

**TO: Burlington Department of Parks, Recreation, and Waterfront**  
**FROM: Local Motion**  
**DATE: May 19, 2017**  
**RE: Recommendations regarding Lakeshore Bike Path construction detour management**

Thank you for providing Local Motion with the opportunity to provide feedback on the detour plans associated with Phase 2 of the Burlington bike path reconstruction. Our feedback is organized as follows:

- **Overall timing and phasing.** This section offers overall thoughts on how to organize the season's work so as to minimize impacts on trail users and on the community in general.
- **Routing and signage of detours.** This section outlines recommendations on XXX, presented section by section.
- **Safety considerations and improvements.** This section offers a variety of
- **Marketing and outreach.** This section focuses on strategies to improve user experience and minimize negative economic impact.

Please do not hesitate to contact us with any questions regarding these recommendations. The lead point of contact at Local Motion for this project is Kevin Rose <[kevin@localmotion.org](mailto:kevin@localmotion.org)>.

## OVERALL TIMING AND PHASING

As discussed at our initial meeting, we have two recommendations regarding overall timing and phasing:

1. **Switch the planned order of reconstruction of the three segments such that no work and no closures occur south of Leddy Park until after Labor Day**
2. **Complete all work on the section from North Avenue to the Winooski River bridge during June 5-8 or June 12-15**

What follows is our rationale for these two recommendations.

**Avoiding construction south of Leddy Park until after Labor Day.** Tourist traffic on the path is heaviest from mid-June to late August. If the path is kept open from Leddy southward until after the high season is over, the large numbers of inexperienced cyclists who ride the path in summer will only have to detour onto North Avenue from Shore Road northward. This will be a much safer and more pleasant experience for them than if they were detoured onto North Avenue between the Institute Road and Shore Road. While the addition of bike lanes has improved conditions considerably, the intersection with Route 127 is still fairly stressful, and the former four-lane section offers no buffer between the bike lanes and the high-speed, high-volume traffic.

**Completing work on the northernmost segment from Monday through Thursday in either of the first two weeks of June.** Local Motion’s bike ferry service runs Friday-Sunday through June 11. On June 16, we begin 7 day/week service. Therefore, closing the Winooski River bridge in either of the Monday-Thursday windows in the first two weeks of June will have the least impact on people who come to Burlington to ride the Island Line (as well as the lowest financial impact on Local Motion), as our ferry service is not running during those days. We request that DPRW do everything possible to limit the closure of the bridge and of this section of the path to one of those two windows.

## ROUTING AND SIGNAGE OF DETOURS

In addition to the overall recommendations noted above, Local Motion would like to offer a number of specific recommendations regarding the detour routing and signage. In addition, we have included a few proposed modifications to the design for the rebuilt bike path itself. The recommendations are listed by section, from north to south. Within each section, routing recommendations are also listed from north to south.

### Winooski River Bridge to North Avenue Extension

#### Detour Routing and Improvements

- Provided that the path and bridge are closed for four days or less and that the closure meets the timing parameters noted above, Local Motion will not oppose DPRW’s stated intent not to create an official detour route for this section. However, we strongly encourage DPRW to develop a “recommended route” as noted below.

#### Detour Signage

- Per the bullet above, no signage will be needed for a detour itself.
- However, Local Motion strongly encourages DPRW to work with Colchester DPR to create a map showing a “recommended route” to and from the Colchester side of the bridge and:
  - a. Post the map on its website
  - b. Share the map with Local Motion and Colchester DPR in advance of the closure
  - c. Create a sign that says “PATH CLOSED AHEAD” and that includes the route map, and then install the sign for the duration of the closure at Starr Farm Road and at the entrance to Delta Park in Colchester, and/or other locations in Colchester as suggested by Colchester DPR.
  - d. Post the map next to the “PATH CLOSED” signs that will be installed at either end of the segment that is being closed.

