

BURLINGTON, VT

SUSTAINABLE NEIGHBORHOOD ASSESSMENT



Pine Street / South Waterfront

June 25 - 27, 2013 | www.globalgreen.org/greencities

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the nature of community



SUSTAINABLE NEIGHBORHOOD ASSESSMENT USING LEED-ND

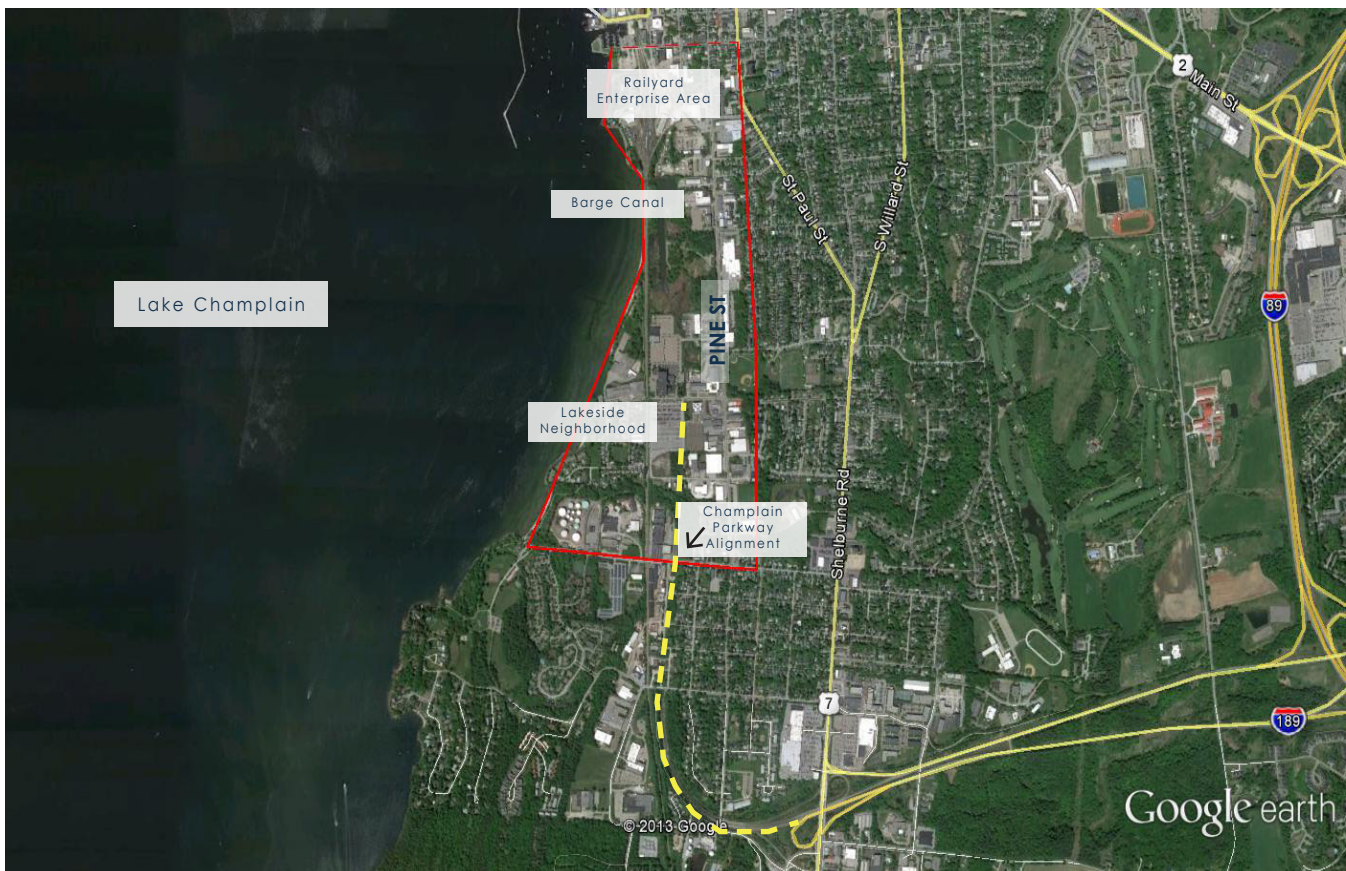
Through the Sustainable Neighborhood Assessment Tool developed by Global Green USA, public officials and local government staff are using the LEED for Neighborhood Development (LEED-ND) rating system to determine ways for future development in their communities to achieve high levels of environmental, economic, and social sustainability. LEED-ND integrates the principles of smart growth, walkable urbanism and green building into the first national rating system for neighborhood design. In Burlington, Global Green used the tool as a means to evaluate existing conditions in the Pine Street/South Waterfront area, as well as to identify opportunities to augment future revitalization, and to develop recommendations that increase overall levels of sustainability. Global Green was assisted by Raimi + Associates and U.S. Green Building Council during the visit to Burlington.

