

# plan **BTV**

Downtown & Waterfront

**TAPPING  
BURLINGTON'S  
CREATIVE  
ECONOMY**

PLUS  
**CHICKENS  
ON CHURCH?**



**LIMITED EDITION**

**THE  
GREEN  
MACHINE**

Burlington's New Groundbreaking Waterfront  
Stormwater Treatment Concept

**PARK IT  
BURLINGTON!**

**TIMELESS  
PRINCIPLES**

CREATING  
**"MUNICIPAL  
ADVANTAGE"**



PlanBTV is a collaboration of the people of Burlington, the City of Burlington, and Town Planning & Urban Design Collaborative LLC.  
More at: [www.burlingtonvt.gov/planBTV/](http://www.burlingtonvt.gov/planBTV/)

Adopted  
**June 10, 2013**

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Downtown & Waterfront

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## FUNDING FOR PLANBTV WAS PROVIDED BY:

HUD OFFICE OF SUSTAINABLE HOUSING AND COMMUNITIES – COMMUNITY CHALLENGE PLANNING GRANT

THE WORK THAT PROVIDED THE BASIS FOR THIS PUBLICATION WAS SUPPORTED BY FUNDING UNDER AN AWARD WITH THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT. THE SUBSTANCE AND FINDINGS OF THE WORK ARE DEDICATED TO THE PUBLIC. THE AUTHOR AND PUBLISHER ARE SOLELY RESPONSIBLE FOR THE ACCURACY OF THE STATEMENTS AND INTERPRETATIONS CONTAINED IN THIS PUBLICATION. SUCH INTERPRETATIONS DO NOT NECESSARILY REFLECT THE VIEWS OF THE GOVERNMENT.

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## Burlington, What is your Municipal Advantage?

Post housing market bust, we are operating within a bold new economy, where resources are a limited commodity, and municipalities must find smarter ways to compete for population, businesses, cultural amenities, and investment dollars. Cities like Burlington have a natural advantage, endowed with a traditional urban core that is desirable to residents and visitors on the grounds of historic appeal and convenience. There is also a significant direct economic benefit inherent in downtowns. Designed with a high ratio of building square footage per land area, compact urban centers provide significant value with proportionally less cost and stress on municipal services (see **Urban is Back**, page 39).

While some plans include an economic development section, we see the economy as inextricably linked to everything else, and as such don't give it a separate section. PlanBTV reflects a comprehensive economic development strategy with a clear set of financial incentives and policy recommendations to drive public and private sector investment.

PlanBTV also builds on Burlington's position as a leader in all things green and sustainable. Included in the plan are strategies to increase opportunities for walking and biking, living downtown, bringing agriculture from the Intervale into the city center, and a mighty **Green Machine** (see page 89) to help with water quality and natural filtration. This plan is about creating more choice, and giving people the ability to lead the life they want.

PlanBTV follows on the footsteps of numerous planning efforts (see **A Legacy of Planning**, page 14) that have contained valuable ideas, many of which we have tried to incorporate here, and present in a way that is easily digestible to the citizens of Burlington.

One of Burlington's greatest municipal advantages is a population of residents who care deeply about the place they have chosen to live, driving in roots, and becoming active participants in the community. Throughout the planBTV process, our team of planners has been awed by the turnout and quality of ideas thrown into the ring. Now, the real test of public commitment will begin, as City staff and policy makers look to the community to not only support, but to help implement the many transformative ideas contained within these pages (see **A Users Guide**, page 8).



**Brian Wright**  
Principal,  
Town Planning & Urban Design  
Collaborative

# FROM THE MAYOR'S OFFICE



Dear Burlingtonians —

I am generally a skeptic of city planning.

Too often in America, our plans fail to inspire, fail to be integrated into local policies, and fail to be relevant. Despite best intentions and considerable effort, most municipal plans in this country end up doing little more than collecting dust on the shelves of government offices.

PlanBTV is different.

PlanBTV is the product of two years' research, more than 100 public events, and thousands of comments from residents, workers, businesses, and nonprofits. It's not just a plan from city government; PlanBTV is your vision of a more vibrant downtown and waterfront.

And planBTV sets a clear vision. It contains images everyone can understand in a form that is highly accessible and engaging.

And planBTV is the first step of a process that will lead to changes in our local ordinances and policies so that this vision can be realized.

In short, planBTV is a vision of the future worthy of our dynamic, vibrant, committed City — and it is a vision we will realize together.

Warmly,

A handwritten signature in black ink, appearing to read 'M. Weinberger', written over a faint, large watermark of the City of Burlington seal.

**Miro Weinberger**  
Mayor

# Letters from your Planning Staff



Welcome to planBTV: A Master Plan for Burlington's Downtown and Waterfront!

This effort - undertaken with the help of hundreds of citizens - ranks among the most ambitious planning projects ever undertaken by the City. While many other efforts involving the downtown or waterfront have taken place over the years, none have been as comprehensive in scope and strategic in design. We've worked very hard to weave together many of the great ideas from past work into a clear and comprehensive vision for our future.

The City of Burlington is recognized nationally as a leader in the sustainable development movement, and is a regular among the never-ending list of top ten places for (you fill-in the blank). Yet Burlington struggles to address complex urban challenges in a small, under-resourced New England community with big ideas and even bigger ideals. We struggle with how to really become the community we say we want to be?

This plan is about choices - choices for where people can live, can work, can move about, and can enjoy all of the many gifts Burlington can offer. This plan places an emphasis on ways to promote and improve mixed uses and quality urban design, affordable and workforce housing, transportation and parking management, and the quality and capacity of public infrastructure.

This Downtown and Waterfront Master Plan is really about economic vitality and competitiveness. Whether we look at the affordability and availability of housing, environmental quality, social equity, energy efficiency, transportation choices, urban design or public infrastructure investments, the underlying purpose and objective is to nurture and strengthen our economic base. It is the lack of a stable and healthy economy that is truly the greatest barrier to achieving our vision of a sustainable community.

The City of Burlington welcomes the opportunities and responsibilities associated with serving as the core of a regional growth center; however, we need to be able to fulfill this responsibility in a way that preserves Burlington's widely celebrated character and sense of place. We feel this plan for the heart of our community does just that, and welcome your involvement in ensuring its fulfillment and success.

David E. White, AICP  
Director of Planning & Zoning



Dear Burlingtonians,

As known community planner Ed McMahon once said: “Growth is inevitable and desirable, but destruction of community character is not. The question is not whether your part of the world is going to change. The question is how.” From the time of its inception, the PlanBTV – Downtown & Waterfront Master Plan project was based on that understanding, acknowledging the notion that Burlington is a very desirable community to live and work in. It is a place where quality of life is synonymous with a healthy lifestyle, vibrant neighborhoods and accessibility to an array of wonderful cultural events. That desirability will continue to attract many to our great city.

Be proactive!

PlanBTV gives Burlingtonians an opportunity to proactively prepare for that inevitable growth, ensuring that the character of our city core will evolve while remaining familiar and comfortable. You have all understood the need to make your voices heard as several hundred residents, business owners and elected officials came together for this significant collaborative effort; defining a vision for Burlington’s Downtown & Waterfront.

Only the beginning!

PlanBTV is only the first step to making our city center better, more vibrant for residents and more economically viable, where workers, shoppers, and visitors abound. Putting into action what we have all agreed upon in this plan is now the task at hand. Only with a concerted effort by all will the vision of this plan ever become reality.

PlanBTV represents a social contract bringing citizens together around common goals for their future. It is an invitation to all of us to succeed in building Burlington’s future together. I invite you to adopt it and make it your own.

Sandrine Thibault, AICP  
Comprehensive Planner

# A USERS GUIDE

## 1. We heard you.

This plan is the culmination of an extensive and transparent community planning process that reflects many differing points of view. Thousands of Burlington residents, businesses, visitors and supporters participated in the process and contributed to the creation of this plan. While there's something for everyone contained within these pages, not everyone is going to love everything in the plan. But consider the big picture, and whether the plan as a whole takes Burlington in the right direction. We hope that everyone can find something to get excited about and become a champion for bringing this vision to life!

## 2. Understand the element of time.

At first glance, the plan may seem ambitious, daunting, even a little frightening. It is important to understand that not everything in the plan will happen all at once, and some things may not happen at all. Included are some big ideas that, if implemented, would bring about transformative change, taking years or even decades to come to fruition. Other ideas are smaller and can happen right away. This planning process is about planting seeds and seeing what we can make grow under the right conditions and careful tending.

## 3. Show me the money.

The one thing that everyone wants to know is “How much will this cost and who’s going to pay for it?” What’s important to understand is that much of what will be needed to bring this vision to life is private investment on individual properties. The role of this plan is to offer a vision for the future and set a course of action. The City will have to play a role in ensuring that the stage is set through supportive regulations and investments in infrastructure, but most of the cost and responsibility for development will fall to individual private and non-profit property owners, often in partnership with public entities.

## 4. Be a part of the action team.

Although we all wish our tax dollars bought us unlimited city services, the reality is there is more work than staff to do it, especially in a city like Burlington, where ideas and energy abound. And all of these great ideas take time, money, and capacity. For this plan to become a reality, a large number of people must decide they care enough to stay involved and help execute the plan. Get on a City commission, join a citizen task force, or turn out to support new projects that are in concert with planBTV as they come forward. We will need everyone to actively engage and support this plan over the years to come. Communities that work together, and work smartly, succeed.

**WARNING: THIS PLAN SHOULD NOT BE FILED**

PLANBTV IS USING A MAGAZINE FORMAT INTENTIONALLY, TO MAKE THIS DOCUMENT AS ACCESSIBLE AS POSSIBLE TO THE PUBLIC, STAKEHOLDERS, POLICY-MAKERS AND CITY STAFF. THIS PLAN BUILDS ON YEARS OF HARD WORK AND IS INTENDED TO BE ACTIVELY USED.

Throughout planBTV the symbols to the right indicate implementation action items and lead parties responsible for moving the plan forward.



Implementation next steps.



Responsible lead party.

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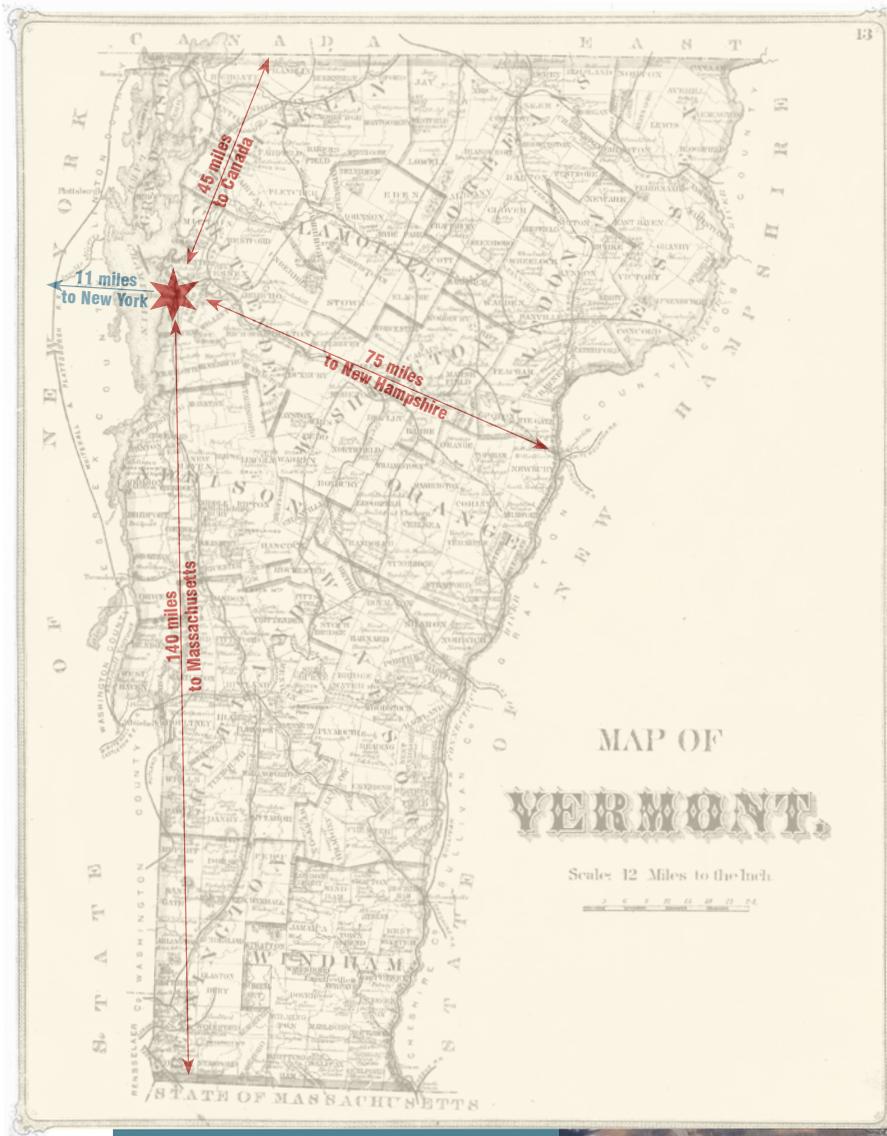
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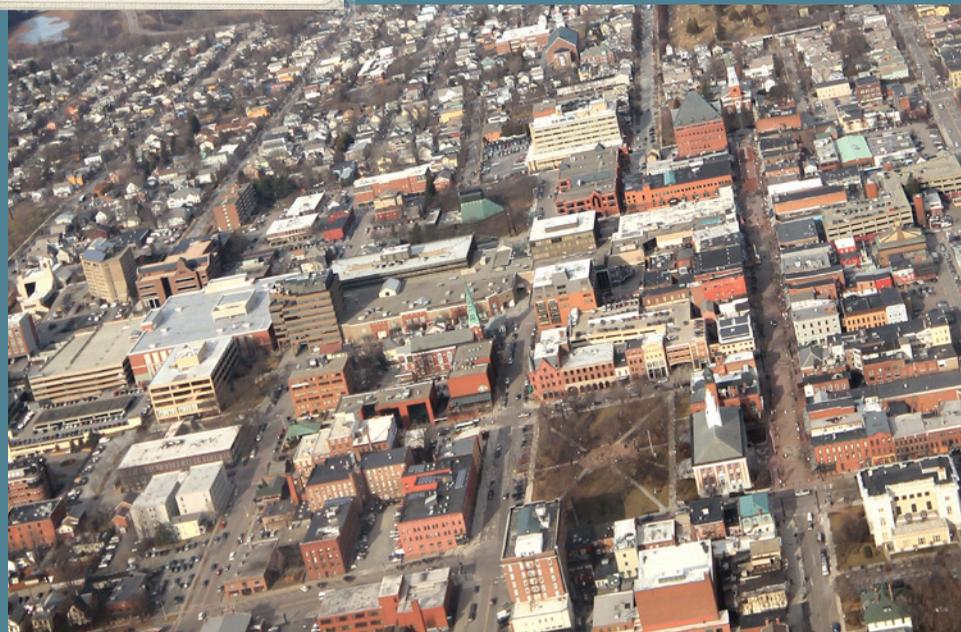
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# BURLINGTON IN CONTEXT



Burlington, set on the eastern shores of Lake Champlain, is the largest city in the state of Vermont with approximately 42,000 residents. The City lies 45 miles south of the Canadian border, about a 2-hour drive from Montreal, Canada and a 3-hour drive from Boston. It is the seat of Chittenden County and the hub of the Burlington-South Burlington metropolitan area, which encompasses the counties of Chittenden, Franklin, and Grand Isle. Burlington only makes up a small portion of this area in physical terms (~10 square miles or 1.66% of the county land area). The City shares its boundaries with three communities: the cities of South Burlington and Winooski, and the Town of Colchester. Burlington International Airport is less than five miles from downtown markets. While Amtrak's Vermonter route passes through Burlington, there is no regional rail service to the city.

Burlington, being the heart of the largest urbanized region in Vermont, is also its principal economic and cultural engine. It is home to the University of Vermont and Champlain College, the Flynn Theater, the nationally acclaimed pedestrian Church Street Marketplace and national companies including Burton Snowboards and Lake Champlain Chocolates to name a few. Noted as the birthplace of Ben and Jerry's Ice Cream and the band Phish, Burlington has been widely celebrated as one of America's most livable communities.





PHISH



UVM



BEN & JERRY



BURTON

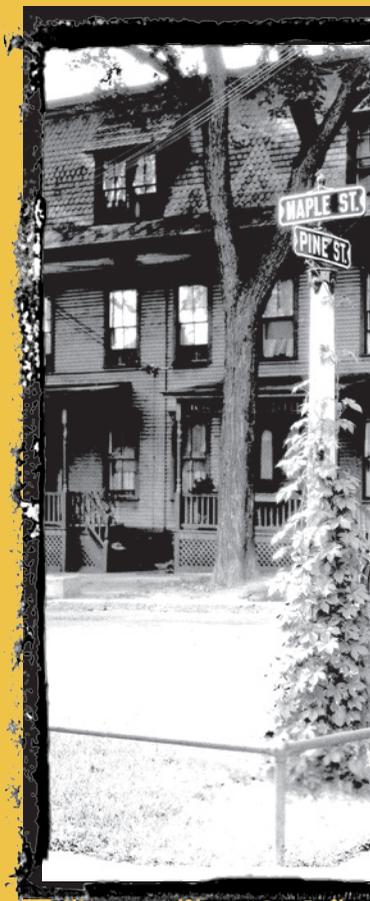


LAKE CHAMPLAIN

# HISTORY

Burlington has evolved from its modest start as a "village" platted in 1833 to a bustling center of trade and manufacturing in the late 1800s. After World War II, the city's thriving industries began to decline and most of the waterfront properties lay dormant. The downtown suffered from pockets of decay and in the 1960s Urban Renewal leveled 27 acres of the Italian Neighborhood, replacing a fine-grained neighborhood with government buildings, the mall, and other large superblock projects. In the 1980s commercial properties left standing on the waterfront and underutilized downtown buildings began to gradually be redeveloped into museums, galleries, art studios, and office and retail spaces, transitioning Burlington into the vibrant community that it is today.

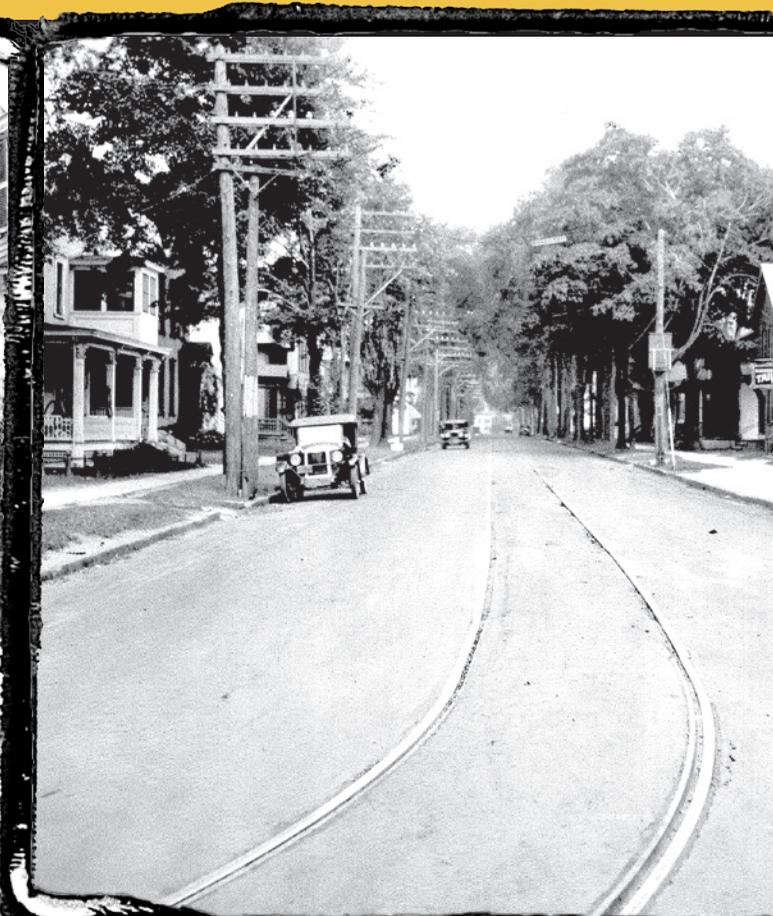
**Where Burlington has been, and where it is today, are snapshots of a place. Change is a given, forced by external conditions and the collective decisions of people. Every place has the great potential to become something else, to be shaped in a way that better realizes the hopes and dreams of the people who live there, while honoring history and shared values.**

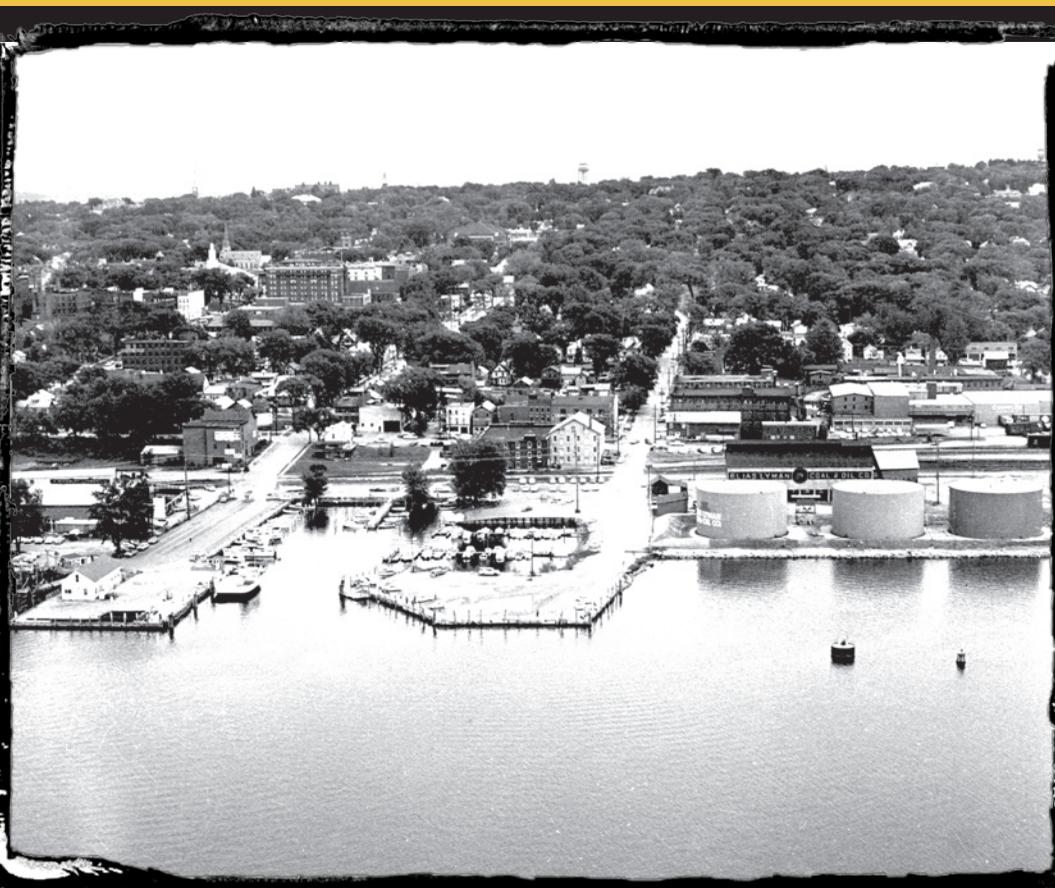


WHEN YOU LOOK AT THE HISTORY OF A PLACE, IT BECOMES CLEAR HOW MUCH CHANGE IS POSSIBLE



1918 - 3rd Union St. looking North from Main St. showing the finished  
sidewalk and the new curb with a sidewalk of concrete on old

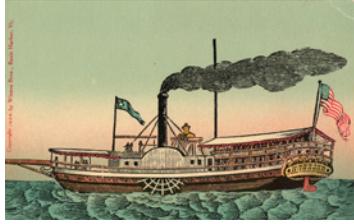




OVER TIME. TOGETHER PEOPLE MAKE THE DECISIONS THAT BUILD BUSINESS, CITIES AND CIVIC LIFE.



# A LEGACY OF PLANNING



**1809**  
Steamboat Vermont built - only the second in the world.

**1850-1870**

Waterfront land filling, and tourism via the lake's steamers reached its heyday.

**1836**

**BREAKWATER CONSTRUCTED**

**1763**  
Burlington Town chartered.

**1860**  
Burlington is Vermont's most populous town with over 7,700 residents.



**1954**  
Moran Plant built.

**1925**  
Created first municipal planning commission.

**1865**  
Burlington chartered as a "City."



**1780s**  
First permanent settlement.

**1873**  
Burlington was the third largest lumber port of the United States.

**1905**  
Standard Oil purchases what is now the Global Company Terminal on Flynn Avenue and over 80 petroleum tanks for gasoline and other fuel.

**1947**  
City's first land use plan and zoning ordinance.

**1812-1850**  
War of 1812 Battery Park Cantonment.



**1849**  
Rutland and Burlington Railroad reached Burlington.



**1930**  
Flynn Theater first opened.



**1957-1973**

Downtown Urban Renewal period.

**1978**  
The Waterfront Report developed by the City Planning Commission.

**1977**  
Burlington Town Center created.

**1980**  
Breakwater Place proposed on the waterfront - never developed.

**1970s**

Triad, Inc. proposed on the waterfront - never developed.



**1981**  
Church Street Marketplace created.



**1984**  
Alden Plan proposed on the waterfront - never developed.

**1986**  
Moran Plant decommissioned & Bike Path constructed.

**1988**  
Burlington Community Boathouse created - first public presence on the waterfront.



**2000**  
Main Street landing Performing Arts Center opened.



**2002**  
Waterfront Fishing Pier constructed.

**2011**  
planBTV started!



**1991**  
Waterfront land purchased by the City.

**2001**  
ECHO Center opened.



**1990s**  
First Waterfront Revitalization Plan adopted.

**2010**  
Final Report of the Waterfront South Access Project.

# PLAN BTV...

What's that  
all about



The development of a comprehensive land use and development plan focused on Burlington's Downtown and Waterfront has been a long-standing action-item in the City Municipal Development Plan since at least 1996. While many other planning efforts involving the downtown or waterfront have taken place over the years, none were comprehensive in scope where land use, transportation, land development, urban design, and public infrastructure were all woven together.

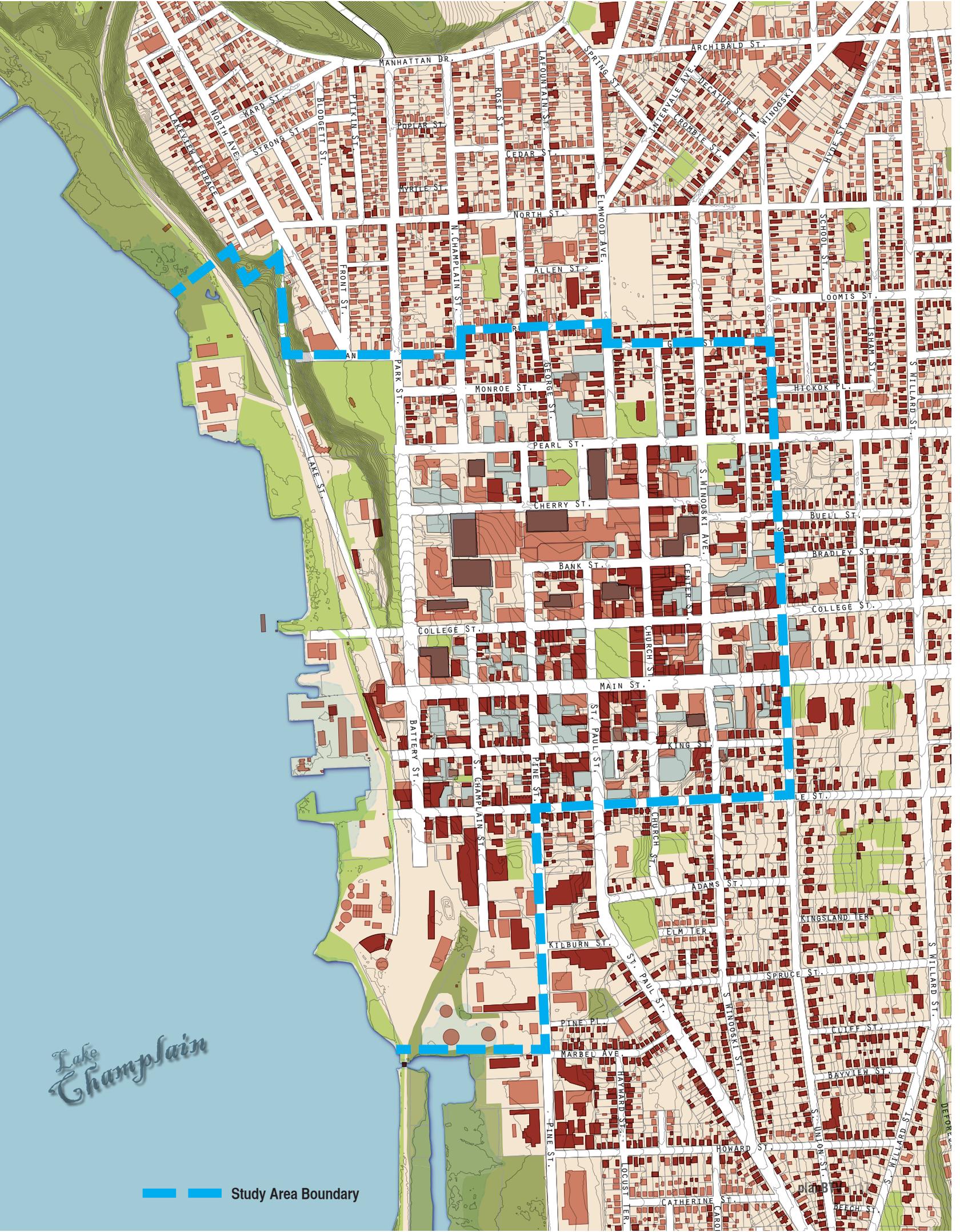
Additionally, past examples of comprehensive plans prepared by the City had been done at a city-wide level with a broad-brush and high level recommendations. What we needed was a plan that would refine these more general city-wide goals for sustainable development into focused, actionable, area-specific strategies for the central core and economic engine of our community.

In September 2009, the City Planning Commission and Planning & Zoning Department were directed by the City Council to develop a scope of work, timeline, and budget for such a planning project. As this work culminated in the spring of 2010, the new federal Partnership for Sustainable Communities made up of the Department of Housing and Urban Development, the Environmental Protection Agency, and the Department of Transportation announced the availability of a new grant program – a perfect fit with the intent of our Downtown & Waterfront planning project. The Planning and Zoning Department prepared

and submitted an application with the help of several other City departments. In October 2010 it was announced that Burlington was among the 42 recipients of the HUD Community Planning Challenge Grant out of almost 600 applications nationwide. Burlington was awarded \$286,750, which was combined with another \$165,000 in local, state and federal funding, to undertake a 3-year planning and development initiative.

We began the planBTV project in February 2011 with a series of studies to inventory and assess existing conditions and identify primary needs, challenges and opportunities. This included Build-Out Modeling and a Development Inventory, Retail and Real Estate Analysis, Infrastructure Analysis, Housing, Arts and Culture, Historic Resources, Transportation & Parking. These assessments provided critical information and perspective necessary to inform a meaningful and grounded visioning and planning process. The second step of the project was to develop a master plan for the Downtown and Waterfront, generated through community input.

The plan presented here is the culmination of these efforts, and includes a cohesive vision that emerged from a planning process grounded in a real-world present-day context, incorporating the applied information and analysis collected earlier, and building on existing community values and goals.



Lake Champlain

Study Area Boundary

MANHATTAN DR

LYWELLEN TERRACE  
NORTH AVE  
WARD ST  
STRONG ST  
BLOODGETT ST  
PILKIN ST

POPLAR ST

WYVILLE ST

NORTH ST

ALLEN ST

MONROE ST

PEARL ST

CHERRY ST

BANK ST

COLLEGE ST

MAIN ST

KING ST

ADAMS ST

KILBURN ST

ELM TER

PINE PL

MARBEL AVE

HAYWARD ST

LOCUST TER

HOWARD ST

CATHERINE ST

LAQUAINE ST  
CEDAR ST

ROSE ST

ELMWOOD AVE

GEORGE ST

S. MINOOSKI AVE

CHURCH ST

ST PAUL ST

CHURCH ST

ADAMS ST

ELM TER

ST PAUL ST

SPRING ST  
INTERVALE AVE  
CROMBIE ST

ARCHIBALD ST

HECATUR ST

WILLARD ST

LOOMIS ST

HICKOK ST

BUELL ST

BRADLEY ST

COLLEGE ST

MAIN ST

KING ST

ADAMS ST

KILBURN ST

ELM TER

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Map



# BUZZ, BUZZ BUZZ

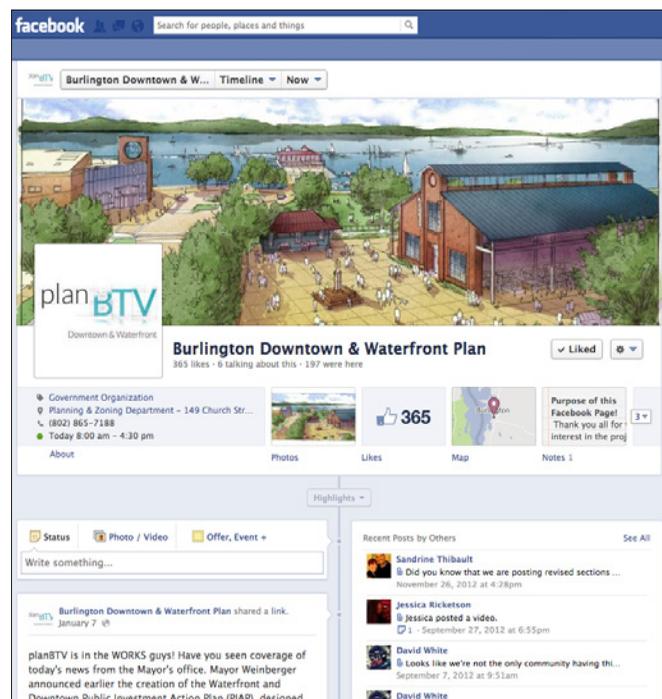
## 13 Steps to Public Engagement

The City of Burlington led the kind of public engagement process that is rarely achieved because of budget constraints and staff limitations. Over the course of 12 months, the City pounded the pavement, using a number of creative techniques to

try and reach a broad cross-section of Burlington and spread the word about the planBTV charrette. In today's busy world, where there is no one way to reach people, Burlington set a new standard for outreach, inventing creative ways to engage the public and generate buzz.

### 1. Social Media

In this age of technology, planBTV used web-based tools to reach out to a large number of constituents. The planBTV Website gave more detailed information on the project and provided all materials and documents to anyone who was interested. The planBTV Facebook (with over 350 friends) offered a live forum for constant updates and discussions, especially to our younger population, mostly reaching the 18-35 year old population. Other tools such as Front Porch Forum and the BUZZ newsletter continued to reach a broad audience.



## 2. Speaker Series

Hundreds attended our free Speaker Series events aimed at providing background data and information, while also educating the larger public on best planning practices from around the country. Six events were held on topics including transportation, public health, housing, retail and real estate market, form-based codes from July 2011 to April 2012.

## 3. Public Meetings

In September 2011, the planBTV team held a public workshop, where about 60 residents explored ways to better connect Church Street Marketplace to the waterfront. In November 2011, planning staff visited each Neighborhood Planning Assembly for an interactive public input meeting during the annual Neighborhood Improvement Nights (NINs). Five separate meetings were held that were focused on sharing information and re-affirming the broad vision for each part of the city.

## 4. Word of Mouth

The City of Burlington Planning staff spent hours of time communicating directly with city departments, stakeholders, and members of the public. In person, word-of-mouth communication and having champions of the project were critical to generating energy and buzz.

## 5. Local Media

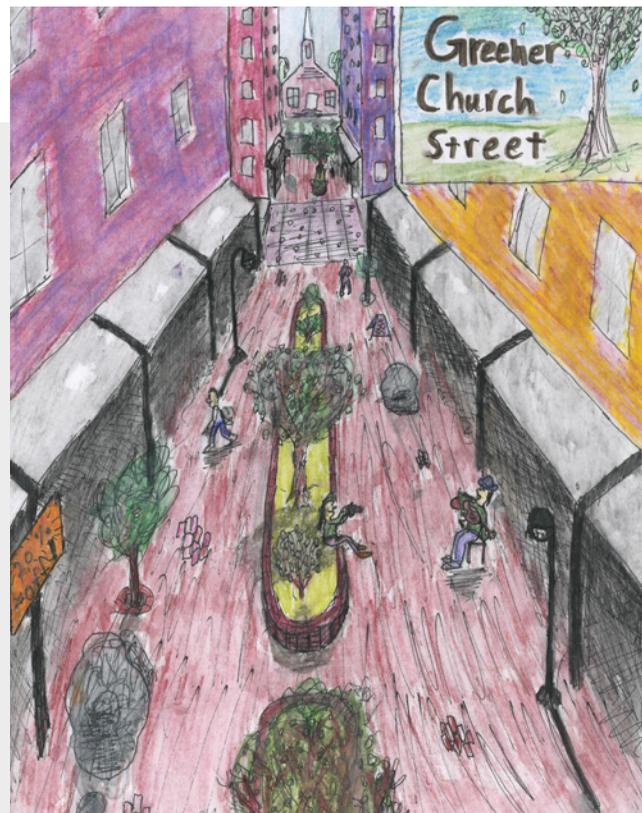
The local media channels/papers have recognized the importance of this project and have covered many of our events, including the charrette, as well as some of the milestones reached along the way.

## 6. Art Contest

Public Art is an important component of what makes Burlington such a thriving community. PlanBTV went into the schools and offered kids a fun opportunity to participate in the project through an Art Contest that included four mediums (photo, drawing, essay, video). About 60 submissions were received and nearly 800 votes cast to determine the winners. An Art Juried Exhibit for professional artists (9 participated) provided us with their view of the "Essence of the City".