#### Bike Path Design

- Local Motion urges DPRW to regrade the path and road where the path crosses North

Avenue Extension so as to reduce the height and steepness of the drop in elevation where the path crosses the road. We see two possible ways to achieve this, and ask that DPRW implement either or both:

- a. Re-grade the path so the downgrade to the road is longer and gentler
- b. Raise the road so the crossing is a foot or two higher in elevation

## North Avenue Extension to Leddy Park

### Detour Routing and Improvements

- Install sharrows on North Avenue Extension from the bike path to Plattsburgh Avenue.
- At Plattsburgh Avenue, make the following on-street improvements (see forthcoming sketch for details on proposed design):
  - a. Extend the bike lanes on North Avenue northward to the southern edge of W Road (street is 30' wide).
  - b. Carry the bike lanes across the Plattsburgh Avenue intersection and paint them green.
  - c. Use bollards to further tighten and square up the southeast corner of the intersection of North Avenue and Plattsburgh Avenue. *At present, even with the bollards that are currently in place, vehicles routinely turn right on Plattsburgh Avenue at 30+MPH, which is a major hazard for people on bikes who are traveling northbound on North Avenue.*
- Along North Avenue between Plattsburgh Avenue and Shore Road, use bolted-down plastic bollards to convert the existing buffered bike lanes to protected bike lanes. Install the bollards at approximately 30' to 35' intervals so as to allow vehicles to pull over into the bike lane when an emergency vehicle needs to pass.
- At Shore Road, install sharrows in the left-hand turn lane on Shore Road itself to guide bicyclists turning left onto North Avenue.
- Route bike path traffic from the southern terminus of Dale Road to the spur trail connecting Dale Road with the northeast corner of the Leddy Park lot. The surface of the spur trail should be improved by the addition of hard pack.
- Apply painted lines and/or sharrows in Leddy parking lot to guide users between the spur trail and the lakeshore path.

### Detour Signage

- Install a sign at either end of detour (alongside the sign recommended above), to include a map illustrating the detour route.
- Move the detour signage near the North Ave / Plattsburgh Ave intersection closer to the north side of the intersection (making it clear to the northbound cyclists that the detour does not fork onto Plattsburgh Ave).
- Remove (for the duration of the detour) existing signage at North Ave/Plattsburgh Ave and Northview Drive that direct cyclists to Colchester via the Heineberg bridge. (The

signs will potentially confuse cyclists on bike path detour).

- Eliminate the sign reading “Path Detour 2 ½ mi”.
- Add signage reading “Bike Path Detour Next 2 ½ Miles” immediately after turning onto the detour at the Leddy parking lot (northbound) and North Ave Ext (southbound).
- Add a sign on the northbound side of North Avenue just before Plattsburgh Avenue that says, “Caution -- watch for vehicles turning right” or the like.
- Add a sign on the southbound side of North Avenue just north of Shore Road indicating that the detour turns right on Shore.
- Add a sign on the eastbound side of Shore Road just west of North Avenue indicating that the detour turns left on North.
- Eliminate any signage on North Avenue between Shore Road and Leddy Park Road (as the detour will no longer follow that route).

### **Bike Path Design**

- No recommendations.

## **Leddy Park to North Beach**

### **Detour Routing and Improvements**

- Use the same detour route at Leddy Park as for the closure of the Leddy-to-North Ave Extension section (Dale Road to Shore Road). Since Leddy Park Road is narrow and will see significant heavy vehicle traffic during construction, this will be the safest option (with the understanding that many locals will use Leddy Park Road regardless).
- At the entrance to the Ethan Allen Shopping Center, apply green paint to bike lanes as they cross the intersection.
- At the intersection of North Avenue and Ethan Allen Parkway, apply a similar treatment to that proposed above for Plattsburgh Avenue (green bike lanes, tighter intersection using bollards). Leave a gap for the entrance to the park.
- At the North Avenue-Route 127 intersection, paint the northbound bike lane green across the mouth of Route 127.
- Re-install the protected bike lanes between 127 and Institute Road (or better yet, from Saratoga to Institute), spacing the bollards at 30’ to 35’ to allow drivers to pull over for emergency vehicles.
- On Institute Road at North Avenue, install sharrows in the left-turn lane to guide bicyclists as they turn onto North Avenue.

### **Detour Signage**

- The sign reading “Path Detour 2 mi” may be confusing to path users. (Experience with the 2016 detour signage showed that users were interpreting the signs as an indication that the detour would begin in the distance noted.) The sign should be replaced with

one that reads, “Bike Path Detour Next 2 Miles,” located immediately after turning onto the detour at campground (northbound) and onto Shore Road (southbound).

- Install a sign at either end of detour (alongside the sign recommended above), to include a map illustrating the detour route.

### **Bike Path Design**

- No recommendations.

## **SAFETY CONSIDERATIONS AND IMPROVEMENTS**

In this section, we offer a recap of a number of recommendations that are particularly important from a safety perspective. In addition, we provide some context on why safety is such an important issue, particularly on the Lakeshore Path.