ENVIRONMENTAL PROTECTION AGENCY

Technical Assistance provided by Global Green USA with the US Green Building Council to the City of Burlington was made possible through funding from the US EPA's Office of Sustainable Communities Building Blocks for Sustainable Communities Grant Program.

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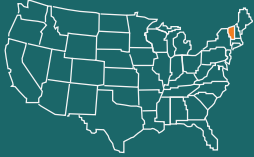
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Pine Street/South Waterfront Assessment Area

NEIGHBORHOOD LOCATION

VERMONT



CHITTENDEN COUNTY



CITY OF BURLINGTON



PINE STREET/ SOUTH WATERFRONT



SUSTAINABLE NEIGHBORHOOD ASSESSMENT PROCESS

The goal of the sustainable neighborhood assessment process is to identify topical and physical focus areas where policy or planning changes will promote sustainable urban development over the short and long term. To define these focus areas, Global Green USA and its team members utilize the Sustainable Neighborhood Assessment Tool, which is based on the LEED for Neighborhood Development (ND) criteria and checklist.

Prior to visiting the target neighborhood, the team conducts a thorough baseline review of existing planning documents, code requirements, and the stated city and stakeholder priorities for the neighborhood. An initial assessment is completed, with the credits in each of the three LEED-ND categories (Smart Location & Linkages, Neighborhood Pattern & Design, and Green Infrastructure & Building) marked as "achieved", "not achieved," "unknown," or "not applicable." Each credit is further ranked for the degree that it correlates to regional or local policy priorities, regulatory support, technical feasibility, market support, and stakeholder input. The checklist for the Pine Street/South Waterfront neighborhood is provided on pages 10-12.

This initial assessment serves as the point of departure for the Global Green team's three-day site visit and evaluation. During the visit, the team walks each block of the target neighborhood, photographs examples of positive qualities and areas for improvement, and conducts a series of meetings with targeted stakeholders, city staff, and representatives of relevant public agencies. Throughout the process, the preliminary checklist is edited and refined to incorporate

the team's visual observations and contextual issues raised by stakeholders. The initial findings of the evaluation are grouped into broad categories noted on the next page in the grey box. These categories are presented and discussed at a community workshop. The dialogue and suggestions which emerge during the community workshop are incorporated into the final version of the checklist and this report.

The assessment process then enables the team to identify a series of recommendations to augment and increase the neighborhood's sustainability. The sustainability performance metrics are derived from the LEED-ND standards and serve as the technical foundation for the team's specific policy and planning recommendations. The intention of the recommendations is to suggest policy, planning, and development changes that will promote sustainability within and around the assessment area with a particular focus on future development.

The Global Green team's recommendations for the Pine Street/South Waterfront assessment area are organized into the following three topic areas: 1) Planning the Emerging District, 2) Shared Access and Infrastructure, and 3) Pine Street Improvements.

These recommendations are based on the team's review of the relevant regulations and plans for the neighborhood, a walking tour, and input from City staff and a number of community stakeholders. Some recommendations could be implemented fairly quickly, while others will require long-term collaboration among public agencies, local institutions, and private sector partners.

