

Main Street Lewiston Bicycle / Pedestrian Connection to Simard-Payne Park

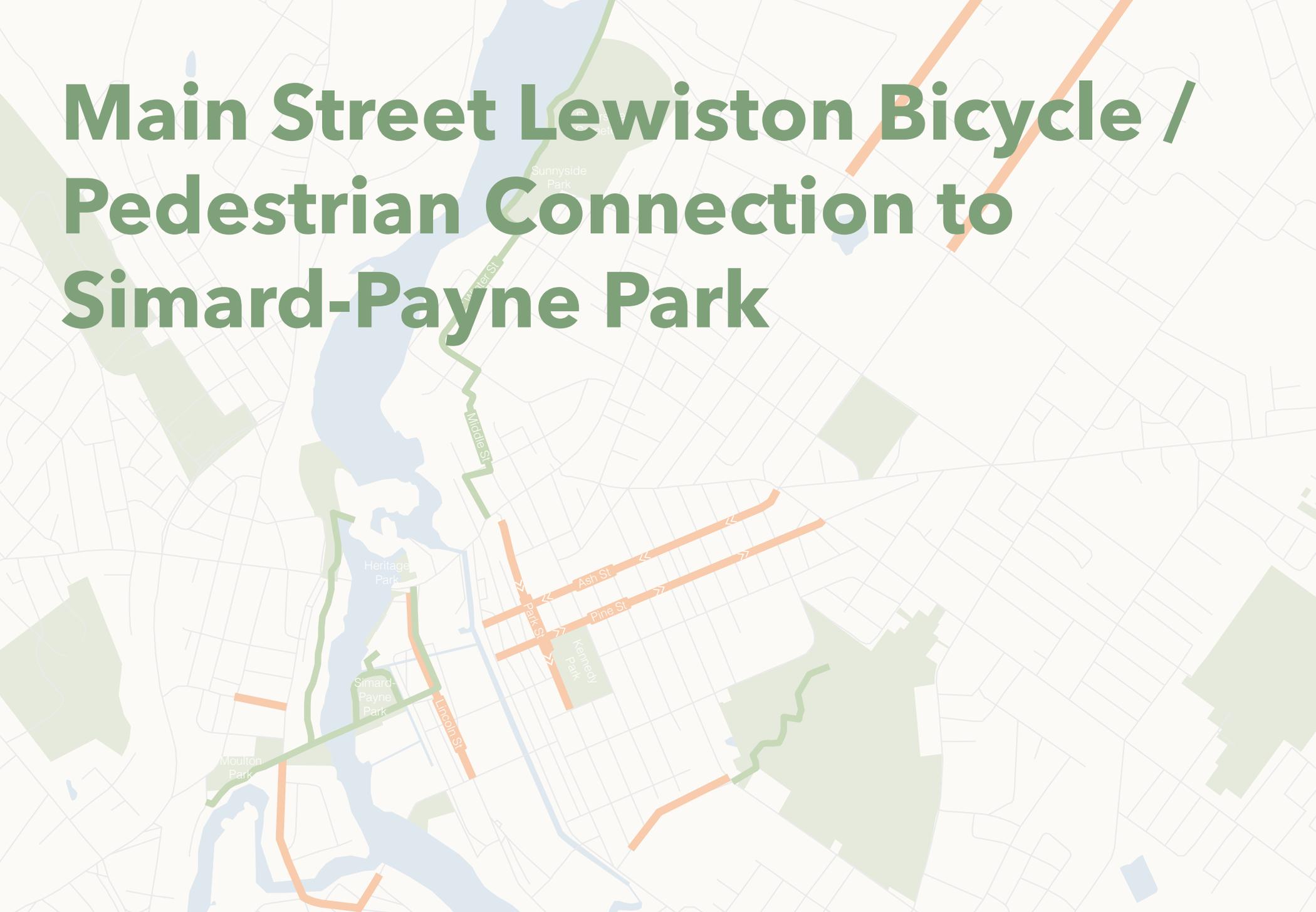


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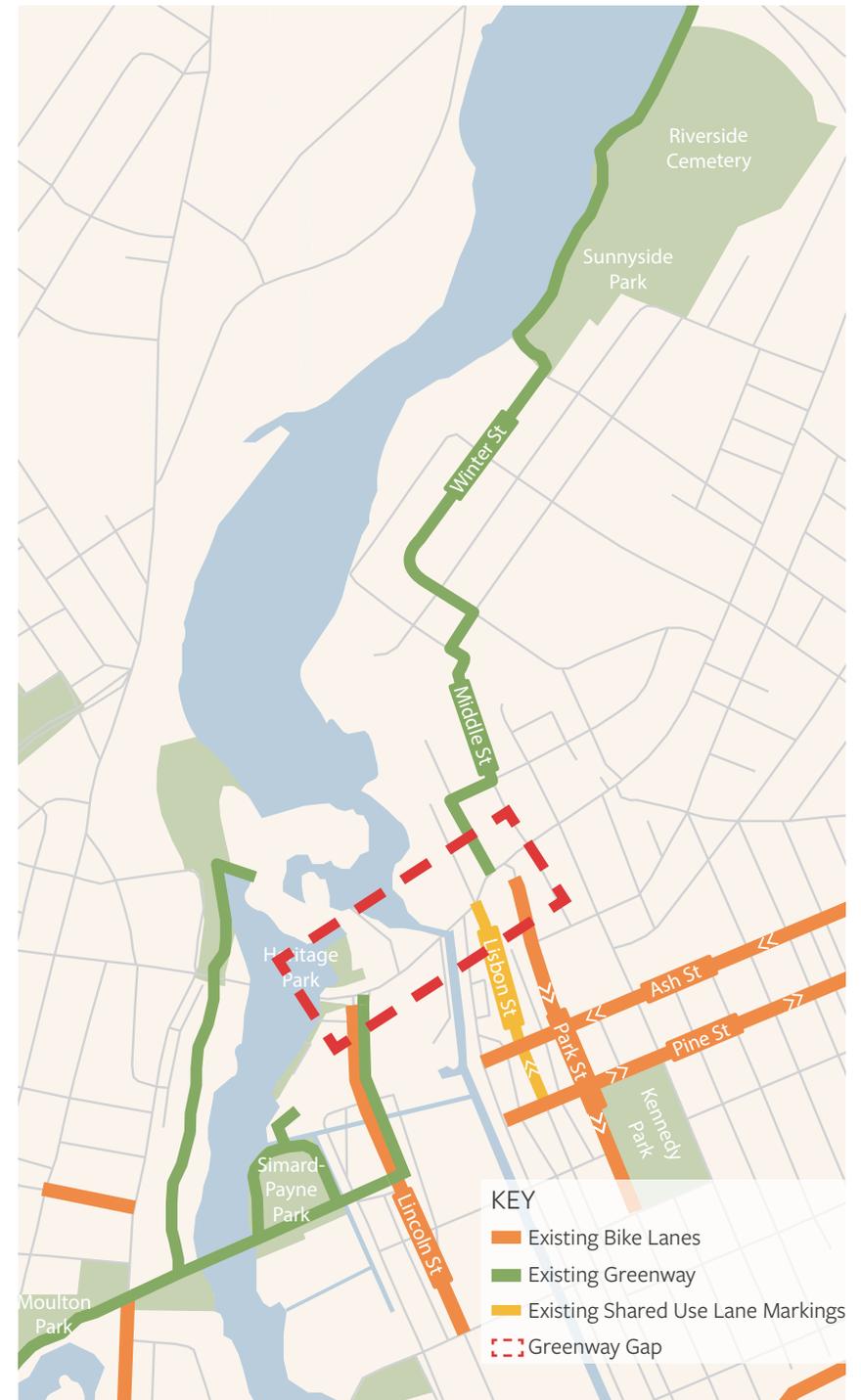
Introduction

The City of Lewiston is actively constructing the Lewiston Riverside Greenway, which links numerous recreational destinations along the Androscoggin riverfront. Two on and off-street segments were recently completed. The first segment links the Auburn Riverwalk / Bonney Park / Moulton Park in Auburn with Simard-Payne Park and Lincoln Street via the historic railroad bridge. Lincoln Street features bicycle lanes in both directions and a wide, landscaped sidewalk on the northside of the street.

The second segment begins on the western side of the Chapel Street and Main Street intersection. This recent addition includes new ADA-compliant sidewalks along the north side of Chapel Street; the north side of Lowell Street; the east side of Middle Street; the northside of Bates Street; the east side of Spring Street; and the north side of Bridge Street. The route then utilizes existing sidewalks along Winter Street and Whipple Street to connect to Sunnyside Park and the off-street shared use path that wends its way along the Androscoggin riverfront. The on-street portion of this greenway connection does not yet include any on-street bikeways. However, in 2014, the full Lewiston Riverside Greenway was designated as part of the East Coast Greenway's 2,900-mile route linking Key West, Florida with Calais, Maine. This recent designation underscores the need to improve connectivity along the riverfront through on and off-street infrastructure dedicated to people bicycling, walking, wheeling, or using other forms of non-motorized transportation / recreation.

Mind the Gap!

