

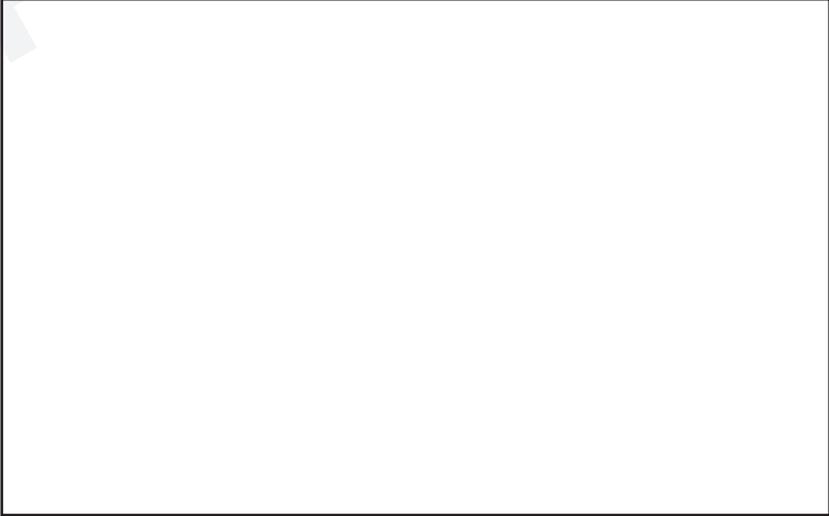
# Connectivity & Mobility

The thriving South End has seen an influx of jobs, people and activity which led to an increase in traffic of all kinds—not only people in cars, but people walking and biking to the South End as well. In fact, pedestrian counts at key intersections have increased almost 3 times since 2005! With this growth in activity, however, we’ve seen a rise in traffic and safety challenges that we must address. With Pine and Shelburne Streets as the only north-south streets in the South End, it is not uncommon for traffic to crawl along Pine Street as people leave their jobs to head home for the day, and we’ve seen the frequency of crashes between cars and bikes or pedestrians along these routes increase as well.

In recent years, the City has made improvements in the South End to address some of these important challenges. Pedestrians now benefit from greater visibility when crossing major streets with the addition of Rapid Flashing Beacons. And, the intersection of Pine Street and Lakeside Avenue has been improved with a new traffic signal and better bike lane markings. But there’s more we can do to improve the safety and connectivity of our transportation networks in the South End. Independent of planBTV South End, the City has been studying and planning for a whole host of additional street connections and traffic and multi-modal improvements through the Railyard Enterprise Project, the Champlain Parkway and planBTV Walk/Bike.



*Image of existing mobility deficiency.*



*Image of proposed Pine Street enhancements at Champlain Elementary.*

Throughout the planBTV South End process, community members emphasized their desire for enhanced walkability and bikeability along South End streets and at intersections, as well as for enhanced transit service. Additionally, those who live and work in the neighborhood are looking for more options for getting to their favorite businesses, to the Champlain School or to the Lake. Creating a more inviting and connected environment for walking, riding a bike, and taking the bus is not just essential for getting to and around the South End—these improvements also strengthen the character of the neighborhood and boost its economic development potential.

To realize the vision for the neighborhood, planBTV South End outlines strategies to:

- expand infrastructure for all modes of transportation in order to address critical connectivity, traffic and parking challenges
- improve on- and off-street connections for walking and biking so that they're safe and comfortable for the full range of users
- reinforce the character of the neighborhood by using our streets not only as places for moving people, but also for innovative stormwater systems and public art

## strategies

**Expand infrastructure to address traffic and parking challenges.** Providing more options for people to get around the neighborhood is an important step in addressing the mobility challenges of the South End. New street connections, with intersections at a more regular interval, provide more opportunities for people to get to their destinations, reduce congestion on Pine Street, and expand multi-modal transportation options. And with more efficient and appropriately located parking and transit infrastructure, we can make sure that the South End continues to be a bustling place—without all the idling!

 **Add new street connections.** Add connections where new city streets are being explored through the Railyard Enterprise Project and the Champlain Parkway, and where other connections are possible through the redevelopment of key South End sites around Locust/Lakeside Avenue/Sears Lane (See pages X-X).

 Amend the City's official map to include future connections.

 Department of Planning & Zoning; Department of Public Works; Community & Economic Development Office; Vermont Agency of Transportation; Federal Highway Administration; City Council

 **Adopt land use policies that limit block size or perimeter,** allowing future development the flexibility in how they provide connectivity, but ensuring a well-connected urban street grid. These policies could help shape the evolution of the Lakeside/Locust/Sears Lane area, where new streets could help support a more connected South End, as well as in the area where new street connections are being explored as part of the Railyard Enterprise Project.