NEIGHBORHOOD BACKGROUND & CATALYTIC PROJECT

The Pine Street / South Waterfront assessment area lies just south of Burlington's downtown along the eastern shore of Lake Champlain. The assessment area is bounded by Maple Street to the north; the back lot line of Pine Street parcels to the east; Flynn Ave to the south; and the Lake Champlain to the west. It encompasses a number of distinct sub-areas including the Railyard Enterprise Project Area in the north; the Pine Street Arts District corridor; the Barge Canal Superfund Site; the Lakeside/Sears Lane industrial area in the center; the Lakeside neighborhood to the west; and the Flynn Ave industrial area in the south.

At present the area has a mix of industrial, residential and commercial land uses, a rail yard, and a historic canal. The City has received a separate EPA Brownfield Area Wide Planning Grant to advance planning in the area. Some portions of the assessment area- particularly in the Barge Canal area- have legal Institutional Controls (ICs) that serve as deed restrictions that run with the land, imposing groundwater and land use restrictions on the site and on parcels adjacent to the site, thus limiting its development potential.

The Pine Street corridor is a hub for Burlington's arts and creative culture community. With the exception of the historic Lakeside residential neighborhood in the southwest, the majority of the area is zoned as an

enterprise area intended to serve a variety of non-residential uses.

Improved multi-modal access is critical to the continuing emergence of the district. The long planned Champlain Parkway project aims to reduce truck traffic on South End neighborhood streets by connecting the mixed use areas along Pine Street and Lakeside with I-189, while establishing Pine Street as an urban street. In the northern portion of the assessment area, the Railyard Enterprise Project (REP) aims to support economic development and improved livability by expanding the urban street grid with complete street, multi-modal connections. The REP sits just south of the Battery-King Historic District and is bounded by Maple Street (north); Pine Street (east); Marble Ave (south) and the Lake (west).

Additionally, the City recently completed PlanBTV- Downtown and Waterfront. Funded through HUD's Sustainable Communities Challenge Grant (2010), PlanBTV is the land use and development plan for the northern segment of this assessment area. Currently there is not a set vision for the remaining portion of the Pine Street/South Waterfront area, although ideas about an EcoDistrict have been discussed. This assessment and recommendations aims create a vision for the area.

NEIGHBORHOOD HIGHLIGHTS



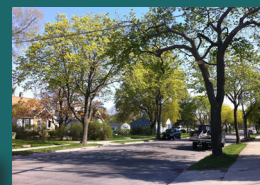
NEW INVESTMENT



JOBS



NATURAL FEATURES



MATURE STREET TREES



CREATIVE CULTURE

NEIGHBORHOOD ASSESSMENT FOCUS AREAS

Related LEED-ND Credits

Pine Street

Category: Smart Location & Linkages

Bicycle Network & Storage (credit 4)

Category: Neighborhood Pattern & Design

- Walkable Streets (prerequisite & credit 1)
- Connected and Open Community (prerequisite 2)
- Street Network (credit 6)
- Mixed-Use Neighborhood Center (credit 3)
- Transit Facilities (credit 7)
- Access to Civic and Public Spaces (credit 9)
- Access to Recreational Facilities (credit 10)
- Community Outreach and Involvement (credit 12)
- Neighborhood Schools (credit 15)

Housing

Category: Neighborhood Pattern & Design

- Mixed-Income Diverse Communities (credit 4)
- Access to Civic and Public Spaces (credit 9)
- Access to Recreation Facilities (credit 10)
- Community Outreach and Involvement (credit 12)
- Tree-Lined & Shaded Streets (credit 14)

Housing cont'd

Category: Green Infrastructure & Building

- Certified Green Building (prerequisite & credit 1)
- Building Energy Efficiency (credit 2)
- Water Efficient Landscape (credit 4)
- Solar Orientation (credit 10)

Parks & Waterfront

Category: Green Infrastructure & Building

- Certified Green Building (prerequisite & credit 1)
- Construction Activity Pollution Prevention (prerequisite)
- Water Efficient Landscape (credit 4)
- Min. Site Disturbance in Design and Construction (credit 7)
- Solar Orientation (credit 10)
- Infrastructure Energy Efficiency (credit 13)
- Wastewater Management (credit 14)
- Recycled Content in Infrastructure (credit 15)
- Solid Waste Management Infrastructure (credit 16)
- Light Pollution Reduction (credit 17)

The team concentrated on these three focus areas during the community workshop. The related LEED-ND criteria influenced the specific recommendations found on the following pages.