The goal of this planning effort is to not only close the existing gap in the Riverside Greenway network, but also improve the segments that already exist. As described above and on the map at right, the gap is found between the intersection of Main Street / Lincoln Street and the intersection of Main Street / Chapel Street. While developing a greenway connection along Main Street provides the shortest connection, this report provides an overview of three route options. Each option is visually described with a route map, an “existing” and “proposed” street section, and an “existing” / “proposed” plan view of a key intersection. Also included is a discussion of the pros and cons of each option, and a general cost estimate. Finally, this report concludes with a recommended “preferred alternative,” otherwise known as the best way to close the gap!



Alternative 1 - Main Street

Distance: 1,275 ft. (.25 mile)

Estimated Materials Cost: \$80,282

Destinations: Heritage Park, Lisbon Street, Canal Walk

Overview

Alternative 1 - Main Street provides a direct connection between Lincoln Street and Chapel Street. The proposed project includes the following improvements to enhance connectivity:

- Designate the sidewalk on the northside of Lincoln Street as a shared use path with signs and appropriate surface markings.
- Reduce the width of Lincoln Street's southbound lane, between Main and North, so that the northbound bike lane may be extended to Main Street.
- Reconfigure the Main Street and Lincoln Street intersection to provide high-visibility crosswalk and "crossbike" markings
- Selectively reconstruct/widen portions of the sidewalk on the west side of Main Street to achieve a minimum of 8' in width (for 2 feet of additional sidewalk width, consider reducing the inner travel lanes to 10 feet (see next page); add shared use path markings and signs, ADA compliant curb ramps, and high-visibility crosswalks across Mill Street, Island Avenue, Chapel Alley, and Chapel Street.