 Revise development standards to ensure smaller block sizes where feasible if/when vacant lots are redeveloped.

 Department of Planning & Zoning

➔ **Address key intersections to improve safety and alleviate traffic congestion.** Consider appropriate locations for new traffic signals, roundabouts or mini-roundabouts to address traffic congestion, and reinforce lower, safer speeds at intersections.

- Explore potential for a redesigned intersection at Howard/St. Paul/Winooski, where improvements could help foster an emerging neighborhood activity center.
- Advance plans for a roundabout and other multi-modal improvements at Shelburne/Ledge Rd/Willard/St. Paul/Locust intersection.
- Prioritize the implementation of an appropriate treatment to address traffic congestion at Maple/Pine intersection either in conjunction with or independent of the construction of the Pine Street section of the Champlain Parkway

 Department of Public Works

➔ **Conduct a Shelburne Road corridor study.** This corridor could benefit from a focused corridor study exploring strategies for making this street a more walkable, bikeable, crossable place and to help foster an emerging neighborhood activity center at the intersection with Flynn Avenue. Also included as an economic development strategy, this study should consider current and future land use, and potential development/redevelopment sites.

- Secure funding and determine a scope of work for the study.

 Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning, Chittenden County Regional Planning Commission; consult with City of South Burlington

➔ **Explore potential to increase transit frequency and improve service.** Reducing wait times for the bus, extending hours of service into the evening, and increasing utilization of existing service lines (such as the Champlain College shuttle) will make transit an appealing choice for many more people. And, service improvements such as real-time bus arrival information will help South End commuters know exactly when the bus is coming—making it an attractive option to driving.

- Work with CCTA to explore options for funding service enhancements.

 Community & Economic Development Office, Department of Public Works, Chittenden County Transportation Authority (CCTA)

➔ **Provide appropriately-located, amenity rich bus stop areas.** Pine Street should be enhanced as a transit corridor, with attractive, well-lit, comfortable and accessible bus stops, bike racks for easy modal transitions, and the opportunity to turn transit hubs into “places.” These transit stops could also include outdoor art, landscaping and other creative features to make them beautiful and to reinforce the South End’s character. Well-designed stops will not only improve safety and comfort of existing riders, but can help increase ridership and send an important message that transit is important and worthy of investment.

- Make bus stop enhancements a key component in other streetscape/corridor improvement projects, and in grant applications for those improvements.
- Seek design concepts from the community that can be integrated into transit stops. Identify possible funding sources for implementation such as Transportation Alternatives or the National Endowment for the Humanities.

 Community & Economic Development Office; Department of Public Works; CCTA, Burlington City Arts

➔ **Continue to explore potential for transit-oriented park-and-rides or intercept lots.** Consider development of a small transit-oriented park-and-ride or intercept lot where Burlington residents could drive to a LINK bus stop, and where inbound employees could park at a satellite lot and catch a high-frequency bus, walk or bike into the South End or Downtown. Such a facility should be designed to be multi-modal, and could replace informal area park-and-rides which have recently gone away or which are slated for other uses.

- Identify potential locations for future park-and-ride or intercept lots; identify funding opportunities for high-frequency bus service

 Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning, CCTA, Chittenden County Regional Planning Commission

➔ **Plan for parking.** Parking is a growing challenge in the South End. As key sites redevelop, and new infrastructure is added, shared parking solutions, appropriately located and well-design parking structures, and a strong network of multi-modal options is strongly recommended. We can further define policies and strategies for parking and transportation demand management through a South End parking study.

- Secure funding and determine a scope of work for the study.

 Department of Public Works, Community & Economic Development Office, Department of Planning & Zoning

**Improve on- and off-street connections for the full range of users.** A key element to reinforce the South End’s identity as a mixed-use neighborhood is to ensure that there are safe, connected routes for people who walk and bike. Increased opportunities for walking and biking should be emphasized along the Pine Street corridor, and to connect neighborhood amenities, such as schools, parks, the Lake and other destinations.

➔ **Reinforce the target speed of 25 mph for all streets in the South End.** People walking and biking are particularly vulnerable to higher speed traffic. Additionally, the design of streets and intersections can encourage vehicles to drive faster than posted speed limits, creating an uncomfortable environment for those walking and biking. We should update the City’s Transportation Plan to expand the concept of target speed, and reinforce it through project design. Traffic calming principles should be incorporated into all projects, public and private, and should be emphasized along major streets such as Shelburne and Pine, near schools and parks, and in other locations as needed.