### **Path Usage and Path User Characteristics**

Enjoyment of the Burlington Bike Path is the number one outdoor activity in the city. Its popularity continues to rise, and will no doubt be tremendously enhanced by the reconstruction of the path. Furthermore, the Burlington lakeshore path is part of the greater Island Line, an internationally recognized recreation and tourism resource. Finally, the path is the primary means by which bicyclists reach the Island Line Ferry, which serves over 14,000 users per year.

A 2010 study published by UVM’s Transportation Research Center shows a count at Leddy Park of 1704 bicyclists on a Saturday in August, and 904 cyclists on a Thursday count. The study estimated daily **one way** users at 624 for May and June, 776 during July, 1133 during August, and 556 during September.

Those numbers are likely to have risen significantly in recent years as the popularity of the path continues to grow. (Over the years since the study, Local Motion’s rental bike volume has grown by nearly 400%.) The experience level of cyclists on the bike path tends to be considerably lower than those riding the roads.

With the potential for so many bike path users being diverted to a detour along North Avenue during the 2017 Phase 2 reconstruction, ensuring the safety of all users on North Avenue should be a primary concern.

### **Review of Key Conflict Areas Along Detour Routes**

**Route 127 / North Avenue intersection.** Immediately north of this intersection, North Avenue experienced an Annual Average Daily Traffic count of 16,500 in 2016. The Route 127 entrance/exit ramps had an AADT count of 7400. Planned repaving for Route 127 in 2017 has the potential to greatly increase traffic at this intersection and along North Avenue. Care should be taken both to improve bike facilities through this intersection and to coordinate path

detours and Route 127 paving so as to avoid conflicts.

**Ethan Allen Parkway / North Avenue intersection.** Cyclists will have greater risk of collision with right turning traffic at this intersection due to the higher speed of traffic entering the 45-degree right bend. The intersection should be tightened and squared up much more than is the case at present, and green bike lanes should be added. *See design sketch (forthcoming).*

**Ethan Allen Shopping Center Entrance.** Southbound cyclists will be particularly vulnerable to a right hook at this intersection. Bike lanes should be painted green through the intersection, per recently released VTrans engineering instructions regarding bike lane treatments at intersections.

**Plattsburgh Ave / North Avenue intersection.** 2016 AADT counts at this intersection show 10,000 vehicles per day, with 7,000 of those vehicles connecting between North Ave and Plattsburgh Ave. Under the current configuration, northbound straight-thru cyclists are routed to the left side of the right-turn lane. Cyclists continuing straight wait at the red light, while traffic turning right onto Plattsburgh Ave have a green right turn signal. The lane is not wide enough, however, for traffic to pass to the right of cyclists waiting to go straight. Cyclists waiting to travel north will block the right turning lane with the risk of collision with right turning traffic. (Northbound vehicle traffic turning onto Plattsburgh Ave can maintain the 30 mph speed limit through the oblique intersection.)

**Heineberg Bridge area.** Conditions for cyclists heading from Burlington into Colchester are particularly suboptimal, with the requirement that bicyclists use the path on the west side of the road resulting in two unnecessary crossings of a very busy road. It is unclear what if anything can be done in the near term to improve this situation, but it deserves a close look.

## MARKETING AND OUTREACH

### Economic Impact

The 2010 UVM-TRC study estimated that the Burlington Bike Path brings between \$1,000,000 and \$2,500,000 in tourism spending during the five month period from May through September. Tourism spending associated with the bike path has no doubt gone up significantly, in tandem with the increase in overall path traffic. And this spending represents only a portion of the benefit generated by the entire Island Line, which is among Burlington's premier tourist destinations.

The Phase 2 bike path reconstruction planned for 2017, particularly the work scheduled for July and August, will undoubtedly result in a reduction of tourism dollars. As noted earlier, a revised phasing of the project will help to mitigate that impact. However, phasing and detour planning must be complemented by a robust and integrated marketing and messaging plan designed to achieve two key goals:

- Minimize how many potential visitors decide not to come to Burlington at all (or not ride

the path) due to construction

- Minimize the effort required for path users to inform themselves about the detour (as well as the level of concern or worry that users experience about the detour)

The two final sections below offer suggestions and assistance for how DPRW and Local Motion can work together to achieve the goals noted above.

### **DPRW Marketing & Messaging Recommendations**

TO BE DEVELOPED

### **Local Motion Assistance with Marketing & Outreach**

TO BE DEVELOPED