Pros

This option is the shortest way to close the gap and takes advantage of existing bike lanes and a landscaped sidewalk along Lincoln Street. The route also provides connectivity to Heritage Park, Lisbon Street, the historic canal system, and a strong visual connection to downtown Auburn / the Androscoggin River.

Cons

Traffic volumes and vacant lots can make walking or cycling along/across Main Street unpleasant. Sidewalk widening and the possible need to move drainage is relatively expensive, but could be coordinated with street resurfacing to make the most of capital expenditures. Designating a shared use path between Chapel Street and Chapel Street Alley presents conflicts for those entering/exiting the office building located on the block. Finally, a few design exceptions would be required from the Maine DOT to implement the plan.





Alternative 1 Materials Cost Estimate

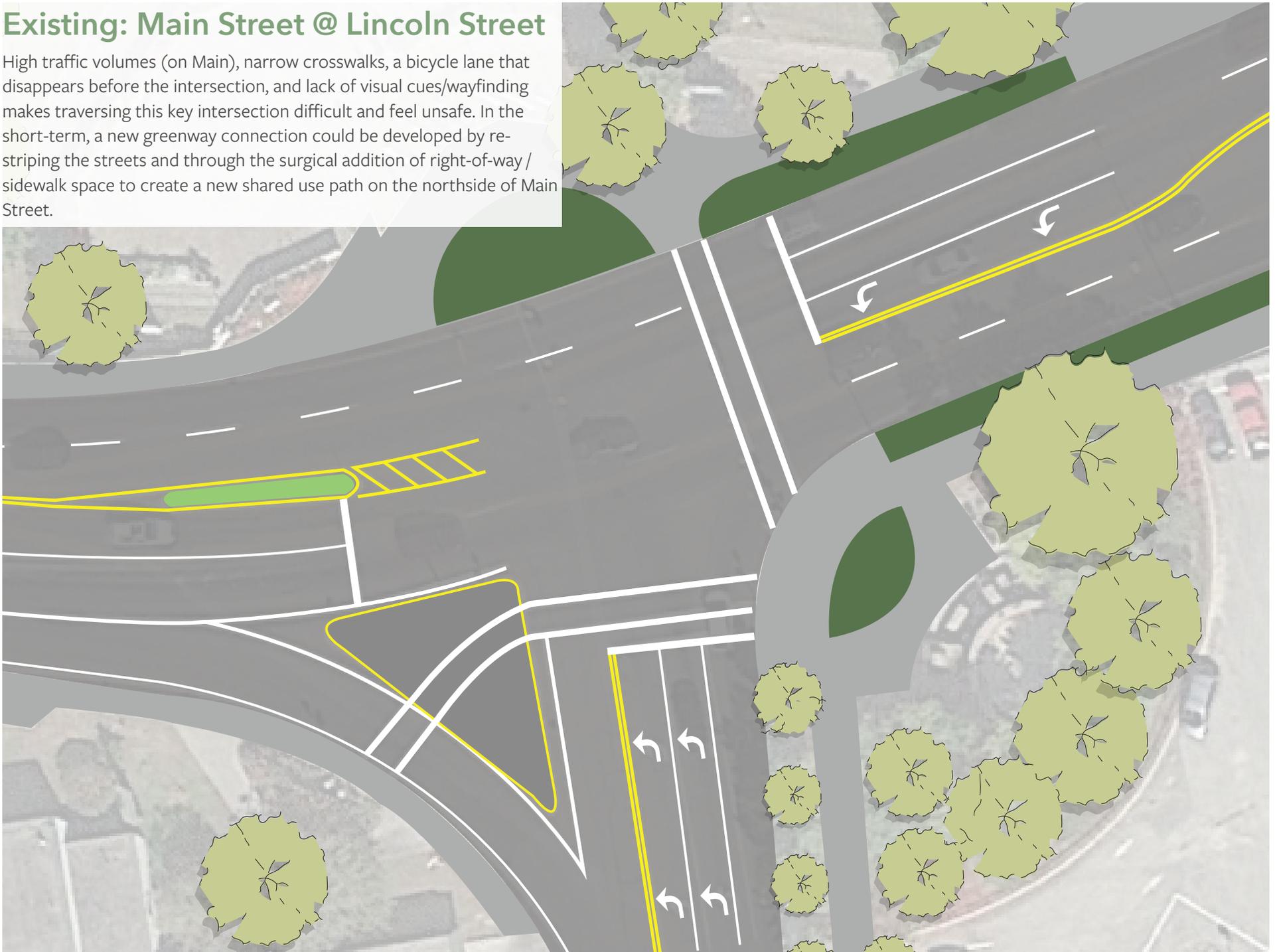
Greenway Enhancement Item	Quantity	Cost Estimate
1. Lincoln Street Bike Lane Extension	160 lin. ft.	\$550
2. High-Visibility Main St. Crosswalk/Bike Markings	70 lin. ft.	\$1,568
3. Shared Use Path Striping / Markings	2,000 lin ft.	\$6,000
4. Detectable Warning Pads	26	\$1,690
5. Sidewalk Expansion Construction	675 sq. ft.	\$67,500
6. Green conflict zone marking paint	290 sq. ft.	\$174
7. LED Pedestrian Countdown Clocks	4	\$2,800
Estimated Materials + Sidewalk Construction Cost*		\$80,282