1. PLANNING THE EMERGING DISTRICT

The southern end of the study area, from the edge of the Superfund site down to Flynn Avenue, represents Burlington's biggest infill development opportunity. It is in close proximity to downtown and has regional connections that will be enhanced with the construction of the new Champlain Parkway to I-189. Its prime location, large parcels, and adjacency to the emerging Pine Street Corridor give it the kind of economic and cultural cache that entices developers to move quickly on a parcel-by-parcel basis.

A parcel-by-parcel strategy, particularly with in area where housing is prohibited, is likely to end up with a hodge-podge of large single use buildings. The opportunity to create a lively, walkable mixed use district would be lost for decades. Therefore it is important for the City to "get out in front" of development, be pro-active, and provide leadership in Place Making, with both a philosophy and a process centered around viewing this place in its entirety, rather than zeroing in on isolated fragments of the whole.

LEED-ND provides several clues as to what

elements should be incorporated into a complete neighborhood – a mix of uses at sufficient densities to support local businesses and amenities, attention to walkability in the public realm, a connected street network, overt inclusion of green infrastructure and buildings – but does not provide a planning process for implementing these concepts. A detailed and comprehensive planning process like PlanBTW would provide these missing links, but is unlikely to be completed in time to respond to growing development pressures and key district building opportunities due to the typical planning time-frame and uncertain project funding. **Therefore the Global Green team suggests a short but intensive planning process, taking a maximum of six months, and structured to include the action items on the following page.**