Kids art projects tell a story about what is valued and important in their environment.

Below: Created by Quinn Trybus.  
Right: Created by Jeremy Brotz.



## 7. The Road Show

In an effort to reach a broad audience, the planBTV team attended numerous community events, such as the Farmer's Market, mayoral debates during the campaign, and others.

## 8. Stakeholders

Several meetings were held during the planning process with specific groups of stakeholders representing different constituencies, including the arts, environment, transportation, housing, elected officials, new Americans, Burlington Business Association, Burlington Young Professionals, and more.

## 9. Direct Communication!

Monthly project updates and email invitations were sent directly to stakeholders who signed onto to our Constant Contact email list (1,200 subscribers). Direct post mailing to downtown residents and businesses also provided updates.

## 10. Survey

The planBTV Community Survey, with its online and paper versions, offered a great way to get the community's pulse on different issues early in the planning process, and re-affirm the common vision that citizens have for Burlington.

## 11. Public Input Web Tool

This web tool was developed after receiving countless public comments during the planBTV public outreach and engagement process. It gave everyone a chance to see the comments and ideas we have heard at meetings, during the charrette, or through email. Tens of thousands of votes were cast by over a thousand people who used this innovative tool!

## 12. Draft planBTV Review

A first draft of this planBTV document was release mid-July 2012, giving everyone a chance to review and comment. Paper copies were made available and a website was built that incorporated commenting capabilities. Finally, a planBTV Open House was held at the end of September for two days, providing an opportunity for the public to review, discuss, and comment on the draft. Over 600 comments were received and analyzed to prepare the final plan.



PHOTO BY NICANDERSONIMAGES

**“I have never seen a municipality work so hard to engage the public in a planning process. Burlington planning staff have tried so many ways of getting out the word, really creative strategies to make people aware of this exciting project and inspire them to get involved.”**

**— Brian Wright,  
Town Planning  
& Urban Design  
Collaborative**

# 13. Charrette

n: an intensive  
planning process



PHOTO BY NICANDERSONIMAGES

From January 24 through January 30, 2012, the citizens of Burlington were invited to participate in a multi-day planning and design charrette to develop a vision for the downtown and waterfront using smart growth and sustainable design principles.

A charrette is an intensive design workshop that involves anyone interested in or concerned about the future of their community. The Burlington charrette provided an open forum for the public to work closely with the City and planning consultants from Town Planning & Urban Design Collaborative (TPUDC) to identify big ideas and generate a comprehensive vision for the future.

The charrette was held in the heart of the city at 1 Church Street. The charrette team, along with City planning staff, set up a full working office and studio at the site, with over 500 members of the public stopping by to attend meetings, provide input, or talk with the planners.

Tuesday, Jan 24th DAY ONE	Wednesday, Jan 25th DAY TWO	Thursday, Jan 26th DAY THREE	Friday, Jan 27th DAY FOUR	Saturday, Jan 28th DAY FIVE	Sunday, Jan 29th DAY SIX	Monday, Jan 30th DAY SEVEN
Team Breakfast	Team Breakfast	Team Breakfast	Team Breakfast	Team Breakfast	Team Breakfast	Team Breakfast
		DESIGN MEETING #1 <i>Civic Leaders &amp; Economic Development</i>	DESIGN MEETING #6 <i>Waterfront</i>	Multicultural Breakfast Studio	PRODUCTION	PRODUCTION
	Team Arrives SET UP STUDIO	MEETING #2 <i>Social Services &amp; Public Safety</i>	MEETING #7 <i>Environmental Concerns</i>	MEETING #8 <i>Arts, Culture, &amp; Creativity</i>		
Team Lunch	Team Lunch	Team Lunch	Team Lunch	Team Lunch	Team Lunch	Team Lunch
	TEAM SESSION Project Overview	DESIGN MEETING #3 <i>Infrastructure/Transportation</i>	DESIGN/PRODUCTION	PRODUCTION	PRODUCTION	PRODUCTION
	Site & Local Area Tour	MEETING #4 <i>Housing</i>				
	DESIGN Art Exhibit Reception	MEETING #5 <i>Land Owners/Developers/Business Owners</i>				
Presentation Set Up	Studio					Presentation Set Up & Studio Break Down
OPENING PRESENTATION / HANDS-ON WORKSHOP City Hall - Contois Auditorium	Team Dinner (out)	Team Dinner (out)	PUBLIC PIN-UP & REVIEW Studio	Team Dinner (in)	Team Dinner (in)	CLOSING PRESENTATION City Hall - Contois Auditorium
Team Dinner (out)			Team Dinner (out)			Team Dinner (out)



Opening presentation during the Burlington charrette.

Citizens work over base maps, indicating with dots what they love about Burlington, what needs improvement, and places of opportunity.



Small groups make notes on base maps, jotting down issues as well as big ideas for the future.



Small groups working over base maps.

Representatives from each table group present their 5 big ideas to the entire assembly, drawing attention to a number of common themes shared by the citizens of Burlington.



PHOTOS BY NICANDERSONIMAGES

On the first evening of the charrette, TPUDC delivered an introductory presentation on planning and smart growth principles at City Hall. Immediately following the presentation, the TPUDC charrette team facilitated a hands-on design workshop where the public was invited to roll up their sleeves, draw and brainstorm their ideas for improving the downtown and waterfront, working over base maps to identify key areas where infill, redevelopment, or other interventions should be focused.

On the second and third day of the charrette, the team conducted technical meetings on a variety of topics important to the project. These included economic development, social services, public safety, infrastructure, transportation, development, waterfront, environmental concerns, arts, and culture. Meanwhile, members of the team began developing plan alternatives, while gathering information real time from these meetings.

On the third night of the charrette, a public pin-up was held in the studio, giving the team a chance to present alternative plan scenarios based on ideas generated by the public. Over 75 people assembled to see the draft

plans and provide feedback on what they liked about the ideas presented, and where further work was needed.

During the remainder of the charrette, members of the public continued to filter into the studio, adding their ideas at the base map station, talking to the team, and filling out questionnaires. Feeding off this buzz of activity, the team entered production mode, synthesizing ideas, collaborating over design challenges, preparing renderings, compiling precedent images, and drawing up the final master plan.

Based on all the input from the public gathered at the Hands-on Workshop, stakeholder meetings, the intermediate pin-up, and drop-ins, the charrette team developed a final preferred master plan for the downtown and waterfront. The master plan captures the spirit of Burlington and depicts possible redevelopment and infill scenarios, building configurations, parks and plazas, street connections, and public facilities.

PHOTO BY NICANDERSONIMAGES



“This week-long event in January 2012 was one of the largest public engagement efforts the city has ever undertaken, with over 500 people participating in different ways and when it was convenient for them. The charrette offered residents, business leaders and the planBTV team the opportunity to actively work together on the plan for an entire week.”

—Sandrine Thibault, CITY OF BURLINGTON, Comprehensive Planner

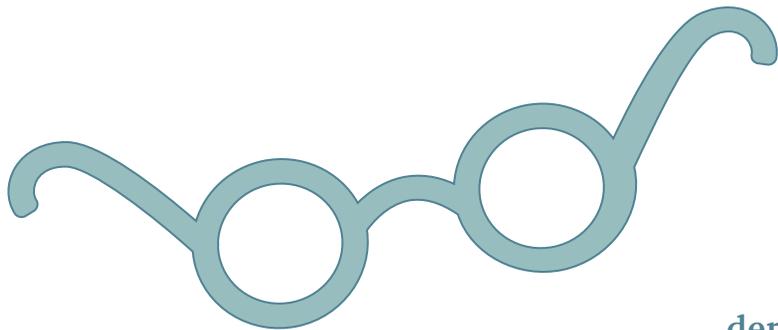
A final presentation took place on the last day of the charrette, at which time all of the work produced during the week was presented and explained. The meeting was attended by over 200 members of the community, with many people sticking around for the full 3 hours to ask questions, provide feedback, and express the support of the plan.

Though there was a great deal of enthusiasm and excitement around the plan, many difficult questions were also raised, a clear sign that the final charrette presentation was just the beginning of Burlington’s effort to move forward with its new vision for the future.



PHOTOS BY NICANDERSONIMAGES

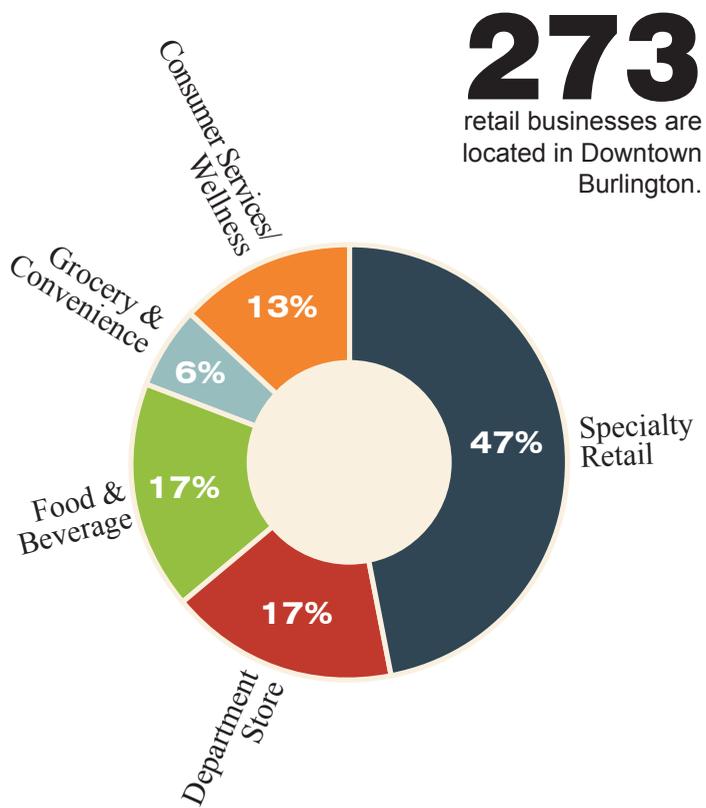
# SO, YOU THINK YOU KNOW BURLINGTON?



## ... LOOK AGAIN

Sometimes a gap exists between perception and reality. Phase 1 of planBTV studied demographics, transportation, parking, housing, and economics to clarify the facts and more accurately understand the challenges faced by the city, as a baseline for planning.

## ECONOMIC INSIGHTS



**273**  
retail businesses are located in Downtown Burlington.

**7** The number of stores the average Downtown shopper visits after parking once.

**1** The number of stores the average shopper visits in a suburban location such as Taft's Corner after parking once.

**100,000 to 200,000 Square Feet.**

of new retail can be supported in Downtown Burlington.

## Retail Mix in Downtown Burlington

Burlington has managed to achieve a healthy majority of specialty retail shops, anchored by department and grocery stores, each benefitting from the presence of the other. This diversity of options and experiences is what sets Burlington apart and is key to its future success.

# ECONOMIC INSIGHTS

## Properties in the Downtown Improvement District

pay

**\$147,813** per acre in taxes

the rest of the City as a whole pays

**\$13,148** per acre in taxes

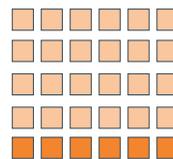
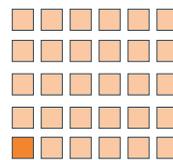
## Properties in the Downtown Improvement District

account for

**2%** of the total acres of land in Burlington

but pay

**22%** of the taxes



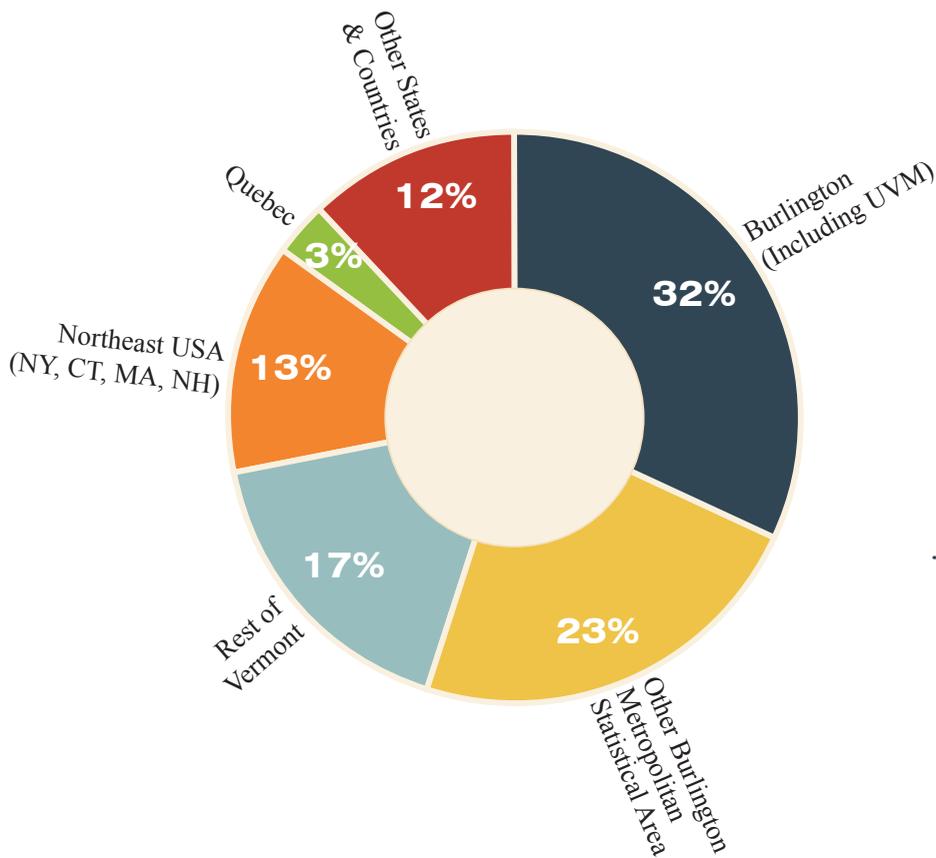
For cities with a finite amount of land, it makes sense to look at the value that buildings generate by land area consumed to clarify where it makes sense to invest in infrastructure to support development.



Food manufacturing is the  
**2<sup>nd</sup>-Largest**

Manufacturing Industry  
in Vermont

when measured by employment and gross state product



The majority of Burlington's Downtown shoppers are Burlingtonians or Chittenden County residents

French Canadians account for only 3% of Downtown's shoppers

## Who's Shopping in Downtown Burlington?

**35%**

of the region's food and alcohol sales are captured in Burlington, making it the leader in the region.

Nearly  
**1 MILLION Square Feet**

of retail space is located in Downtown Burlington, making it the second largest concentration of retail space in the state of Vermont.

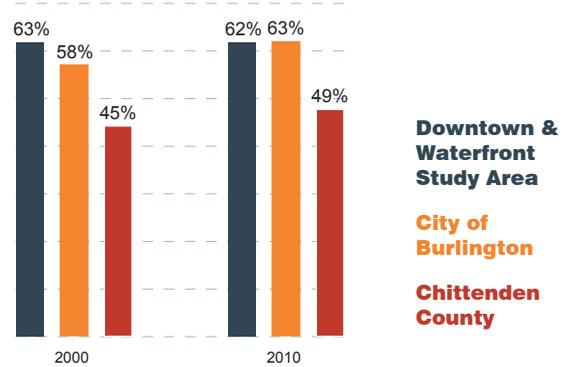
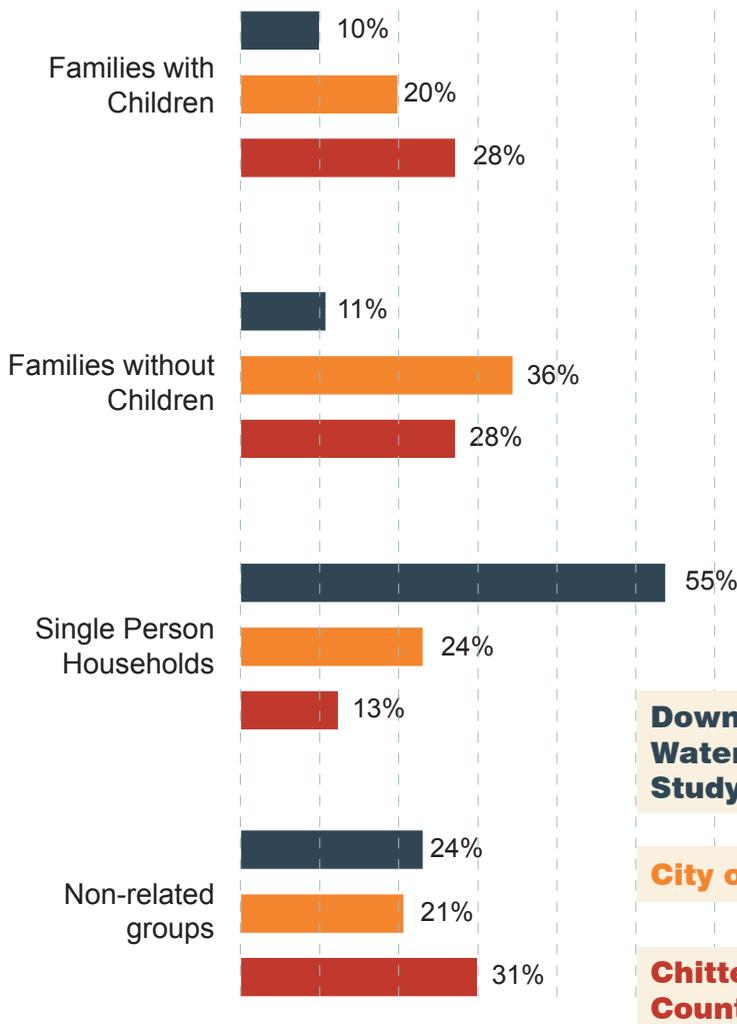
Most of Burlington's downtown shoppers are locals. Yet, for a relatively small city, Burlington attracts approximately 45% of its visitors from outside of Chittenden County. By building on the city's strengths as a great place for local people to live, play, work and shop, the city can maintain its authenticity and charm while simultaneously attracting more visitors their spending dollars.

**Downtown Burlington has the highest commercial rents in the region.**



Retail is doing well in downtown Burlington, capturing a healthy share of the market. This, coupled with popular eating and drinking establishments, make downtown and the waterfront a highly desirable place to visit. A larger supply of retail space, with lower price points, might help promote an even greater expansion of place-based retail in the downtown. There is significant potential in Burlington for this kind of expansion, with the ability to nearly double the amount of development that exists today. There are 100 parcels with significant development potential, reflecting nearly 120 acres of buildable land.

# HOUSING INSIGHTS



## Population Under 35

**63%**

of Burlingtonians are under 35 years old.

**Downtown & Waterfront Study Area**

**City of Burlington**

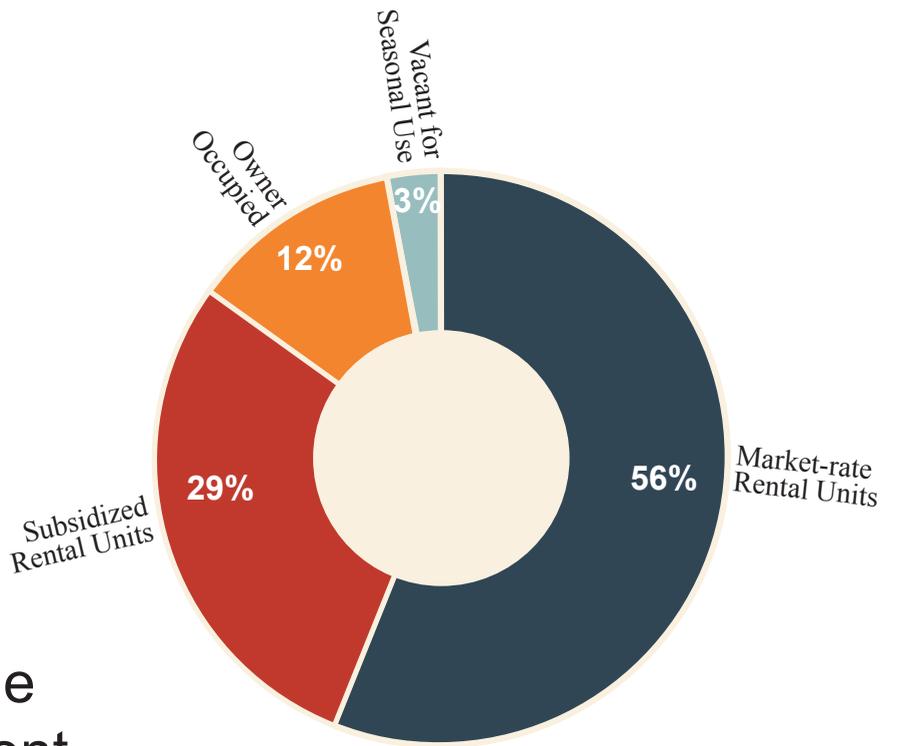
**Chittenden County**

### Not so old...

Aided by a healthy student population, the population of downtown Burlington is young compared to other communities in the region. Single person households make up a considerable segment of the population, reflecting a strong community of young professionals. The limited number of families living in the downtown, both with and without children, is a function of the lack of quality, affordable housing and the conversion of many of the historic single family homes to multi-unit rentals.

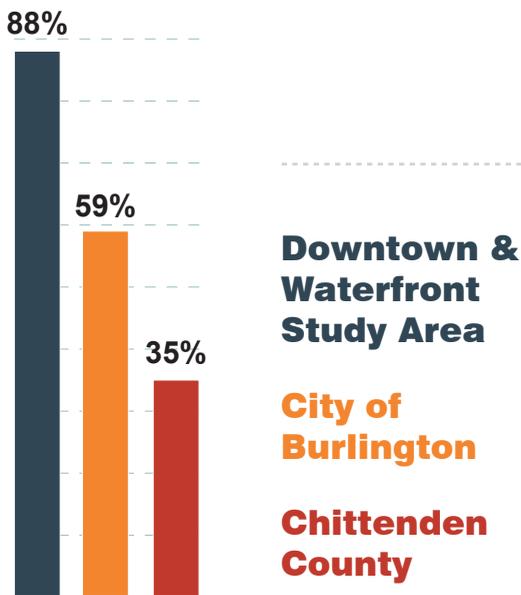
## Types of Households 2010

Only  
**12%**  
 of Homes in Burlington's  
 Downtown & Waterfront  
 are owner occupied  
 market -rate homes.



## Types of Homes in the Downtown & Waterfront

**Wow.** Only 12% of homes in Burlington's downtown and waterfront area are owner-occupied. Though not always the case, some rental properties become problem buildings and are often unkept—especially when there is a high concentration of transient residents such as students—compared to homeowners who put down roots and make a long-term investment in their home and neighborhood.

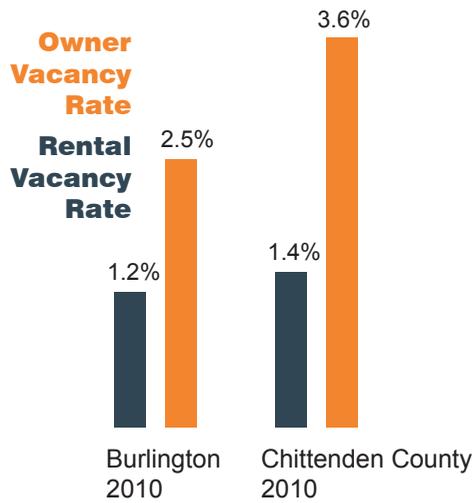


**88%**

of all households in the  
 Downtown and Waterfront  
 study area rent their homes.

## Households that Rent

# HOUSING INSIGHTS



## Residential Vacancy Rates

A household could likely afford a monthly rent of

# \$833

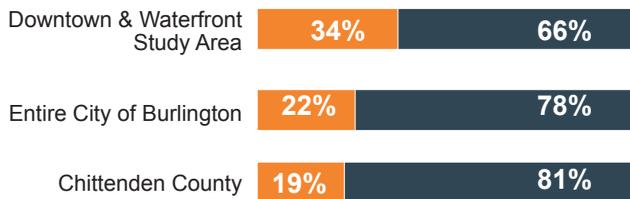
if it was making the median income for a Burlingtonian.

However...

There is a perception that Burlington is unaffordable for young professionals. In this case, perception and reality are in agreement. Vacancy rates for rental units are incredibly low, indicating that there is not enough supply to meet the existing demand. Combine that with market rents that exceed what most people can afford on an average salary and the problem is clear. Burlington is losing a highly skilled and energetic population to the outskirts of town and surrounding communities. This affects growing businesses who can't attract employees because there is no affordable housing option for workers, potentially deterring new businesses from locating in the City.

# \$1,250

is the average market rent in Burlington.



## Composition of Rental Housing Stock

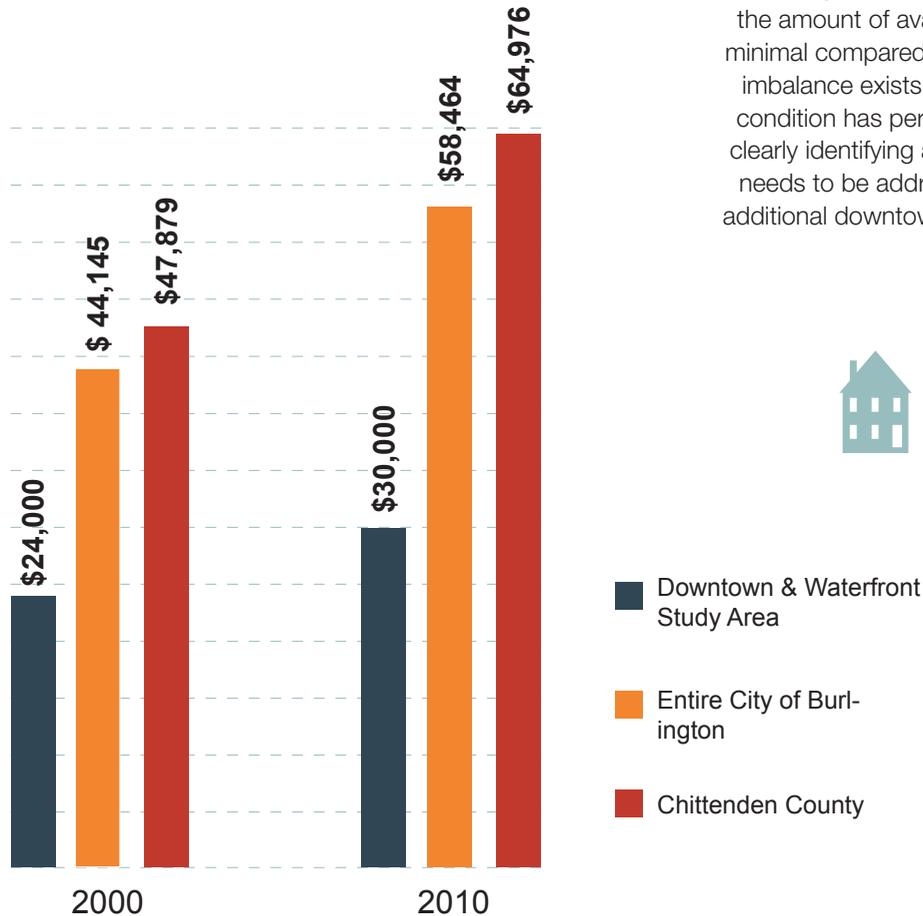
■ Market Rate Units  
■ Units with Project-Based Assistance

# 34%

of all rental property households in the Downtown and Waterfront study area receive project-based assistance.

# \$271,000

is the average sales price of a home in Burlington's Downtown and Waterfront areas.



People in downtown Burlington are spending too much of their income on housing.

While the estimated median income of those living in the Downtown & Waterfront is \$30,000, the minimum yearly income required to afford a home is \$81,000. With an average home sales price of \$271,000, the amount of available affordable units is minimal compared to the need. The same imbalance exists for renters as well. This condition has persisted for over 10 years, clearly identifying a housing challenge that needs to be addressed in order to attract additional downtown residents and a more robust labor market.



## Estimated Median Income

# \$81,000

is the minimum yearly income a household must make to afford a home in Downtown or along Burlington's Waterfront.

# 61%

of all renters in Burlington are paying at least 30% of their income for their rent.

# TRANSPORTATION & PARKING INSIGHTS



# 74%

of Burlingtonians drive to work on a regular basis.



# 20%

of Burlingtonians walk to work on a regular basis.

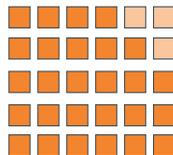
however,  
**the MAJORITY**  
 of Burlingtonians would like to be less auto dependent.

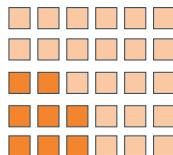
Compared to other parts of the world, Burlington has a high rate of pedestrian activity, as well as a thriving contingent of bikers. Despite the fact that almost three quarters of Burlingtonians drive to work, the MAJORITY would like to be less car dependent. PlanBTV is about creating choice, so look for a number of strategies throughout this issue to better accommodate all forms of transportation.

## MYTH BUSTING!

One of Burlington's great urban myths is that there is a shortage of parking spaces in the downtown. While it may sometimes be difficult to find a parking space, on any given day during peak times, 35% of the parking spaces in the study area are sitting empty! Part of the issue is the management of available private spaces. One third of the parking spaces in the study area are private, with only 60% of those spaces used at any give time. This finding sheds light on the real problems that needs solving — helping people find and legally park in the many available spaces!

Burlington has a total of  
**8,846**  
**parking spaces**  
 in the Downtown & Waterfront study area.

**27 Acres**   
 of land are occupied by surface parking lots in Downtown Burlington

**8 Acres**   
 of land are occupied by parking structures in Downtown Burlington

On any given day, at the peak parking period,  
**35%**  
**of the parking spaces in the study area are vacant.**

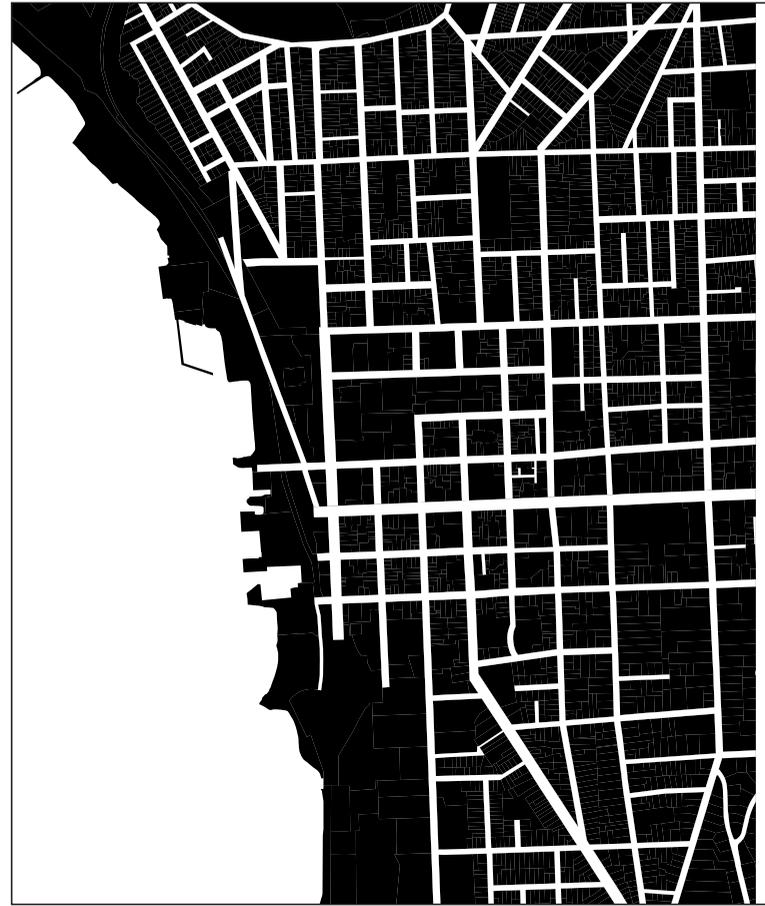
Surface parking lots in Burlington take up more than **3 times as much land** and provide **600 fewer spaces** than the parking structures

# A VIEW FROM ABOVE



## PUBLIC PARK SPACE

Burlington is fortunate to have a great number of public parks that range in size from 0.2 acres to 14 acres. Waterfront Park and Battery Park are tremendous assets in the study area, offering amenities such as skate parks, promenades, band shells, festival space, and playgrounds. The downtown area, however, has a shortage of public park space available to visitors, workers, and residents. This is sorely evident from the large compacted lawn areas in City Hall Park, the only effective park space in this area. The x-ray above highlights the distribution of public parks around the City and locations where additional civic space could be considered to better service residential neighborhoods.



## STREET NETWORK

Burlington was laid out in a traditional grid, with a 5 block by 6 block downtown core set at regular dimensions of approximately 360 feet by 380 feet. Today, you can still see the clear intention of this early platting still largely intact, with the exception of the streets truncated by Burlington's urban renewal area. Outside the core, the grid loosens into a network of irregular blocks that provide a highly connective fabric of streets that disperse traffic and provide alternative routes for cyclists and pedestrians. It is evident from the x-ray above where there are opportunities to extend the street grid, including in the South End District, where a number of new connections could be made.

# A VIEW FROM ABOVE



## EXISTING BUILDINGS

It is clear from the x-ray of existing buildings where the core of Burlington is located, despite there being several blocks that lack definition, where the tight fabric of buildings has been replaced by parking, vacant lots, or suburban building typologies. Outside of the core, the city has a fine grained and relatively intact network of buildings that define neighborhood streets, which on the ground translates into a pedestrian experience that is interesting and has a feeling of enclosure. The waterfront in particular has a lack of buildings to enclose and activate the public space.



## UNDERUTILIZED SITES

Despite having a great many buildings, Burlington, like many cities, has lost density and a significant amount of its urban fabric over the past 50 years. Though the city may appear build out because of the lack of large undeveloped parcels, there are numerous small and medium size parcels that are underutilized. This includes vacant lots, parking lots, buildings with suburban setbacks, and single story buildings. All of these conditions lead to unmet potential and an under-representation, in particular, of residential uses within the downtown. Within the Downtown, there are fewer than 2,500 residential units in existence today. There is currently the potential in the downtown for an additional 3 to 4 million square feet of mixed-use development. In addition, there is currently a 5:1 jobs to housing ratio, where a more healthy balance would be closer to 3:1.

# WHAT WORKS

**Lessons learned from Burlington and other traditional cities.**

## TRADITIONAL

TOWNS AND CITIES WERE LAID OUT AND DESIGNED FOR PEOPLE. DESPITE EXTREME CHANGES IN COMMERCE, TRANSPORTATION, HUMAN

BEHAVIOR, AND THE STRUCTURE OF SOCIETY,

HISTORIC CENTERS HAVE

CONTINUALLY ADAPTED,

AND AFTER MORE THAN 150

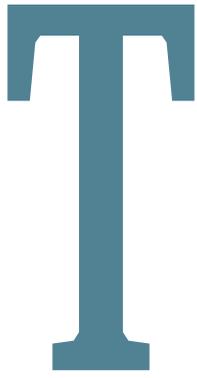
YEARS, THE COMPLEX FABRIC

OF TOWNS AND CITIES HAS

ENDURED.



PHOTO BY MAX TRUMAN



oday, cities and towns across New England are experiencing a renaissance, with an upswing in residents who want the benefit of an urban lifestyle. The creative class, entrepreneurs, and baby boomers are moving into cities, sacrificing privacy, personal space, and their automobiles, in exchange for convenience, entertainment, and social interaction.

In addition to attracting residents, traditional communities have also become centers of place-based tourism. Travelers visit historic places because they feel good and have appeal at a very basic level.

Over the past 20 years, urban designers and new urbanists have been studying historic centers to learn what makes them so adaptable, vibrant, and livable. What we have discovered is a set of critical characteristics that most loved places possess. These principles, including walkability, connectivity, density, scale, diversity, and mixed uses, are described here in more detail.

## Walkability

The term “walkability” has become a buzz word in recent years without much effort to provide definition. As a result, it is often misunderstood to mean a place that would be pedestrian-only. In fact, the term describes an environment where there is balance between many modes of transportation. Most importantly, it describes an environment in which people feel comfortable walking. In Burlington, there is a greater emphasis than in most communities on the importance of walking and biking, with a significant portion of the population sharing an interest in living sustainably and minimizing individual carbon footprints.

The constituent elements of walkability are referred to as “The 3 D’s”: Distance, Destination, and Design. When each of these elements are addressed, people are more likely to walk.

### Destination.

People will tend to walk more if they have somewhere meaningful to go. Meaningful destinations include civic spaces, schools, meeting halls, and commercial areas like neighborhood or town centers where daily or weekly shopping needs can be met. Often these destinations, when centrally located, become the “heart” of the community. In Burlington, Church Street acts as the center for both locals and visitors, with the waterfront, the universities, and smaller neighborhood centers serving as additional destinations.

### Distance.

The average pedestrian is willing to walk up to one-quarter of a mile (1320 feet) or roughly five minutes to a destination. This ¼ mile walk from a neighborhood to a meaningful destination at the center is called a “pedestrian shed”. For most Americans, distances requiring more than a five minute walk will typically be made in a car rather than by walking. This walking versus driving threshold is locally calibrated. In Burlington, because of a culture of auto-independence, residents are likely to walk longer than the ¼ mile distance.

### Design.

An interesting streetscape and pedestrian safety and comfort are critical for a walkable environment. Narrow travel lanes, street trees, and on-street parking all act as effective psychological cues, helping to slow automobiles and, in turn, enhance pedestrian comfort. The design elements of the building themselves also provide visual interest and diversity of experience along the way. In Burlington, most urban streets feel comfortable for walking, with the exception of a few of the higher speed streets.