* Hard materials costs only, except for sidewalk expansion estimate, based on MaineDOT sidewalk cost estimating tool; does not include landscaping costs



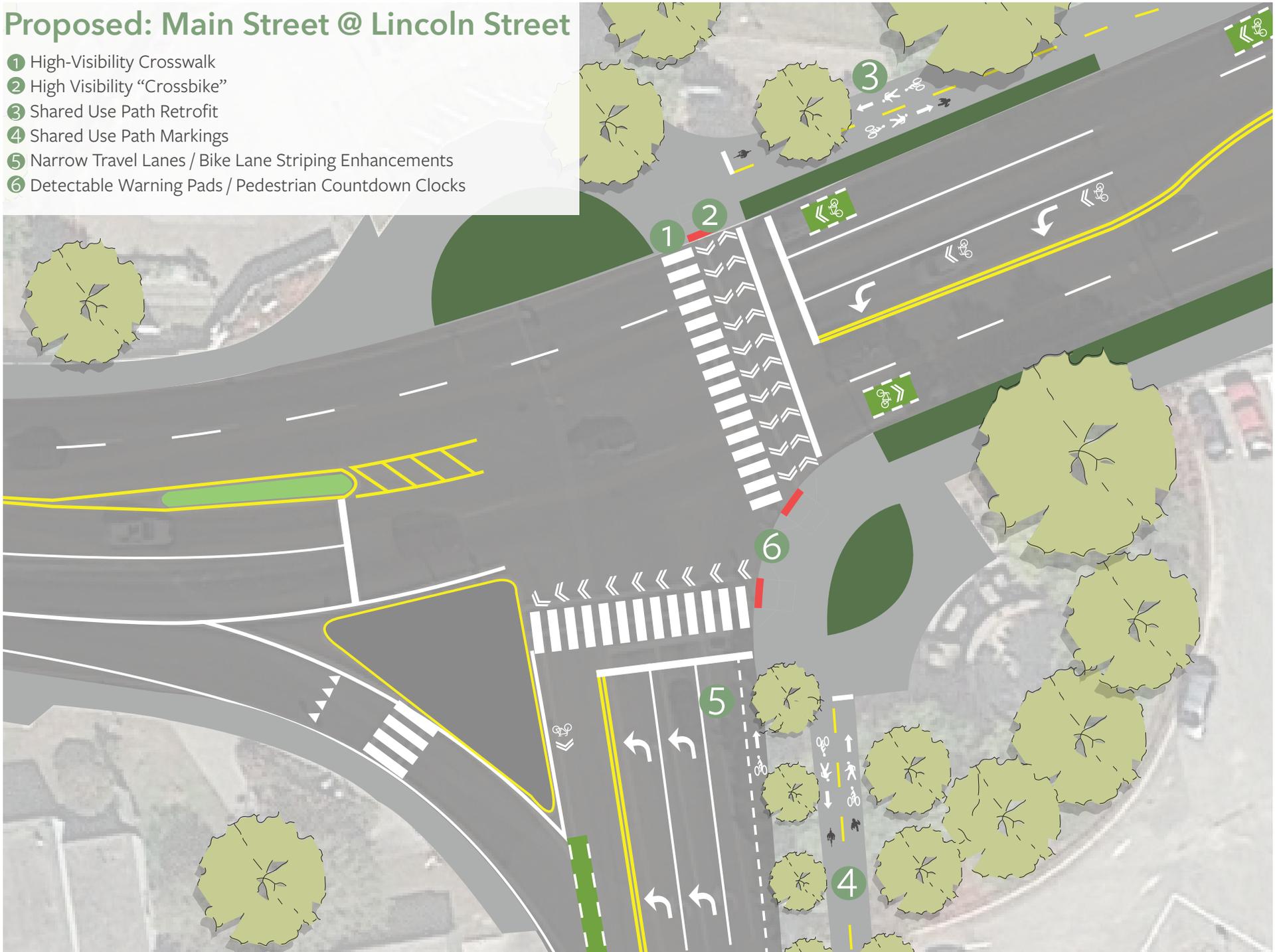
Existing: Main Street @ Lincoln Street

High traffic volumes (on Main), narrow crosswalks, a bicycle lane that disappears before the intersection, and lack of visual cues/wayfinding makes traversing this key intersection difficult and feel unsafe. In the short-term, a new greenway connection could be developed by re-striping the streets and through the surgical addition of right-of-way / sidewalk space to create a new shared use path on the northside of Main Street.