- Leverage current street and corridor projects currently underway to advance these concepts.

 Department of Public Works

*incorporate some type of call-out with graphics/images to describe traffic calming elements: roundabouts, mini-roundabouts, raised/textured intersections, bumpouts, medians, alignment shifts, and tighter turning radii.*

➔ **Address weak and missing links in the South End sidewalk network.** Lack of sidewalks along parts of Pine Street and Lakeside Avenue, most of Industrial Parkway, and all of Sears Lane can make routes to South End destinations unsafe and less than welcoming for those traveling on foot. Additionally, better sidewalk conditions with green buffers are needed along Flynn Avenue, Home Avenue south of Batchelder Street, and along Pine Street between Calahan Park and Champlain School. We should also consider improving locations where “informal” pedestrian paths have cropped up, particularly as a way to connect the South End’s neighborhoods to nearby parks, the Lake and other amenities.

● Further explore near-term and long-term improvements for the South End’s sidewalk/path infrastructure as recommended in the planBTV Walk/Bike master plan. Secure funding to implement missing links.

👤 Department of Public Works; Parks, Recreation & Waterfront Department

➔ **Develop a City policy on locating and designing mid-block crosswalks.** Major streets like Pine with lots of pedestrian activity and lots of vehicular traffic would benefit from additional mid-block crossings. These crossings need to provide for pedestrian safety and be carefully coordinated with vehicular flows. Use of raised and/or textured paving and pedestrian activated signals should be considered.

● Draft a policy statement regarding mid-block crossings.

👤 Department of Public Works

➔ **Continue to expand and enhance bike infrastructure within the South End.** The South End needs a range of cycling infrastructure, to reflect the range in ability and desired facilities of people who bike. The proposed off-street, mixed-use path proposed by the Champlain Parkway is a start. We should also consider infrastructure such as protected bike lanes along busy streets like Shelburne Road, bicycle boulevards on neighborhood streets, additional bike parking at South End destinations and at bus stops, expanding the South End’s network of bike and pedestrian links, and adding new links to access the well-loved Island Line Trail.

● Further explore near-term and long-term improvements for the South End’s bike infrastructure as recommended in the planBTV Walk/Bike master plan. Secure funding to implement missing links.

👤 Department of Public Works; Parks, Recreation & Waterfront Department

➔ **Establish a South End Neighborhood Path**—a neighborhood pedestrian and bicycle route linking residential areas to neighborhood parks, schools and other destinations. This route would provide a low-speed, low-traffic route for younger, older and less confident cyclists—and for those who prefer a lower-traffic walking and biking environment than Pine Street provides. The route will utilize a combination of a path through the school and park, and a bicycle boulevard on local, traffic-calmed streets for “low stress” biking.

- Explore the potential for roadway treatments and connections of a route as part of the planBTV Walk/Bike master plan.
- Advance plans to construct the paths as recommended by the 2013 Champlain School Safe Routes to School study.

👤 Department of Public Works; Parks, Recreation & Waterfront Department; Community & Economic Development Office; Burlington School District

➔ **Improve walking and biking conditions at and to Champlain School.** Pine Street between Lakeside and Flynn Avenue should be transformed into a complete streetscape that will encourage all to walk and bike more regularly to the school or to Calahan Park. Options for Pine Street could include a median for safer crossings, a streetscape with wider sidewalks, landscaped buffers, tighter corners at intersections, narrower driveways and narrower vehicle lanes. Additionally, a plan should be implemented to better manage school drop-offs.

- Advance plans to construct speed tables and bulbouts along Locust Street and at the Birchcliff Parkway-Cherry Lane intersection (anticipated 2016); reactivate the Champlain Safe Routes to School Committee and update/expand the existing SRTS plan.
- Advance plans to improve school drop-offs.

 Department of Public Works, Champlain Safe Routes to School Committee, Burlington School District

➔ **Seek opportunities to create new pedestrian and bicycle links to Lake Champlain and the future Barge Canal park.** Improve existing conditions along Flynn and Lakeside Avenues. Seek opportunities for new connections from Pine Street to the Lake, and between Lakeside Avenue and the future street connections to the north being explored through the Railyard Enterprise Project. Establish paths as elevated boardwalks if needed due to environmental constraints on the Barge Canal site.