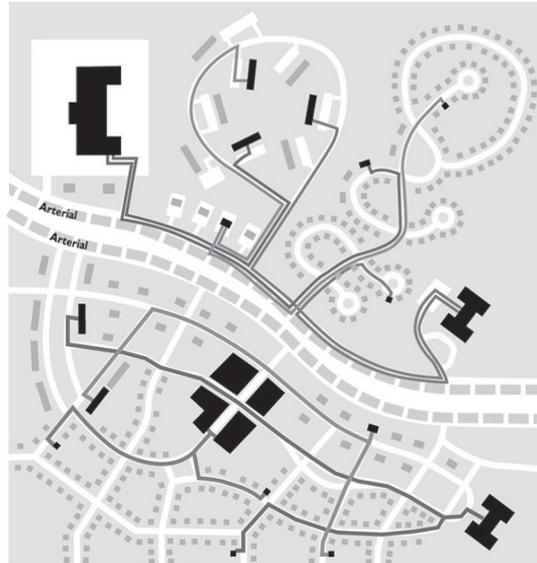
## Connectivity

All streets should be connected to other streets, maximizing the number of routes to and from a destination. By avoiding dead ends and cul-de-sacs, and instead creating a street network, drivers, cyclists, and pedestrians can choose from a number of different options. Having greater connectivity allows for traffic to disperse, minimizing congestion by providing multiple ways to get from point a to point b. An interconnected thoroughfare network also increases life safety by providing alternative routes for emergency service vehicles so that they may avoid congested or blocked streets.

Connectivity is also beneficial to pedestrians by increasing pedestrian access throughout a community, along streets, sidewalks, paths, and trails. By increasing the number of routes through a community, pedestrians are provided alternatives and a more interesting pedestrian experience.

## Scale

Scale relates to the size of buildings in relation to ourselves and the world around us. Human scale is what feels comfortable to people. Both short and tall buildings—like those pictured here—can be human scale, and having this variation is important. The proportions of doors and windows, the height of each story, and the relationship between details of the building all impact whether a building is at a scale that feels right to a person. It is important in the design of walkable places to create a sense of enclosure and human scale by pulling buildings closer to the street and minimizing large expanses of asphalt that can make a pedestrian feel exposed and out of place.



The suburban street system that requires traffic to move from local street, to collector, to arterial causes congestion and limits options for pedestrians as well as vehicular traffic and emergency services vehicles.

An interconnected networks of streets alleviates congestion by dispersing traffic and offering alternative routes for pedestrians, making for a more interesting walking experience.

## Density

Developing in a dense pattern, where multiple story buildings are located closely together, can minimize air and water pollution, preserve open space, and enhance social interactions and a sense of community. There is an increasing recognition nationwide that density is integral component to the creation of neighborhoods that offer convenience, value and a high quality of life. In addition, more compact development patterns are likely to reduce Vehicle Miles Traveled (VMTs) by enabling more people to walk or bike to work or to run errands. Density can also produce reductions in energy consumption and CO2 emissions both directly and indirectly.





Accommodating a diversity of people, in different stages of life and with varying incomes, requires a range of housing options. Commercial blocks, live work units, small cottages houses, and rowhouses reflect additional building types that could be provided in Burlington to meet the needs of young professionals, students, entrepreneurs and retirees.

## Diversity

Demographic diversity of people in age, income level, culture, and race provides a sense of interest and vitality within the most loved cities in the world. In order to attract this type of diversity to a community, the physical form must be conducive to the varied lifestyles of these groups. A key component to creating an environment where diversity thrives is the provision of a mix of housing options. There should be many different types, sizes and price points intermingled in close proximity, with a range of living experiences from urban to more rural.

The variety of dwelling types should include: different sizes of detached single family houses, rowhouses, apartments, and live-work buildings. In addition, small ancillary buildings with a living space above the garage should be permitted within the rear yard of each principal building for extended family, tenants, guests or students to stay or live. Residential units should be available either for leasing or for ownership. This allows young and old, singles and families, and residents having a range of income levels to find a dignified home that suits their preferences and lifestyles. An additional benefit of a mix of housing types is that workers can live within walking distance of offices and retail establishments, requiring less dependence on the automobile.



## Mixed-Use

Whenever possible, neighborhoods should include a mix of commercial (retail, restaurants and offices), residential, recreational, and civic uses. This mix should be well-balanced, incorporating both vertical and horizontal mixed-use within the neighborhood, the block, and the building. An ideal mix would allow residents to meet all of their daily needs within a short walking distance. When this occurs, the number of automobile trips per household is substantially reduced. This mix of uses is optimized when commercial establishments have residential dwelling units above to help promote active streets.

the urban century

# URBAN IS BACK

Its not only good for the planet, your health, and your social life, but also for the municipal pocket book.



Cities first expanded upwards in the industrial age, then outward with the advent of the car and the post WWII era exodus to the suburbs. This was followed by a period of urban decline and the familiar remedy of urban renewal. Recently, there has been a revived interest in urban areas. The new industry

is information, with workers able to stay connected virtually and live where they want. Now urban is the new green, with Baby Boomers, Gen x, and Gen y all taking advantage of the convenience and lifestyle afforded by historic, walkable places that were built for people, like Burlington.



### Place for Young & Old(er)

Two of the most important and rapidly changing demographic groups are the Baby Boomers and Millennials. Baby Boomers are retiring or becoming empty-nesters and are looking for a new place to live with less responsibilities and more opportunities to engage in their free time. Millennials are just entering the workforce and are looking for vibrant and diverse places to live and work. Both of these groups are increasingly seeking out “home” in cities small and large.



### Working & Living Local

Living and working downtown reduces the need to own a car and drive, and enhances the vibrancy and diversity of local businesses. People who can walk or bike to work reduce their household expenses for transportation and can instead put those dollars into better housing and supporting local businesses. Urban property values have been more stable, and are recovering faster, than those in suburban areas.



### “Urban” is the new “Green”

Less traffic means less air pollution and greenhouse gas emissions. Encouraging more compact mixed use development within existing urban areas not only discourages sprawl and the loss of farm and forestland, but reduces our impact on the natural environment in general, keeping it “greener” for future generations.

# complete CITY

working and living local, nearby  
daily needs, LOCAL food, good schools



### Healthy People

Compact communities that are safe for walking and biking have incredible public health benefits. When offered inviting routes and meaningful destinations, people will choose walking and biking over driving. In doing so they are infusing their daily routines with physical activity and getting healthier. A 5% increase in walkability can lead to a 32% increase in physical activity!



### Efficient use of Resources

Fewer cars mean less traffic and fuel consumption. It's also a lot more cost effective to provide municipal services in urbanized areas where the per capita costs are much less than in suburban and rural areas.



### Leveraging Investment

Government can't do it all. But it can lay the foundation for the necessary private investment that will create the places, jobs, housing, and economic opportunities of the future. Strategic public investments have a greater bang for their buck in urban environments, where a greater number of people directly benefit from spending.



### Public Wealth

Per-acre, our downtowns generate more public wealth than low-density subdivisions, malls by the highway, or even dense downtown neighborhoods. And for all the revenue downtowns generate, they cost considerably less to maintain in public services and infrastructure. Looking at per-acre value of land, it is evident that Burlington can more effectively generate wealth not by raising taxes, but by better exploiting the economics of land use.

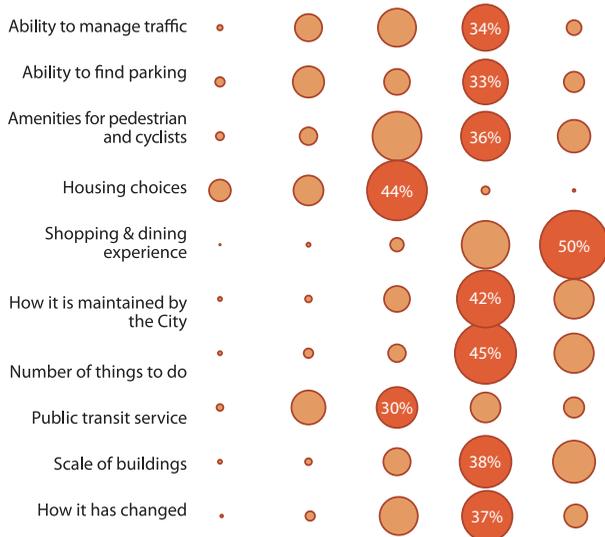
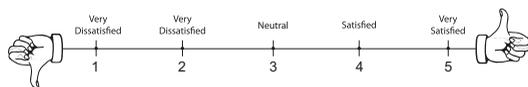


# SATISFACTION GUARANTEED!

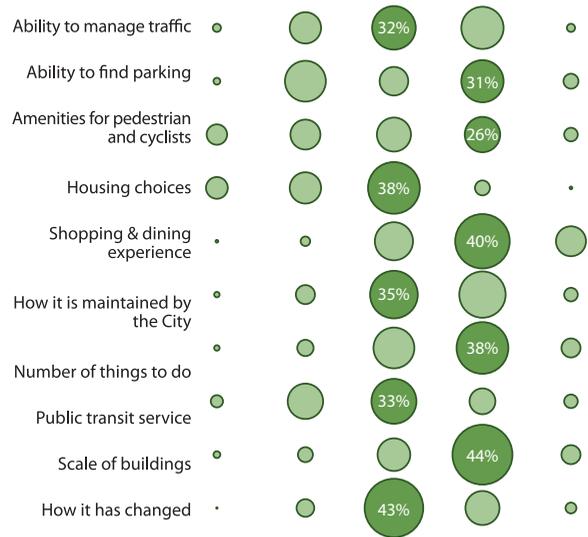
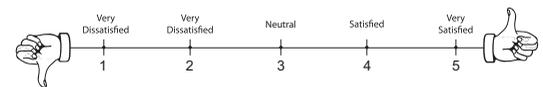
When asked their level of satisfaction on critical aspects of Church Street Marketplace, Downtown outside the Marketplace, and the Waterfront, survey participants had this to say:



## CHURCH STREET MARKETPLACE



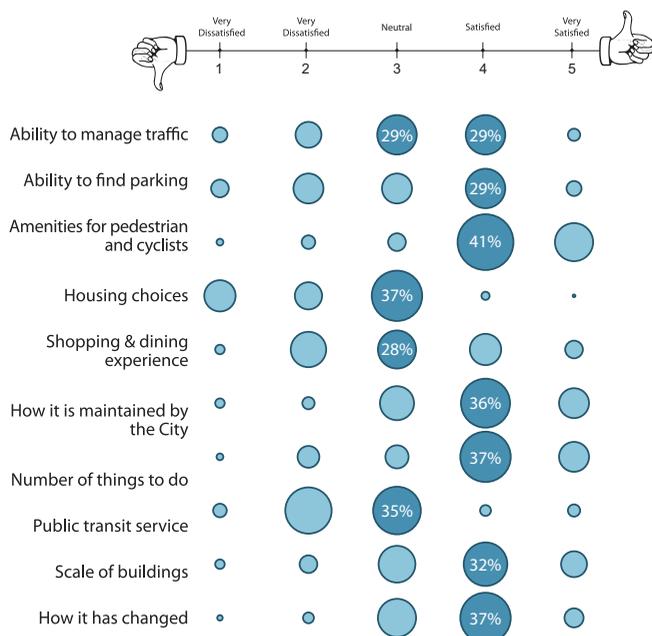
## DOWNTOWN OUTSIDE THE MARKETPLACE



“I love what Burlingtonians value and support: healthy citizens, a clean environment, activity, the arts, intellectual challenge, creative energy, good food, local businesses, and a strong, inclusive community. These values are evident throughout the City, and most especially at the Waterfront and the Church Street Marketplace.”  
 — Jeanne Wafu



### THE WATERFRONT



## THE BURLINGTON TOP 5 LIST

Survey participants were asked to rank the 5 most important sub-ject areas to be addressed by the plan. Of the 11 options to choose from, these 5 were clearly the most important to the community ...

1



Promote a local economy that is sus-tained by a diverse mixture of business opportunities

2



Strengthen Burlington’s role as a regional population and economic center

3



Provide an inte-grated transportation system

4



Encourage the cre-ation of a wide range of housing oppor-tunities

5



Promote new and infill urban develop-ment

# SUSTAINABLE BURLINGTON

Burlington takes a comprehensive approach to sustainability. While many emphasize the role of the environment, Burlington looks beyond environmental concerns to a more **holistic and comprehensive** set of relationships that define what it means to be sustainable. According to the Burlington Legacy Project Action Plan, elements of a “sustainable community” include:

- **Ecological Integrity:**

including satisfying basic human needs such as **clean air and water**; protecting ecosystems and biodiversity; pollution prevention strategies.

- **Economic Security:**

including local reinvestment; meaningful employment opportunities; local business ownership; job training and education.

- **Empowerment and Responsibility:**

including respect and tolerance for diverse views and values; a viable non-government sector; equal opportunity to participate in decision-making; access to government.

- **Social Well-Being:**

including a reliable local food supply; quality health services, housing and education; creative expression through the arts; safety from crime and aggression; respect for public spaces and historic resources; a sense of place and making a contribution to the community.

**VALUES WE  
CELEBRATE AS  
A COMMUNITY**

SAFE, CLEAN,  
VIBRANT, &  
INCLUSIVE CITY

RESPECT &  
TOLERANCE

DIVERSITY OF  
PEOPLE, PLACES &  
EXPERIENCES

ACCESS TO THE LAKE  
& OPEN SPACES

LOCALISM

CREATIVITY &  
CULTURE

ABILITY TO WALK &  
BIKE THROUGHOUT  
OUR COMMUNITY

SOCIAL INTERACTION  
& CIVIC ENGAGEMENT

SENSE OF PLACE

CONSERVING ENERGY,  
REDUCING WASTE  
& RESTORING THE  
ENVIRONMENT

SELF SUFFICIENCY

JOB CREATION

LIFE-LONG  
LEARNING



# BURLINGTON

## 7 PLACE-BASED THEMES

The following themes, which emerged during the planBTV project, reflect the character and spirit of the City of Burlington. All of these themes integrally relate to sustainability and have helped to frame the conversation about the future of the City. They focus on solutions that uphold the goals and objectives embedded in the hearts and minds of Burlingtonians.



## Vibrant Economy

**local food, local business, local character**

With great pride, Burlington serves as a principal economic engine for northwestern Vermont, and our downtown and waterfront are its heart and soul. Specialty retail, arts and entertainment, cultural events, healthcare and education, businesses and entrepreneurship, agriculture, non-profits organizations and government services all play a significant role in maintaining our economic health and competitiveness. Central to this plan, and to the long-term success of our city as a whole, are efforts towards sustaining Burlington's role as a vibrant regional economic center.



## Housing Choice

**choice, affordability, dignity**

Burlington is a local and national leader in the creation and protection of affordable housing that serves the needs of all ages, family-types, and income-levels. Burlington has also been a leader in collaborating with the non-profit sector to create and manage affordable housing to ensure its permanent availability. Ways to grow the quantity, diversity and affordability of the Downtown housing supply is perhaps the single most important component in this plan, and one that benefits every other objective. When families can choose to live closer to where they work, shop and recreate, they can have a significant impact on furthering economic vitality, reducing transportation and parking demand, and lowering their household expenses.



## Transportation Choice

**walking, biking, transit, driving**

For more than 20 years, Burlington has made an effort to set policies that emphasize the expansion of transportation choices. These include land use policies that concentrate mixed use development in places where neighborhood goods and services are within easy access on foot, bike or transit; transportation policies that strongly support the expansion of public transit and the use of alternative modes; and infrastructure policies that ensure that the transportation system accommodates all modes and all users - regardless of age or ability - through the adoption of a "complete streets" policy. As a result when people can avoid driving, they often do, choosing instead to walk, bike, or take the bus. Despite our cold climate, Burlingtonians take advantage of their compact inter-connected city and increasingly do their part to reduce carbon emissions and embrace an active lifestyle year-round. This plan emphasizes ways to make transportation choices more readily available so that individuals can choose the mode that works best for them. Efforts to create safe, reliable and economical transportation choices will help to decrease household transportation costs, reduce traffic congestion and parking demand, improve economic vitality and competitiveness, reduce dependence on fossil fuels, protect air quality, reduce greenhouse gas emissions, and promote public health.

# FOR A SUSTAINABLE FUTURE



## Active and healthy Living

### access to nature, arts, people, entertainment

As a function of our natural setting and proximity to vast recreational opportunities, Burlington is widely recognized as a physically active and healthy community. People value and understand the connection between a healthy physical and natural environment, human behavior and overall public health. This plan builds upon these values and links them to growing our vibrant economy. This includes providing healthy and economical transportation and housing choices, and promoting stewardship of our built and natural environment.



## Environmental & Cultural Stewardship

### access to clean water, clean air, & natural spaces

Burlingtonians have a very strong sense of stewardship for Lake Champlain, farmland and open spaces, civic spaces like Waterfront and City Hall Park, local architecture and cultural history, as well as the dramatic views from the downtown toward the lake and mountains beyond. There is a collective understanding that these resources form the foundation of the community – we inherited these places from our forefathers and mothers, and we have a responsibility to pass them on to our children. As a result, there is a strong desire to improve lake water quality, minimize land consumption, reduce energy usage, and tackle problems like stormwater runoff, even if it means making adjustments in personal behavior. This plan highlights ways Burlington can reduce its environmental footprint while still growing our economy and community.



## Sense of Place

### civic pride, tolerance, community, authenticity

Burlington's character, authenticity and sense of place are widely celebrated – both locally and nationally. Burlingtonians have a strong sense of local pride and consider Burlington to be a place of great distinction. People know their neighbors and local shop owners, and often encounter family and friends throughout their daily travels. We show respect and tolerance for diverse views and values, knowing we all share a stake in our mutual success. The city's character and authenticity has evolved over time by respecting historical development patterns and architecture; cultivating "community" in our neighborhoods; protecting valuable natural, historic, and recreational resources; developing lively cultural events, resources and activities; and putting the needs of City residents above the desires of visitors. This plan outlines how future development can reflect the diversity of scale and form that permeates the downtown, add visual interest and complexity to the urban environment, and create new opportunities for people to live, work, and play.



## Creativity & Innovation

### innovation, arts, creativity

Celebrated as one of the most creative cities in the country, Burlington's arts, culture, and creative economy are central to the City's identity and economic vitality. Burlington has successfully nurtured many small and emerging businesses into national prominence. Burlingtonians enthusiastically celebrate the arts, locally-produced products, crafts, and foster a creative spirit and strong local pride, central to sustaining Burlington's sense of place and economy. Public art increased opportunities help build a sense of community amongst Burlingtonians, while providing an opportunity for all to experience and explore the arts.



# BUILDING A VIBRANT ECONOMY

a path forward for economic expansion



**Downtown Burlington is a vibrant and dynamic economic engine for not just the city, but the entire region. From retail and hospitality, to the arts and special events, our downtown and waterfront create a gravitational force in northwestern Vermont that draws residents, visitors, and entrepreneurs, and underpins our quality of life and economic base.**

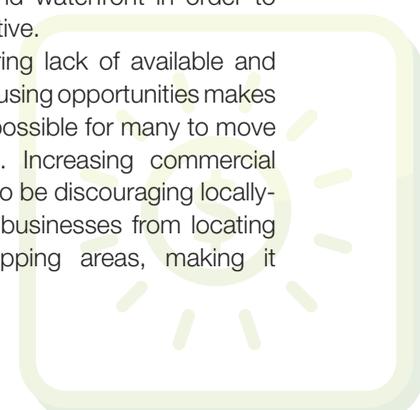
Our downtown provides significant employment and revenue that helps to provide many of the services Burlington residents and visitors have come to enjoy. The Downtown Improvement District (DID) comprises only 2% of the city's total acres but generates 22% of the total property tax revenue. More than two-thirds of all of the city's jobs are found within a half-mile of the intersection of Church and Main Street. These downtown employees play a

critical role in our downtown's economy by purchasing millions of dollars each year in goods and services, attending community events and activities, and serving as goodwill ambassadors for prospective downtown employers and visitors.

Yet over the last two decades Burlington has been losing retail and office market share to the suburbs. Higher rents, smaller floor plates, and parking challenges have resulted in

the relocation of larger office users, reducing the concentration of white collar jobs in the downtown core. With the exception of Church Street, retail concentrations in other parts of downtown Burlington are disjointed and need better connectivity to expand an activated pedestrian environment, especially toward the waterfront. Because parking is relatively cheap and easy in suburban locations, Burlington must comprehensively and creatively address parking challenges in the downtown and waterfront in order to stay competitive.

A staggering lack of available and affordable housing opportunities makes it virtually impossible for many to move into the city. Increasing commercial rents may also be discouraging locally-owned retail businesses from locating in core shopping areas, making it





critical to increase new construction and the supply of lower-cost incubator spaces in particular. A highly uncertain and discretionary permitting process that can hinder new construction puts the City at a further disadvantage to suburban neighbors. All that said, there are a number of opportunities that will help Burlington address these challenges and re-invigorate its economic place within the region.

## Talkin' about a Revolution

The economy, globally as well as locally, is in the midst of a revolution rooted in knowledge, information, and creativity; a revolution that favors authenticity, social, and environmental responsibility, and a sense of community; a revolution that is fueled by dynamic interactions between technology, arts, culture, nature, work, play and living; a revolution that is alive and well in Burlington, and one that our community is uniquely positioned to capitalize on in the decades ahead. This revolution is what noted sociologist and author Richard Florida has coined the "Creative Economy."

Florida writes, "Cities are veritable magnetrons for creativity. Great thinkers, artists, and entrepreneurs—the Creative Class at large—have always clustered and concentrated in cities. Deeper in our past the concentration of people in cities not only powered advances in agriculture, but led to the basic innovations in tool-making and the rudimentary arts that came to define civilization." The creative class is a melting pot of social groups, career disciplines, and cultures that together generate new ideas, products and opportunities. Burlington's creative economy and innovative potential is percolating through a broad spectrum of arts and business. In addition to the painter, sculptor, dancer or musician, those who teach and do research at UVM, Champlain and St. Mikes, design and innovate at places like Dealer.com, IBM, and My Web Grocer,

and create and concoct at Burton, Switchback, or Champlain Chocolates are all part of this mix. Their preference is for homes within walking or biking distance to their workplace, and community gathering spaces where creative minds can come together and mix. In Burlington, this trend can be seen in old warehouses on Pine or Champlain Street, where incubator spaces for emerging artists are located around the corner from places like August First Bakery and Magliano's Café, where creative thinkers gather to eat locally sourced food while exchanging ideas and forming new collaborations. Their creative energy and entrepreneurship also help to fuel and sustain more traditional businesses and services like finance, real estate, and law.

What we do now to support Burlington's growing creative economy will determine much of the city's cultural, social, political, and economic success in the future. In order to foster this success, Burlington must continue to attract people that will contribute their energy and creativity, and engage in the life of the city. By creating spaces for this creative dynamic to exist and evolve, the city can nurture emerging entrepreneurs and serve as a magnet for new ones. This must happen at a range of scales, from home occupations and street vendors to larger manufacturers and office suites.

Also important in this mix is Burlington's historic and evolving ethnic traditions, from French-Canadian to Bhutanese. This diversity forms a rich tapestry from which to build new partnerships, business opportunities, and community spaces. Neighborhood level arts, culture, and sports are a proven way to bridge long-term barriers of class and ethnicity as

well as age and gender, foster social and institutional connections, and animate public spaces. These cultural activities create value in our community in the form of diverse new businesses, enriching the built environment, and advancing Burlington's unique and authentic character.

## What is the "Creative Economy"?

**The "Creative Class" comprises some 30% of the workforce nationally (and likely more here in Burlington) and includes major occupational categories such as computer and mathematical technology; architecture and engineering; life, physical, and social science; education, training, and library; arts, design, entertainment, sports, and media; management; business and financial operations; healthcare practitioners; and high-end sales and sales management occupations.**

**In contrast to traditional educationally-based measures, the Creative Class occupational typology takes into account what people do in their current occupation, rather than their level of education.**

Last but certainly not least, the city must continue to nurture its already vibrant arts scene by encouraging the creation of more affordable places to live and work, supporting the business of the arts, and continuing to develop a thriving urban experience. The arts – traditional and modern, performance and visual – attract and sustain the creative economy and foster the eclectic elements that transform a space or an entire city into something unique. Making this kind of intentional and collective effort to foster arts and culture will enhance Burlington's ability to attract, retain and nourish the attention of the creative class.

## Downtown Development Revolving Fund

To help facilitate investment in their downtowns, several cities around the country have created successful development revolving funds oriented toward supporting redevelopment of historic buildings and encouraging appropriate infill construction in commercial districts. These funds come primarily as loans (although some are made in the form of grants). Borrowers must demonstrate that their project meets financial, design, and social requirements in order to qualify. Creating affordable housing and supporting locally owned businesses can be encouraged, often in partnership with housing finance agencies or other programs. Financing can be made available to for-profit and non-profit property owners, as well as commercial tenants. The City should consider the benefits of establishing a similar fund for use in the downtown and waterfront as a means to leverage private investment as well as build in mechanisms to ensure that appropriate design and materials standards are met for downtown historic districts.

## Diversity is Key

Burlington's downtown offers a diversity of uses and services that attract and support a very wide range of needs and interests. It is essential to have a balance of the residential, commercial, and social services that are necessary to sustain our downtown's economic vitality. While the creative economy is emerging as a dominating force, it doesn't mean that we neglect other opportunities. Diversity is what makes for a healthy local economy, with a mix of large and small businesses, local and national companies, and service, professional, retail, and manufacturing sectors. Each business helps to support another, adding to the diversity of the employment and customer base of our community, making us more resilient to economic shifts over the long term. Historically our economic strength has been vested in financial services, "eds and meds" and tourism. What the downtown and waterfront need is more usable space, with increased opportunities for new retail and hospitality at the street level combined with office and residential uses on upper floors. Efforts that support and encourage all of the economic drivers in our downtown, as well as elsewhere in the city and region, are necessary in order to build and sustain a vibrant local economic base.

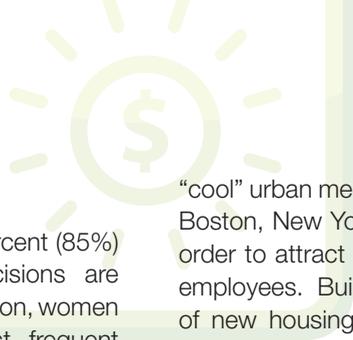
## Take it to the Streets

Burlington is most known for its vibrant shopping, dining, and entertainment as well as its beautiful setting on Lake Champlain. Much of this activity occurs on and around the Church Street Marketplace. Why? Because there is a critical mass of active uses at the street level, which attract and engage pedestrians. In addition, the storefronts and streetscape are attractive, well-lit, kept clean, and

free of snow and ice. This energy and atmosphere should be expanded to the side streets surrounding the Marketplace and extended all the way to the waterfront. New infill, redevelopment, and adaptive reuse throughout the downtown must prioritize creating an active and inviting pedestrian environment. This includes public investments in clean and wider sidewalks, pedestrian-scale lighting, benches and public art, street trees and flowers, street musicians and

outdoor cafes (see also the previous articles on "What Works" and "Urban is Back"). While focusing on creating an active pedestrian environment has obvious benefits for retail and hospitality businesses, it also creates an environment that is very attractive for many other types of businesses who want to be where the action is - not only to support their own bottom-line but as a way to attract and retain high quality employees.





## Attracting Women

Nationally eighty-five percent (85%) of household buying decisions are made by women. In Burlington, women are the Downtown's most frequent customer. Retailers feature the highest concentration of women's clothing and accessory stores in the region, while restaurateurs have developed food and drink offerings specifically to appeal to the preferences and palates of women. Many of Burlington's numerous downtown events and activities and our spectacular waterfront draw women in particular, who bring their children and families.

Downtown Burlington and downtowns across the country continue to be planned and designed primarily by men. In addition to involving more women in high level decisions, a shift in thinking is needed to address the concerns of women in how our streets and public spaces are designed so Burlington will continue to be a place where women want to shop, dine, work and bring their families. Female customers demand higher quality public amenities. Streets and parking garages must be clean, well lit, brightly painted, and regularly maintained. Anything less gives the impression that the community is unsafe. In addition, restroom facilities must also be clean, nicely designed, and well maintained.

Women also have a broader color spectrum than men — beyond the traditional whites, grays and blues of downtowns. Future designs need to include more vibrant colors in public (and private) development. Rather than painting the interiors of our municipal parking garages white, for example, we should be considering using wider range of vibrant colors.

## Work and Live

Current demographic and economic trends favor urban living, whether it's baby-boomers or millennials. Increasingly, people want to spend less time commuting and live close to urban amenities. Today, Burlington companies have to compete with other

“cool” urban meccas such as Portland, Boston, New York, and Washington in order to attract the best and brightest employees. Building a diverse range of new housing (both unit types and affordability ranges) that appeal to a wider range of people is an essential economic development strategy that can help Burlington attract a more diverse workforce and customer base.

New downtown residents will also need convenient access to everyday goods and services like general merchandise, grocery, hardware, electronics, office supply, and pharmacies further diversifying our retail mix, helping to sustain and grow downtown retail and hospitality businesses. In Burlington, every 100 new households living downtown can generate an additional \$1.8 million to \$2.4 million in captured annual retail sales. So like a diverse economic mix, a diverse land use mix helps to maintain a more sustainable and resilient community.

Downtown housing increases the possibility of conflicts between residents and the night-time economy. The desire to live “where the action is” may be strong, but new residents can be rudely awakened by the realities of living in a mixed-use district. New downtown housing development must consider the realities of our night-time economy, while our hospitality establishments have a responsibility to contain noise and manage behavior. Rather than approach these challenges from a strictly regulatory and compliance perspective, efforts must be undertaken to bring together bar and restaurant operators, public safety officials,

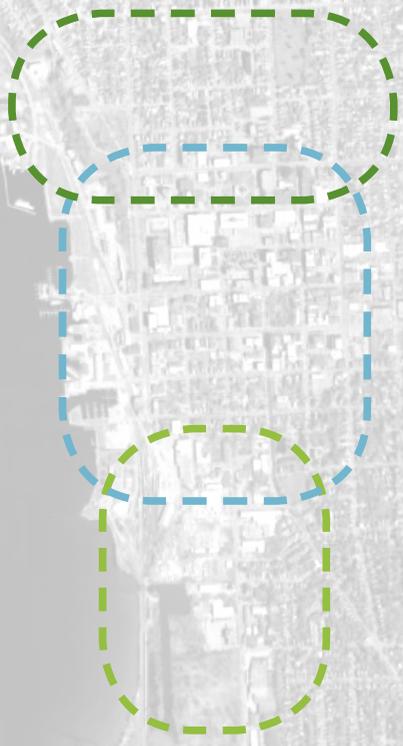
city policy makers, and residents to find solutions through collaboration. The City can more fully leverage resources provided through the International Downtown Association and Responsible Hospitality Institute.

## Yes, you CAN get here from there!

When asked how Burlington can enhance its vitality, the business community points to traffic and parking as the most critical issues. It's kind of like that Yogi Berra line “Nobody goes there anymore. It's too crowded.” Downtown Burlington is blessed to

## Expanding the Business Improvement District

**Having an abundance of great stores and restaurants is critical, but so is having a clean and attractive public realm where all visitors feel welcome and safe. The Church Street Marketplace is a four-block business improvement district (BID) that currently provides many services that go above and beyond what the City currently offers, including enhanced street lighting, more frequent street cleaning and plowing, special plantings, management of street vendors and musicians, special events and promotions, and joint marketing between businesses. Despite the failure of similar efforts in other communities, the success of the Church Street Marketplace is without question. Recently discussions have been initiated by a group of local business owners over the possible expansion of the BID to encompass the entire downtown and waterfront as a way to enhance the Burlington experience for downtown visitors, workers, and businesses. In addition to the kinds of services already provided by the Marketplace, an expanded BID might also include retail recruitment, service and hospitality training, visitor ambassadors, and parking and transportation demand management. Expanding the BID in size and scope has the potential to help implement many of the ideas and initiatives critical to the growing success of the downtown.**



#### **OLD NORTH END:**

**A true melting pot where people from many cultures have traditionally settled and started a new life; a place to celebrate new and old ethnic traditions, arts, music, and food.**

#### **DOWNTOWN:**

**Where the creative arts are taught and showcased for the world to see and learn.**

#### **PINE STREET / SOUTH END:**

**A place where evolving and emerging artists and entrepreneurs come together to create an eclectic cluster of studios, galleries, business, and workshops that celebrate the creative spirit.**

have such a problem, but that doesn't diminish the importance of addressing these real concerns and perceptions. Transportation solutions are explained in the section called "Getting Around Town," but the short version is that the City needs to provide more housing and transportation choices that are appealing to a wide range of people, individuals, and families, so each can choose what works best for them at any given time. Creating more downtown housing was found to be the most effective strategy to reduce traffic congestion. People who have the opportunity to live and work downtown can do so without the need to commute and possibly even live car-free. For commuters, choices must be available for convenient public transit and safe bike lanes, further reducing congestion and parking demand. Riding the bus just one day a week provides a 20% reduction in individual contribution to traffic congestion, parking demand, and air pollution. For the majority who must use a vehicle, maintaining and expanding the city's urban street grid, improving wayfinding, and providing convenient parking on the periphery

of the downtown will help to maintain a safe and high quality pedestrian environment within the heart of the downtown and waterfront, which in turn supports business activity.

### **A Place for Everyone!**

Downtown is always going to attract a diverse mix of people who collectively contribute to the City's unique social dynamic. Burlington's downtown and waterfront must always be places where everyone is welcome. These important public spaces should feel safe and welcoming, day and night, with the expectation that everyone will behave in a way that builds a strong community. The physical environment influences behavior, and thinking carefully about how we design Burlington's urban places is critically important to making our downtown a safer and more secure place for residents, employees, visitors, and businesses. Crime Prevention Through Environmental Design (CPTED) encourages changes in the physical design of our buildings, streets, sidewalks, and parks to minimize

opportunities for crime. Individual strategies can include increased security lighting, locking gates, landscape design that discourages intrusion, and scheduling activities in certain areas to attract more people. CPTED practices can result in a dramatic reduction in crime, improved business climate, and increased pedestrian activity and awareness. In the end it's all about comfort – making people feel welcomed and comfortable, while in turn making those not behaving responsibly to feel more exposed and vulnerable.

For others, especially those dealing with substance abuse and mental illness, it's not so simple. Our social service organizations are key downtown stakeholders who make Herculean efforts every day to address a wide range of social issues. The City's Street Outreach Program is a national model for helping to manage the needs of many who have nowhere to turn and need a helping hand. Because we are a regional center, our social services are used by those living in and beyond our community. Burlington has the highest concentration and

number of social service agencies in the state, with 32 non-profit and government organizations delivering services at 65 different locations, 32 of which are in the Downtown. However, such high concentrations of social service providers can become easily unmanageable if all stakeholders are not working together, keeping an eye on some of the larger interactions and their implications. For example, the downtown is arguably not the best environment for people recovering from alcohol and drug addiction. The presence of active drug dealing and the highest concentration of drinking establishments in the state create serious challenges for those in recovery.

Of particular concern is the risk to our most vulnerable and challenged citizens who increasingly face victimization. Again, it's about the environment and how it influences behavior — positively or negatively. Efforts to locate or expand social services need to consider the therapeutic quality and benefits of the location where services are provided and, for many, this means places that are more removed from the challenges and temptations of the urban core, while remaining in a convenient location.



Facilitate infill, allow for a more diverse range of unit and building types, and simplify the public approvals process by creating a form-based zoning code for the downtown and waterfront area.



Expand the Business Improvement District (BID) to provide enhanced community services and management across the entire downtown and waterfront area.



Explore creation of a Downtown Development Revolving Fund to help finance capital investments, programs, and services.



Develop greater economic development capacity within City government in order to expand efforts throughout the community funded through a variety of federal, state, and local sources, including consideration of a 1% dedicated tax.



Develop a unified process and consistent standards to manage and encourage a distribution of street vendors and performers throughout the downtown and waterfront.



Build capacity within Burlington's arts community through public and private funding for not-for-profits, information-sharing, networking, management assistance, and coordination.



Define and promote a creative identity and brand for Burlington so residents, current and prospective employers, creative workers, and visitors understand the City's unique and authentic identity.



Incentivize upper-story residential and creative enterprises as well as live/work opportunities.



Department of Planning & Zoning



CEDO  
Church Street Marketplace



CEDO  
Church Street Marketplace



Mayor's Office  
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Church Street Marketplace  
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Parks & Recreation Department



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Department of Planning & Zoning  
CEDO



**Most scientists agree that the earth is getting warmer, a trend that will continue into the future,** creating a range of impacts that include more frequent flooding (think of Lake Champlain flooding, Irene in 2011, and Hurricane Sandy in 2012), droughts, heat waves, and air pollution. The key questions are the severity of these events, the impact on communities like Burlington, and

what we can do to mitigate and adapt. Burlington is a recognized leader in local efforts to reduce rising greenhouse gas (GHG) emissions through the development of a Climate Action Plan, first in 2000 and most recently in 2012. The themes, goals, and interventions presented throughout this plan all play a central role in helping to reduce Burlington's carbon footprint.

In Burlington, roughly 50 percent of human-caused GHG emissions result from transporting people and goods, while another 40% comes from heating and cooling buildings. Notably, overall GHG emissions have also been on the rise between 2007 and 2012. The community has significant opportunities to reduce emissions and air quality concerns from these sources through promotion of multimodal transportation alternatives; compact development patterns; energy-efficient building siting, design and operation; urban forestry and local foods; conservation of natural areas and resources, low impact development practices, and many other initiatives and activities. Many of these strategies are addressed in this plan and will greatly help fight our impact on climate change as well as allow us to better adapt in the face of natural disasters.

Burlington is taking a “no regrets” approach to climate change work. Whether one believes climate change is human induced or not, we DO know that efforts made at reducing GHG emissions diminish pollution, save money, and can make our community safer and more livable — all really good things. For example, by promoting a more compact urban form, green buildings, and reductions in vehicle-miles-traveled, we know there are measurable savings in energy expenses. We also reduce air pollution, ensuring that we stay within “attainment” of the federal standards. When we reduce stormwater runoff, plant more trees, and adapt our infrastructure to be more climate resilient, we know we are also protecting property and people from natural hazards, preventing water pollution, and making our city a more livable place.

Throughout this plan are a number of interconnected strategies that will help us respond and adapt to climate change, and create a more vibrant and sustainable Burlington.