Proposed: Main Street @ Lincoln Street

- ① High-Visibility Crosswalk
- ② High Visibility “Crossbike”
- ③ Shared Use Path Retrofit
- ④ Shared Use Path Markings
- ⑤ Narrow Travel Lanes / Bike Lane Striping Enhancements
- ⑥ Detectable Warning Pads / Pedestrian Countdown Clocks



Alternative 2 - Canal Street/Lisbon Street

Distance: 3,180 ft. (.6 miles)

Cost: \$721,064

Destinations: Canal walk, Lisbon Street businesses, Dufresne Plaza

Overview

Alternative 2 - Canal / Lisbon Street assumes that Canal and Lisbon Street remain one-way pairs. This alternative includes the following improvements to enhance connectivity:

- On Chestnut Street, add bicycle lanes between Lisbon and Canal and sharrows between Canal and Street and Lincoln Street.
- Remove one travel lane along the one way section of Canal Street and replace with a “canal walk” featuring wider sidewalks / landscaping and a southbound parking-protected bicycle lane; Consider retrofitting the cantilevered parking lot on the west side of Canal Street into a park.
- Selectively reconstruct/widen the sidewalk on the east side of Main Street, between Lisbon Street and Canal to achieve a minimum of 8’ in width; add shared use path markings and signs, ADA compliant curb ramps, and high-visibility crosswalks across Lisbon and Main Street.
- Retrofit the sidewalk between Chapel Street Alley and Chapel Street for a shared use path

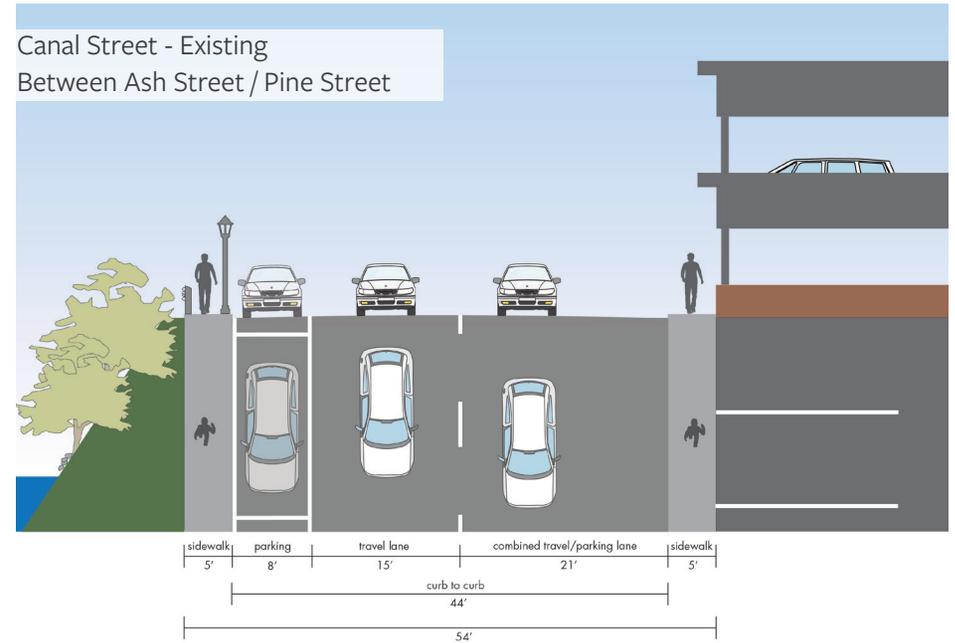
Pros

Alternative 2 takes advantage of the existing sharrows, wide sidewalks, and commercial destinations of Lisbon Street, and the industrial beauty of the canal / Bates Mill complex. This option also avoids Main Street’s traffic volumes and draws greenway users “into town,” which may support local businesses.

Cons

This is the most expensive alternative. And at just over a half-mile, the connection is less direct and would require re-working the intersection of Main Street and Canal Street, and the eastern sidewalk between Canal and Lisbon Street. A proposed park replacing the parking lot on top of the canal would be a large (optional) additional expenditure, but also beautify and increase activity in the area. Like alternative 1, designating a shared use path between Chapel Street Alley and Street could present conflicts with non-greenway users.





Alternative 2 Materials Cost Estimate

Greenway Enhancement Item	Quantity	Cost Estimate
1. Sharrow Pavement Markings	10	\$1,500
2. Sidewalk Expansion Construction	6,910 sq. ft.	\$691,000
3. Shared Use Path Striping / Markings	210 lin' ft.	\$630
3. Parking Protected, Buffered Bicycle Lane	1,346 lin. ft.	\$6,845
4. 5' buffered bike lanes striped w/ bike lane signs	1,005 lin. ft.	\$3,628
5. Detectable Warning Pads	68	\$4,420
6. High-Visibility Crosswalks / Crossbikes	798' lin. ft.	\$17,875
7. Green conflict zone marking paint	210 sq. ft.	\$126
Estimated Materials + Sidewalk Construction Cost*		\$721,604



* Hard materials costs only, except for sidewalk expansion estimate, based on MaineDOT sidewalk cost estimating tool; does not include proposed Canal Street Park, landscaping

Existing: Main Street @ Canal Street / Lisbon Street

High traffic volumes (on Main Street), narrow crosswalks, and a complex driving environment hinders navigation for people walking, bicycling, and driving. A new “paired” greenway connection along Canal and Lisbon Street could help re-organize the intersection to better serve all users. Narrowing travel lanes from their current width of 13 feet or 14 feet, to 11 feet will allow for the addition of sidewalk and median refuge space along Main Street, which will enable the shared use path connection.