Continue planning for the south waterfront

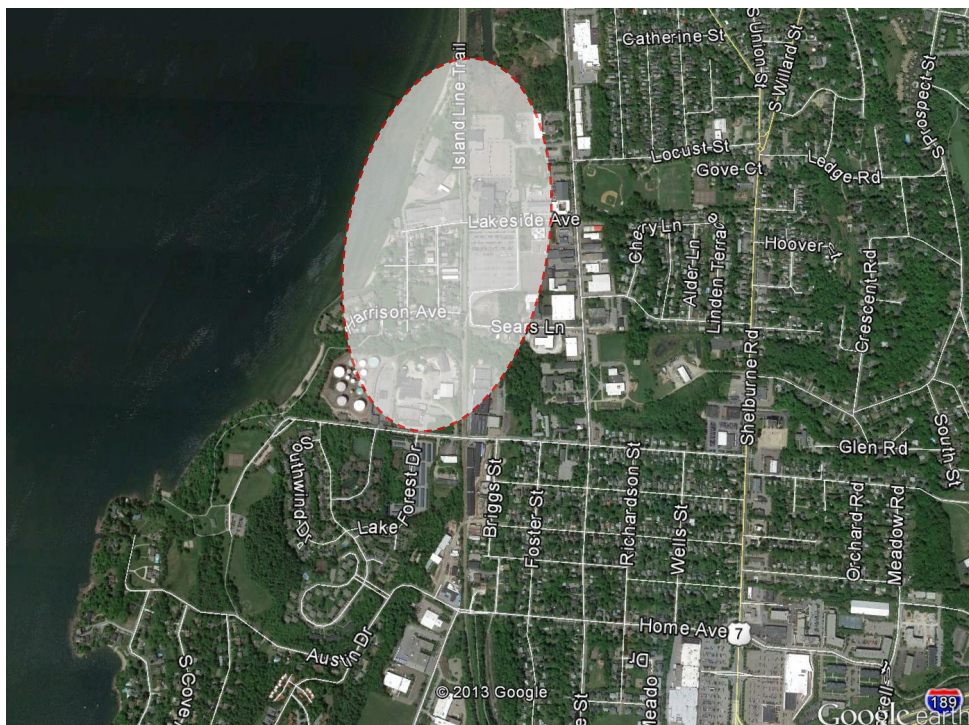
RESPONSIBLE DEPARTMENTS

Lead by DPZ; support from CEDO, and DPW

1. PLANNING THE EMERGING DISTRICT

Recommendation 1 - Action Items

- **Short, Intensive Planning Process.** Implement a week-long charrette that strongly adheres to National Charrette Institute principles and guided by planning and design professionals who have experience in General Urban and Urban Center type places (T-4 and T-5 respectively, in the New Urbanist Transect Typologies).
- **Temporary Development Moratorium.** Consider an interim moratorium on any development in the this area end until this expedited planning process is complete.
- **Community Representation.** Ensure that the community-based charrette explicitly include two groups who the Global Green team senses are under-represented in the planning process in Burlington – the Resettlement Community and major landowners/developers. This will ensure that the outcome of the process will be inclusive but grounded in market-based reality.
- **Shared Infrastructure Planning.** Ensure that the shared infrastructure proposals for parking and stormwater management detailed elsewhere in this document are fully explored. They need to be embedded in planning outcomes, not added on later.
- **Specific Outcomes.** Include a street network and hierarchy within the plan area, a designed activity hub, locations of public open space, housing diversity considerations and multiple safe pedestrian routes to area schools, parks, open space, and job centers.
- **Incorporate Arts.** Include high-visibility art installations into the planning and design process, either as stand alone pieces or as part of functional elements such as signs, streetscape, neighborhood gateways, wayfinding, and pedestrian crossings.



Pine Street / South Waterfront planning area

2. SHARED ACCESS & INFRASTRUCTURE

There are a number of communal assets in the study area, particularly Lake Champlain, waterfront beaches, and the lakeside bike trail. A number of low-cost opportunities for increased access to these assets are identified. Over the longer-term, creating new communal assets such as shared infrastructure for parking and storm water management will also be critical to a sustainable future.

Focusing on these two areas – shared access to community assets and shared infrastructure – would only enhance the desirability of the area and connect it to the broader Burlington community. It would also begin to put in place the kind of communally managed infrastructure that is the necessary backbone of an EcoDistrict. By identifying specific LEED-ND metrics that call for shared infrastructure, the City can identify

tangible targets and monitor progress towards general EcoDistrict elements.

Shared approaches to stormwater management deserves some particular attention in the southern portion of the assessment area. Because the area is largely impervious, development of individual parcels will likely lead to some small increase in perviousness, thus making stormwater permitting relatively simple – and relatively ineffective in improving water quality and the health of Englesby Creek. A shared stormwater management strategy on a district scale – where the City would build one or more centralized water catchment locations and require developers to use it and pay fees in lieu of on-site strategies – could be both more cost effective and have a greater impact on water quality.



Existing conditions of Englesby creek

RESPONSIBLE DEPARTMENTS

Lead by DPW, P&R, CEDO; support from DPZ

2. SHARED ACCESS & INFRASTRUCTURE

Recommendation 2 - Action Items

- **Recreation Facilities.** Invest in programming and small-scale child-friendly recreational infrastructure at the terminus of Maple Street at Perkins Pier in the north part of the study area.
- **Pedestrian Amenities.** Complete the sidewalk network, on the south side of Flynn Avenue between Briggs Street and Island Line Trail to increase accessibility to the Oakledge Park, and Blanchard Beach. Additional pedestrian improvements could include street lighting if budget is available.
- **District Parking.** Develop a district-wide parking plan for the area. This plan would include not only shared parking solutions, but modified parking standards for new and renovated buildings, requirements for bicycle parking, and integration with the traffic demand management policies of the large employers in the area.
- **Stormwater.** Identify and acquire parcels for district scale stormwater management infrastructure. These parcel acquisitions could be done in conjunction with the land acquisition and parcel reconfiguration effort that will take place with the engineering and construction of the Champlain Parkway.
- **Street Network.** Enhance interconnected street network where possible to increase mobility, parcel access, and multiple route choices between district locations.
- **District Energy Strategy.** Work with Burlington Electric Department to find opportunities for energy efficiency, efficient and creative lighting, shared heating and cooling, renewable energy, and demonstration projects.
- **Demonstration Projects.** Implement demonstration projects in front of public buildings fronting Pine Street to both introduce new shared stormwater strategies and to reduce runoff into nearby combined storm and sewer system or at the central treatment plant.