### **Compact Mixed-Use Development**

In Burlington, our urban fabric already is compact and actively encourages mixed uses. As we work to make it even better we have the potential to further reduce pollution and congestion, enhance social

interaction, improve the efficiency and effectiveness of public service delivery, and create more vitality when compared to a more suburban development pattern. The greenest building is one that has already been built, so we encourage adaptive reuse of our older building stock. Development in Burlington has to comply with state-of-the-art energy efficiency standards and is served by a robust energy mix dominated by renewable sources. We are actively pursuing the development of a District Energy System that can link the McNeil biomass electric generation plant with the downtown area. In addition, we are looking into ways to support and encourage the development of more “green” buildings that not only reduce life cycle costs, but create premium spaces for a variety of uses. Finally, we want to be sure that we aren’t encouraging new development in places that are increasingly at risk of damage from floods.



## Transportation Choice and Complete Streets

Given that more than half of all GHG emission comes from transportation, there is much that can be done by encouraging and facilitating more energy-efficient transportation choices – it's all about reducing vehicle-miles traveled (VMT). Our compact mixed use development pattern results in reductions in how much people need to drive by locating complementary land uses within easy walking distance from one another. By creating more places where people can live and work downtown, we can make it easier for people to reduce car ownership and reduce the amount they drive. By promoting street network connectivity we can more efficiently distribute traffic across the grid, thereby significantly reducing congestion and air pollution. When we expand transit service and develop better a bicycling and walking network and facilities, we provide greater menu of choices for how people get here and around town. We can even include incentives that support the use of alternatively-fueled vehicles by installing a network of public charging stations for electric vehicles.

## High Quality Pedestrian Experience

An important part of creating more “complete” streets is ensuring that they are adequate facilities that meet the needs of all users regardless of ability – this especially focuses on pedestrians within a compact mixed-use environment. Thus we include efforts to ensure that we have a complete and inviting pedestrian environment throughout the area so that residents, visitors and workers are encouraged to spend more time walking rather than driving. This includes wide sidewalks, active uses at the street level, a continuous street tree canopy, safe street crossings and quality lighting.

## Comprehensive Stormwater Management System

Recent storm events are indicative of why we need to re-think how we manage our stormwater. Here it's less about what we can do to prevent climate change and more about how we adapt to it. Turning “grey streets to green streets” as called out in the GREEN MACHINE will not only improve the management of stormwater but also actively encourage more trees and plantings which have an important role in the sequestration of CO2 and reduce the urban heat island effect. These “Green Streets” are also places that are more accommodating and inviting for pedestrians and bicycles which encourage people to drive less. Green roofs and walls on our buildings are a great stormwater management tool which also helps to reduce heating and cooling costs.

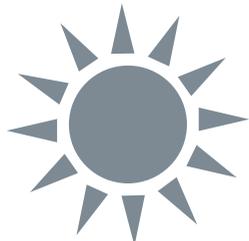
## Local Food Economy

Where your food comes from is also a factor that affects climate change and could help the city become more resilient in the future. Did you know that the average meal travels 1,500 miles from the farm to plate? Burlington has made significant progress towards nurturing a thriving local food economy. Food grown closer to home produces fewer transportation emissions, is fresher, and supports local farmers who are working to maintain our working landscape. While it's important to buy locally grown food for many reasons, ‘food miles’ actually

make up a relatively small percentage of the overall carbon footprint of food – approximately 11% on average. How our food is grown makes up a much larger percentage – roughly 83%. Many studies have shown that choosing to buy food that is organically grown can be a better choice for the climate. So by putting the two together – supporting local AND organic agriculture - we can have our broccoli and eat it too!

**For more information on the City's efforts towards reducing greenhouse gas emissions, visit the Climate Action Plan website at: [www.burlingtonvt.gov/cap/](http://www.burlingtonvt.gov/cap/)**

**The National Ambient Air Quality Standards (NAAQS) are established by the Environmental Protection Agency under authority of the Clean Air Act and apply to outdoor air quality throughout the country. Chittenden County still meets all basic standards and therefore is known as an “attainment area”. However, the County has often been, and still is, very close to a “non-attainment” status, which would trigger a set of requirements for improving air quality. Efforts that we undertake as a community to reduce GHG emissions are also critical to our efforts to maintain attainment status under Clean Air Act.**



# A FOUR SEASON WATERFRONT

## a complex mix of year-round activity

The Burlington waterfront is our crown jewel and perhaps our single-most important community asset. The parks and the lake provide a place for major community events and quiet contemplation, for physical pursuits both recreational and competitive, for a sail or a paddle, and one of the best places in all of New England for enjoying a sunset. There is also access to a bike path that can take the avid cyclist as far as Canada, as well as ferry access to the Champlain Islands and New York State.

The waterfront is well known and celebrated as a world-class destination during the summer months, with generous parks and access to the water for public use and enjoyment. However, it has yet to achieve the critical mass of people and the mix of uses needed to extend this vitality into the winter season. There are a number of exciting possibilities for adding new attractions, such as ice skating or an indoor venue for a variety of activities when the weather is less than ideal. More retail, recreation, hospitality, entertainment, office, and even residential uses are needed to make the waterfront an active and vibrant place the whole year round.

The Waterfront Revitalization Plan (WRP) completed in 1998 and the Harbor Management Plan (HMP) completed in 2000 laid the foundation for many ideas contained in this Plan, including the delineation of the user zones illustrated in the map to the right. A number of objectives are contained in both plans, such as maintaining and enhancing public access

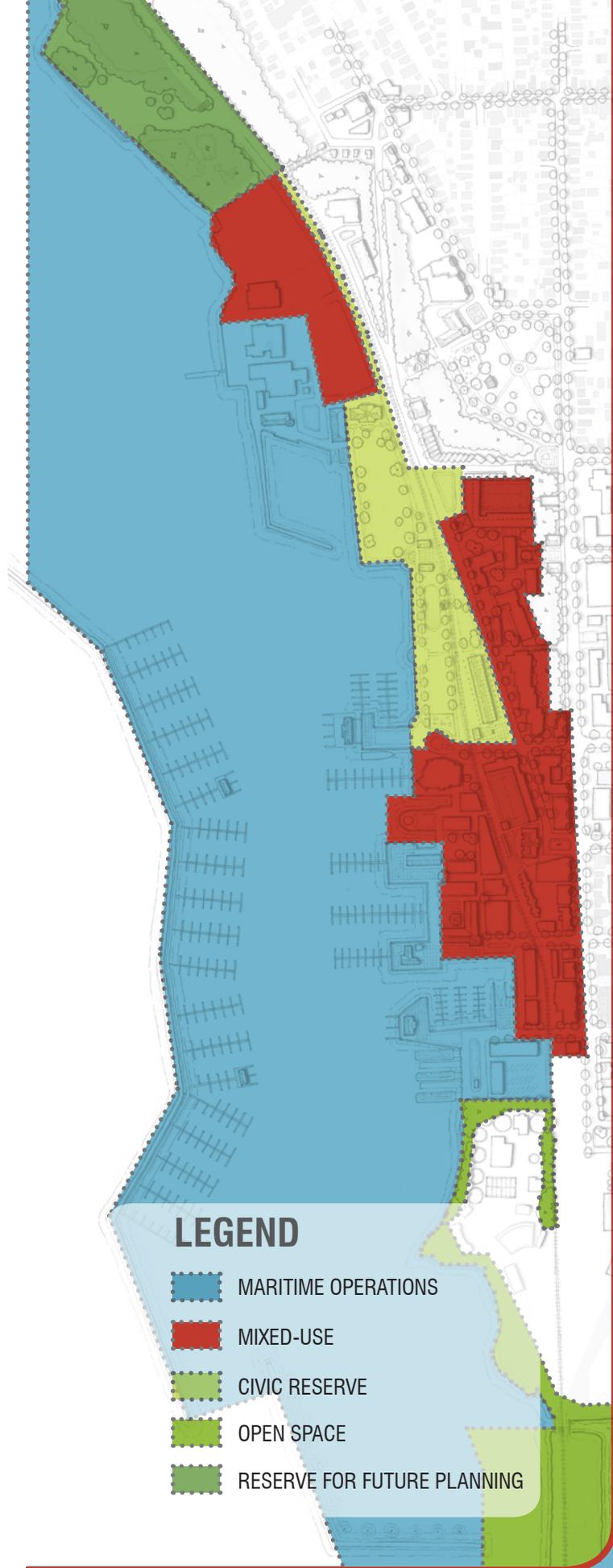
to the water, significantly expanding the number of slips for seasonal and transient boaters, and improving marine services. Another principal goal is to strengthen the physical link between the waterfront and the active downtown. To successfully link these two distinct parts of the city, improvements must be

made to enhance the streetscape and urbanism along the connecting street corridors between Church Street and the waterfront, as well as improve routes over the embankment. When developing in this area, it is important to retain and expand upon the character found in the most loved parts of the City, such as Church Street and lower Battery Street. New linkages, shared parking structures, and innovative public transportation solutions will help maintain a healthy balance of transportation modes. Minimizing the role of the automobile around the waterfront will create a safer and more pleasant environment for pedestrians and cyclists.



**Below: The Burlington Community Boat House offers boaters a full service Marina with power, water, showers, and pump-out facilities.**





## A PLACE FOR ALL TO ENJOY

Burlington's waterfront has been touted as a great public space where everyone is welcome and invited to celebrate our city. Yet some current facilities, activities and amenities seem to cater more directly to a narrow segment of the population. Efforts to provide children's play areas, low cost food options such as street vendors, and free activities would greatly enhance the opportunities for more residents and tourists to visit and enjoy this special place.

## WATER USE EXPANSION

There is currently an eight year waiting list for a boat slip at the marina, and nearly every summer evening many transient boaters are turned away due to a lack of available dockage. Expanding marina operations with additional slips and services will increase community access to the lake, the number of visitors to the city, and create more energy at the waterfront. The City has a goal of adding as many as 300 additional slips, either adjacent to the breakwater or along the shoreline principally south of Perkins Pier. It will be critically important that the necessary marine services (marine supply, showers, fuel, and mechanics) are available to support boaters. These additional slips could generate substantial revenue, as much as an additional \$1 million annually, depending on slip sizes and residency status of seasonal boaters, not including the potential spending in the downtown and community as a whole.

Burlington residents and visitors also enjoy a variety of non-motorized crafts. The Lake Champlain Community Sailing Center provides an opportunity for both kids and adults to enjoy the lake in sailboats, kayaks, canoes, and on stand-up paddle boards. The provision of additional boat storage and launching points for individual boat owners to the north and south of the harbor would increase access and further promote active use of the lake.

## KEEP IT CLEAN BOATERS

Just as Burlington works hard to be a leader in all things "Green" and sustainable landward, it should also do so waterside. The stormwater measures already underway and proposed in the Green Machine will work to minimize impacts on water quality from contaminants flowing from the land into the water. The City should take additional steps to ensure that the water is not being polluted by boaters and support services associated with boating. To do this Burlington should undertake the measures necessary to secure the status of a Vermont Clean Marina. There are currently four others in the state.

For more information about waterfront planning, see the 1998 Waterfront Redevelopment Plan.

## OUR COMMUNITY LIVING ROOM

Waterfront Park has been wildly successful as a place to host important cultural, civic, and athletic events that bring tens of thousands of people to Burlington's waterfront each year. These events celebrate our community and lakefront, expose new people to the city, and generate millions of dollars for the local economy. The continued evolution of Burlington's waterfront into a mixed-use area that is active year-round will require a careful balance of competing demands. Waterfront businesses and residents need to embrace the important community role played by the park and its many events, while waterfront event planners and organizers need to be sensitive to the impacts that event noise, lighting, and traffic congestion has on their neighbors. There are a number of measures that can be taken along the way to help, by example.

- Ensure noise levels stay in compliance with City ordinances and permits;
- Direct sound away from residences;
- Require soundproofing for new development;
- Explore the possibility of constructing the proposed building at the north end of Waterfront Park which will define the space better and offer additional amenities;
- Explore the possibility of constructing the parking garage in the slope below Battery Street with a ground floor tall enough to allow the large trucks used during events to park inside, where they will not disturb anyone or cause problems with circulation in the area. To minimize traffic on Lake Street, access should be primarily from Battery Street.
- Re-design Depot Street as a Complete Street that facilitates egress during major events for vehicles, pedestrians, and cyclists.

## FERRY LAND

The Lake Champlain Ferry Company has been in operation since 1826 and is one of the nation's oldest ferry services. It is important that the ferry landing continue to serve as the western gateway to the city, while improvements should be made to enhance the experience to ensure that the first impression for waterside visitors is spectacular and memorable. This plan contemplates moving the ferry terminal and LCT's operations further south to Perkins Pier. This would free up valuable space in the core of the waterfront for a dynamic mix of uses and a critical mass of year round waterfront activity. Locating the terminal to the south will still provide access to the street network without negatively impacting traffic flow on the waterfront, and could also accommodate needed trailer parking for transient boaters as well as space for LCT's operations.



Prepare a master plan for Waterfront Park integrating more amenities as discussed in the plan.



Parks & Recreation Department



Collaborate with private property owners to develop or re-develop the mixed-use area.



CEDO Planning & Zoning Department



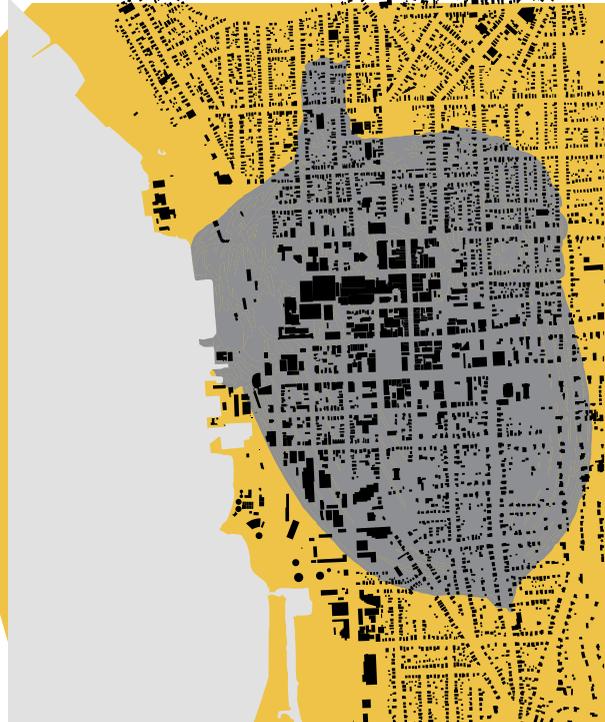
Develop a detailed plan for the expansion of boat slips and marina services.



Parks & Recreation Department

**Below: Lake Champlain is not only a means of transportation and a working waterfront, but also an outdoor playground for residents and visitors of Burlington.**





# THE HOUSING NUT

Despite being the cultural and economic center of Burlington — abounding with business, shopping, dining, entertainment and waterfront recreation — downtown Burlington has an extreme shortage of housing. Yet Burlington's downtown is a location that is a highly desirable place to live for young professionals, empty-nesters, students, and others because of its urban convenience and vitality.

**With almost 30% of the housing units in the downtown and waterfront considered “affordable” under typical definitions, Burlington and its non-profit housing partners have done an outstanding job of providing for the needs of many low income, seniors and disabled tenants. On the other end of the spectrum, condominium development in recent years has demonstrated the ability of the market to provide higher-end housing. Yet in the middle there is a gap — a growing number of prospective residents who can’t afford the high-end market-rate units, yet have too much income to qualify for subsidized “affordable” units. And very few new units of any kind — low, middle, or high — are coming on-line to meet the demand. This is not unique to Burlington — it is a common and deep problem that affects many cities, and college towns in particular, resulting in a loss of economic activity and missed opportunities to build social capital.**

## MORE HOUSING PERIOD...

Previous studies have all called for more housing in Burlington, citing the importance of enabling a full cross section of people to live downtown and in the surrounding neighborhoods. Increasing the amount and diversity of housing can help to address several important community objectives — particularly economic vitality, reduction in energy consumption, decreased traffic congestion, and social equity. Dramatically changing demographics in Burlington and across the country are working in our favor — the baby-boomers are looking to downsize and live in close proximity to work, entertainment, culture, and services, while the millennials (students and young professionals) are looking to become active participants in an urban lifestyle, drive less (if at all), and also want to live close to job and entertainment centers. The city has also seen its population diversify with the coming of many refugees. Fifty or so languages are now spoken in our schools. The lack of affordable and high quality larger units that can accommodate extended families living under one roof is also an issue.

A greater diversity of housing choices will ensure a broader and healthier customer and employment base to support new and expanding downtown business, in turn boosting economic vitality. Each additional household can bring as much as another \$16,000 in annual spending to the downtown. This in-turn helps to support local businesses and help diversify the retail mix with offerings such as hardware, electronics, grocery, and general retail. More housing will support rapidly growing businesses that are desperate to attract and retain a highly educated workforce. More housing will also support the retail and hospitality workers that are the backbone of our service economy and urban entertainment culture.

Urban dwellers typically have lower energy costs and a smaller carbon footprint than their rural counterparts given the reduced transportation costs. More housing is also the single most effective tool for reducing downtown traffic congestion and parking demand because more people can walk, bike, or take transit to work thereby making it possible to live car free. More than 25% of Burlington residents already walk or bike to work — a three-fold increase over the rest of the region.

With a historic residential vacancy rate of less than 3%, the creation of additional housing has proven to be a tough nut to crack. However, there are a number of strategies that can and should be employed to encourage the creation of significantly more housing — particularly affordable and affordable market-rate units. The time is especially good given historically low interest rates and construction costs.

**SO, TIME TO BRING OUT THE NUTCRACKER!**



## REDUCING REGULATORY BARRIERS

Despite an incredibly low vacancy rate and a high demand for more housing downtown, the current zoning for the downtown core prohibits new development from having more than 50% housing. While originally intended to maintain a balance between residential and non-residential uses, this stipulation effectively prevents the creation of any meaningful mixed-use development, and has got to go if Burlington's economic potential is ever to be realized. While allowing for even taller buildings isn't necessarily the answer, efforts to encourage development that more fully utilizes the permitted development envelope needs to be supported. While a national model at the time, the 1990-era inclusionary housing requirement is in need of fine-tuning to encourage more of the housing that is so badly needed. This in turn will also help create additional perpetually affordable inclusionary units.

Then there's the price tag for providing the required off-street parking, at a construction cost of \$25-30,000 per space (if built underground or in a structure). Parking drives up the "per unit" cost to a point where units become unaffordable for many people who want to live downtown, while also requiring those who don't own a car to subsidize the cost of parking.

Finally, development in Burlington can be hindered by a highly discretionary approval process. Time is money and the uncertainty of the process dissuades many developers from moving forward with potential development plans. Transitioning to a form-based code where context-appropriate infill can be permitted "by-right" will make it easier for the community's vision for expanded economic vitality and housing opportunities to become a reality.

**THE HOUSING VACANCY RATE IN BURLINGTON IS LESS THAN 3%.**



**"Affordable housing should be a major priority; more of it downtown especially."** — Kevin Barry



## DIVERSITY IN HOUSING CHOICES

To meet the diverse needs of a greater number of people, more housing choices must be provided, offering a little something for everyone. Burlington's existing residential housing stock is limited to a few common building types, including single family homes, duplexes, apartments above shops, and condo buildings. More and more, the residential neighborhoods surrounding the downtown are dominated by a single housing type - large 4+ bedroom units in converted historic homes - at prices that only students are able and willing to pay. This trend is mostly due to residential zoning densities and parking requirements that make it extremely difficult to create smaller units such as studios and 1-2 bedroom units, as well as detached units in varying configurations. Yet there are many additional building, unit, and ownership arrangements that can be introduced and priced to encourage a greater diversity of residents, including young professionals, couples, empty-nesters, retirees, and students. This is simply a case where more is better - more choices, more types, more affordable, more diversity... more housing period.



**THE PLAN ANTICIPATES A MULTITUDE OF HOUSING TYPES, OF DIFFERENT SCALES AND CHARACTER, MEETING THE LIFESTYLE PREFERENCES OF CURRENT AND FUTURE RESIDENTS. ROWHOUSES, LOFTS, AND OTHER HOUSING OPTIONS FOUND IN URBAN ENVIRONMENTS ARE DESIRABLE TO RETIREES, YOUNG PROFESSIONALS, THE CREATIVE CLASS, AND STUDENTS.**



### **A WIDER VIEW**

While this plan focuses primarily on the downtown and waterfront, when it comes to housing opportunities, it makes sense to step back and take a wider view of the city. While just a few thousand people live within the downtown core, many thousands more live within a short half-mile walk. This broader urban area – encompassing the entire Old North End, extending up the hill to the University, and south to the Shelburne Street rotary – provides a broader context when considering locations for additional housing opportunities. Burlington's inner residential neighborhoods typically have lower land values and development costs than the core of the city, making it easier to create units that are affordable to a greater number of people. These neighborhoods already include many opportunities for rehabilitation, redevelopment, and infill that can help to support and enhance the vitality of the downtown, while also improving neighborhood quality of life. More on-campus housing for younger undergrad students, as well as infill around the University and hospital to help serve the needs of older undergrads, graduate students, and people who work on the hill, will all provide benefits that extend into the downtown.



### **DOWNTOWN INFILL HOUSING**

A significant number of downtown properties are underutilized and under-developed when compared to what current zoning allows. New infill buildings and adaptive reuse of existing buildings in and surrounding the downtown core should be a high priority. Creating small, high density, modern and eclectic living spaces would attract and meet the needs of several demographic groups interested in urban living. New construction and rehabilitated urban housing designed at a variety of price points could change the economics and enable many new people to live in the downtown. New Americans have expressed the need for larger, more centrally located affordable units. The largely City-owned Memorial Auditorium block at the corner of Main and South Winooski and the Burlington Town Center are examples of ideal locations to experiment with both new construction and adaptive reuse.





Amend the zoning to:

- Eliminate the 50% Gross Floor Area (GFA) limit for residential use in a downtown project
- Increase the development threshold that triggers Major Impact Review in the downtown area
- Eliminate off-street parking requirements for downtown and waterfront development
- Facilitate infill, allow for a more diverse range of unit and building types, and simplify the public approvals process by developing a form-based zoning code for the downtown.
- Increase the threshold that triggers the creation of inclusionary units
- Simplify the review process for projects creating inclusionary units
- Create meaningful incentives for projects that provide new inclusionary units
- Revise the payment-in-lieu and off-site options for the creation of new inclusionary units
- Revise the minimum unit size limits to allow for smaller inclusionary units



Planning & Zoning Department



Explore the creation of new incentives to promote shared equity and perpetually affordable housing options.



CEDO



Explore the creation of Employer Housing Assistance Programs with major employers such as FAHC, UVM, and even the City itself, to remove barriers and make it easier for employees to live closer to where they work.



CEDO



Develop financial incentives and programs to encourage and facilitate the renovation, rehabilitation, and adaptive reuse of the existing housing stock. Examples include grant and revolving loan funds, tax stabilization and abatements, and historic façade easements.



CEDO



Restore the revenue collected for the City's Housing Trust Fund to the full 1-cent dedicated tax originally approved by the voters to help support the creation of additional affordable housing.



Mayor's Office



Make enforcement of existing regulations a priority.



Code Enforcement Office

# FARM TO CITY

Bringing Ag. to Downtown Burlington



**Burlington is a national leader in the fields of environmental sustainability and ecological awareness. To expand the City's efforts in this regard, action should be taken to give citizens access to locally grown, healthy food. The following strategies are recommended to bring focus to the City's environmental stewardship and public health initiatives, based on existing local resources and community input.**



PHOTO BY FRONT STUDIO ARCHITECTS

In doing so, the City strengthens a local food system grounded in community and linked to rapidly developing state and regional efforts. The Burlington Urban Agriculture Task Force (UATF), created out of a desire to develop a cohesive urban agriculture policy for the city, has begun the work on this effort. A local food supply accelerates economic development, fosters a stronger and more sustainable community, improves the health of those who live and work in Burlington, and supports a system that regenerates and protects our natural resources and the environment.

Burlington is home to a flourishing community of local food practitioners. Agricultural use in the Intervale, a network of community gardens, a thriving farmers market, and value-added enterprises all provide an opportunity for the City to take leadership in further strengthening public policy and institutional support.

Providing expanded opportunities for urban agriculture in Burlington presents a unique set of challenges and opportunities, especially when considering the denser fabric of our downtown core. The UATF has recently released a report which presents a comprehensive evaluation of current and proposed policies and practices the City should consider.

**R**aising vegetables, fruits, herbs, and meat, coming together to prepare and store food, and sitting around a table and sharing a meal, are fundamentally acts that bring us together as a community. There are many reasons that draw people to the practice of urban agriculture, including self-sufficiency, tradition, recreation, saving money, a sense of security, exercise, activism, and a way to get outdoors, connect with family and neighbors, and put long held values into practical action.

Burlington benefits in many ways from continuing its commitment to an equitable, healthy, and sustainable food supply through urban agriculture.



## 1.

### FOOD ECONOMY

Vermont's food system is critical to our economy, identity, quality of life, and sustainability goals. Jobs throughout the statewide food system represent 16% (or 56,419) of all private sector jobs and are connected to about 13% (or 10,984) of all private businesses. Retail food purchases generated over \$2 billion in sales in 2008. When measured by employment and gross state product, food manufacturing is the second-largest manufacturing industry in Vermont.

Burlington has helped to incubate some of Vermont's most widely celebrated food products. Home-grown examples include Lake Champlain Chocolates, Magic Hat Brewery, Switchback Brewery, and of course Ben and Jerry's. In addition, there are 11 working farms on 135 acres on the Intervale, nearly two dozen local restaurants, and a host of small food processors that contribute significantly to the local food economy and system.

## 2.

### SELF-RELIANCE & FOOD SECURITY

As the cost of food and fuel increases there is mounting concern about food security. Food security is achieved when every person in a community has consistent access to enough food to sustain a healthy life. Because the majority of food for the average American travels about 1,500 miles from the farm to the plate, most families and communities, other than those who live on or near a farm, are in jeopardy if there is a disruption in the long distance food shipping supply chain. Then there is the issue around the quality of the food that is available – is it good for you, is it safe, is it fresh, is it nutritionally balanced food that you can afford?

Self-Reliance, Urban or Backyard Homesteading, and Localvores, are all part of a growing trend in which individuals, families, and communities seek to grow or locally source as much of their own food as practical, and provide for other basic necessities by limiting input from outside sources. Several proven intensive, low-effort food-production systems include yard and container gardening and rooftop gardening.

## 3.

### COMMUNITY KITCHEN CO-OP/ INCUBATOR KITCHEN

In addition to efforts to enhance commercial production and processing capabilities on the Intervale, Burlington would benefit from a community kitchen/cannery (also known as a kitchen incubator) for use by residents interested in value-added production of jams, baked goods, cheeses, or other local products. This facility could be designed to support home or micro-enterprise processing and preserving. Evaluating the feasibility of using existing underutilized kitchens around the city would be a recommended first step to bring this idea to fruition.

## 4.

### EXPANDING THE BURLINGTON- BRAND

The local food brand that Burlington has had for many years is already associated with value and quality, and many small entrepreneurs have been successful in using this to their advantage to expand locally, regionally, and even nationally. These businesses create local jobs and an expanding market for local agricultural products. Burlington should continue to encourage opportunities for value-added processing, such as bakeries, canneries, breweries, distilleries, and butcher shops. Future development in the railyard area could accommodate and support these ventures along with expanding opportunities for food carts/trucks and creating new spaces for cafes along the street throughout the downtown and waterfront.

## 5.

### COMMUNITY & SCHOOLYARD GARDENS

Community gardens can be established on vacant, undeveloped, or underutilized properties as a way to generate more activity and potentially spur redevelopment. There are several more locations throughout the City that could be converted to small-scale community gardens, helping to bring vitality to these underutilized areas. Schoolyard gardens are one example of a tool to integrate classroom curriculum, with a focus on outdoor hands-on experience, environmental education, culinary arts, and nutrition.



## 6. LOCAL FOOD PRODUCTION AT ALL SCALES

Local food production should not be relegated solely to the large farm. With thoughtful planning and innovative techniques, agriculture can continue to be infused throughout the City from the Intervale to the most urban parts of our downtown. There are nearly 40 acres of rooftops in the downtown area alone, many of which are flat enough to be used for micro-agriculture — anything from small container gardens on a patio to intensive green roof gardens that support families and even supplement local restaurant use.



## 7. LOCAL FOOD DISTRIBUTION NETWORKS

To create a more consistent supply of local products and enhance the local food supply chain there needs to be a variety of places and means to market the products of local farmers. The City already benefits from seasonal farmer's markets, local grocery stores like City Market, and activities at the Intervale Food Hub. There is the additional opportunity for farm stands, a year-round market hall, street vendors selling locally-produced foods using and promoting local food products, more specialty food retail outlets, joint marketing, and festivals celebrating local foods.



## 8. BIRDS AND BEES

While free-range chickens on Church Street may not be the most realistic idea, many urban residents keep livestock and poultry for the production of eggs or meat. The Urban Agriculture Task Force recently released a set of recommendations to promote best practices and help accommodate the keeping of livestock in the urban city environment.

Alongside these considerations, urban beekeeping offers residents the opportunity to produce their own honey and pollinate their gardens. In addition, because bees will fly for several miles to find pollen, urban bees also pollinate nearby agricultural areas. Bees can easily be kept on rooftops as part of rooftop gardens. And it is good for the bees too: urban bees have a higher overwintering survival rate and produce more honey than their rural counterparts. Cities like New York and Boston are enjoying the benefits of urban bees so why not Burlington? Because urban beekeeping can pose unique challenges, proper hive management and public education are important to successful urban beekeeping.

## BURLINGTON SCHOOL FOOD PROJECT:

### A GREAT EXAMPLE OF FOOD SECURITY

Vermont has a number of projects that work to build the capacity for communities to grow, access, and use food for themselves. One of the most successful district-led farm to school efforts in Vermont is the Burlington School Food Project (BSFP), a collaboration of many partners including Shelburne Farms (Sustainable Schools Project), Burlington School Food Service, Friends of Burlington Gardens (Healthy City Youth Initiative), Vermont-FEED, and City Market/Onion River Co-op. The group has made significant progress in shifting the food culture in Chittenden County by addressing access, availability, and utilization of local food in several key ways:

- (1) The Burlington School district provides a livable wage (\$15.23 in 2010) for food service employees;
- (2) School employees work with local producers to provide food or develop new products that are affordable for local schools and manageable for food service employees;
- (3) The program works to increase food access while simultaneously reducing the stigma experienced by students who receive assistance for school food.

In addition to its work addressing cultural changes around food and food service in schools, BSFP has dramatically increased access to local food and fresh fruits and vegetables for students in the Burlington School District. In 2003, the dollar value of fresh fruits and vegetables purchased by the Burlington School District totaled \$5,000. This increased to \$120,000 in 2009. The value of local food (primarily sourced directly from farmers) in 2009 was \$90,000.

From: Farm to Plate (F2P) Strategic Plan, VT Sustainable Jobs Fund, 2011





## RANGE OF FOOD PRODUCTION SUITABLE FOR DOWNTOWN BURLINGTON:

**PERI-URBAN FARMS** – Farms producing food on relatively large areas of open land within the city limits, such as Intervale Farms, New Farms for New Americans, Tamarack Hollow, etc.

**COMMUNITY GARDENS** – A private, not for profit, or public common area used by a group of households to grow and harvest food crops or non-food crops for personal or group consumption or donation. Community gardens have been part of the Burlington food system for decades.

**SCHOOLYARD GARDENS** – Schoolyard gardens can be used as a tool to integrate classroom curriculum with an outdoor hands-on experience, environmental education, culinary arts, and nutrition. The Burlington School District already has a variety of school garden plots, ranging from raised beds to berry bushes, to full blown garden plots.

**YARD GARDENS** – These are appropriate for use on residential lots for household use by the residents.

**CONTAINER GARDENS** – These gardens utilize containers to hold the planting medium and include window boxes, balcony, and roof gardens. They can be used to provide household produce needs in more urban areas where space is limited.

**EDIBLE LANDSCAPES** – This refers to the utilization of plants and landscaping that produce edible food in settings that conventionally would have been limited to ornamental or non-food producing plants. Edible landscapes are not a farm or garden per se, and unlike the farms and gardens described above, are not limited to use on private lots. Plantings on public property, including parks, present great opportunities for flower and vegetable gardening, as well as the planting of fruit trees.



The UATF identified a range of changes to the zoning ordinance. In addressing urban agriculture as a distinct set of activities, these changes would more appropriately govern agricultural practices within the urban environment, easing any potential conflicts within the existing regulations. Recommendations include:

- Develop distinct definitions to differentiate food production and non-food production uses.
- Streamline the permitting process for agriculture structures of a certain size.
- Exempt small scale structures from city permitting processes.
- Increase the opportunities for urban agriculture on public land.
- Establish a bonus system that recognizes the benefits of food production.
- Establish policies that incentivize the inclusion of garden space in new and existing residential developments.
- Several recommendations have been generated by the Urban Ag Task Force and should be considered for implementation as the city continues its leadership in local food production.



Urban Ag  
Task Force  
Planning  
& Zoning  
Department



Develop a Small Farm/Garden Loan Fund to foster new and continued local farming efforts.



CEDO

# GETTING AROUND TOWN

## a COMPLETE STREET SOLUTION



Complete street movement is about restoring balance among every mode of transportation to better accommodate the needs of all users and all abilities.



### Complete streets are streets for everyone.

While use of alternative transportation modes (walking, biking, and transit) has seen an increase in Burlington over the past decades, reducing the amount of miles driven in single occupancy vehicles, it is important to recognize that the automobile continues to play a central role in moving people and goods in and out of the city. Today, 62% of Burlingtonians drive alone to work, while 74% of county residents do the same, many of which work in our downtown (see PlanBTV Phase 1 Transportation Study). Convenience is a key factor in transportation decision-making, and for many the car continues to be the most convenient option.

### MORE THAN JUST A RIGHT OF WAY

Unlike many other complete street initiatives, Burlington emphasizes the number one factor that makes people want to walk, ride bikes, or spend time in areas served by transit. This is the character of the place created by excellent urbanism. The streetscape created by the private realm is as important as any of the elements or provisions found in a conventional complete street package.

# COMPLETE STREETS

Because complete streets contemplate the context through which the thoroughfare passes, all streets in the city should be complete streets. Because of space constraints, some streets have a higher priority for certain modes of transportation than others, but they all can have the elements of complete streets.



Create Private Realm



Sidewalks



Small Curb Radii



Pedestrian Refuge



Crosswalks



Vehicle Lanes



Bike Lanes



On-Street Parking



Transit Shelters



Street Furniture



Street Lighting



Street Trees



Planting Strips

For more information about complete streets, see the City of Burlington Transportation Plan (Street Design Guidelines).

## Moving Cars and Trucks

While use of alternative transportation modes (walking, biking, and transit) has seen an increase in Burlington over the past decades, reducing the amount of miles driven in single occupancy vehicles, it is important to recognize that the automobile continues to play a central role in moving people and goods in and out of the city. Today, 62% of Burlingtonians drive alone to work, while 74% of county residents do the same, many of which work in our downtown (see PlanBTV Phase 1 Transportation Study). Convenience is a key factor in transportation decision-making, and for many the car continues to be the most convenient option.

While cars and trucks are the dominate mode of transportation today, we will never be able to build our way out of this growing mix of traffic congestion, air quality, parking, and urban development challenges. Instead we need to make improvements within the existing system and offer a wider range of choices that are cleaner, safer, more cost effective, convenient, and that move more people more efficiently. As various alternatives become easier, cheaper, and more convenient, more travelers can gradually make a shift over time, based on what works best for them, rather than choosing the only option available.

## Arriving Downtown

The 2011 Burlington Transportation Plan defines a system of complete streets throughout the city that will ensure a smooth flow of people and goods. Recommendations guide the City toward a more balanced transportation system that meets the needs of all users, regardless of age or ability, rather than one that heavily favors one mode at the exclusion of others. The City's Transportation Plan includes classifications for all streets — Transit, Bicycle, Slow, State Truck Route, Neighborhood, and Complete (don't be confused by the nomenclature; all the classifications reflect some degree of complete streets) — and provides guidelines for each type. Given the inherent physical limitations of some existing streets, the plan sets priorities in cases where space limitations prevent the integration of facilities for every mode. The plan incorporates "Transit Streets" that prioritize efficient transit movement along the primary corridors of Pearl, Main, and St. Paul Streets, "Complete Streets", which include facilities to better support transit, bicycles, and pedestrians along Battery Street and Winooski Avenue, and "Slow Streets" within the pedestrian-oriented core.

## Reducing Congestion

While we recognize the dominance of car travel in today's world, it is essential that we strive for the increased use of other means of transportation for daily travel. Shoppers and visitors coming to downtown from afar will likely continue to get here by car. However, there is significant opportunity to encourage residents and commuters to travel differently. The Campus Area Transportation Management Association (CATMA) is an example of a transportation demand management program that has proven very valuable and effective for the institutions on the hill. Programs offered by CATMA provide employees incentives and information on how to commute to work differently, such as car/van pool programs, car sharing, emergency ride home programs, walk/bike reward programs, and free or discounted transit passes. There is tremendous potential to replicate this program for downtown employees as a way to reduce both traffic congestion and parking demand.

A strong focus on residential development could also greatly help to reduce traffic congestion and parking demand. Adding additional housing downtown has a greater impact on congestion reduction than increasing transit and other modes (see PlanBTV Phase 1 Transportation Study). Additional residential opportunities would allow people to both live and work downtown, giving them the chance to walk and bike, while also using transit or car share more frequently. Many might even choose to go carless. As mentioned in the "Housing Nut", there are a number of regulatory and non-regulatory strategies that the City can pursue in order to increase the supply of housing in and around the downtown area.

As noted in "What Works," street connectivity is an important element of traffic management as well as creating a framework for urban development. An interconnected network of streets provides a variety of options for drivers and disperses traffic across several streets rather than clogging one primary artery. Burlington is fortunate to have a well-defined urban street grid. Recommendations on ways to reconnect and expand Burlington's street network can be found in the "Around the Plan" section.