Proposed: Main Street @ Canal Street / Lisbon Street

- ① High-Visibility Crosswalk
- ② High-Visibility "Crossbike"
- ③ Pedestrian / Bike Refuge Island
- ④ Shared Use Path Retrofit
- ⑤ Narrow Travel Lanes
- ⑥ Conflict Zone Markings



Alternative 3 - Chestnut / Bates Street

Distance: 4,780 ft. (.91 mile)

Materials Cost: \$60,820

Destinations: Kennedy Park, CityLink / Greyhound Station, Dufresne Plaza

Overview

Alternative 3 utilizes Chestnut and Bates Street to connect Lincoln with Middle Street. This option includes the following connectivity improvements:

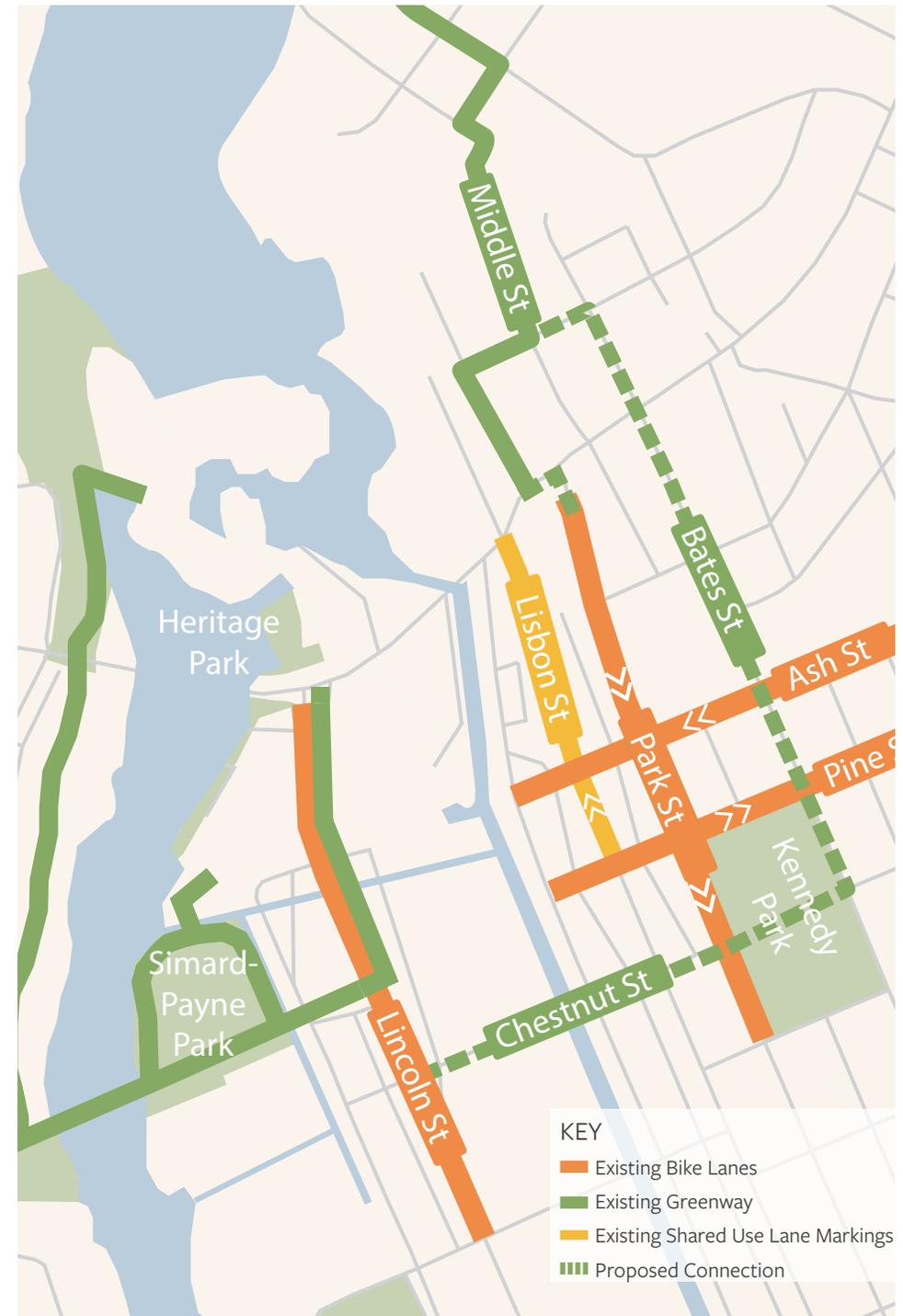
- Add sharrows along Chestnut Street (between Lincoln and Canal Street, Lisbon and Park Street) and bicycle lanes between Lisbon and Canal; add sharrows along Bates Street (between Maple and Ash), and re-assign lanes for an extended bus lane and buffered bicycle lanes (between Ash and Oak); re-assign one northbound travel lane for a northbound buffered bicycle lane (between Oak and Main); add sharrows to Bates Street (between Main and Lowell), as well as to Lowell Street (between Bates and Middle).
- Improve landscaping/tree cover wherever possible along the above route.
- Improve the Chapel / Main intersection to facilitate safe crossing along the greenway route, including the addition of a cycling refuge within the existing Main Street median so that cyclists can more easily connect to Park Street.