- Secure funding to improve existing links. Study feasibility of new connections through the Barge Canal site as part of future plans to transform the site into a publicly accessible open space.

 Department of Public Works; Community & Economic Development Office; Department of Planning & Zoning; Parks, Recreation & Waterfront Department

## Streets as places for stormwater innovation and public art.

➔ **Incorporate stormwater management features into streetscapes.** Many of the traffic calming features and landscape buffers that are be built into public rights-of-way can also be utilized for innovative stormwater management features to help address the amount and quality of stormwater runoff that impact our receiving waters. Improvements to South End streets and streetscapes should incorporate the recommendations of the Stormwater element.

- Implement stormwater management tools identified in the Stormwater element (See page XX) when South End streets are redesigned or new streets are constructed.

 Department of Public Works

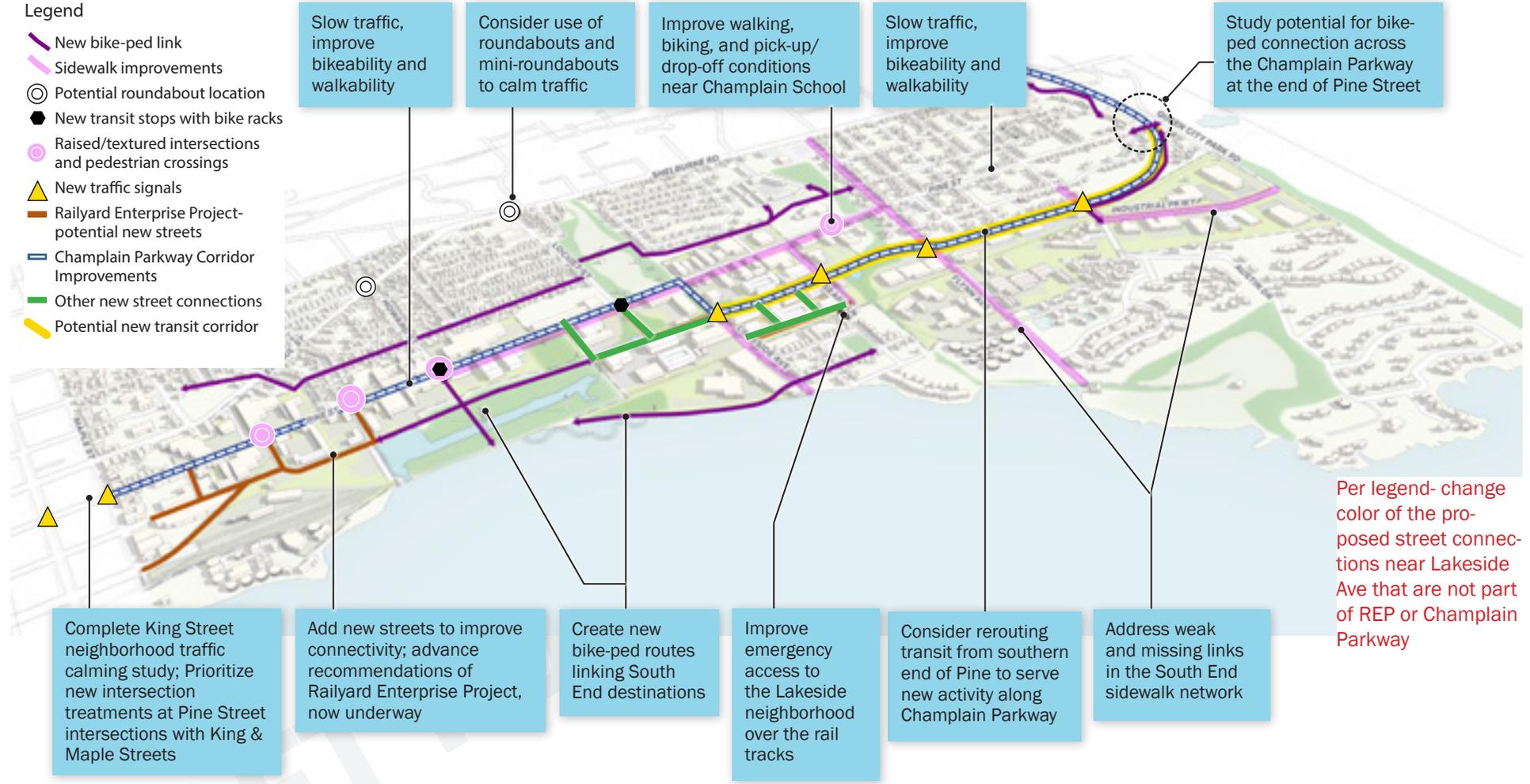
➔ **Continue to incorporate the arts into the physical fabric of the South End.** Strengthen the visibility of the arts by utilizing public rights of way, bus stops, signage and other streetscape enhancements as opportunities to incorporate public art and creative landscapes.