### A RULE TO LIVE BY:

#### RESTORE CONNECTIONS

The City should avoid the loss of street network at all costs. A road cut takes at least a generation to correct. An effort should be made to restore street connections wherever possible, including the clipped sections of Pine Street and St. Paul Street.

## A Place for Shared Streets

The waterfront needs to be as permeable as possible, with simple, slow-moving two-way streets that are intuitive and easy to navigate for all modes. Currently the only thoroughfare along the waterfront is Lake Street, which due to its lack of connectivity, acts essentially as a cul-de-sac. This causes traffic congestion particularly during events. It is important to create multiple vehicular connections to and through the waterfront to take the pressure off of the Lake and College Street intersection. One important connection point for relief of congestion during events is Depot Street, which is used by pedestrians and cyclists daily, but open to vehicular traffic when large crowds need to be managed before and after events.

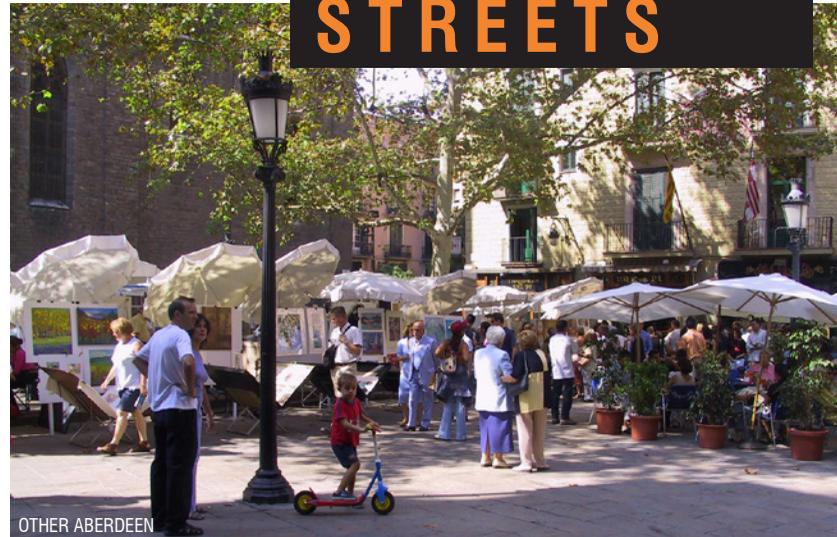
Lake Street, College Street, and Main Street east of Battery Street, are all planned as shared streets, where pedestrians and cyclists have legal priority over motorists. In addition, a new shared street has been shown that runs north / south on the lake-side of the train tracks from College Street to Maple Street.

Shared streets are used all over the world with great results. A 1999 study showed that the Netherlands had more than 6,000 of these street types. Since then the U.S. has built or planned several, such as Downtown Crossing in Boston and Union Square in Somerville, Massachusetts. With shared streets at the waterfront, not only will pedestrians and cyclists have legal priority over cars, which can only travel at walking speeds, but the design reinforces and makes this clear.

SHARED



STREETS



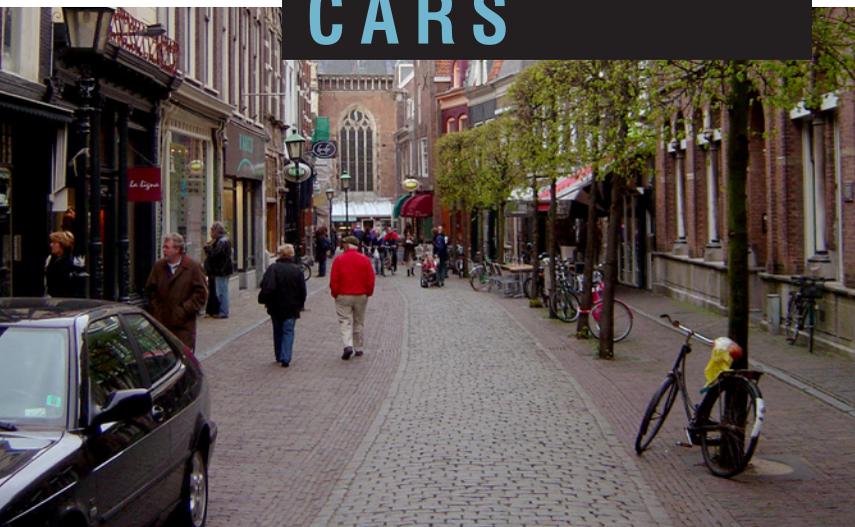
OTHER ABERDEEN

PEOPLE

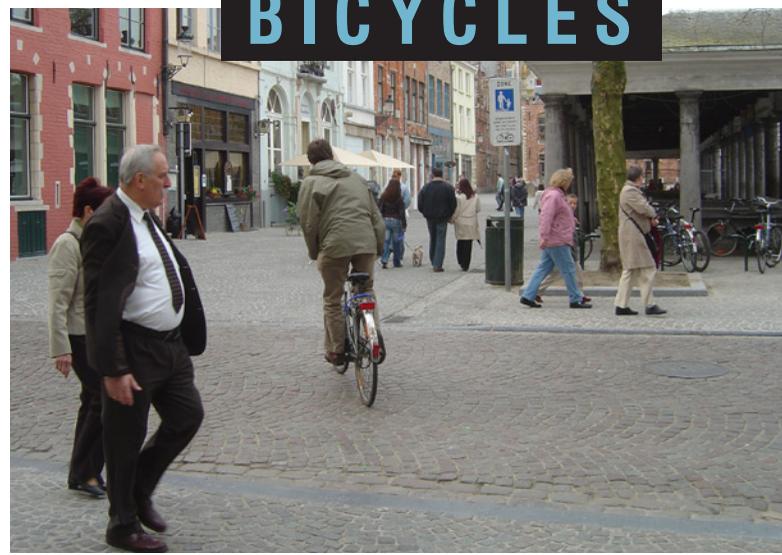


CARA SEIDERMAN, CITY OF CAMBRIDGE

CARS



BICYCLES



**Efficient and safe transportation of people and goods is one of the foundations of a vital downtown. Burlington's transportation system serves a large array of people — residents, businesses, institutions, workers, shoppers, and visitors. The infrastructure to support this system is a critical part of the city's urban fabric, contributing to how we experience daily life. It is essential to ensure a smooth flow of traffic in and out of the City and the downtown, for all modes of transportation.**

## North / South Connections

Currently, the only north / south bike routes within the downtown core are by way of Battery Street and South Winooski Street. Battery Street is geared toward the experienced cyclist who is comfortable riding in traffic on higher speed city streets. South Winooski has bike lanes north of Pearl and south of Main, but the downtown portion dumps cyclists into heavy traffic. With Church Street closed to bicycle traffic and the urban renewal area cutting off the remaining north / south roads, there are no other downtown options for the less experienced cyclist. The master plan proposes addressing this issue by carefully modifying the mall to allow Pine Street and St. Paul Street to once again connect through. Ideally these repaired connections would be designed as complete streets, with parallel parking and vehicular traffic. Opening these streets would relieve traffic pressure from Battery Street and South Winooski Avenue which, due to these past compromises to the historic grid, are carrying more than their share of traffic causing these roads to reflect their higher volume designs and higher speed traffic. Should a complete street retrofit not be an option, having a pedestrian and bicycle connection through the mall would be a welcome improvement to the multi-modal transportation system. In addition to restoring these additional connections, South Winooski should be redesigned to provide a continuous and safe cycling route that considers options for restoring two-way vehicular traffic flow. And Battery Street should also be retrofitted to accommodate bicycles.

## East / West Connections

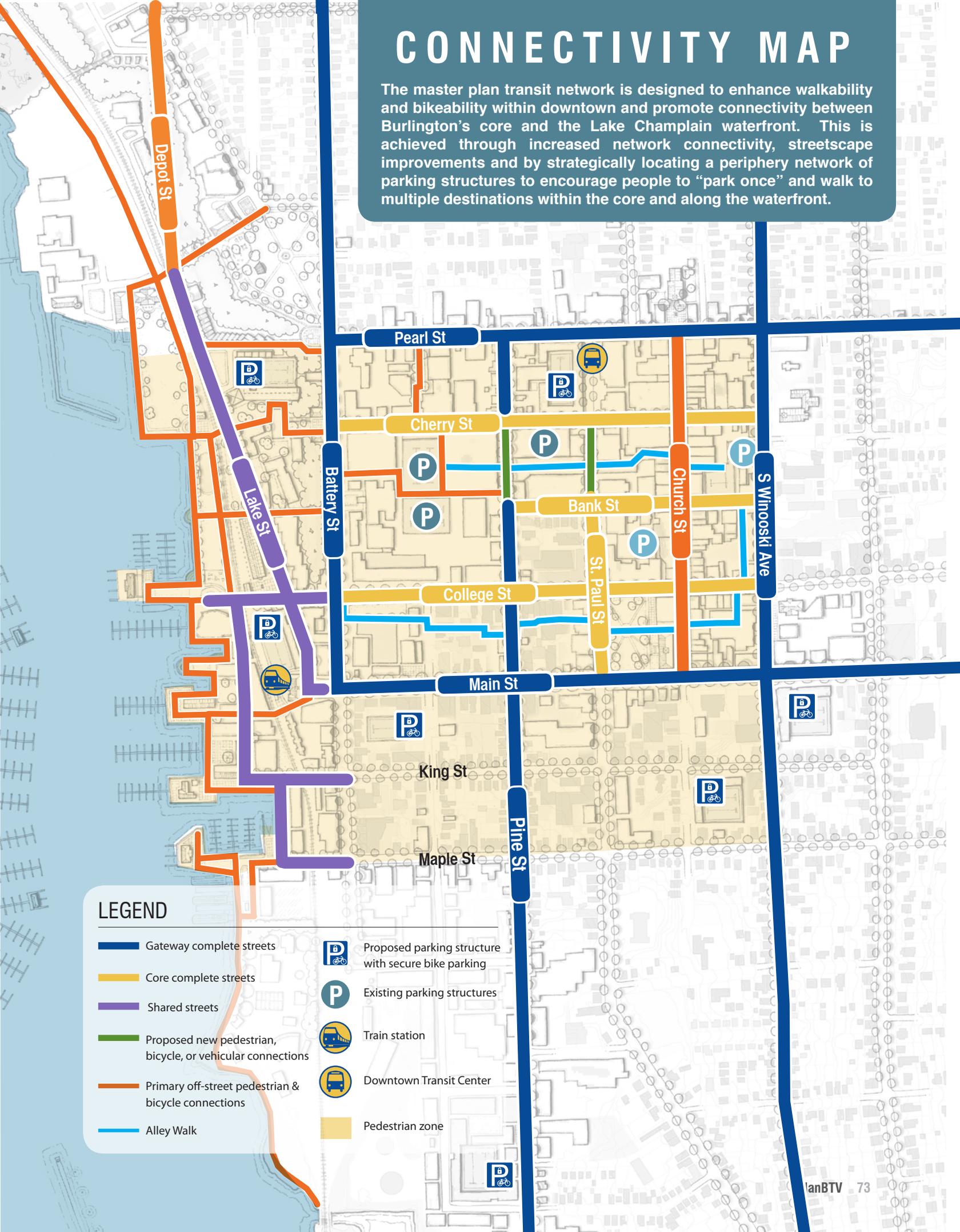
When looking at historic photos of Burlington when it had a bustling port, it is easy to imagine people walking between their homes on the hill and their jobs on the waterfront. One of the goals of the planBTV project is to activate the waterfront and improve the connections between the downtown and the water, bringing back the once active foot traffic. In addition to making the waterfront a true destination, the most important and also the most challenging step is to make the east / west streets more interesting, to encourage pedestrians and cyclists to make the journey up and down the hill. Currently, along Main, College, Cherry, and Pearl Streets—the primary connectors—there are gaps in the urban fabric and streetscape where buildings used to stand. These gaps need to be repaired and infilled with new pedestrian-scale buildings that address the street with active first floor uses that are open to the public. Other smaller efforts might include visual cues, like flags representing the countries of immigrant populations, beautiful flow through planters that are part of the Green Machine system (see Page 89), and commissioned public art at each intersection.

### TRANSFORMING BATTERY STREET



# CONNECTIVITY MAP

The master plan transit network is designed to enhance walkability and bikeability within downtown and promote connectivity between Burlington's core and the Lake Champlain waterfront. This is achieved through increased network connectivity, streetscape improvements and by strategically locating a periphery network of parking structures to encourage people to "park once" and walk to multiple destinations within the core and along the waterfront.



## LEGEND

- Gateway complete streets
- Core complete streets
- Shared streets
- Proposed new pedestrian, bicycle, or vehicular connections
- Primary off-street pedestrian & bicycle connections
- Alley Walk
- P  
D  
B Proposed parking structure with secure bike parking
- P Existing parking structures
- Train station
- Downtown Transit Center
- Pedestrian zone



# YIELD TO PEDESTRIANS

## Every trip we make begins and ends as a pedestrian

—whether we drive, ride our bike, or take the bus. Urban places have always been built for and around

the needs of people on foot. The “Timeless Principles” discussed earlier in this Plan highlight the essential elements needed to make a place “walkable”, including destinations, distance, density and design. While Burlington has a well-earned reputation as a place where pedestrians are celebrated, the City can make a number of improvements to expand vitality and walkability beyond the Church Street Marketplace and strengthen connections to the waterfront.

### Enjoy the journey:

While destinations are important to build connections between places, pedestrians need to enjoy the walk along the way. This means having interesting things to look at and experience. Otherwise the destination feels too remote and they may be more inclined to drive or worse...not go at all. Interesting architecture, display windows, shade trees, eclectic street furniture, proper lighting scaled for pedestrians, and infill buildings that provide outdoor cafés and active storefronts all contribute to engaging the pedestrian all along the journey.

### A place to walk:

Narrow streets, and by extension narrow sidewalks, are characteristic of older New England downtowns. While we can't make more land to give everyone additional elbow room, we can make better use of existing right-of-way and ensure improved maintenance of the space that we have. Keeping sidewalks and walkways free of obstructions and in good condition are essential steps to ensuring a positive and worry-free pedestrian experience. This means free of weeds and litter and well lit at night, with smooth and even surfaces for strollers and wheelchairs. With very few exceptions, space devoted to the “green belt” (ok, so it's really a “brown belt”) should be reclaimed as part of the “Green Street” initiative, extending the suite of streetscape design elements recently installed on lower Church and St. Paul Streets. This way we are managing our stormwater, giving pedestrians more room, and enhancing their experience all at the same time!

### Crossing to the other side:

Street crossings can be major obstacles for pedestrians: Can I make it in time? Do the drivers know I'm here? Raised intersections, painted or textured crosswalks, bump-outs, pedestrian phased signals, and median refuges are all tools that help to make pedestrian crossings safer and more inviting to use. Within the downtown pedestrian zone (see map), and especially at major intersections (like Main Street/S. Winooski Avenue, Pearl Street/N. Winooski Ave, and all along Battery Street) design elements and intersection treatments should be safe, consistent, and easy to navigate. Infrastructure such as button free automatic leading pedestrian phases should be standard to ensure a safe pedestrian experience. Median refuges should also be integrated, where possible.



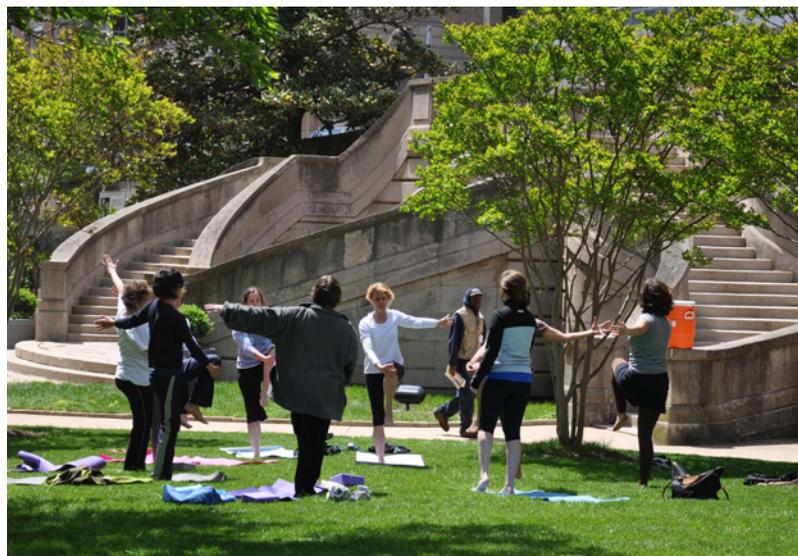
### Alley Walk:

Burlington has several contiguous blocks moving from east to west through downtown towards the Lake. There are a few restaurants and business tucked away in these intimate spaces, most notably along Lawson's Lane. This fledgling "Alley-Walk" should be emphasized and further activated adding additional storefronts that face the space, as well as outdoor dining, and interesting lighting to make these intimate outdoor rooms feel safe and inviting. This and other Alley Walks could become distinguishing features within Burlington, with interpretative signage playing an important role in connecting parts of downtown with other neighborhoods and the waterfront



### Downslope connections:

For true connectivity from downtown to the waterfront to occur there must be opportunities to traverse the slope that separates these two areas of the City. More elaborate and costly methods of conquering the slope, such as funiculars and escalators, have been discussed for years. It is time to finally determine the cost of these devices and decide if this is a viable option for Burlington. No matter what, a series of staircases should be constructed immediately. In the future, when the time is right, one of these can be converted in to a mechanized alternative.



# BIKING A WAY OF LIFE!

Burlington has already done a lot to improve the bikeability in the city. Improving existing infrastructure and adding additional bicycle facilities will make biking an even more attractive and viable mode of transportation.

## more of THIS

### 1. bikeways

Creating a seamless and convenient network of bikeways is the most important (and most challenging) task in the core of the downtown and waterfront. Continuous north-south and east-west connections for safe bike travel have been identified as a priority in the 2004 North-South Bike Plan as well as in the city's transportation plan. A city-wide bike and pedestrian plan should be prepared to ensure the appropriate connections are achieved throughout the city, and not only in downtown. There are a variety of bikeway types that accommodate users with different experience levels, including paths, bike lanes, and riding in traffic. A cycle track, or protected bike lane, is another bikeway type that is gaining popularity in the U.S. and Canada as more information becomes available about the increased safety and comfort they provide for the recreational cyclist, including kids and the elderly. Recent studies have shown that dedicated bike lanes can reduce injury for bikers by 90%. To increase the amount of riders in Burlington, we need facilities that appeal to not only the 1% "strong and fearless" and the 7% "enthused and confident" riders, but also to the 60% "interested and concerned" riders, who are generally unwilling to ride on the street with cars.



MIKE KOZMIN/THE S.F. EXAMINER

### 2. intersection treatment

Cycle tracks separate cyclists and motor vehicles to a greater degree than a bicycle lane. This increases comfort for cyclists, but creates additional considerations at intersections, which must be addressed through design. Particular concerns associated with cycle tracks at signalized intersections include the lack of visibility for bicyclists who are hidden from drivers by parked cars, the right hook danger, and the difficulty of left-turn movements from the cycle track. At signalized intersections along the cycle track, cyclists should be provided a protected lane for through movement as well as a designated "bike box" to enable left-hand turns.



CHRISTOPHER MONSERE

### 3. bike parking and storage

Cyclists must have safe and convenient places to store their bicycles at a trip's end. One of the most user-friendly designs is the “u-shaped” bicycle rack. Racks should be locally designed when feasible, while maintaining a high level of function for users. Racks should continue to be placed around the city, both outside as well as inside – incorporated into new downtown development and in parking garages. Like parking for cars, bike parking needs to be distributed throughout the area rather than concentrated in only a handful of locations. An easy and inexpensive way to accommodate a large amount of bike parking without cluttering the sidewalk is to convert some vehicular parking spots around downtown into spaces for bike parking. Choosing locations at the end of a block could also improve visibility for motorists at busy intersections. The City will need to carefully select locations where the loss of a valuable vehicular space is justified by high bicycle use, to maintain support among retailers and positive momentum for the program.



ADAM COOPER

There is currently not enough permanent indoor secure bike storage in Burlington. A public/private partnership could be created between local non-profits and the City to fund and install secure, covered bike storage in proximity to the multi-modal center for commuters who come into downtown via transit. Permanent, secure bike storage should also be available at the waterfront for those who access the City via the bike trail and for use during events. Secure storage could be something as simple as an indoor bike locker, a card-accessed bike cage, or a more elaborate bike station that includes a repair station, showers, lockers, changing rooms, rentals, and even cafe space.



### 4. bike culture

Easily identifiable bike shops, repair stations, cafes, and other businesses that cater to the needs of hungry and thirsty bikers will do much to build the City's reputation as a bike friendly destination. This is as much an economic strategy as it is a transportation strategy, especially when considering the strong bike culture in nearby Quebec. Burlington already has some incredible end of trip facilities, most notably, Magliano, with its showers and cool bike art. These kinds of highly functional end-of-trip facilities, combined with incentivized programs and other “soft” improvements, will continue to build on Burlington's growing bike culture.

### 5. bike share

As a more complete network of bike routes and facilities are developed, creation of a “Bike share Burlington” smart bike program would further encourage the use of bikes by locating short term rental (or in some cases free) bikes in docking stations around the city. The most common locations for the bike kiosks are in long-term parking lots, parking garages, in parking spaces, and carved out of the edges of public parks. For small cities, there must be a critical number of people who will use the bikes and a significant expenditure of resources to construct and roll out the bike kiosks as part of a large-scale launch. With UVM and a bike share company as key partners, this program could see wide success in Burlington, helping to make biking a more dominant form of transportation where more people feel safe riding.

SIERRA MICHELS SLETTVET



# BIKEWAYS

Burlington should develop a city-wide bicycle plan and continue to retrofit urban streets to more safely accommodate bicycle travel. A more customized and nuanced approach that includes a greater diversity of bikeway types, including the cycle tracks, and other locally-calibrated infrastructure, will ensure that the appropriate treatment is used on each street within the network, enabling users of different abilities to enjoy a safe and direct route to their destinations. Making cycling as convenient, safe, and enjoyable as possible for the greatest number of people will position the City to reduce reliance on the car and advance our reputation as a biking destination. In addition to bikeways, the City will need to continue to provide high quality bike parking, end-of-trip facilities, and an interesting streetscape.



Require the provision of bike parking/storage facilities in any new development in downtown and encourage existing property owners to do the same.



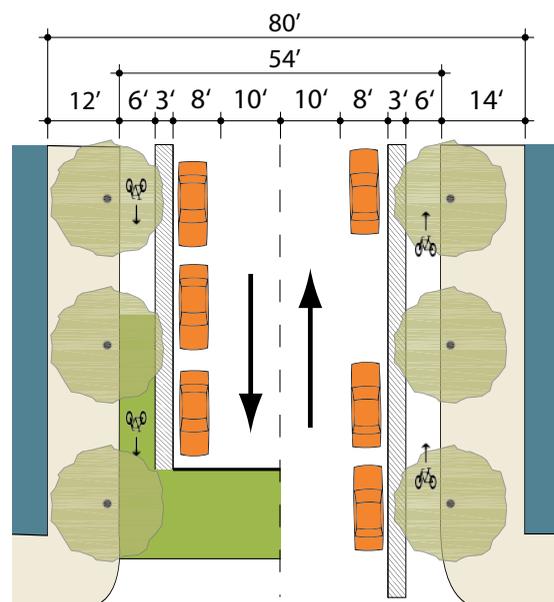
Planning & Zoning Department

## CYCLE TRACK *for the novice biker*



A cycle track is a dedicated lane reserved for bicycle travel that is protected from moving traffic by a physical barrier such as parked cars, bollards, curbs, or medians.

A cycle track is an exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. Cycle tracks are separated from vehicle travel lanes with a physical barrier. A buffer strip can also be integrated to protect cyclists from parked car doors. Cycle tracks can be either one-way or two-way, and on one or both sides of a street. Unlike a more standard bike lane, this design physically protects cyclist from vehicular traffic, which has the benefit of greatly improving rider comfort and safety. Cycle tracks have been shown to increase the number of cyclists by over 15%, especially among older populations and families who would not normally use an urban bike lane, and to decrease accident rates by up to 90%. Because cyclists are not riding directly in view of drivers, intersections must be carefully designed to ensure safe mixing of cyclists and drivers in advance of turning movements.



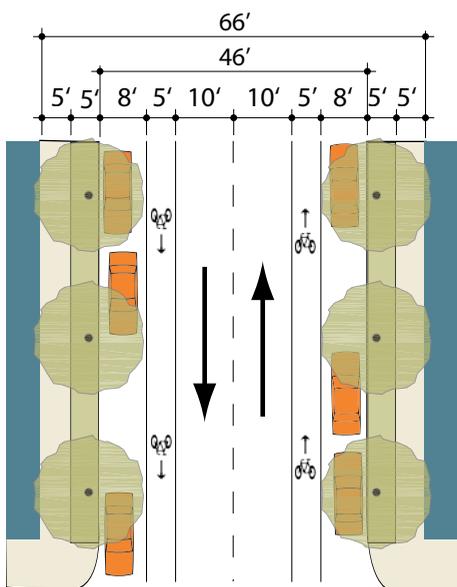
## BICYCLE LANE

for the confident biker



A bike lane is a dedicated lane reserved for bicycle travel within a vehicular thoroughfare. The bicycle lane is separated from vehicular travel lanes by a painted line or a striped buffer.

A bicycle lane is a portion of the roadway that has been dedicated for the exclusive use of bicycles and is typically located between the parking lane and the vehicular travel lane. Bikes can move in the same direction as vehicular traffic or in the opposite direction for a “contra-flow” lane. Bicycle lanes are usually one-way and should be on both sides of the street, though may be on only one side if space is severely constrained. Studies have shown that a simple white line is effective in channelizing both motorists and bicyclists. A striped buffer can also be added to provide additional demarcated space between the cyclist and moving traffic.



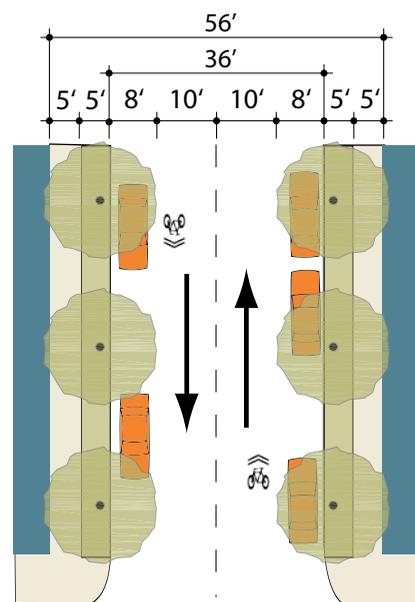
## SHARROW

for the experienced biker



A sharrow is a pavement marking applied to a roadway too narrow to accommodate a bicycle lane or cycle track, or on bike routes or bike boulevards with very slow vehicular target speeds.

A sharrow refers to the condition where cars and cyclists share the same travel lane. Sharrows are typically marked by a bicycle symbol with chevron, making it clear to drivers that the travel lane is a shared space and to expect cyclists. Even though the travel lane is shared, sharrows are typically marked on the right side of the lane away from hazards at the edge of the road such as drain gates and opening car doors. Sharrows are a solution for streets that are part of a continuous bicycle route but are too narrow for conventional bike lanes or cycle tracks. They also have the benefit of being relatively inexpensive to install.



# TRANSIT TIES IT ALL TOGETHER

**To a large extent, improvements to public transit service will play a vital role in the future success of Burlington and the region's economy, allowing for continued economic growth in a way that is consistent with many city policies such as reduced energy use, environmental protection, sustainable land use development, and reduced traffic congestion.**

For ridership to increase among Burlingtonians, more extensive and frequent transit service is needed. For many, and especially employees who don't have a 9am to 5pm work schedule, the most needed improvement is night and weekend service and higher frequency along primary routes. Convenience and ease of utilization are critical to increased ridership. The Chittenden County Transportation Authority's Transit Development Plan (TDP) provides a program for the expansion and enhancement of public transportation service in the county over a 10-year period, and beyond. Policy changes and increased support for public transit are necessary for the expansion of the regional network.

## **Downtown transit center:**

The number one obstacle and opportunity facing expanding public transit in the region is the lack of a high-quality downtown transit center. CCTA has identified a preferred location for the creation of a new "transit mall" that will significantly improve existing service and is critical to facilitating much-needed expansion.

## **How long 'till the next bus?**

They say "ignorance is bliss" but not so much when you are trying to catch a bus. Riders need up-to-date information about bus routes and schedules preferably available in a clean and bright shelter or better yet on a smart phone.

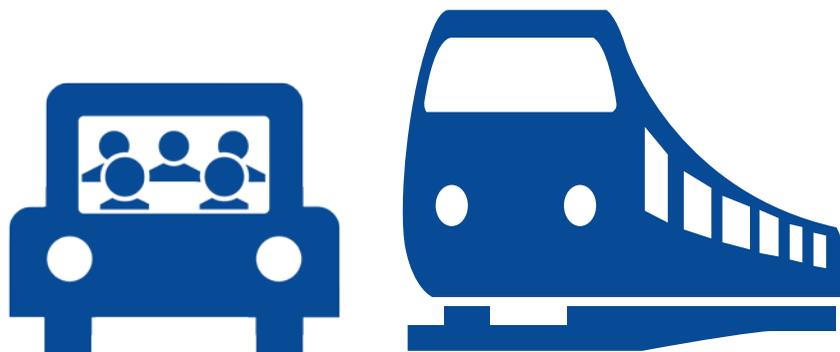
## **Getting there from here:**

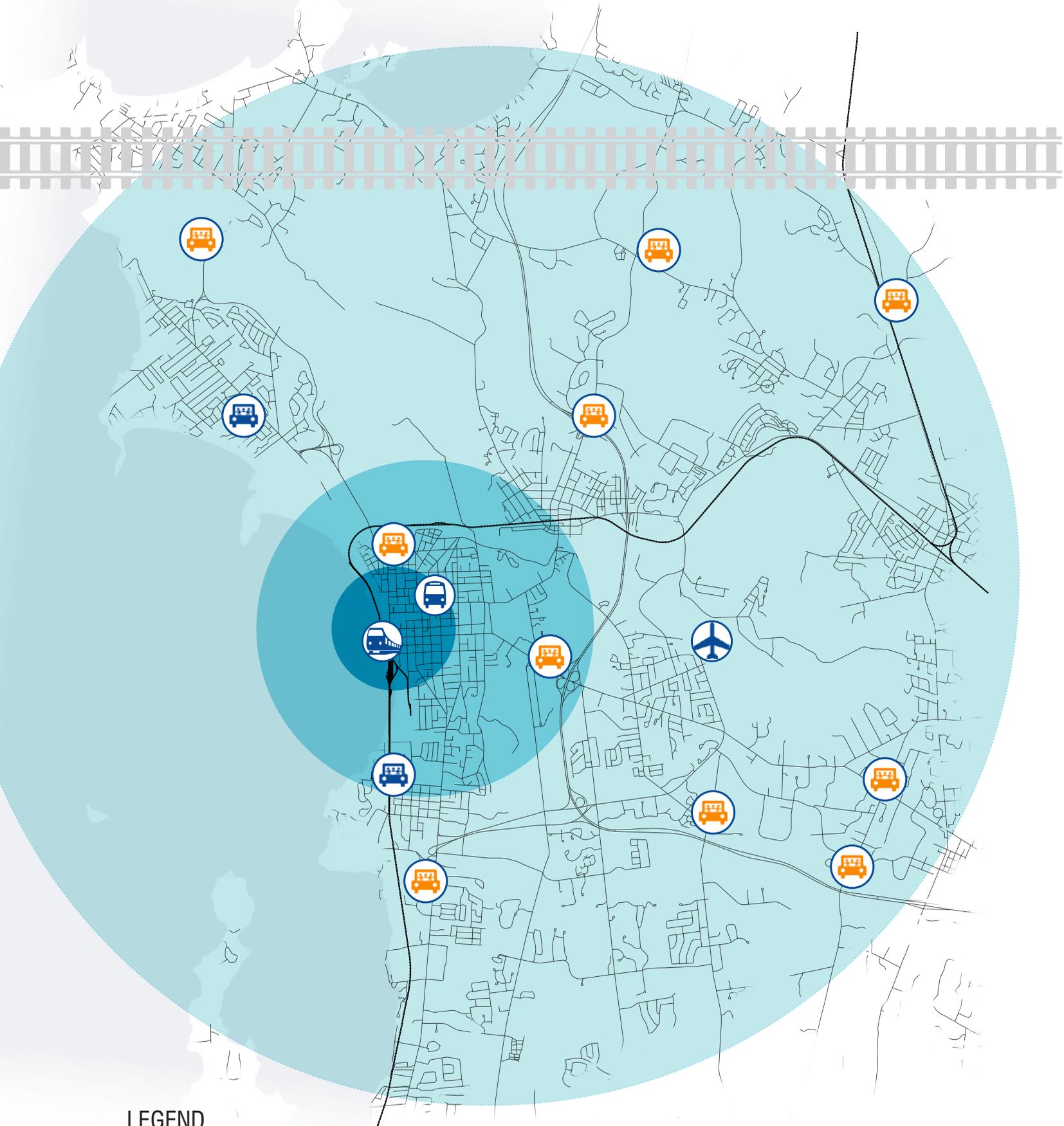
Our expanding regional transit system is connecting more people from more places every day. From inner-city loops to inter-city commuters, the need of a growing group of riders is making public transit a part of their daily lives. Building new connections to other communities, major employment centers, and commuter lots with higher frequency transit (especially nights and weekends) is key to our future success.

## **Planes, trains, and transit:**

From an Amtrak Station on the waterfront with service to New York and Montreal, to an international airport just outside of town, you can go as far as your imagination (and pocketbook) can take you! Regular and frequent transit service connecting the downtown and the rest of the region can make living, working, or even visiting Burlington car-free a breeze.

**Commuter lots locations shown on the map on page 81 are from the Chittenden County Park & Ride and Intercept Facilities Plan, June 2011.**





**LEGEND**

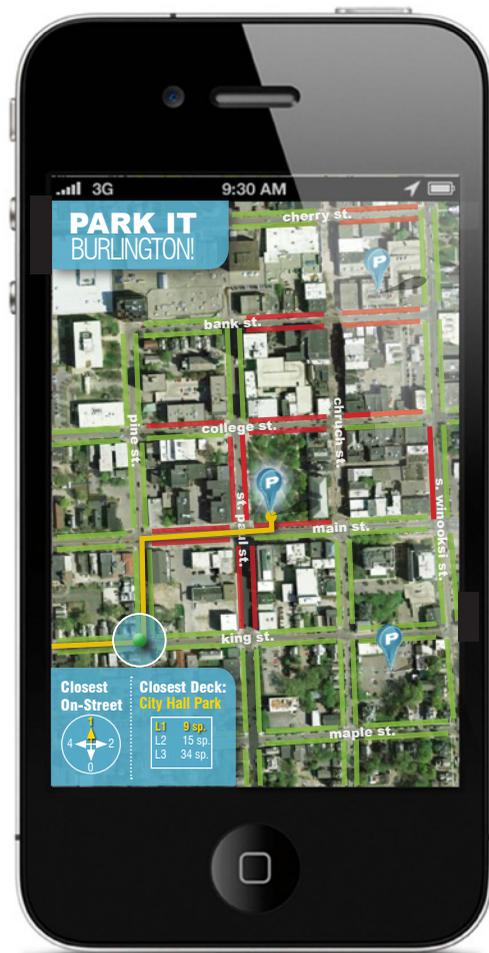
-  Train Station
-  Existing Commuter Lots
-  Airport
-  Downtown Transit Center
-  Proposed Commuter Lots
-  Parkers walk to destination
-  Parking lots served by high frequency shuttles
-  Park & Ride Lots served by commuter bus service

# PARK IT! BURLINGTON

## COMPREHENSIVE PARKING MANAGEMENT PROGRAM

The Comprehensive Parking Management Program is based on FIVE key themes of demand, supply, location, time & pricing, and user experience. This strategy brings to bear parking know-how, based on timeless principles of human behavior, to the latest in cutting-edge technological advancements.

- SUPPLY ①
- DEMAND ②
- LOCATION ③
- TIME & PRICE ④
- USER EXPERIENCE ⑤



A **Park It!** Smart Phone app could show the real-time location of parking and its current price, and allow payments to be made directly from the app.



# SUPPLY

We already know that the existing parking isn't being used to its full potential. Finding inefficiencies in all parking facilities can optimize our use of the existing supply. Yet building some additional parking facilities will still be necessary for Burlington to grow in a smart and efficient way.

## PARKING AREA OPTIMIZATION & DESIGN

Existing parking areas, both on- and off-street, should be closely examined for inefficiencies, and redesigned and restriped accordingly. On street parking layout and striping should be evaluated and any additional room for new spaces should be captured, ensuring no net loss of on-street parking where possible. One design approach that should be implemented is "Back-in/Head-out Angle Parking." Instead of driving forward into an angled parking space, the driver backs in so they are facing out. Dozens of communities across North America have found this to be far safer for motorists, pedestrians and cyclists than the traditional head-in/back-out design. Finally, parking specifically for motorcycles, scooters and bicycles need to be added throughout the downtown and waterfront. It's important that the City supports and facilitates their use, but at the same time ensures that parking spaces for motorcycles, scooters and bicycles are used efficiently given that they don't need the same amount of space as a car. Placing these spaces at the end of a parking block where drivers can see over them could also help with sight distance at intersections for more safety.

## BUILDING NEW PARKING FACILITIES

Despite the current parking surplus and efforts to reduce parking demand, building new parking facilities in Burlington will still be necessary. The redevelopment of surface lots will both reduce supply and add significantly more demand over time. While overall demand is lower than optimal, there are parts of the downtown that are underserved. This master plan illustrates a number of locations where new parking garages could be located (see the Connectivity and Around the Plan sections). In all cases, any new facilities should be wrapped with mixed-use buildings to screen the parking and activate the street. Garages should incorporate smart-parking technologies to maximize their efficiency and ease of use, and should also accommodate space for bike lockers, motorcycles and scooters, which consume less space. Finally, the City will never have the resources to do this alone. There are opportunities for the private sector, or even public-private partnerships, to step in and help build future parking facilities.