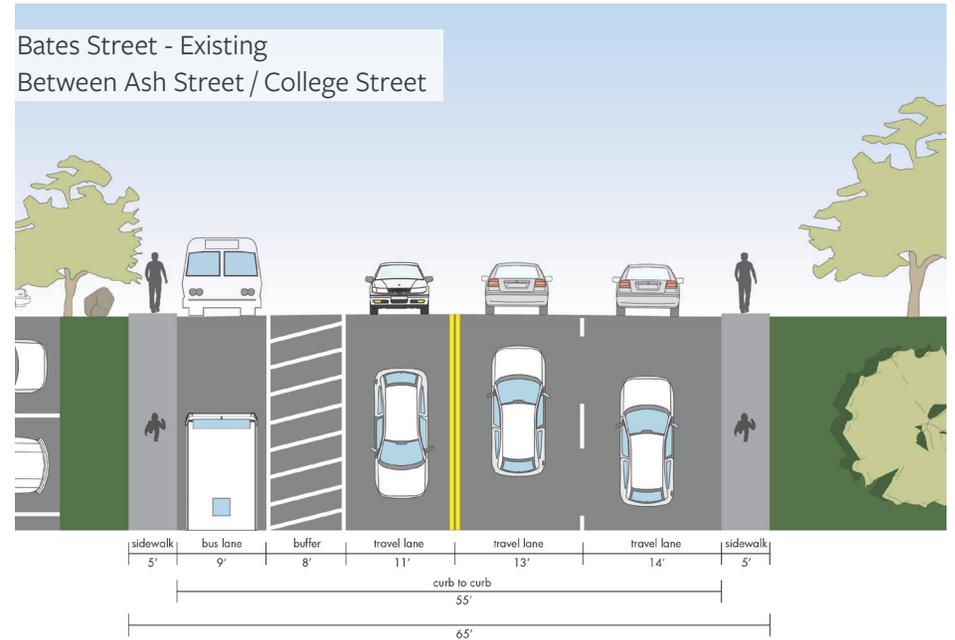
Pros

Alternative 3 connects the Androscooggin riverfront / Simard-Payne Park with Kennedy Park (some improvements needed at the interface of Walnut Street and the park), and the city's main transit terminal. This option avoids Main Street's traffic volumes and draws greenway users into the core of the city. It also provides an opportunity to remake Bates Street as a complete street, with buffered bicycle lanes, an expanded bus lane, and new landscaping. This connection improves the safety of the Main and Bates intersection - the location of five pedestrian / bike crashes (2011 -2014) - and takes advantage of the existing Park Street bicycle lanes.

Cons

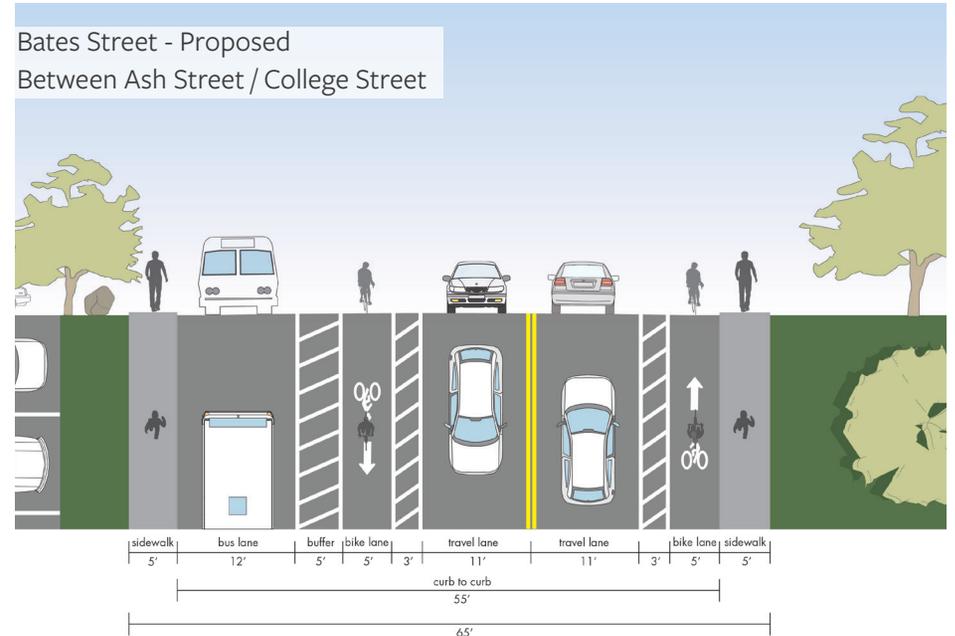
At nearly a mile, alternative 3 is the longest and least direct connection proposed. It also splits users between Park Street and Bates Street, which may diminish the identity of the route. This route may direct more people into the center of the city, but people are less likely to walk such distances to reach recreational destinations like Sunnyside Park and the Riverside Greenway path.