- Implement the Parks element recommendation to incorporate a Pine Street Arts Corridor and Linear Arts Park (See page XX).

 Department of Public Works; Parks, Recreation & Waterfront Department; Planning & Zoning Department, Burlington City Arts; SEABA

Legend

- New bike-ped link
- Sidewalk improvements
- Potential roundabout location
- New transit stops with bike racks
- Raised/textured intersections and pedestrian crossings
- New traffic signals
- Railyard Enterprise Project-potential new streets
- Champlain Parkway Corridor Improvements
- Other new street connections
- Potential new transit corridor



DRAFT

**planBTV South End Revisions**  
**Mobility Element**  
**Staff Revisions for LRPC Meeting 05/02/2016**

## **The Champlain Parkway & Railyard Enterprise Projects**

### **Champlain Parkway**

The Champlain Parkway, originally conceived as the Southern Connector—a four lane divided highway that would run along the City’s waterfront—has changed greatly over the past several decades.

Today, plans for the Parkway consider new street connections and modifications to existing streets all the way from the Pine and King Street intersection to Queen City Park Road. The Champlain Parkway’s design has evolved to address many of the Mobility element’s recommendations. It now considers design elements for slower speeds, includes facilities for walking and biking, provides greater connectivity within and to the South End, and sets up opportunities for expanded parking and transit facilities. Here is what the proposed Champlain Parkway can bring to the South End:

- More connectivity and resiliency of the South End’s street network for people walking and biking, for truck deliveries, and for dispersing traffic across more roadways during congested times or during traffic incidents.
- More multimodal options for South End travelers, including either a shared use path or bicycle lanes along most of its length and pedestrian safety and transit stop enhancements.
- Reinforcing a low design speed with treatments at intersections and along the corridor. Increased capacity of Pine Street between Main and King Streets with new intersection improvements replacing the existing 4-way-stop intersections.
- Street design that serves current and planned land uses in the South End and improves access to downtown.
- New connections to the interstate highway for the South End’s industrial core, taking heavy truck traffic out of the South End residential neighborhoods.

While there are many anticipated improvements that the Champlain Parkway can bring to the South End, there are also many continuing concerns about the actual benefit that will be realized by these investments. The Parkway’s design has attracted a wide range of public support, criticism, and suggestions for modification. Likewise, the Department of Public Works continues to work closely with Vermont Agency of Transportation and the Federal Highway Administration to identify further retrofits and improvements that could be made along the Champlain Parkway’s corridor in the future in order to expand its functionality as a truly multi-modal street.

### **Railyard Enterprise Project**

The Railyard Enterprise project emerged from several past planning studies which identified the railyard area as one of the largest underutilized areas on the City with great opportunity for thoughtful

redevelopment. For several years, a study has been under way to develop a network of multi-modal transportation infrastructure improvements to connect Pine and Battery Streets in order to:

- Develop infrastructure consistent with the planBTV Downtown and Waterfront vision of the area to support economic development and enhance Railyard operations.
- Improve the livability and connectivity of the residential areas and emerging mixed-use districts around the railyard.
- Enhance multimodal travel connections for improved transit, enhanced bicycle and pedestrian connections, and better access for families from existing neighborhoods to nearby amenities.
- Improve the connectivity and access between nearby streets and the railyard (a designated intermodal facility), and reduce the impacts of freight operations on adjacent neighborhoods.

The study considered the tradeoffs and impacts of various street connections on the railyard, the existing street network, and nearby neighborhoods. Following public input and an evaluation by the project's steering committee, a number of alternative street patterns were recommended for a more detailed evaluation.

For both the Champlain Parkway and Railyard Enterprise Projects, the scoping and traffic studies and project design continue to evolve outside of the scope of the planBTV South End process. However, the challenges and potential improvements that new connections associated with these projects could bring to the South End must be considered as a part of this plan. Much like our bold vision for street connectivity in planBTV Downtown & Waterfront, this plan envisions that the new and retrofitted facilities that emerge from these projects will serve to better connect the neighborhood, reinforce an urban street network, expand multi-modal connectivity and support economic development goals within the South End.