## COMPREHENSIVE PARKING MANAGEMENT

Though the Marketplace Garage can get very busy, city parking facilities are going underutilized even during some of the busiest days. However, there are a number of strategies that can be employed to help customers navigate to vacancies in other facilities and expand their use. Some of these include wayfinding and smart technologies discussed elsewhere in this section. Additionally, there are an abundance of private parking lots that sit underutilized yet are not available to the public, particularly on holidays, nights, and weekends. A comprehensive approach to parking management could open up some of these private spaces to other users, generating new revenues for property owners who are interested in participating. A "parking broker" could manage available spaces on behalf of private owners, matching available spaces with new and expanding businesses, coordinating around special events, and possibly even opening up spaces during posted hours to the general public. A limited example of this type of activity already occurs during the holidays, so why not try to expand it to other times of the year? This is a real and immediate opportunity for a public/ private partnership, possibly working in partnership with the expanded Business Improvement District who could play a key role in the overall management of downtown parking facilities.



Identify priority locations and funding for new parking garages.



CEDO  
Planning &  
Zoning  
Department



Create a public-private partnership to: develop new parking facilities; provide parking brokerage services and facilitating sharing of parking facilities among downtown businesses and provide other parking and transportation management services; and maximize efficiency of parking areas, including City-owned spaces.



CEDO  
Church Street  
Marketplace



Redesign areas of angled parking on-street and in parking garages to back-in/ head-out where appropriate.



Department of  
Public Works



# DEMAND

**Building more parking is extremely costly and can take many years to see results. Therefore, managing the parking resources that we already have more efficiently must be our immediate priority to mitigate and/or reduce demand as much as possible.**

## CONVENIENT CHOICES

Currently, being car-free in downtown Burlington requires a level of sacrifice, creativity, and determination that can stifle even the most planet-loving citizen. In order to facilitate choices that reduce the need for parking and make it more affordable for a greater number of people to live and work downtown, all other modes of transportation must be improved. Every day we make transportation decisions based on what is going to be most convenient. If we want people to leave their car at home, or forego car ownership altogether, we MUST offer a suite of transportation choices that are convenient, attractive, and affordable. This includes safe and interesting streets for walking, enhanced and continuous bike routes, additional car sharing opportunities, and transit that is predictable, frequent, and is convenient. Neither buses nor bikes alone will ever be dominant enough to take a big bite out of our transportation and parking demand. However, as demonstrated in many other communities around the country, Burlington can effectively reduce and manage demand with greater success by pursuing multiple approaches that enhance transportation choices.

## FOCUS ON DOWNTOWN HOUSING

Reducing demand for parking begins with encouraging compact mixed use development, making it possible for more people to live close enough to work that they can commute by transit, foot, or bike. When people can live within walking distance of work, services, and entertainment, households can reduce or forego car ownership or participate in a car share program. To facilitate this goal, the master plan includes numerous recommendations and opportunities to create additional housing in the downtown and waterfront.

## CHOICES FOR EMPLOYEES

Burlington is fortunate to already have a host of commuting alternatives. One of the biggest challenges, however, is a lack of clear and easy ways to find information about the choices and how to access them. The Campus Area Transportation Management Association (CATMA), which serves 10,500 employees at UVM, Fletcher Allen, and Champlain College, is an organization that is successfully providing information about commuting choices and offering strong incentives, including unlimited transit access, bike/walk rewards, and emergency rides home. With more than 12,000 employees working within a half-mile of the corner of Church Street and Main Street, Burlington's downtown and waterfront would greatly benefit from a similar program that could offer cost-effective and convenient alternatives to employees, thereby helping to reduce parking demand and freeing valuable spaces for visitors and customers. Choosing to take the bus, carpool, or bike just one day a week provides a 20% reduction in an individual's demand. An expanded Business Improvement District could play a key role in creating and managing an effective transportation demand management program for downtown businesses and property owners.

## ELIMINATE PARKING REQUIREMENTS

The cost of land in Burlington's downtown and waterfront is among the highest in the state, so each parking space required for new development (\$25-30,000 if built in a structure) adds a significant cost that ultimately must be borne by future residents and tenants. By eliminating parking requirements in the zoning ordinance, each new development can determine exactly how much parking is needed, without wasting land and resources on parking spaces by finding more creative ways to meet resident or worker needs. By reducing the amount of land dedicated to parking spaces and encouraging redevelopment of existing parking lots, Burlington can make more efficient use of precious urban land for activities more affordable, economically viable, and dynamic than car storage.

## CREATE GREAT PLACES

The more inviting and interesting the public realm, the more likely people are to walk instead of drive, when given a choice. Through the use of exceptional urban design and the implementation of complete street standards, Burlington can make its streets more safe and beautiful, and encourage more people to get out of their cars and instead travel by foot or bike. Strategies for improving the public realm include encouraging redevelopment and infill to generate greater street life and improve the pedestrian experience, building wider sidewalks where possible, planting street trees, and installing benches, quality lighting, and better pedestrian crossings.





Work closely with CCTA to expand transit service by implementing their Transit Development Plan and constructing a new downtown transit center.



Department of Public Works



Work with Local Motion and the Burlington Walk Bike Council to improve the quality of the network and experience for pedestrians and cyclists.



Department of Public Works



Work closely with developers to find innovative ways to manage their parking needs.



CEDO



Update the zoning regulations to eliminate the off-street parking required with new development.



Department of Planning & Zoning



Develop zoning regulations that: support infill and emphasize active uses at the street level; the creation of a dynamic and engaging streetscape; and encourage, and facilitate the building of more diverse housing downtown, while reducing any existing barriers.



Department of Planning & Zoning



Partner with downtown and waterfront employers to create an alternative commuting education and incentive program for employees.



CEDO

Church Street Marketplace



Continue to implement the Complete Streets Design Guidelines adopted as part of the 2011 Transportation Plan.



Department of Public Works



## LOCATION

Even if all of our demand reduction measures are successful, the automobile will still be the primary mode of travel to and through the downtown for the foreseeable future. Strategies that focus on where people are parking should be implemented. All efforts should emphasize a better balance of parking supply away from the core of the downtown.

### PARKING ON RESIDENTIAL STREETS

Commuters are typically parking at times when residents are at work, while residents need the parking at night when commuters have gone home. There is an opportunity for the City to re-define its residential parking system to limit the total number of permits issued along residential streets and to make those permits good for evening and night hours rather than during the day. With a time-sensitive permit system like this, commuters and shoppers can both use residential streets for parking when they need it most.



## REMOTE PARKING WITH SHUTTLES

Parking should be developed on the periphery of the downtown and waterfront so that cars don't have to enter the most congested part of the city, leaving valuable real estate available for more pedestrian-supportive activity and redevelopment. This is especially true on the waterfront where parking should be provided primarily upland of Battery Street. With the creation of more remote lots at major access points to the city, or even throughout the region, drivers can park outside of the city and take a shuttle or CCTA bus downtown. Burlington is currently looking into the feasibility of an intermodal transit and parking facility at Exit 14 in South Burlington and another site in the southern approach to the City, adding to the menu of choices available to commuters. The monthly price to the commuter, including the bus ride, could be much cheaper than monthly parking rates downtown, encouraging at least some commuters not to drive all the way.

## SHARED PARKING

Shared parking allows nearby property owners to share a common parking facility, rather than maintaining two separate facilities. This also allows for more efficient parking lot design for adjoining lots and makes better use of the aggregate spaces that are available. Since uses that share the spaces may have peak parking demands that differ by time of day, fewer total parking spaces are typically needed. Shared parking also has the advantage of improving development feasibility, helps increase densities, and promotes mixed-use and pedestrian activity.

-  Create a public-private partnership to facilitate sharing between private and public parking spaces to maximize efficiency.  CEDO  
Church Street Market Place
-  Identify key parking locations on the City's Official Map to ensure an opportunity to consider the development of parking on these sites.  Department of Planning & Zoning
-  Work with owners of key parking locations on the periphery of the downtown and waterfront to develop shared parking facilities.  CEDO
-  Implement the regional park and ride plan.  Department of Public Works  
Chittenden County RPC



## TIME & PRICE

**The duration of a car's stay is a key element in the success of any parking management strategy. Time limits are put in place to regulate the turnover of spaces in the system. In some cases a faster turnover is desirable and in other contexts all day parking is appropriate. The price of parking goes hand in hand with time limits and should respond to supply and demand. Parking prices should be managed in such a way that the cost is higher for premium parking areas and lower in less desirable areas.**

### TIERED TIME LIMIT REGIME

In order to maximize the use of available off-street parking spaces, a tiered time limit system should be created that shares parking between user groups with different demand times. For example, in some areas, parking spaces with a 10-hour time limit could be utilized by office workers, with these same spaces made available for patrons of restaurants and bars who would arrive at the end of the work day. The same could be done in private lots where leases could be structured for business days, nights, and weekends, or 24/7 use, and priced accordingly. In such cases, parking tenants who don't need a space on nights or weekends don't have to pay for those times, making the spaces available for another paying customer. The system would need to be carefully customized to balance the specific user groups that exist in proximity within downtown Burlington.

### UNBUNDLING PARKING

The cost of parking is typically embedded in residential purchases and rentals, so residents often don't realize the true cost of using valuable land for parking (\$25,000 to \$40,000 to develop each structured space in downtown Burlington). With unbundled parking, residents buy or rent each parking space separately from the residential unit, helping to reveal the true cost of storing each car. Tying together cost and choice is one of the most effective means of reducing overall parking demand, since many residents will opt to give up their vehicle and use transit over paying extra for a parking space. Eliminating parking requirements in the zoning ordinance is the best way to enable this, allowing parking to become a commodity, with developers free to build as many or as few parking spaces as they believe consumers will be willing to purchase.

## PRICE-BASED REGULATION

Industry standard says that an optimal parking occupancy rate is 85%. According to the Phase 1 Parking Study, there aren't any zones within downtown Burlington that have an occupancy rate higher than 77%, whether on street, surface lots, or parking garages. Parking occupancy should be monitored on a regular basis to identify areas where parking utilization is highest and opportunities for different management strategies may present themselves. The following strategies can be deployed independently or as part of a more comprehensive pricing system.

**Geographical Pricing:** The development of a successful on-street parking management system relies upon the development of a coordinated and comprehensive system that prioritizes parking spaces based on convenience and proximity to popular destinations. Just like any business sells their most desirable goods and services at a premium price, the most convenient and prized parking spots—usually on-street parking near popular destinations—should be priced in the same way. When determining the market rate for an on-street parking space, prices should be set so that, at any given time, only 6 or 7 spaces out of every 8 spaces are occupied on a given block. If all of the spaces on that block stay occupied, the price is too low. The highest hourly rates should be assigned to areas around Church Street, Main Street, City Hall, and the Waterfront, with progressively lower rates as the distance from these areas increases.

**Time of Day Pricing:** A variable pricing strategy can also be employed that varies prices based on time of day, with higher at peak times for parking demand. By using real-time space availability sensors for both on- and off-street parking, as well as networked meters, demand can be determined immediately, with automatic price adjustments showing on meters across the system.

**Length of Stay Pricing:** Price can also be based on the duration of a visit so that each successive hour is more expensive than the last. By charging a higher hourly meter rate for each additional hour, short-term parking is encouraged and turnover increases, while providing flexibility and convenience to users. Typically this strategy has no time limit set - it simply relies on the escalating cost as an incentive for turnover, making it ideal for retail streets, where parking turnover equals sales.

## ULTRA-SHORT TERM PARKING

In order to facilitate fast turn over of on-street parking spaces particularly in front of retail storefronts, some amount of ultra-short term parking should be provided. In some cases a “first 15 minutes is free” program could be implemented in which a button on the meter is pressed to provide 15 minutes of free parking without inserting any form of payment. This program could be available for all on-street parking spaces within the downtown core to promote high turnover of on-street spaces.

- 

Install smart parking meters that can measure usage and be easily programmed for different times and rates in surface lots, on-street, and in parking garages.



Department of Public Works
- 

Regularly conduct parking utilization studies to understand how the parking resources are being used and identify opportunities for different management strategies.



Department of Public Works
- 

Update the zoning regulations to eliminate the off-street parking required for new development and include incentives for developers to unbundle parking.



Planning & Zoning Department
- 

Create a public-private partnership to provide parking brokerage services and facilitate sharing of parking facilities among downtown businesses.



CEDO  
Church Street Marketplace

MR. T IN DC





# USER EXPERIENCE

Last but certainly not least, the parking experience for the customer needs to be convenient and inviting. All parking needs to be easy to find, convenient to use, clean, and well-maintained. The highest quality customer service and experience is necessary if people are going to come to Burlington and use the range of parking options.

## SMART TECHNOLOGY

Real-time space availability sensors, networked meters, and other technological advancements in parking management make the user experience more enjoyable, reduce traffic, increase business and parking revenues, simplify the process of adjusting prices, and can maintain data about ongoing utilization. Smart parking meters that accept credit cards or cell phone payment should be deployed throughout the Downtown and Waterfront. Advancements in meter technology such as solar power and smart networking should be strongly considered. Pay-by-Space meters should be considered for surface lots and parking garages, offering an advantage over Pay-and-Display parking in that the consumer does not have to walk back to their vehicle to display a permit on their dashboard. Pay-by-Space is ideal for large lots where a limited number of meters can be placed at strategic locations. The City could also consider advanced wayfinding that links smart networking with a Parking App for smart phones and tablets that shows the real time location of available parking and its current price, as well as allowing payments directly from the app. This app could be integrated with a Park It Burlington! web page. The Smart Technology should begin with on-street smart meters at high occupancy locations near Church Street, on the waterfront, and in parking garages. Surface lots should then be fitted with Pay-and-Display starting with lots adjacent to Main Street, the Library, YMCA, Waterfront Park, Browns Ct, the Fishing Pier, Moran Center, and Elmwood.

## ALLEY, PARKING GARAGE, AND LOT ENTRANCES

Entrances to off-street parking facilities should be designed as gateways with a consistent aesthetic, in the same way transit stops are often designed so they are easily identified and located. Often there are circumstances that require garage or surface lot entrances to be one way. When this occurs the “No Entrance” signs alerting drivers of this should have directions to the closest garage or lot entrance.

## WAYFINDING

Parking wayfinding signage is already in the works in an effort to create a consistent, clear, and helpful system that helps people find parking lots and garages. In addition, the wayfinding signage will indicate when a parking garage is full and direct drivers to nearby garages. In addition to the more formal wayfinding signage, complementary signage could be created by local artists using forms such as classic mural, painted wall signs, or other context appropriate applications.

## SAFE, CLEAN, AND WELCOMING

Just like in any business operation, customer service is the name of the game. Parking should be no different. If customers don't feel safe, they simply won't use the parking. All parking facilities, but especially structures, MUST be clean, well lit and maintained, and attractive. Some operators even offer additional premium services like valet parking, washing, and detailing. Many lessons can be learned from retailers whose business can live and die depending on the level of customer service. This is another example where an expanded Business Improvement District could play a key role in the overall management of downtown parking facilities.



Update the zoning regulations to provide design guidance.



Planning & Zoning Department



Complement the wayfinding signage with an illustrative plan that shows the location of all parking lots and garages in the Downtown and Waterfront and the pedestrian connectivity from them to other key locations in the City.



Department of Public Works



Create a public-private partnership to maintain and operate downtown and waterfront parking facilities to the highest quality customer service standards.



CEDO Church Street Marketplace



Install smart parking meters in surface lots, on-street and in parking garages that can measure usage and be easily programmed for different times and rates.



Department of Public Works

# THE GREEN MACHINE

*a living machine sustainable stormwater concept*

**Through the use of urban design, landscape architecture, and civil engineering the City of Burlington has the opportunity to greatly advance its existing sustainable stormwater management. This concept uses an intricate interconnected system of civic spaces designed to collect, temporarily store and treat stormwater runoff. We are calling this system the GREEN MACHINE.**

Burlington, like many cities around the world that have the good fortune of being situated on a body of water, has begun the transformation of the once industrial and polluted waterfront into an exciting and important source of civic pride and economic vitality. However, the water's edge is a sensitive and easily polluted transitional zone that must be treated in a thoughtful manner to minimize the impacts that Burlingtonians have on this precious resource.

## STATE OF THE ART STORMWATER SYSTEM

Burlington has the opportunity to set into motion what can become a model for waterfront sustainable stormwater management. Because the concept of sustainable stormwater management has only been accepted as an integral part of municipal stormwater systems in the past few decades the municipal applications of these tools are limited to, for the most part, retrofit applications at small scales. Because the Burlington waterfront was industrialized for so long and underutilized for development and recreation, it has the potential to become an extension of the city's natural and organic growth. Because of this delayed expansion, Burlington can take a holistic approach to growth in this district and include sustainable stormwater techniques in a way that most cities around the world do not have the opportunity to do.

## COMPREHENSIVE GREEN STORMWATER PLAN

Looking holistically at how Burlington handles stormwater at the waterfront, where soils are sandy and very conducive to stormwater infiltration, allows a comprehensive stormwater plan with a twist. Instead of looking at sustainable stormwater techniques as a supplement to the conventional system, Burlington could use sustainable techniques as the first line of defense during storm events — the conventional system would be there for backup. The system is conceived to integrate

sustainable stormwater strategies in the downtown, as space allows. In this area volume control is the primary concern. Any runoff that is not captured before it travels over the slope beyond Battery Street will be dealt with in new development and civic spaces in the waterfront district where the primary focus is on treatment. Existing civic space in the downtown such as parks plazas and streets, including Church Street, could be converted into part of the sustainable stormwater system.

## CIVIC SPACE & STORMWATER MANAGEMENT

While handling the runoff is the primary function of the system, because it has been designed simultaneously with this master plan, it is possible to ensure that each element of the system fits the context in which it is located and adds to the overall urban experience. All of the waterfronts civic spaces are designed to be active and vital places where citizens and visitors can enjoy all types of recreation, entertainment and retail experiences without realizing they are standing in a very advanced stormwater system.

This map illustrates the layout of the comprehensive strategies contained in the **GREEN MACHINE** concept. Each of these techniques is described in more detail on the following pages.



## LEGEND

- HABITAT PRESERVE/  
RESTORATION
- RAIN GARDEN
- BIOSWALE
- PARK
- KINETIC PLAYGROUND
- STAIRCASE CASCADE
- GREEN ROOF
- GREEN PLAZA
- PERVIOUS PARKING
- GREEN BIKE PATH
- GREEN STREETS
- WATER FLOW

# 1

## GREEN STREETS

A green street is a thoroughfare that manages runoff at its source by incorporating a series of vegetated infiltration techniques to capture, temporarily store, and treat road runoff. They can be new streets or a retrofit of an existing thoroughfare. In cases of new road construction, the full range of techniques may be applied. This includes components such as flow-through planters and other sustainable stormwater solutions that allow stormwater from the street to enter planters through cuts in the curb. From there, the street trees and water-loving plant material removes impurities and allows water to naturally infiltrate or be stored elsewhere. Additional infiltration can be achieved through the use of pervious paving materials for sidewalks and streets.

### Shade Tree

Captures rain, filters air, provides shade

### Flow Through Stormwater Infiltration Planter and/or SilvaCell System

Stores and filters collected road runoff

### Overflow Drain

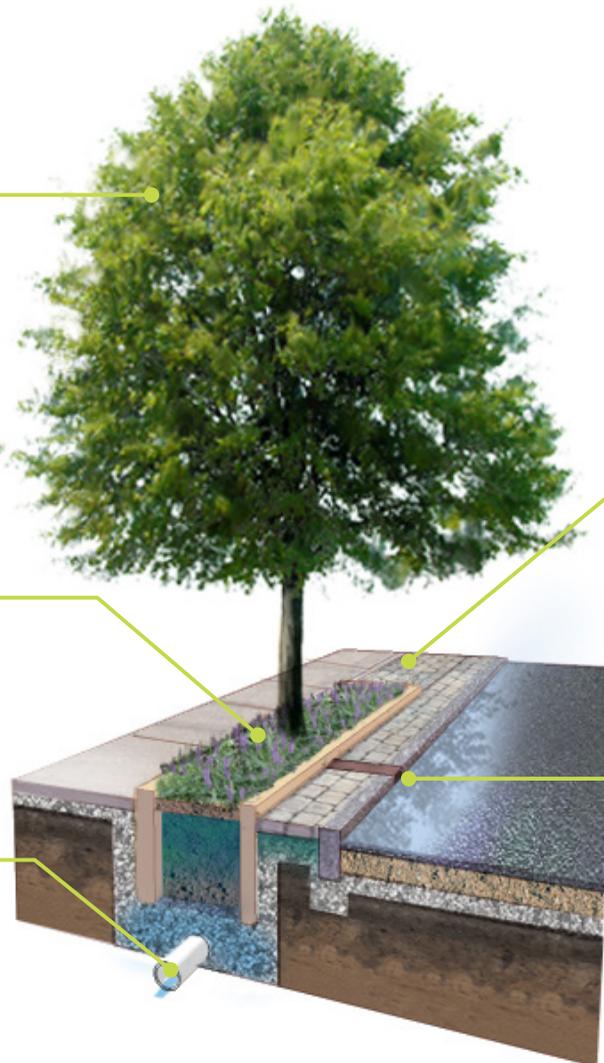
Transfers overflow to adjacent treatment practices

### Pavers

Enhance permeability of sidewalk

### Curb Opening Inlet

Captures road runoff



# 2

## GREEN BIKE PATH

Because bike paths are often adjacent to and link open spaces throughout a city, there are opportunities for them to become a Green Bike Path that is a part of a sustainable stormwater system. A green bike path is a system to utilize the linear form of a path to direct

the stormwater runoff flows to the various elements of a sustainable stormwater system. The paving material, if any, could be pervious to allow some infiltration along its surface but an adjacent filter strip is also recommended.

# 3

## RAIN GARDENS

A rain garden, also known as a vegetated infiltration basin, is a constructed or naturally occurring low spot in the landscape in which stormwater is collected and stored temporarily until it infiltrates the ground. Rain gardens can be designed for recreation as well as serving their stormwater infiltration function. As a recreational civic space, they work well because they store rainwater during a storm event and shortly thereafter when people are not usually playing in parks. After the water percolates they are available as a park again. With some adaptation, rain gardens can be located in all settings, from the most rural to the most urban locations.

# 5

## INFILTRATION PARKS

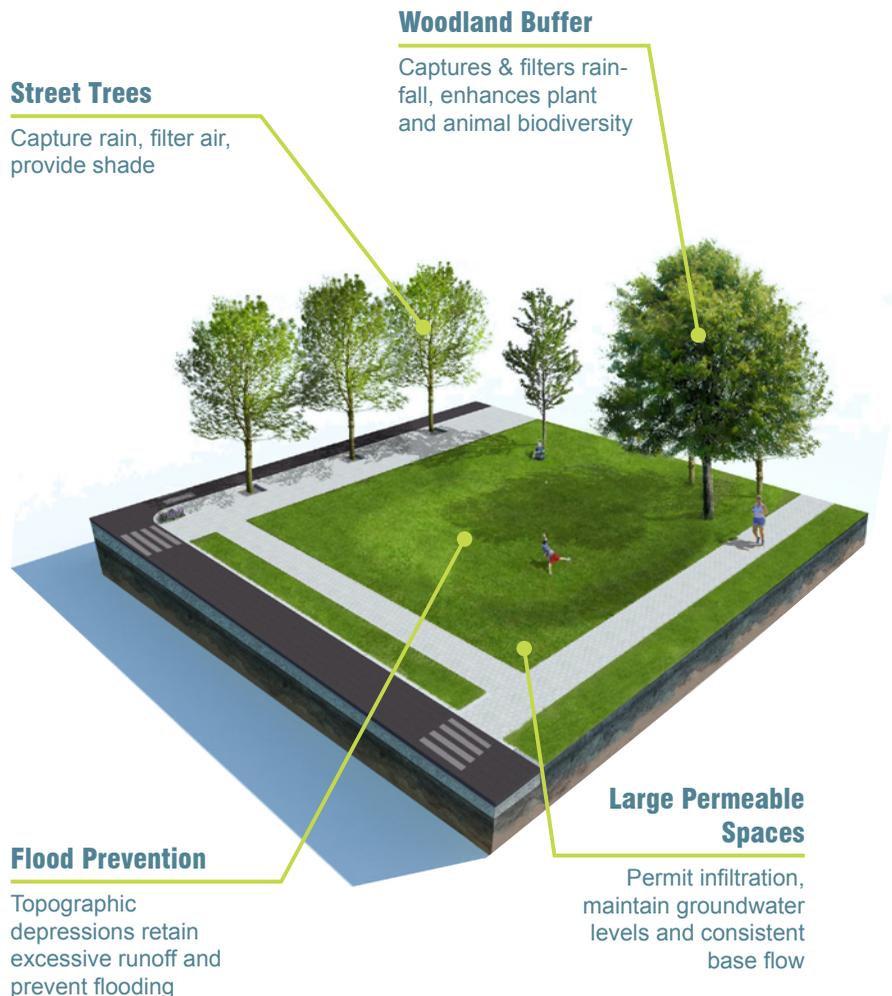
While rain water naturally percolates through the ground in a park a few changes in design and construction can allow them to capture, store for a short time and clean stormwater runoff.

Thinking about the park as a part of the stormwater system is crucial. Surrounding areas can be graded so that the rain water flows towards the parks. Breaks in the curbing along the street allow the water to reach the grassy surface of the park. Creating a gradual and imperceptible depression allows water to collect in the park and stay there long enough to infiltrate. In the end it is important that the park does not appear as stormwater facility.

# 4

## BIOSWALES

A more utilitarian solution that utilizes the same concept of short term storage and infiltration is the bioswale. Bioswales are linear depressions with gently sloping sides, planted with vegetation. They treat stormwater runoff from rooftops, streets, and parking lots by slowing and filtering it as it passes through, then channeling any excess water to the storm sewer. The naturalistic aesthetic of the plantings make them an excellent solution for rural and suburban applications and their use in urban settings must be carefully considered so as not to create an anomaly in the character of the area.

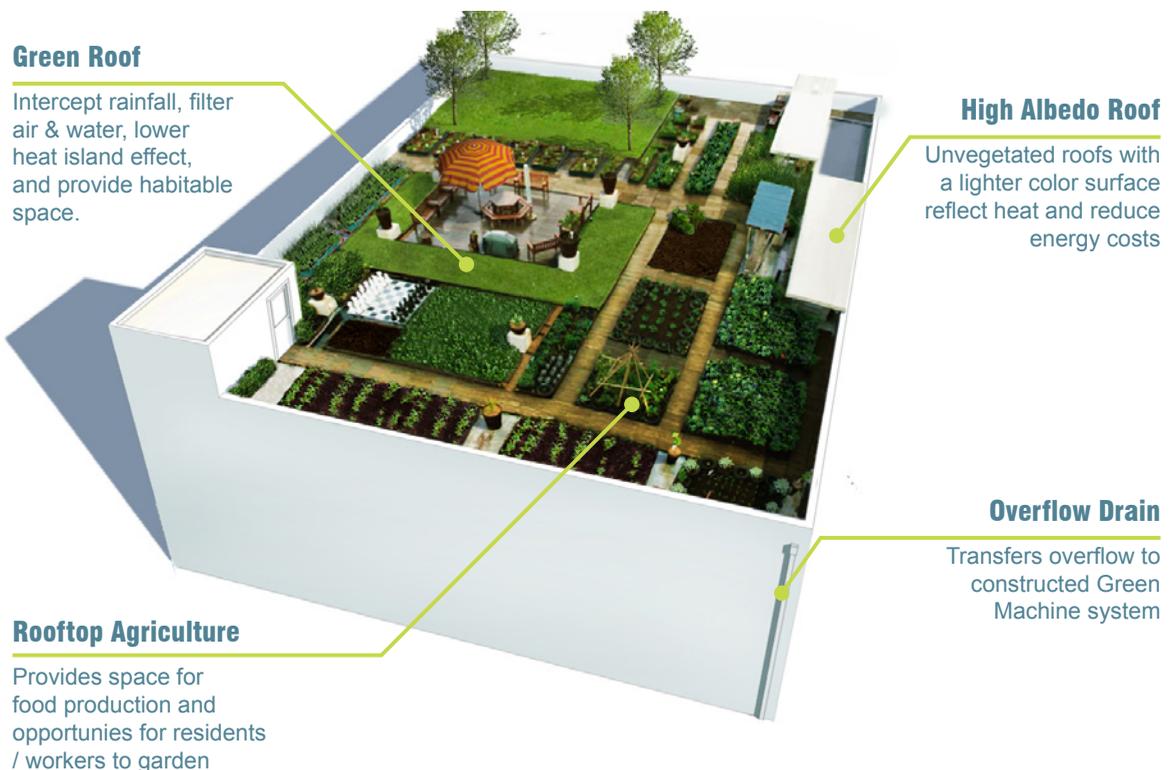


# 6 GREEN WALLS

Green walls are essentially a living, and therefore self-regenerating, cladding system that uses climbing plants. While climbers have been traditionally used on buildings for centuries, modern methods often times involve high-tensile steel cables, enabling the more adventurous use of plants. Green walls can dramatically reduce the maximum temperatures of a building by shading walls from the sun. Evergreen climbers provide winter insulation by maintaining a pillow of air between the plant and the wall and reducing wind chill on the wall surface, resulting in reduction of the heat island index. Other well-known public benefits are the reduction of noise levels, the absorption of CO2 emissions, and the breakdown of a variety of air pollutants, not to mention that these green walls can look very appealing and enhance the architecture of a building.

# 7 GREEN ROOFS

Green roofs are waterproof, vegetative roofing systems in which a root barrier, drainage system, light weight planting medium and plants are layered on top of an impermeable membrane. They can be as simple as a shallow layer of low growing plants (“extensive”) or deeper and more complex combinations of grasses, shrubs and even trees (“intensive”). Either way, they serve to insulate the building, reduce heating and cooling costs, absorb heat from sunlight, and to limit solar heat reflection into the atmosphere which contributes to the phenomenon known as the “heat island effect”. Stormwater not used by the vegetation can enter and be stored in a collection system such as rain barrels or cisterns for later use. Green roofs are not only utilitarian; they can also be designed as an outdoor garden amenity and be used as part of an urban agriculture program to produce food for the building or others nearby.



# 8

## GREEN PLAZAS

Plazas are not often thought about as opportunities for stormwater infiltration but when well planned and designed correctly they can provide an excellent solution in an urban environment. The majority of the plaza is hardscaped with pervious pavers. Infiltration planters with shade trees and lawn areas are strategically located for maximum

pedestrian comfort and infiltration benefit. If necessary or desirable, a cistern can be located under the plaza and drainage channels can be integrated into the paving pattern to collect excess runoff and send it to the cistern for later use in irrigation, or to better regulate runoff during peak rain events.



# 9

## PERVIOUS PARKING LOTS

Conventional paved surfaces including roads, sidewalks and particularly parking lots utilize asphalt, concrete, gravel or tar surfaces that are all impervious. As a result of the paving material chosen and their lack of permeability, these surfaces tend to exacerbate stormwater runoff related issues. There have been many recent innovations in materials and pervious

pavement systems that are more permeable. These have been developed to allow water to infiltrate large and small-scale paved surfaces. In addition to the pervious paving, infiltration planters with shade trees should be applied in the parking field to further enhance the areas ability to manage and treat stormwater.

# 10

## HABITAT RESTORATION

While many of the great waterfronts in the world are urbanized, in Burlington there is an opportunity to incorporate functioning natural ecosystems as a part of the waterfront experience. There are locations, particularly in and around the Barge Canal site, to repair the damage inflicted during decades of industrialization. By constructing wetlands and restoring the natural systems, these areas can not only serve to attract wildlife but also become a part of the stormwater management system.

# 11

## RAINWATER HARVESTING

Rainwater harvesting is an ancient technique that is currently enjoying a revival in popularity due to ease of use and public interest in reducing consumption of treated water. Rainwater harvesting systems provide stormwater runoff containment while simultaneously providing an opportunity for the stored water to be used for irrigation, flushing toilets, washing clothes, pressure washing, or as purified drinking water. There would be a direct public benefit of removing gallons of water from our wastewater treatment plant, helping to reduce the occurrence of combined sewer overflow events during heavy rainfalls. In addition, rain harvesting can also save energy and reduce utility costs for property owners.

# 12

## STAIRWAY CASCADES

Incorporating stormwater treatment with beauty and delight, a staircase cascade can play a vital role in the conveyance of runoff in areas with substantial topographic changes. The stairs are gently sloped towards a series of parallel tiered infiltration planters. Because

of the slope, the high side of the staircase remains free for pedestrians to walk without much water underfoot. At the bottom of the staircase the knee wall of the stairs can extend further and be used to direct the continuance of the flow, if necessary.

### Sloped Stairs

Directs runoff towards the planters with a gentle slope and slows the runoff as it traverses the staircase

### Stormwater Infiltration Planters

Stores and filters collected road runoff

### Curb Opening Inlet

Captures road runoff and directs it into the infiltration planters



# **AROUND THE PLAN**

## **a long-term vision**

**There is nothing like an illustration to bring complex ideas to life. What follows are a collection of examples and drawings—some simple and others very bold—for how the urban design principles and “Big Ideas” discussed previously could actually come to life and what these ideas might look like. While little, if any, of the new development illustrated here will actually be built exactly as envisioned, taken collectively the following pages represent a strong and lasting vision for the future of Burlington’s downtown and waterfront—a vision that will have a positive impact on the economy, business climate, tax base, affordability, mobility, environment, and quality of life for the City long in to the future. What is particularly important is that all of these ideas for the built environment, economy, housing supply, and transportation system are considered together so that they can compliment and support each other and present a truly comprehensive vision for the future, one that reflects the ideas and input of hundreds of citizens, stakeholders, and City Departments, all of whom will play a critical role in turning this vision into a built reality.**

# CONCEPTUAL PLAN



*a big vision for a small city*

# AROUND THE BURLINGTON PLAN



MAIN STREET



CHURCH STREET



THE MALL



PEARL STREET



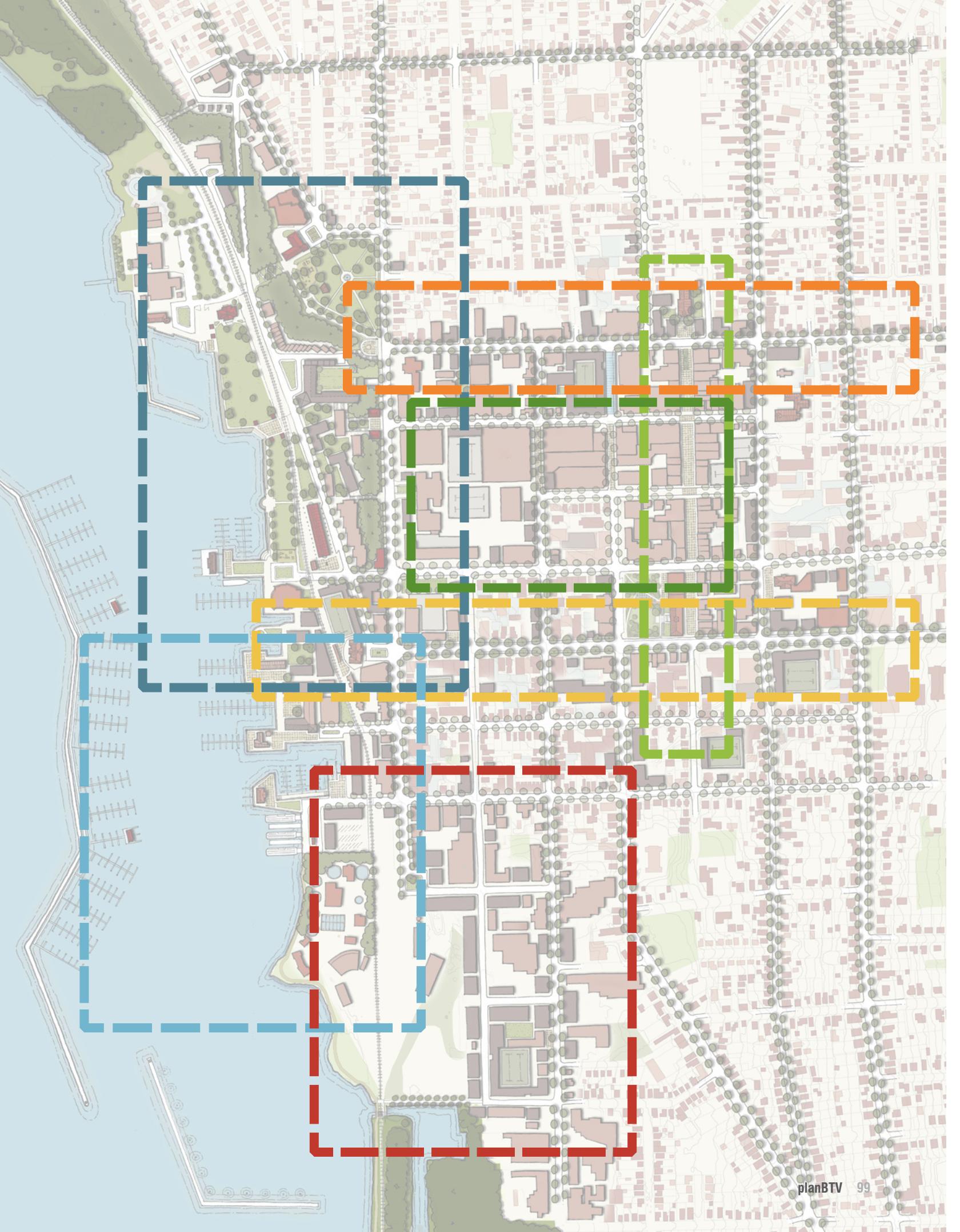
RAILYARD DISTRICT



NORTH WATERFRONT

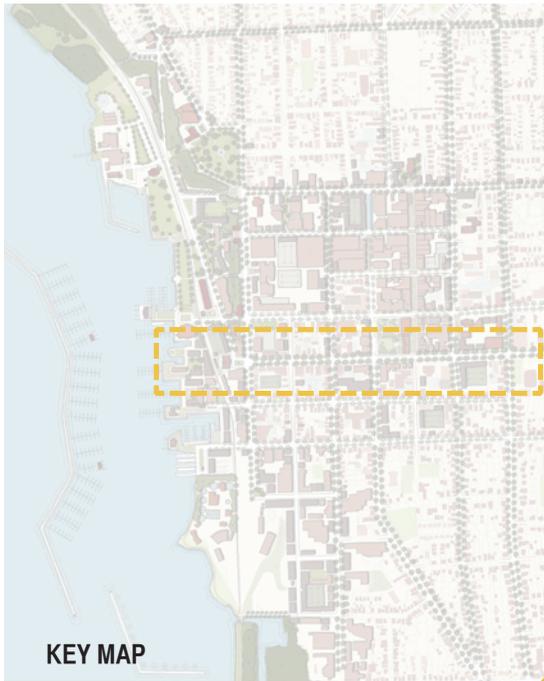


SOUTH WATERFRONT





# MAIN STREET



KEY MAP

## ELEMENTS OF THE PLAN

### 1 PASSENGER TRAIN STATION

Union Station's central location on Burlington's waterfront offers tremendous potential for the return of passenger rail, connecting the city with larger metropolitan areas to the north and south. A new civic square, with short-term parallel parking around its perimeter is proposed in front of the station.



