, with Stevens Forest Road. The utilization of this connection would provide feasible transition between segment design and construction phases. A logical Phase 2 route would be either the B2 or C2 routes. As discussed, further community engagement, (for C2) and traffic analysis (for B2) is recommended.

Preliminary Opinion of Probable Cost

A preliminary opinion of probable cost for the design and construction of Phase 1 (Segment C1+A2) is approximately \$790,000 dollars. The preliminary cost estimate does not include the budget for land or easement acquisition, or other unforeseen conditions that were beyond the scope of this study. A detailed preliminary opinion of probable cost is included in Appendix B.