Alternative 3 Materials Cost Estimate

Greenway Enhancement Item	Quantity	Cost Estimate
1. Sharrow Pavement Markings	38	\$5,700
2. Bikes May Use Full Lane Signs	20	\$2,000
3. Buffered Bicycle Lane / Bus Lane Re-Striping / Signs	950 lin. ft.	\$4,530
4. 5' striped bike lane w/ bike lane signs	525 lin. ft.	\$1,900
5. Detectable Warning Pads	51	\$3,315
6. High-Visibility Crosswalks	1952 lin. ft.	\$43,375
Estimated Materials + Sidewalk Construction Cost		\$60,820



* Hard materials costs only, except for sidewalk expansion estimate, based on MaineDOT sidewalk cost estimating tool; does not include landscaping costs

Existing: Bates Street @ Ash Street

Bates Street features a somewhat confusing range of two-way, one-way, two-lane, and four-lane traffic patterns. With an AADT of 4,000 - 5,000 people driving on the street per day, the four lane section, between Ash and Oak, and two-lane, one-way segment, between Oak and Main Street, present an opportunity for lane re-assignment. This would allow for the development of an on-street greenway connection featuring wider sidewalks and buffered or protected bicycle facilities.



Proposed: Bates Street @ Ash Street

- ① High-Visibility Crosswalk
- ② Shared Use Lane Markings
- ③ Buffered Bicycle Lane
- ④ Bus Only Lane

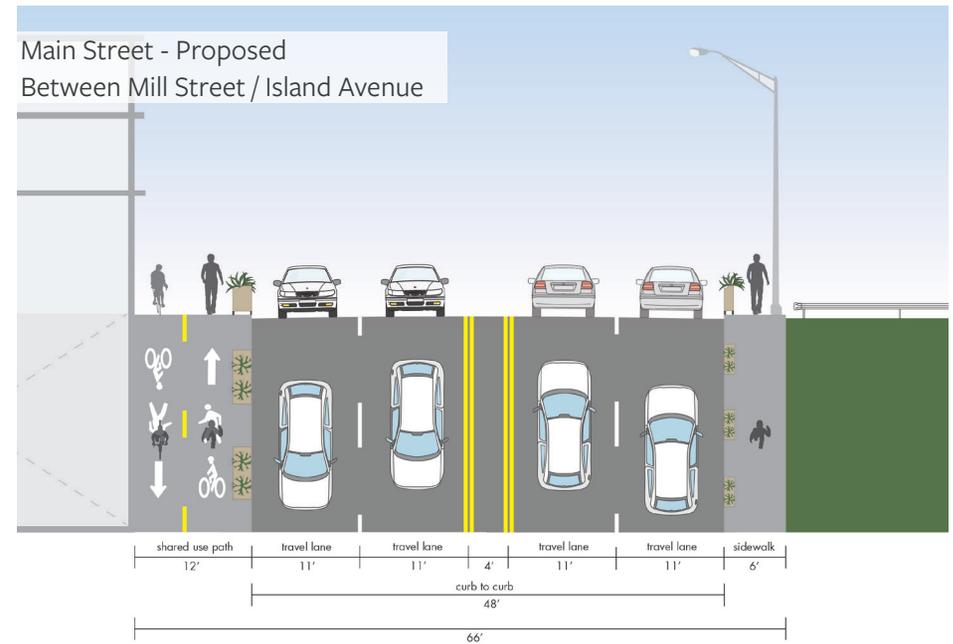


Recommended Alternative: Main Street

All three alternatives presented in this report would improve non-motorized transportation connectivity and recreational opportunities in downtown Lewiston. For that reason and others, all three alternatives could be considered as viable projects that enhance the city's transportation system, particularly in downtown Lewiston where walking and cycling trips are convenient. That said, it is recommended that the City of Lewiston and its partners (ATRC, Maine DOT) pursue Alternative 1 - Main Street to close the gap between Simard-Payne Park and the Riverside Greenway that currently start/terminates at the intersection of Chapel Street / Main Street.

While Alternative 3 would be the cheapest - requiring little else than striping and pavement markings - Alternative 1's short distance and relatively low cost (especially compared to Alternative 2) makes it the best option. In addition, the lack of active frontage / commercial land uses on the north side of Main Street will allow a simple and relatively conflict greenway experience for the user. Although some additional sidewalk width will be necessary, it will not require any additional easements or right-of-way purchase. This option also has the added benefit of narrowing some of Main Street's travel lanes, thus supporting the larger complete streets framework being pursued in the Twin Cities.

In addition, it is recommended that Lewiston and its partners pursue additional funds to enhance the existing greenway, from the intersection of Chapel Street / Main Street to Sunnyside Park. The new ADA compliant sidewalks are a great boost for those walking, wheeling along the route, yet the zig-zag trajectory of the greenway could be improved with pedestrian / bicycle wayfinding, as well low-cost bicycling infrastructure, like shared use lane markings. These small additions will further help all street users identify the Riverside Greenway and improve connectivity.





Credit: Androscoggin Land Trust