Continue to pursue and advocate for Amtrak service on the western corridor at the state and federal level.



Mayor's Office

### 2 STREETScape IMPROVEMENTS

Main Street is a major connection between the Waterfront and Church Street. Infill of storefronts with active uses, as well as streetscape improvements, are needed to entice pedestrians to make their journey up and down the hill. Potential streetscape improvements include back in diagonal and parallel parking, green street standards (e.g. flow through planters), additional street trees, wayfinding signage, benches, public art, and cycle tracks.



Continue to implement the Complete Streets Design Guidelines adopted as part of the 2011 Transportation Plan.



Department of Public Works



Develop a comprehensive scoping/re-design for the entire Main Street corridor between the University and the waterfront.



Department of Public Works



Develop zoning regulations that emphasize building form, facilitate infill and activate the streetscape for pedestrians.



Planning & Zoning Department

**The Main Street Corridor encompasses the blocks along Main Street between Battery and Union Streets. It is an active mixed-use corridor and gateway for entering the downtown and accessing the Lake Champlain waterfront.**

Existing Buildings    Potential Buildings    Existing Civic Buildings    Potential Civic Buildings



### 3 CITY HALL PARK

The re-design of City Hall Park should ensure that this important civic space retains its park-like qualities while enhancing its ability to be activated with people, street vendors, events, sculpture, and outdoor dining. The park should serve as a central gathering space for the City, with connections and amenities that will draw people from Church Street towards the waterfront and vice versa. Spaces should be accessible and designed for safe active use and public events, as well as quiet contemplation and respite. The strategic location of the park is significant as an important transition point in the City, mediating between the East-West corridors of Main and College streets and the North-South corridor of Church Street. Its location helps to connect much of the downtown to Union Station and the Waterfront. While it may be impractical today, the park could someday sit on top of an underground parking structure, much like the Boston Common.

-  Fund and build the Imagine City Hall Park master plan.
-  Parks and Recreation Department
-  Burlington City Arts

### 4 MAIN STREET GATEWAY & MEMORIAL AUDITORIUM BLOCK

The re-development of the block at the intersection of Main Street and South Winooski Avenue will help to act as both an anchor and gateway to the downtown. A renovated and/or re-purposed Memorial Auditorium and possibly fire station would serve as a destination at the eastern end of the activated Main Street. The corner parcel could be transformed from a parking lot to a new mixed-use building with ground-floor retail, creating a more interesting and activated street to help encourage pedestrian activity. Upper floors could be used for offices, apartments, or student housing. The same type of redevelopment could also occur on the south-east corner to strengthen the entire intersection.

-  City should initiate a redevelopment study of this entire block, identifying physical obstacles and constraints, as well as potential uses/activities.
-  CEDO

### 5 PARKING GARAGE AT PERIPHERY

The plan shows a potential location for a parking garage that could serve Church Street and future demand generated by the redevelopment of the City's Memorial Auditorium Block. Parking in locations like this, on the periphery of the downtown, will help to reduce traffic congestion and the amount of space dedicated to parking within the core of the retail district. A potential new parking structure in this general location would replace existing surface parking lots, opening up opportunities for more infill development of underutilized lots. Another nearby opportunity for a new parking facility could be at the Edmunds School, where proposals have been made for a parking structure to be built under the current playfield.

-  Implement the regional park and ride plan.
-  Evaluate the feasibility of building a new structured parking garage on either side of Main Street at Winooski Avenue, as well as on the Edmunds School Property.
-  Chittenden County Regional Planning Commission
-  Department of Public Works



# MAIN STREET

EXISTING



POTENTIAL



4 STORIES



7 STORIES

## MAIN STREET GATEWAY AND MEMORIAL AUDITORIUM BLOCK

This rendering shows a view of the City-owned Memorial Auditorium block at the corner of Main Street and South Winooski Avenue. The illustration shows the rehabilitated historic fire station and the preserved auditorium. Both of these buildings could be retrofitted for housing, restaurants, and other compatible uses that would re-invent these beautiful historic resources and help revitalize this critical gateway into the City. The corner lot, which is now a surface parking lot is developed with a mixed-use building that can accommodate ground floor retail and a mix of uses on the upper floors.

## MAIN STREET REVAMP

This image shows a potential redesign for the Main Street corridor, to establish a stronger connection from Church Street to the Waterfront. The vehicular travel lanes are narrowed to accommodate for a protected bike lane that is located between the parked cars and the sidewalk. Back in parking is shown here, which provides greater pedestrian and driver safety. The pedestrian experience is improved with wider sidewalks, public art, flags representing the many cultures present in Burlington, and enhanced vegetation. Flow through planters provide additional greenery and help to treat stormwater closer to the source.



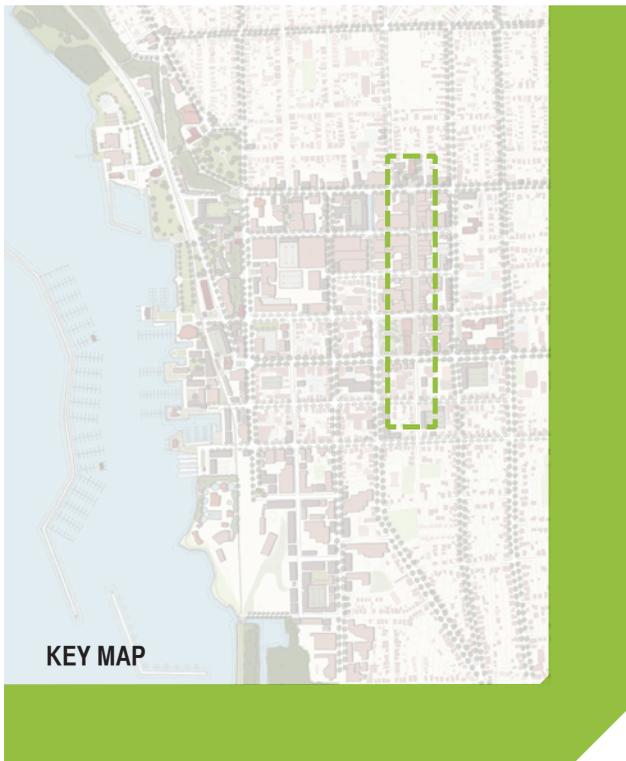
POTENTIAL



EXISTING



# CHURCH STREET



One of Burlington’s most unique and defining assets is the Church Street area. Essentially acting as the “living room” of the city, Church Street is a vibrant, pedestrian-oriented corridor. Lined with mixed-use, commercial and office uses, the area serves as a strong nucleus for the city.

## ELEMENTS OF THE PLAN

### 1 TOP BLOCK

The “top block” of Church Street between Cherry and Pearl streets has struggled to achieve the vitality of the lower blocks for many years now. Foot traffic is significantly lower at this end of the street and businesses have come and gone. The re-design of the public space and fountain could greatly improve vitality, traffic flow, and increase programming flexibility. Play features for children, additional seating, new water features, and more greenery could also help revitalize this block. The key is to make the space flexible enough to accommodate a variety of activities and events while inviting ongoing public use and enjoyment. Another design solution that could help bring life to the top block is the definition of the forecourt of the Unitarian Church to both “cap” off the terminus of Church Street while making it spatially contiguous with the rest of Church Street to the South. Ultimately, it would be up to the Church to explore possibilities and potential development of their property.



Develop zoning regulations that emphasize building form, facilitate infill and activate the streetscape for pedestrians.



Planning & Zoning Department



Complete and implement the top-block re-design study initiated by the Church Street Marketplace.



Church Street Marketplace

### 2 CELEBRATE LOCAL AGRICULTURE

Given Church Street’s significant customer draw, there is a unique opportunity to showcase urban agriculture and the way the local food system is integrated within the City. Seasonal agricultural installations (container gardens, interpretive guides, street vendors, etc.) could be located in central areas along Church Street, showcasing products native to the region and local producers. These installations are an opportunity to celebrate the City’s agricultural heritage and economy, tell our story about how we integrate the food system throughout our daily lives, and market the city as a destination in the farm to plate movement.



Partner with the Intervale Center Food Hub and State Department of Agriculture to explore the possibilities. The re-design of City Hall Park and the top block of Church Street should ensure that these important civic spaces are activated with people: street vendors, events, sculpture, outdoor dining and serve as central gathering spaces within the City.



Church Street Marketplace

### 3 IT'S ALL ABOUT THE EXPERIENCE

As seen on Church Street, the proper design of public spaces — by making them more attractive, welcoming, and safe — can lead to an improvement in the quality of the pedestrian experience. Having places for people to congregate, for kids to play, and for everyone to feel safe and comfortable is essential to the success of any public space. One of the favorite activities on Church Street is people — watching — people you know and people you don't. More public seating is needed to give shoppers a place to rest, listen to a street musician, or just take in the flow of humanity. This is especially important for seniors, a rapidly growing segment of our population, as well as for families with kids.



Identify locations, find funding and install additional seating.



Church Street Marketplace

### 4 CITY HALL PARK ALLEY

Due to its pivotal location between Church Street and City Hall Park, and as an amenity that can draw people towards the waterfront, the City Hall Park Alley should be programmed and re-designed to provide a strong connection between the activities on Church Street and the green open space provided in the park. As discussed in the Making Connections section, the alley between City Hall and the BCA Center is perhaps the pivotal section of a longer alley walk that could bring pedestrians down to the waterfront, and back up to Church Street. Public art, lighting, and activity can transform this into an attractive and inviting connection.



Implement, fund and build  
Imagine City Hall Park master plan.



Parks and Recreation Department  
Burlington City Arts

### 5 AWNINGS AND CIVIC ART

Church Street is a collection of diverse and interesting buildings that host a wide range of retail, food, and beverage establishments. Yet their individuality is obscured and homogenized by a number of intermittent glass / metal awnings. While these awnings provide much-appreciated shelter, they should be replaced in favor of deep, retractable or suspended rigid awnings that accentuate the character of the individual building and draw visitors into the businesses. Civic art and urban furniture (street lamps, trash cans, recycling containers, benches, wayfinding signage, etc.) can be used to highlight Burlington's rich artist and craftsman culture and support local arts by commissioning local businesses to create the pieces.



Continue to encourage and enable property owners to remove the glass awnings.



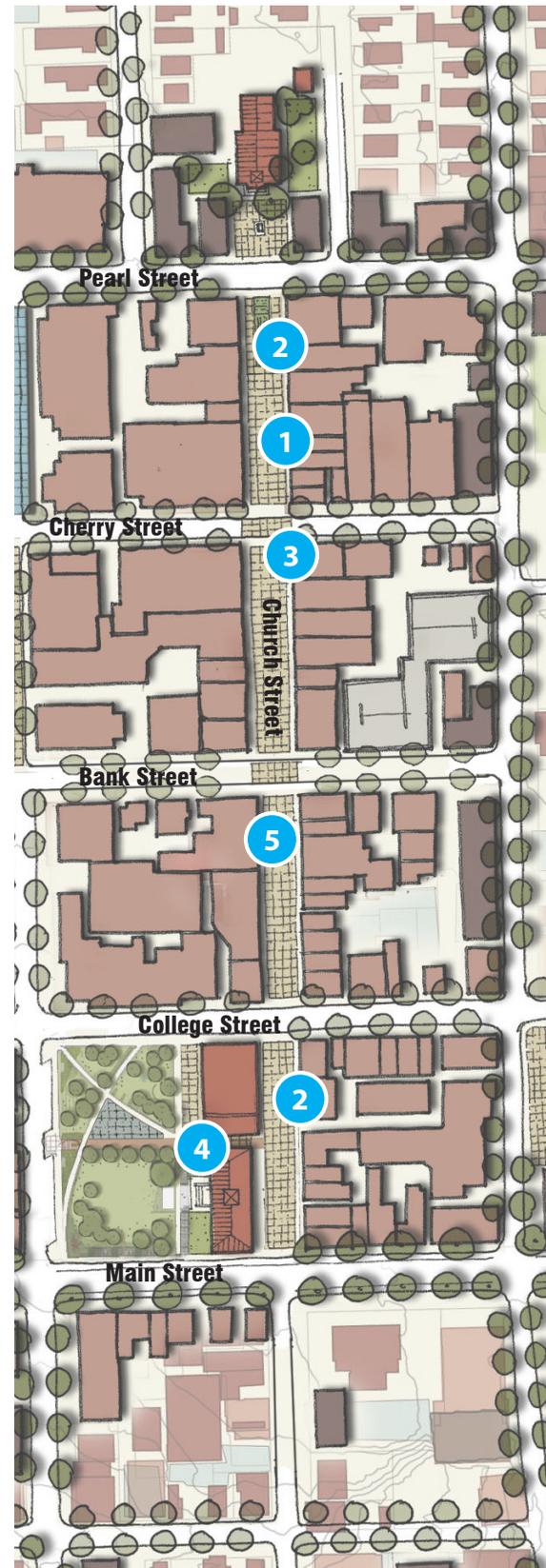
Church Street Marketplace



Develop design guidelines for new awnings.



Church Street Marketplace Planning & Zoning



Existing Buildings	Potential Buildings
Existing Civic Buildings	Potential Civic Buildings

# CHURCH STREET



This rendering shows Church Street looking north towards the Unitarian Church. Potential new buildings are shown next to the Church, to create a sense of enclosure and opportunity for additional programming at this end of Church Street. These new buildings also create a more formal and defined green in front of the Church, an improvement which should attract more people into this currently underutilized space.

In the foreground is a seasonal agricultural installation that celebrates the proximity of the Intervale and showcases local agriculture. Benches are also shown, providing ample opportunity for people to sit, rest, and watch the people strolling by. Glass awnings are replaced by deep, retractable and suspended rigid awnings that are in character with the historic buildings on Church Street.

# POTENTIAL



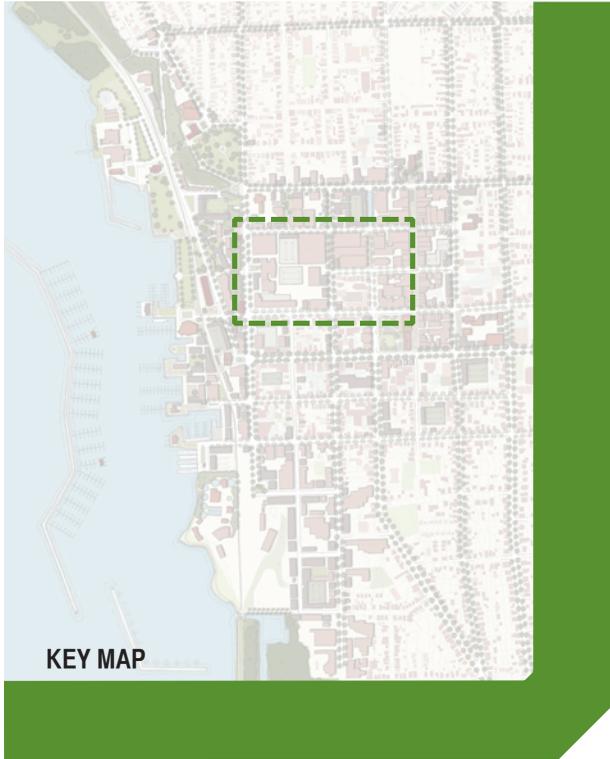
# EXISTING





# THE MALL

## ELEMENTS OF THE PLAN



**The Burlington Town Center Mall occupies much of the downtown between the northern waterfront and Church Street. The large superblocks created by its original layout can be punctuated and activated in order to enable pedestrian and vehicular flow, thereby restoring the urban grid.**

### 1 DOWNTOWN HOUSING

There is a significant unmet demand for housing throughout the city (as discussed in the Housing Nut). This is particularly true for affordable and moderately-priced housing downtown. Downtown workers, young professionals, and empty-nesters all want to live close to where they work, shop and recreate. With undeveloped air space above the mall, and a relatively high and flat area of the City that has little impact on prominent views, this quadrant of the downtown is well suited for larger residential structures. The plan suggests the addition of larger residential, mixed-use buildings by redeveloping underutilized parcels, essential for addressing citywide housing needs, reducing traffic congestion and parking demand, and supporting the continued vitality of our downtown economy.



Ensure that zoning regulations render the development of housing easier, reducing barriers and costs.



Planning & Zoning Department

### 2 RESTORING CONNECTIVITY OF THE URBAN GRID

The large, contiguous footprint of the mall is out of character with the intimate and finer grained urban fabric of the City. When it opened in 1982, the Burlington Town Center Mall clipped both Pine Street and St. Paul Street, inhibiting north-south movement in this quadrant of the City. The Mall acts as a barrier that forces additional vehicular traffic onto Battery and South Winooski, which lessens their attractiveness to pedestrians and bicycles. Today, older malls around the country are redefining themselves by embracing the surrounding urban environment and becoming less insular. In Burlington's case, this presents an opportunity to open the street level of the mall at Pine and St. Paul streets to create a public plaza and re-establish north-south traffic flow for pedestrians and bikes. These spaces could become activated by street-level retail and cafes, as well as community events with pop-up stages for Discover Jazz or Festival of Fools. Additionally at Pine Street, the underground ramp that provides access to the Burlington Town Center (BTC) parking garage could be continued through to Cherry Street, thereby re-establishing north-south traffic flow for vehicles and reducing congestion on Battery and Winooski.



Amend the Official Map to re-establish those connections in the street grid.



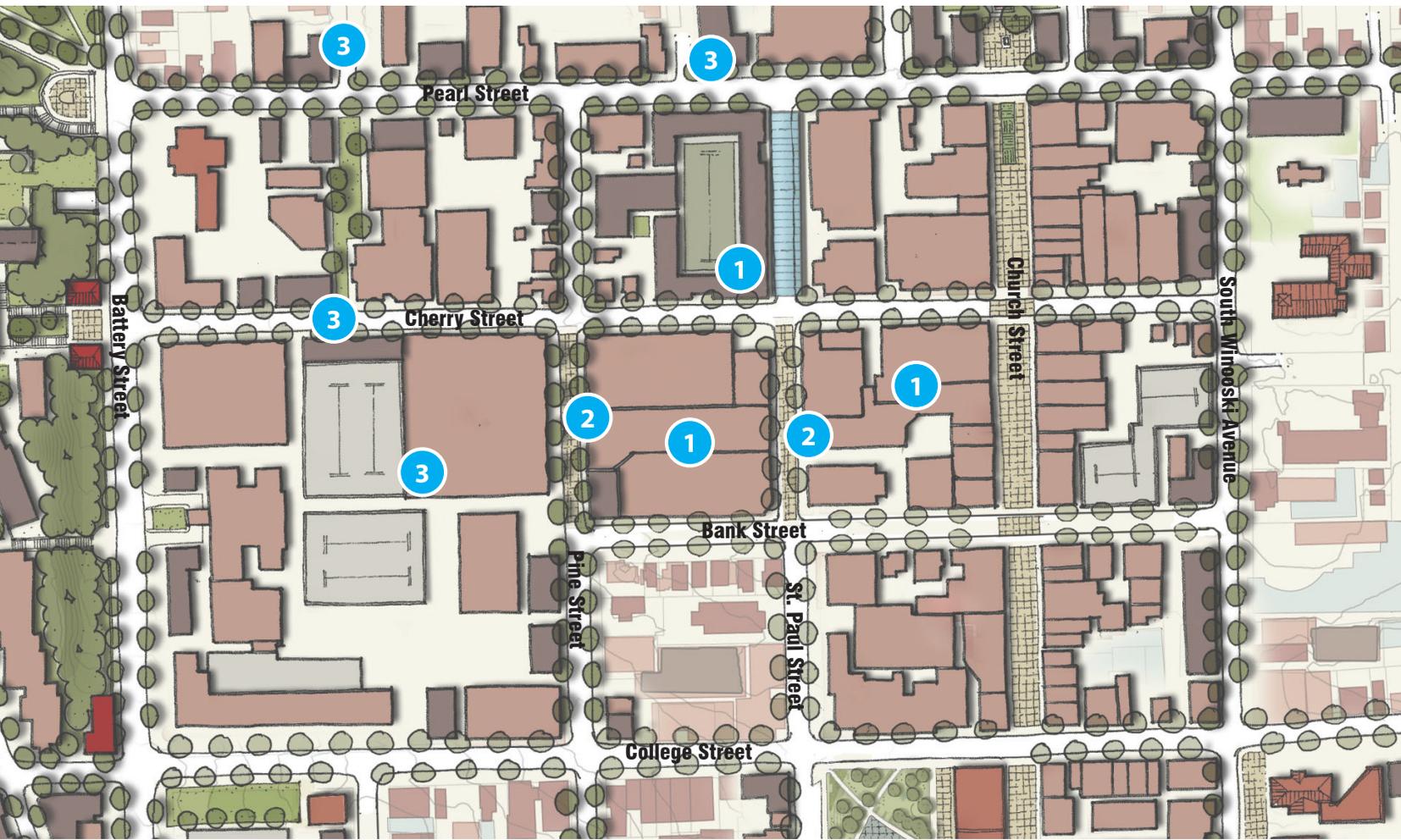
Planning & Zoning Department



Work with Burlington Town Center to re-imagine how the potential design intervention can work.



Planning & Zoning Department



Existing Buildings    Potential Buildings    Existing Civic Buildings    Potential Civic Buildings

### 3 STRATEGIC URBAN INFILL AND LINER BUILDINGS

The BTC occupies a significant footprint in this quadrant of the City. Yet numerous opportunities exist for strategic infill and liner buildings along Cherry, Pine and Pearl Streets. Such structures should be designed to reinforce the urban street wall and provide active ground floor uses to promote a vibrant streetscape.

-  Develop zoning regulations that emphasize building form, facilitate infill, and activate the streetscape for pedestrians.
-  Planning & Zoning Department

### 4 STREET LIFE

Walking along Cherry Street and parts of Bank Street between Church and Battery Streets, you may have experienced a sense of urgency and desire to move quickly past the desolate, bland, and non-inviting building facades and dark unprogrammed spaces. All along Cherry Street there are numerous opportunities for activating the street by turning the mall inside out and bringing retail and other activity back to the street. Strategic infill development, innovative building renovations, and streetscape improvements (such as trees and outdoor seating) would make for a more inviting, vibrant, and safer-feeling street. Expanding the Church Street experience to the side streets and the rest of the downtown and waterfront will ultimately help generate additional economic vitality, create new jobs, and draw more visitors to Burlington.

-  Continue to implement the Complete Streets Design Guidelines adopted as part of the 2011 Transportation Plan.
-  Develop zoning regulations that emphasize building form, facilitate infill, and activate the streetscape for pedestrians.
-  Department of Public Works
-  Planning & Zoning Department



EXISTING

The above rendering shows a view looking southeast of Burlington as it exists today, with the Burlington Town Center Mall in the center of the image. City Hall is in the top center of the rendering and Battery Street in the foreground. Currently Pine Street and St. Paul Street dead end at the mall, forcing traffic onto Battery Street and South Winooski Avenue. The mall superblock also makes it difficult for cyclists and pedestrians to navigate through this area.



POTENTIAL

Aerial photograph of Town Center Mall looking southeast, with City Hall Park in the distance.



PHOTO BY BRIAN DROUVR PHOTOGRAPHY

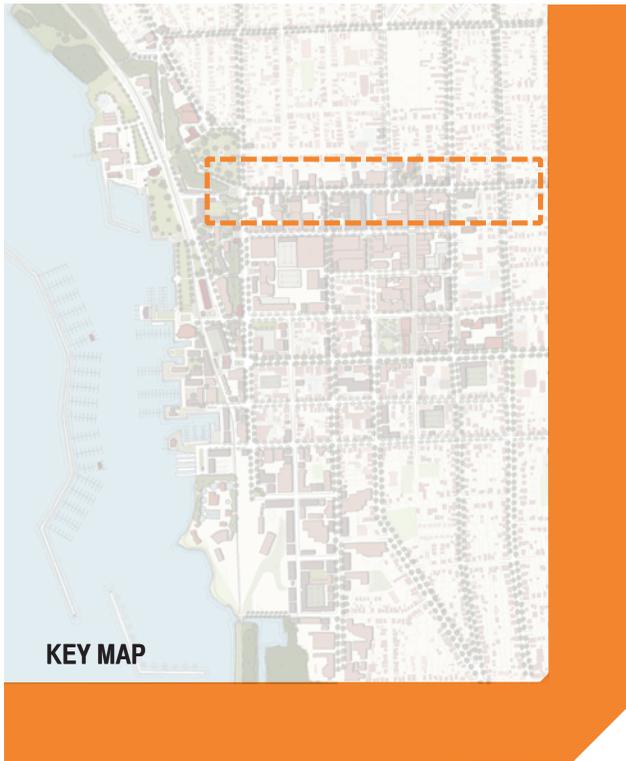
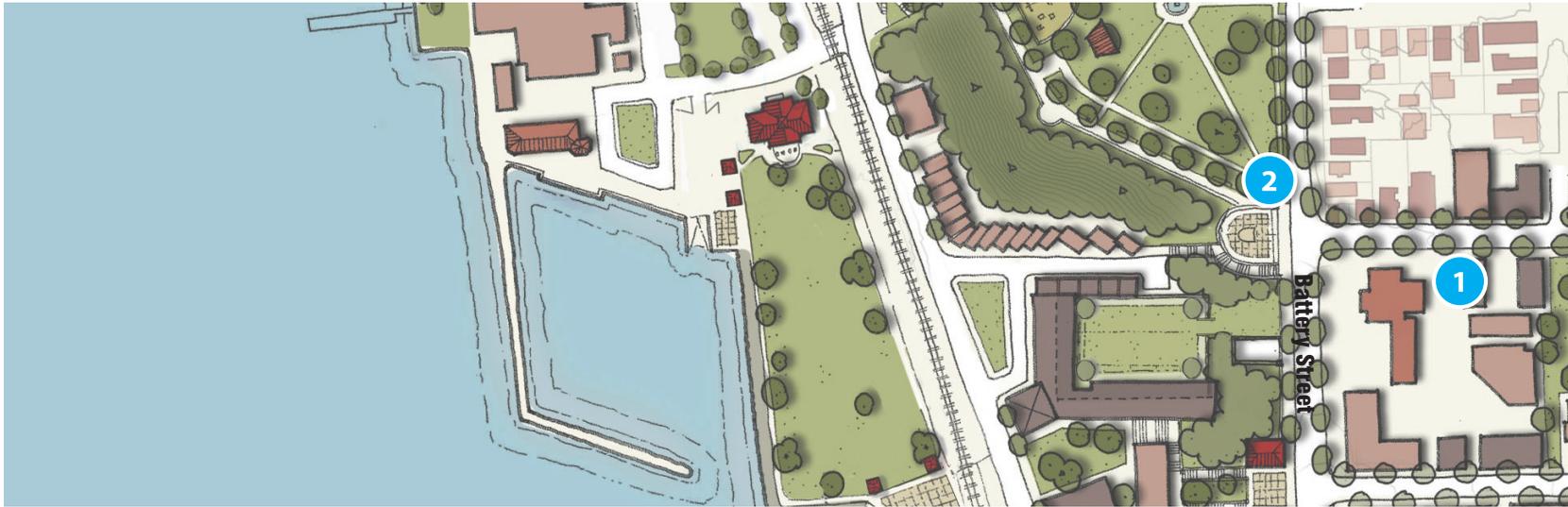
The illustrative plan for the mall area suggests reopening Pine Street and St. Paul Street, preferably as complete streets that would accommodate all modes of transportation and parking, repairing the street grid and relieving pressure from Battery Street and South Winooski. In lieu of the complete street option, the mall could be more surgically modified to allow for a plaza to pass through that would be open to pedestrian and bicycle traffic. Both alternatives would greatly enhance the connectivity within the City while also updating the mall to more actively interface with the City and benefit from the additional visibility.

The rendering also shows redevelopment and infill within the urban renewal area, which is an area of the City where the pedestrian realm could be greatly enhanced by filling in large gaps in the street wall.





# PEARL STREET



## ELEMENTS OF THE PLAN

### 1 ZIPPING TOGETHER THE O.N.E. AND DOWNTOWN

A zipper is a commonly used device for binding two edges. The urban fabric of a city, similar to a piece of clothing or bag, can also be brought together with appropriately scaled, context sensitive interventions. To make a more seamless connection between the Old North End (O.N.E.) and the downtown, Pearl Street could use a few more “teeth in its coil”. Strategic infill development, active uses at the street level, and pedestrian improvements to major intersections will improve Pearl Street’s appeal and play an important role in providing this enhanced link. Several opportunities exist for infill development, especially at key intersections like Winooski Avenue and North Champlain Street, where space for new local businesses, retail, restaurants, and offices could be provided.



Develop zoning regulations that emphasize building form, facilitate infill and activate the streetscape for pedestrians.



Planning & Zoning Department

### 2 PEARL STREET OVERLOOK

The master plan calls for the Battery Street Overlook Park, located at the termination of Pearl Street, to be sunken to open views to the lake and mountains beyond. Currently, the raised viewing platform and fountain block any view of the lake as you approach from downtown. The Battery Park Extension along the west side of Battery Street should also be redesigned to reduce the continuous berm that blocks views of the water.



Develop a parks master plan for Battery Park and the Extension and redesign the overlook at that time.



Department of Parks and Recreation

**Downtown’s northern boundary, Pearl Street, often acts as a barrier between the central business district and the lively Old North End (ONE). Several opportunities exist for the street to instead link the downtown and the ONE, bringing focus to the diversity and culture of this vibrant Burlington neighborhood.**

Existing Buildings Potential Buildings Existing Civic Buildings Potential Civic Buildings



**3 SHOWCASE THE CULTURE OF THE ONE**

Bringing more life and activity to the Pearl Street area, by promoting additional community spaces and housing opportunities, would activate the northern edge of our downtown and showcase the rich myriad of cultures that call the Old North End home. New infill buildings would provide additional space for local businesses that serve the neighborhood, also creating a more continuous pedestrian environment that is attractive, vibrant, and better reflects vitality of the local culture.

 Develop a local business/incubator program that would encourage, provide assistance to, and nurture culturally and ethnically diverse businesses.

 CEDO

**4 DOWNTOWN TRANSIT CENTER**

With over 1/3 of all boardings in the CCTA system occurring in downtown Burlington, and most of the regional transit system routes starting or ending in the city center, a downtown location for the main transit hub is essential. A new transit mall is proposed for St. Paul Street between Cherry and Pearl Streets to replace the existing and inadequate Cherry Street transit station. A new modern passenger facility will provide an improved customer and employee experience, meet both the short and long-term needs of CCTA, and provide Burlington with a “first-class” Transit Center.

 Continue to support CCTA in the development and construction of the new transit center.

 Department of Public Works

**5 STREETScape IMPROVEMENTS**

The master plan calls for streetscape improvements throughout the downtown to improve safety and the user experience for pedestrians and cyclists. Along the Pearl street corridor, sidewalk improvements have been in the works for the past year for the blocks between Winooski Avenue and St. Paul Street. Expansion of this work all the way to Battery Street would ensure continuation of the pedestrian experience. Other improvements are needed for the entire length of Pearl Street, including better lighting, more street trees, benches, and civic art. Pearl Street, with its connection to Colchester Avenue is one of our main East-West thoroughfares, moving people in and out of the downtown. Therefore, Pearl Street, just like Main Street, can provide a second continuous bike route through the city.

 Continue to implement the Complete Streets Design Guidelines adopted as part of the 2011 Transportation Plan.

 Department of Public Works

# PEARL STREET



This rendering shows Pearl Street looking east towards Church Street. Potential new buildings are shown in the foreground to create a sense of enclosure and an opportunity for additional retail and residential space that “zips” together the Old North End and the Downtown.

On the far right, you can just see the proposed Downtown Transit Center peaking out from St. Paul Street. The overhead structure would identify the station area and provide shelter from inclement weather.

# POTENTIAL



# EXISTING



PHOTO BY BRIAN DROUVR PHOTOGRAPHY



# RAILYARD DISTRICT



Located in the southwest quadrant of downtown, the Railyard District is currently a mix of industrial and commercial uses located near the regional rail yard and historic barge canal. The area is strategically located at the southern gateway of the city. Primarily a brownfield today, but poised to evolve into an economic engine for the city, the South End is imagined as a district where arts and creative enterprise will continue to emerge.

## ELEMENTS OF THE PLAN

### 1 CONNECTIVITY OF THE URBAN GRID

As the Mall to the north presents navigational challenges and a disruption in Burlington's urban grid, the South End District also has its share of connectivity issues and opportunities. This master plan proposes to integrate the southern end of Battery Street and South Champlain Street into the existing grid. These key connections will open up numerous opportunities for travel around the southwestern quadrant of the City, help to better distribute traffic going to and from the Pine Street corridor, and create significant new opportunities for redevelopment.



Amend the Official Map to establish new connections in the street grid.



Planning & Zoning Department

### 2 RETAINED BUT REORGANIZED RAIL FUNCTIONS

Rail is an important part of Burlington's past and its future. The more goods that can be transported by rail, the more we can reduce fuel consumption, greenhouse gas emissions, and truck traffic on our highways and in our neighborhoods. It is crucial to retain these types of "back of the house" functions within the city to maintain important services such as fuel delivery and the potential for greater utilization of rail for freight movement as an alternative to trucks. However, Burlington's current rail functions could be reorganized for better efficiency and to provide space for redevelopment. Re-organization of the railyard also creates the opportunity to extend the urban street grid and improve traffic flow in this part of the City.



Work with VTrans and VT Railway around the re-organizing of the railyard activities.



Department of Public Works

### 3 STRATEGIC URBAN INFILL AND LINER BUILDINGS

With the reorganization of the railyard and extension of the street grid, numerous opportunities will emerge for strategic infill and liner buildings in this area of the city. Such mixed-use structures should help to reinforce the urban street wall and have active ground floor uses that promote a vibrant streetscape. The Burlington Fire Department has identified this area as a potential for the location of a new fire station that would consolidate the existing stations 1 and 5, with prime access to the downtown and the south end of the city.



Develop zoning regulations that emphasize building form, facilitate infill and activate the streetscape for pedestrians.



Planning & Zoning Department

#### 4 FLEX-SPACE/ LIVE-WORK UNITS

Burlington already has the distinct regional advantage of a strong creative culture. This should continue to be embraced and capitalized on, particularly in this part of the downtown. Significant efforts should be made to provide affordable commercial, office, manufacturing, and retail incubator space. In addition, opportunities should be created to enable emerging artists and entrepreneurs to both live and create within the same location. Live-work buildings have the benefit of providing a single-mortgage property that can accommodate living and working, significantly reducing the overall cost of housing, transportation and business incubation. These kinds of spaces foster and support creative and innovative businesses and will help to shape the evolving economic base and identity of the City.



Amend the zoning regulations to provide for live-work units as a permitted use.



Planning & Zoning Department

#### 5 PERIPHERY PARKING

Various parking options must exist around the periphery of the downtown, close enough to park and walk to multiple destinations, yet far enough outside of the core to efficiently disperse traffic congestion. The South End District is well suited for locating wrapped parking structures because of its inherently larger parcels as well as the compatibility with existing large buildings. A parking structure is recommended at the southern end of an extended South Champlain Street to service the South End and the expanding Pine Street arts district. This garage would help anchor redevelopment within the expanded urban grid, and accommodate liner buildings, which would hide the structured parking from the street and muffle noise.



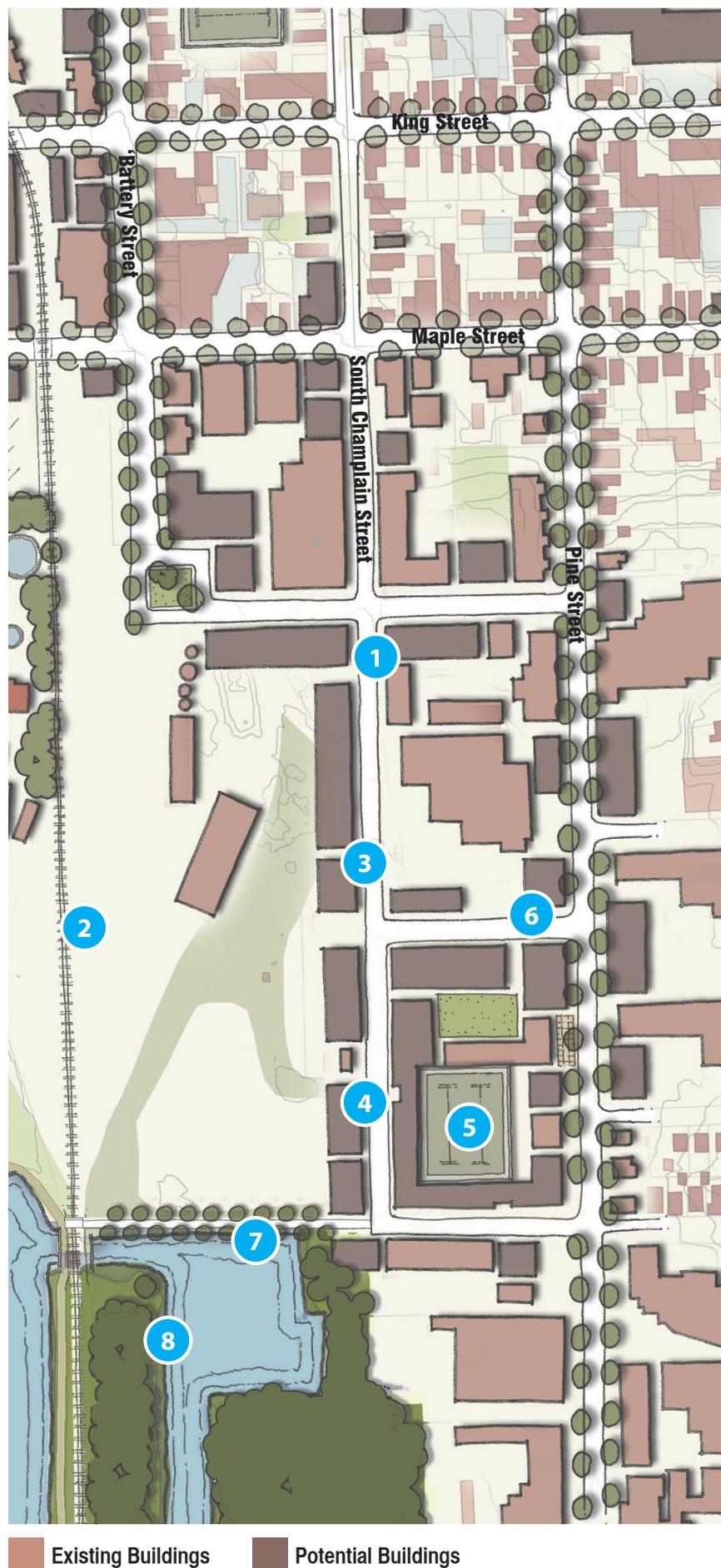
Evaluate the feasibility of building new structure parking garage.



Department of Public Works



Implement the regional park and ride plan, south end transit center and exit 14 intercept lot study.





# RAILYARD DISTRICT

## 6 STREETScape IMPROVEMENTS

The master plan calls for streetscape improvements along all streets in this area with particular emphasis on King and Maple Streets. This, in combination with the expansion of the street network, will strengthen the North-South connection in this part of the City. Improvements should include sidewalk enhancement, street lamps, street trees, benches, and civic art.



Continue to implement the Complete Streets Design Guidelines adopted as part of the 2011 Transportation Plan.



Department of Public Works



Develop a comprehensive scoping/re-design for existing and proposed side streets.



Department of Public Works

## 7 TRAIL / BIKE PATH CONNECTION

There is no access to the bike path between Maple Street and Lakeside Avenue because of a lack of interconnecting streets, the barge canal, railroad tracks, and several industrial land uses. With an expansion of the street grid as described above, there is an opportunity to create an east-west trail or bike path across the northern end of the barge canal with a bridge over the train tracks to connect Pine Street with the waterfront bike path.



Amend the Official Map to establish new right-of-way for a public bike/pedestrian path.



Planning & Zoning Department



Develop feasibility study in conjunction with the VT Railway.



Department of Public Works

## 8 EMBRACE THE BARGE CANAL

The former Barge Canal creates a significant open space immediately adjacent to the urban core, and affords a valuable opportunity for public access and passive recreation. This open space can be significantly enhanced with a network of trails and boardwalks providing controlled access to the remediated Superfund site. Improvements should also include interpretation and education regarding this site's important role in waterfront history, underwater archeology, and the remediation of contaminated sites.



Develop a Barge Canal master plan in conjunction with US Environmental Protection Agency, the State Department of Environmental Conservation.



Parks & Recreation Department



PHOTO BY JACOB ALBEE

As part of planBTV, **THE RAILYARD** is reimagined and transformed from a fringe area noticed and appreciated by few, to a central driving force behind a new creative center for artisan industrial activity. This reinvigorated neighborhood may not appeal to everyone, with the noise and activity of an active rail yard, trucking, and other soft industrial activities linking it to the city's working roots. But for others, this gritty backdrop will provide the inspiration and vitality to inspire creativity and new ideas. **THE RAILYARD** will tie together the downtown and the emerging high tech Pine Street corridor, with a new network of streets that extend the existing grid pattern.

# ARTISAN INDUSTRIAL LIVING

a funky place for creative types



“The southern end of Battery Street is an area of concern. This is also, however, a vital and functional business link to the city. If there was a way to connect trucks and necessary functional vehicles to the yard that didn’t encourage car traffic, that would allow them to continue to function as the freight center of Burlington.”

— Jacob Albee

These new streets will have the benefit of relieving traffic backups on Pine, King, and Maple streets, but more importantly, these streets will become new places for business, housing, biking, walking, and for observing industry and things being made.

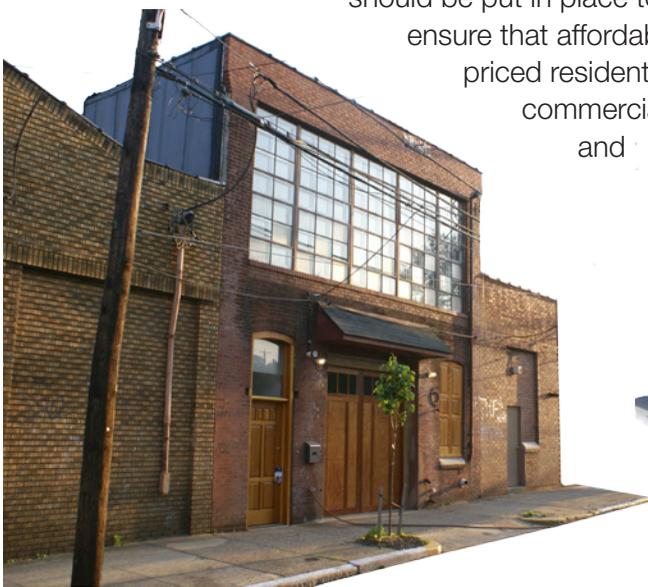
Local start-ups and new businesses form the foundation of a community by generating both financial and social capital. Local businesses serve

as a morale booster that helps bolster the local economy and create the entrepreneurial spirit and buzz that attracts other creative types and an increase in tourism activity.

The process of encouraging new business development can be spurred by incentives for low cost incubator space as well as more permanent artisan industrial space at **THE RAILYARD**. Land values are currently lower in the area compared to the downtown and waterfront, and if one of the objectives of the master plan is to maintain creative live/work art spaces, requirements should be put in place to

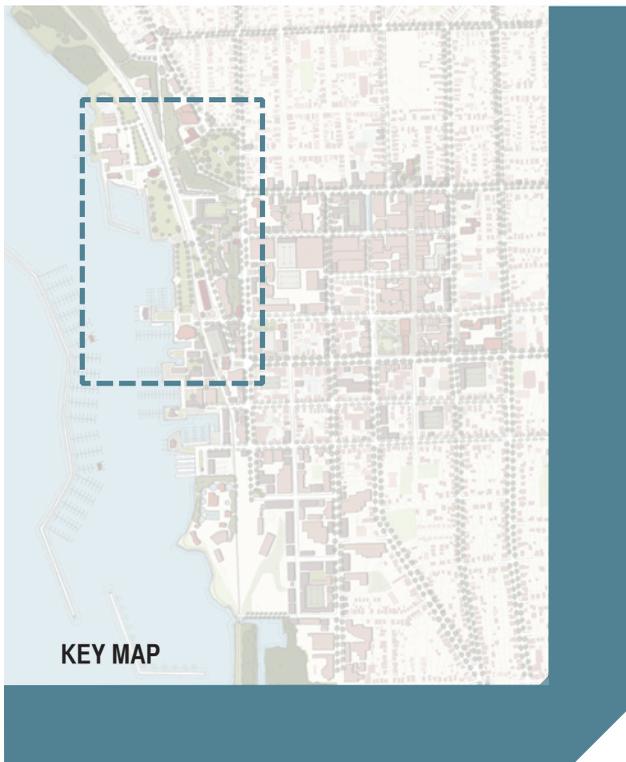
ensure that affordably priced residential, commercial, and

artists spaces will continue to remain available. Incubator spaces can even be light weight structures that are modular and moveable, with modest rents. These spaces are often anticipated to be temporary in nature, but often times become permanent and loved buildings within a community. Artisan industrial live/ works are single income properties that can have residential units upstairs and areas for light or artisan industrial activities on the ground floor, where work can be observed by people passing by. These buildings can also be used for artist studios and other creative applications.





# NORTH WATERFRONT



KEY MAP

## ELEMENTS OF THE PLAN

### 1 BATTERY PARK

Battery Park is an important civic space as well as an archeologically sensitive area, possibly containing human remains dating back to its use as a military encampment and hospital during the War of 1812. Interpreting and celebrating this rich history presents an opportunity to restore and rethink this important site. At the northern end of the park is an opportunity to help frame and better define the park space with a capstone building at Sherman Street, which could be used to consolidate and relocate a number of public safety structures into a central campus for the City. This could include, but is not limited to, a new consolidated fire station and/or expansion for the police department. Regardless of the occupant, there is great value in locating a building here that can define and help to activate this northern end of the park.



Develop a new master plan for Battery Park.



Parks & Recreation Department

### 2 BATTERY STREET

The existing design of Battery Street from Battery Park to Maple Street is primarily geared towards the automobile, with very few amenities for cyclists and pedestrians. Because of this auto-oriented focus, the street presents a physical obstacle, conflicting with the City's desire to better connect Church Street to the waterfront. A road diet or complete street project, reducing the focus on car travel, could increase safety for bikes and pedestrians. Better and more frequent crossings, pedestrian island refuges, and bike lanes or cycle tracks, are examples of improvements that would allow for easier connection.



Continue to implement the Complete Streets Guidelines adopted as part of the 2011 Transportation Plan.



Department of Public Works

### 3 DEPOT STREET

The master plan calls for Depot Street to be kept as a pedestrian and bike connection between the waterfront and neighborhoods on the bluff to the North. The street should continue to serve as a release valve after major waterfront events or for emergencies, enabling low-speed traffic to exit onto North Avenue. The intersection at the top of Depot Street with North Avenue will require intervention to increase safety and traffic flow. Street improvements or better management of traffic during events are also needed to ensure pedestrian and cyclist safety while cars are allowed.



Develop a scoping study, incorporating the work done in previous analyses.



Department of Public Works

### 4 STAIRWAY STREETS

From Depot to College Street, there are no formal connections down the escarpment between Battery and Lake Streets. The master plan calls for a series of connections beginning with Sherman Street and including Pearl, Cherry, and possibly Bank Streets. While envisioned mostly as staircases or formalized trails, mechanical conveyances such as a funicular or elevators within a parking structure could provide accessibility for those with mobility impairments, located at the most prominent connection points, such as the foot of Pearl and Cherry Streets.



Develop designs and find funding for construction of hillside infrastructure. Work with private land owners along Lake Street to secure access for infrastructure and incorporate the plans into any future private re-development at the bottom of the hill.

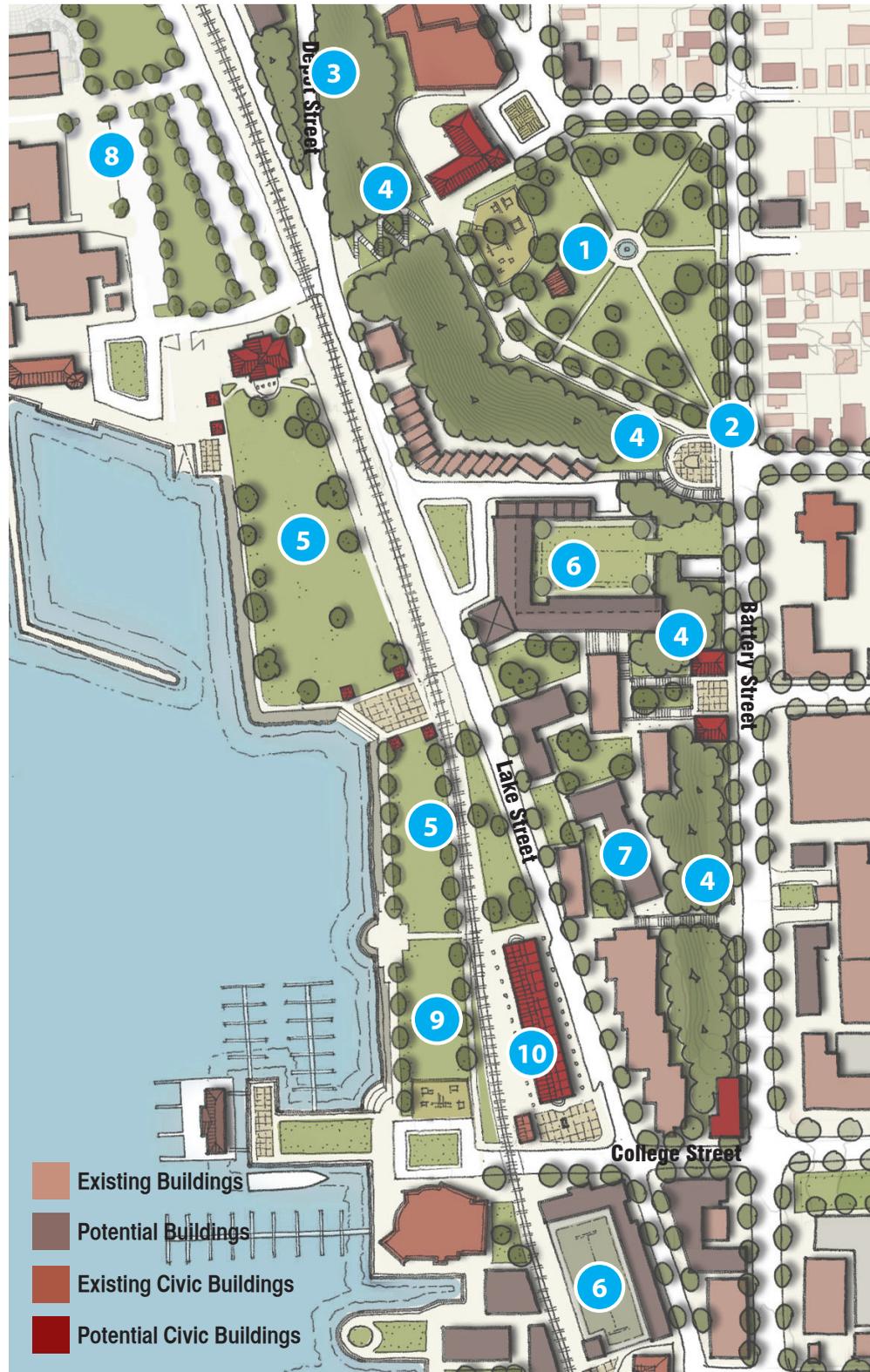


Parks & Recreation Department

Department of Public Works

## 5 WATERFRONT PARK

If Church Street is Burlington's living room, then Waterfront Park is the front lawn. This space plays a significant role in the civic life of the city, hosting the community's most celebrated and signature events throughout the year. When the park isn't the site of a weekend festival; it is used by many for quiet contemplation, sunbathing or an impromptu game of Frisbee. Everyone enjoys the beautiful views of the Adirondacks across the lake, so additional facilities for children to play and more seating areas for users to simply relax and enjoy the space should be added. There are several opportunities to reimagine the park's open spaces as clearly defined "rooms" that facilitate specific functions. A new plaza and kiosks are shown at the mid-point of the park between the large open event space to the north and the promenade/lawn to the south. These features or other landscaping / design elements are intended to differentiate the two spaces and create an entrance into the event area where ticketing and access control can be focused. A new building is shown at the far northern end of the park to provide a clear focal point and termination to the open space. This structure could be used to house many of the support services necessary to manage park events such as public restrooms, storage, public safety, event operations, and should stay open in winter months to support nearby outdoor ice skating. In addition, the master plan shows the bike path relocated from the middle of the park, with two new routes, one along the water and another along the rail line. This will allow the path to remain open during events. The plan also recommends the use of plantings that provide for open views of the lake and the addition of stairs that step down into the lake to allow people to sit closer to the water.



Develop detailed designs for the new structures and secure funding.



Parks & Recreation Department



Develop a detailed design for the Bike Path relocation and secure funding.



Parks & Recreation Department

**The North Waterfront district is a significant civic asset to the City of Burlington, serving as the community's front lawn. Numerous opportunities exist to strengthen the downtown's connection with this important recreational area.**



# NORTH WATERFRONT

## 6 WATERFRONT PARKING STRUCTURE

Almost nothing is as sensitive a topic as parking – especially on or near the waterfront. It is a “necessary evil” to support public events and activities, yet using this most cherished part of our city to store cars should be handled carefully. If parking is going to be located on our waterfront, it must be within a structure that is hidden. The master plan illustrates two opportunities for parking structures on the waterfront, both wrapped with street level retail and upper story housing or office uses. One structure is shown tucked into the hillside below Battery Street with access only from Battery Street. The parking structure could also provide a needed connection over the embankment at the foot of Pearl Street via an elevator. The building should be designed with a green roof that provides public access to 270-degree views of the waterfront, lake, and mountains. The Lake Street level could also be designed to accommodate the large delivery trucks that need a place to go during events. The other potential garage location is below the southern section of Lake Street, with access from College Street and possibly Lake Street near Main Street. These structures would allow nearby surface parking lots to be redeveloped into civic spaces and mixed-use buildings to further activate the waterfront.



Partner with Main Street Landing in preparing a feasibility study for development of the site.



CEDO

## 7 MIXED USE VILLAGE

New buildings create an opportunity for additional retail, restaurant, office, and residential uses, critical to expanding the vitality of the waterfront into all four seasons. A collection of smaller complementary buildings should be carefully stitched into the fabric of the existing warehouse structures along Lake Street to create a rich mix of activity and an interesting series of outdoor spaces enclosed by these new and old buildings. This area could target knowledge-based businesses, with housing for employees located in nearby buildings, in the character of a factory town where employee housing was located walking distance to work.



Develop zoning regulations that emphasize building form, facilitate infill, and activate the streetscape.



Planning & Zoning Department

## 8 MORAN CENTER

The redevelopment of the Moran Plant has been a long-held desire, yet elusive challenge, for the City. It's expansive size and rich history presents a tremendous opportunity for creative adaptive reuse that can serve as an important anchor for the northern end of the waterfront. Potential uses are confined by the Public Trust Doctrine which strictly limits the nature of private use, virtually assuring some form of public access.



Initiate a new competitive process to solicit a broad set of redevelopment responses from independent partners.



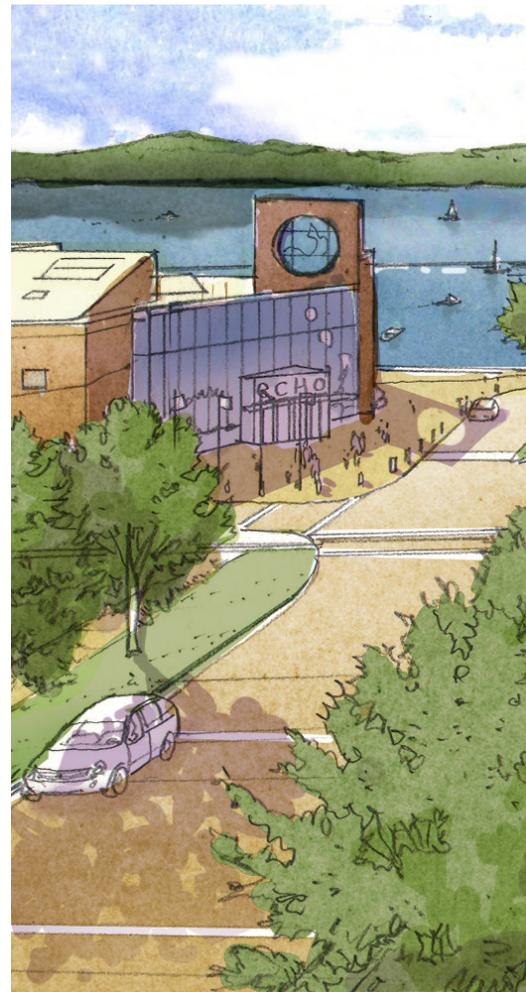
Mayor's Office  
CEDO



Complete the redevelopment plan for the North Waterfront, addressing: environmental contamination & storm water treatment; burying power lines and removing the electric substation; improving parking & access for the Moran site & the Urban Reserve; and development of a world-class skate park.



CEDO



## 9 SEASONAL SKATING RINK

A seasonal skating rink can activate the northern end of Waterfront Park during the winter, while remaining open for impromptu frisbee, soccer, lounging and special events during warmer months. It's important that such an activity be supported with nearby public restrooms and some shelter from the wind coming off the lake, which could be accommodated in the potential building shown at the northern end of the park.



Evaluate needed funding and staff resources.



Parks & Recreation Department

## 10 WATERFRONT PAVILION

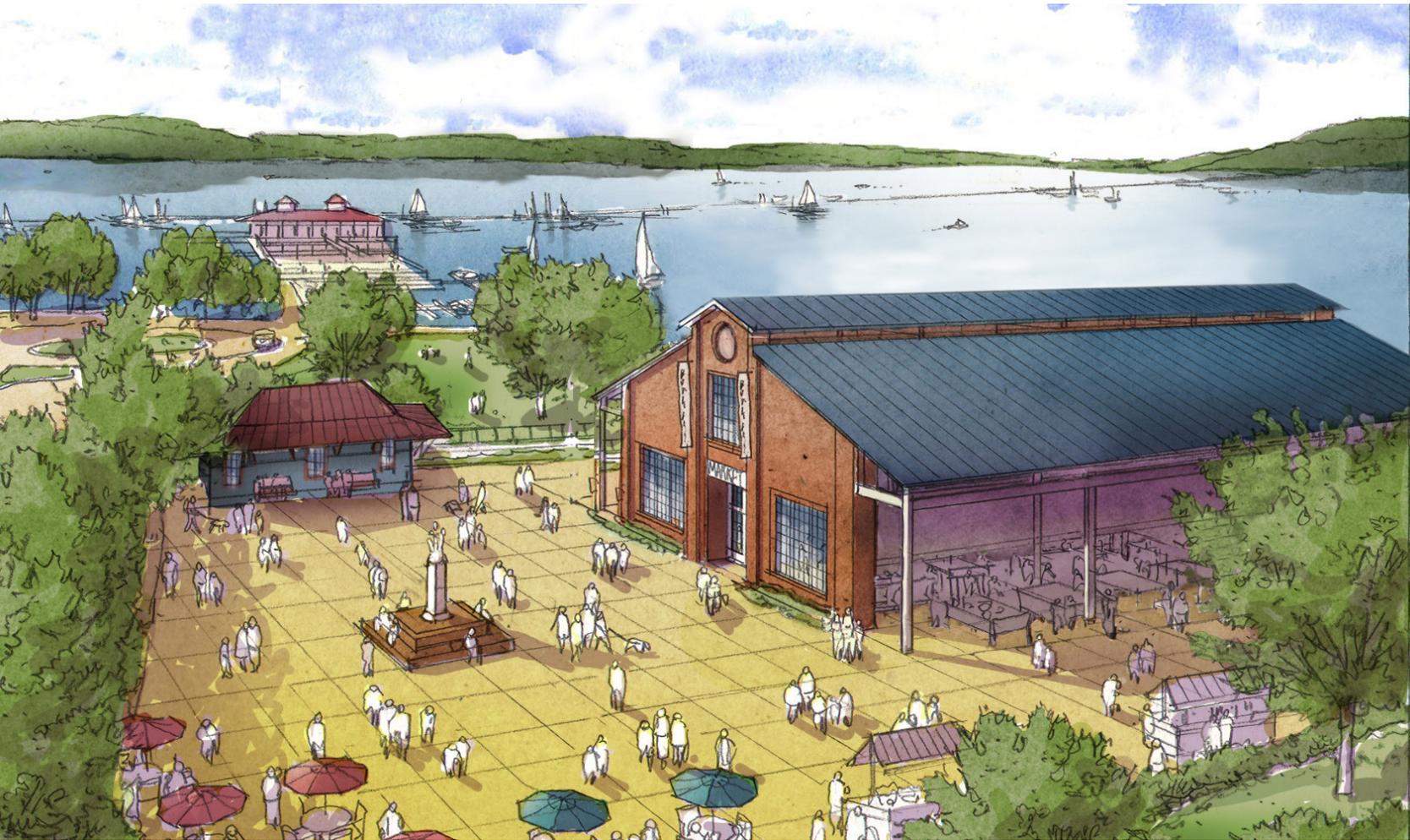
The master plan calls for a new civic building to be located at the corner of Lake and College streets, where currently there is a surface parking lot. The design of this open and flexible building is representative of the old rail station that once occupied a site nearby. Such a structure will be a defining icon for Burlington's waterfront and could be home to a winter farmers market, seasonal craft markets, indoor concerts, boat building, exhibition space, and more.



Develop feasibility and design study for a new pavilion.



Parks & Recreation Department



This rendering shows the potential Waterfront Pavilion located across from the Echo Center, replacing existing surface parking lots. The structure provides both indoor and outdoor space for vending, events, exhibitions, and more. The plaza that surrounds the building provides hardscaped space for public gatherings, food truck vendors, and special events.



# SOUTH WATERFRONT



**Less civic and more mixed-use in character than the North Waterfront, the South Waterfront is truly the workhorse and activated waterfront of Burlington. In many ways this area serves as the front door to the city. The area from College Street down to and including the King Street Dock is envisioned as an active mixed-use area with retail, restaurants and an inn or hotel. The area from the King Street Dock to the sewage treatment plant focuses on marine uses such as ferry, boat storage, marine services and supplies.**

## 1 LAKEFRONT MARITIME MUSEUM

Lake Champlain has a very rich maritime history, and has played an important strategic role in several military conflicts. The master plan calls for an existing or newly-developed wharf building to be converted into a lakefront Maritime Museum to showcase the region's rich history and ties to Lake Champlain and serve as another important waterfront attraction for the public. The Moran Plant could also be a great location for the maritime museum as it is so closely located to the water and could help draw on the rich lake history.



Partner with the Lake Champlain Maritime Museum and Lake Champlain Transportation to consolidate and expand the museum's Burlington operations.



CEDO

## 2 ADAPTIVE REUSE AND INFILL

Numerous opportunities exist for strategic infill in this area of the waterfront and would create an opportunity for additional retail, restaurant, hotel, office and residential uses that are critical to expanding the vitality of the waterfront into all four seasons. New structures should help to reinforce the urban street wall and have active ground floor uses to reinforce a vibrant pedestrian environment. Adaptive reuse of many of the existing waterfront buildings will help maintain the industrial and working character of the area.



Develop zoning regulations that emphasize building form, facilitate infill, activate the streetscape for pedestrians and protect public access to the lake.



Planning & Zoning Department

## 3 WATERFRONT PROMENADE

Direct public access to the water has long been a priority in Burlington, with great success along the north waterfront, especially Waterfront Park. However, south of ECHO, water access becomes discontinuous. The master plan shows redevelopment of the Lake Champlain Transportation (LCT) property, providing a tremendous opportunity to continue pedestrian access and the waterfront promenade along virtually the entire length of the shoreline from the urban reserve to the Barge Canal.



Ensure that public access requirements are carried through from the current zoning regulations to the new Form-Based Code.



Planning & Zoning Department



- |   |                          |   |                           |
|---|--------------------------|---|---------------------------|
|  | Existing Buildings       |  | Potential Buildings       |
|  | Existing Civic Buildings |  | Potential Civic Buildings |



# SOUTH WATERFRONT

## 4 HARBOR LAUNCH

Should a large number of boat slips be developed next to the breakwater, a new harbor launch will be necessary to ferry residents and guests between slips and the shore.



Develop a feasibility study to evaluate the management and operation of a municipal harbor launch service.



Parks & Recreation Department

## 5 RELOCATED FERRY TERMINAL

The master plan contemplates moving the ferry terminal further south to free up more space for concentrated mixed-use waterfront redevelopment between College and King streets. Locating the terminal at Perkins Pier would still provide access to the street network without negatively impacting traffic flow on the waterfront and would be a use compatible with the adjacent wastewater plant. This site could also provide boat-trailer parking for transient boaters.



Partner with Lake Champlain Transportation as well as state and federal agencies to evaluate the feasibility of relocating the ferry operations and maintenance yard.



CEDO  
Parks & Recreation Department



Work with the Army Corps and Department of Environmental Conservation around developing a feasibility study for the dredging, removal of underwater reefs, and relocating the ferry access.



Parks & Recreation Department

## 6 MARINA SUPPORT SERVICES

Any significant expansion in the number of slips for boaters will require a complimentary public or private (or both) investment in upland facilities to serve them. Currently, there is unmet demand for seasonal boat storage. The master plan shows new buildings adjacent to the boat launch to buffer the railroad tracks and help meet year round boat storage needs for local boat owners. Should seasonal boat storage not be economically viable, these buildings could instead be developed for mixed-use and marina support services such as showers, laundry, solid waste/recycling, marine supply and repair, etc.



Develop market and feasibility study for construction and operations of such a facility.



Lake Champlain Transportation  
CEDO  
Parks & Recreation Department

## 7 MITIGATE ODORS FROM THE WASTEWATER TREATMENT PLANT

Vapor-phase or liquid-phase technologies, a physical enclosure, or even coffee grounds, should be considered to mitigate odors from the wastewater treatment plant, currently affecting large portions of the waterfront.



Investigate and implement measures to neutralize hydrogen sulfide gas (H<sub>2</sub>S) odors.



Department of Public Works

## 8 BREAKWATER & MARINA EXPANSION

There is significant unmet demand for additional boat slips within the inner harbor, especially with Burlington serving as a major layover and resupply stop for travelers between the Hudson River, the Erie Canal, and the St. Lawrence River. As the current public and private marinas cannot meet this need, the master plan calls for the creation of 300 additional slips to accommodate both seasonal and transient boaters. Located either adjacent to the breakwater or south of Perkins Pier, additional transient slips will cement Burlington's place as major destination on Lake Champlain. More seasonal slips will help to reduce the 10-year waiting list for local boaters, expanding access to local members of the community. More boats and boaters will increase the need for marine and boater services, providing opportunities for local businesses and providing increased revenues for the city. In addition, the south entrance of the harbor is exposed to the south wind and needs increased protection. A new floating breakwater is proposed to protect boaters from wind and waves, enabling the marina expansion on the southern end of the inner harbor.



Work with the Army Corps and Department of Environmental Conservation around developing a feasibility study for the dredging, removal of underwater reefs and establishing new floating docks and breakwater.



Implement recommendations of the Burlington Harbor Management Plan.



Parks & Recreation Department

## EXISTING

[BELOW]

The redevelopment of the Burlington Waterfront has been a long-held desire, while also a challenge for the City. It's expansive size and rich history presents a tremendous opportunity for a wide mix of activity that can serve as an important anchor and gateway for the City.



# EXISTING

PHOTO BY BRIAN DROURR PHOTOGRAPHY

## POTENTIAL

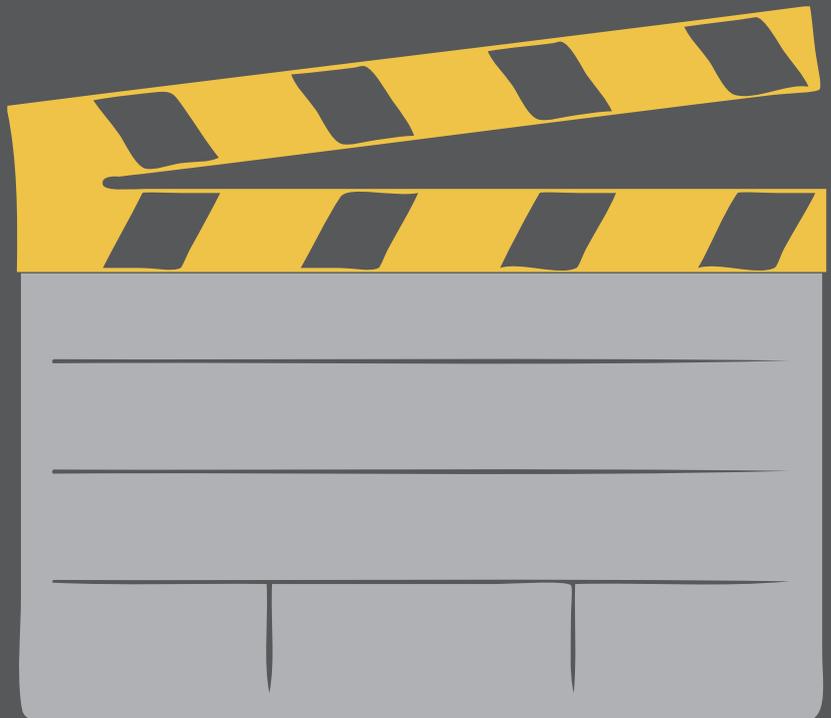
[SEE FOLLOWING PAGES]

The vision for the waterfront shows a mix of new and old buildings creating a vibrant urban waterfront. You can see in the foreground a U-shaped building which could be the site of a waterfront inn with a mixed-use ground floor. Some of the old shed buildings from the ferry back-of-house operations, which have been relocated south just beside the water treatment plant, have been incorporated into the plan, retrofitted for new activities. A block with a large parking structure is tucked in adjacent to the train depot. This will provide parking for visitors and those using the train when commuter rail service returns to Burlington. Immediately across the street is the site for a new market building which can house Burlington's famous Farmer's Market in summer and winter, as well as other events and markets throughout the year. A playground that uses kinetic energy created during children's play to power lights and pump water, is located across the street from the Echo Center in the park. Adjacent to Main Street Landing, where the old workshops from the lumber operations were located, new buildings reminiscent of historic industrial areas are shown, where workers in creative and green industries can live, work, shop and play. Finally, at the left of the image, some of the 300 plus new boat slips are seen, which will address the backlog of demand for boat slips and bring additional visitors to the city by way of the water.





POTENTIAL



**ACTION**

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# ENGAGE

---

IN THE PLAN IMPLEMENTATION  
PROCESS

CONTINUE TO

---

# CONTRIBUTE

---

YOUR THOUGHTS, EXPERIENCES, AND  
ENERGY

---

# ADVOCATE

---

FOR WHAT WILL HELP MAKE  
BURLINGTON EVEN MORE  
SUCCESSFUL

---

# SUPPORT

---

THE CONSENSUS AND  
OUTCOME OF THE PLAN

---

# INVEST

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YOUR TIME AND ENERGY  
IN BURLINGTON'S FUTURE



reflecting on the past

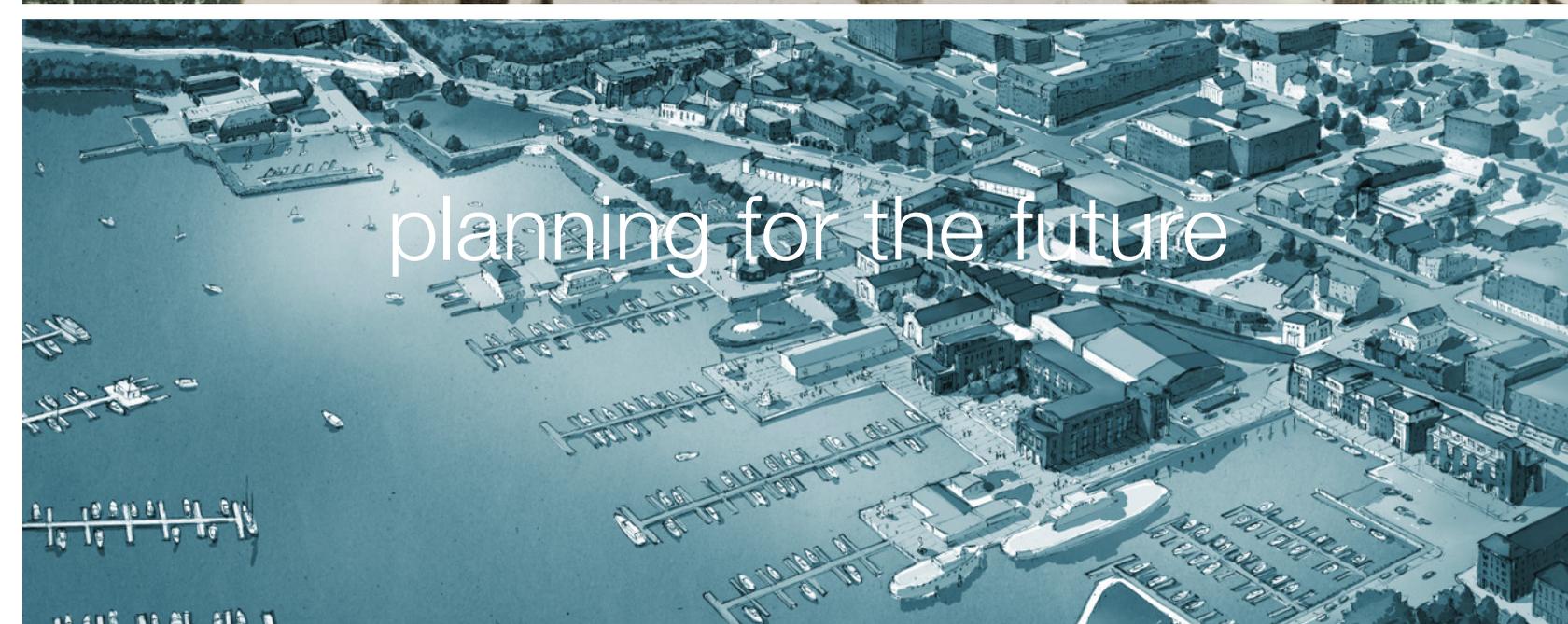
“The Burlington of today is the result of the vision of our grandfathers.

What is the vision of our children?”

— SHIRLEY REID



Little boy standing at the foot of College Street watching the progress at the waterfront during the construction of the train station circa 1900.



planning for the future