Improve access to Oakledge Park by completing the sidewalk network and increasing pedestrian scale lighting



Existing conditions on Flynn Avenue with incomplete sidewalk network

3. PINE STREET IMPROVEMENTS

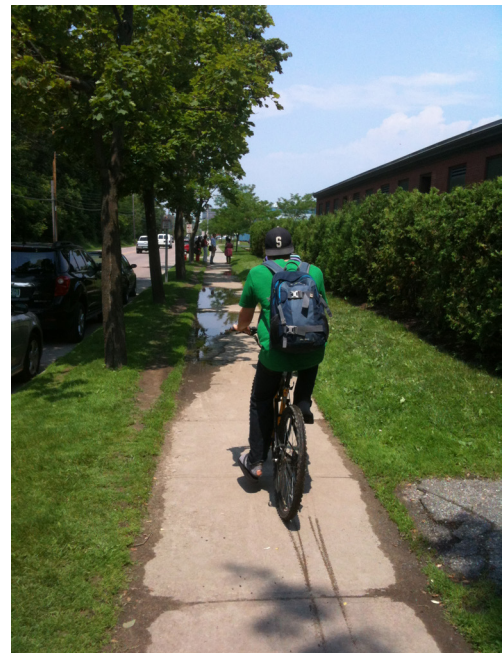
The future of the Pine Street/South Waterfront area is largely dependent on the character and function of Pine Street. As the main thoroughfare it will continue to provide vehicular access to downtown and to southern portions of the City, but a redesigned Pine Street could create a neighborhood identity while also serving multi-modal needs within the community.

LEED-ND provides a number of standards that can help to create a safe and comfortable street for its surrounding uses and users. At present the street is conducive to speeding cars. In order to discontinue this trend, the Global Green teams feels it is imperative to rethink phasing of Pine Streets redesign as it relates to the Champlain Parkway. Rather than waiting for the Champlain Parkway improvements to establish the character of Pine Street in the northern portion, the Team believes that the City should make short term improvements starting in the north in order to carry more of the downtown, pedestrian character into the heart

of the Pine Street Corridor. This north-to-south phased approach to the streets redesign will encourage the City to visualize what elements the street should have, identify what can be done in the short term (within 12 months) to improve the pedestrian and bicyclist experience, and coordinate construction schedules with the parkway project for longer term (1-3 years) capital improvements.

Once the vision for the street is set, the City should secure funding for additional improvements to be done in coordination with Champlain Parkway construction to minimize disruption to area businesses. Any added improvements would, of course, need to be carefully advanced so as not to jeopardize the permits and funding for the current Champlain Parkway project.

The short and long term improvements recommended herein are based on LEED-ND principles of walkability and urban design and can help with placemaking and delivery of long-awaited investments into Pine Street.



Existing conditions on Pine Street inhibiting comfortable and efficient bike and pedestrian access

RESPONSIBLE DEPARTMENTS

Lead by DPW with support from CEDO, DPZ, BED, BCA and CCTA

3. PINE STREET IMPROVEMENTS

Recommendation 3 - Action Items

Short Term:

- **Pedestrian Crossings.** Add pedestrian crosswalks (ideally every 400–500 feet) to establish a walkable block length and increase safe pedestrian crossing on Pine Street.
- **Separated Multi-Modal Path.** Construct a separated bike and multi-modal path approximately 10 feet wide on the west side of Pine Street and within the existing public right of way (see image on next page).
- **Outdoor Seating.** Encourage outdoor seating for restaurants, bars, eateries, etc., in large front setbacks of adaptively reused buildings along the corridor. This will activate the street, reduce traffic speeds, and attract customers during the warm weather months. This element of urban design should be triggered during design review.
- **Creative Lighting.** Install decorative lighting along the corridor, thus instilling a sense of arrival and a sense of place for adjacent business owners and patrons of neighborhood amenities.
- **Calahan Park Visibility.** Increase visibility of the Calahan Park adjacent to Pine Street through signage, lighting, landscape maintenance, and by creating an entry to the park from Pine Street.
- **Activity Hub.** Identify where the hub of activity will be for the corridor and implement or commission public art from local artists within the Pine Street corridor. Include additional art pieces along the corridor and the bike path.

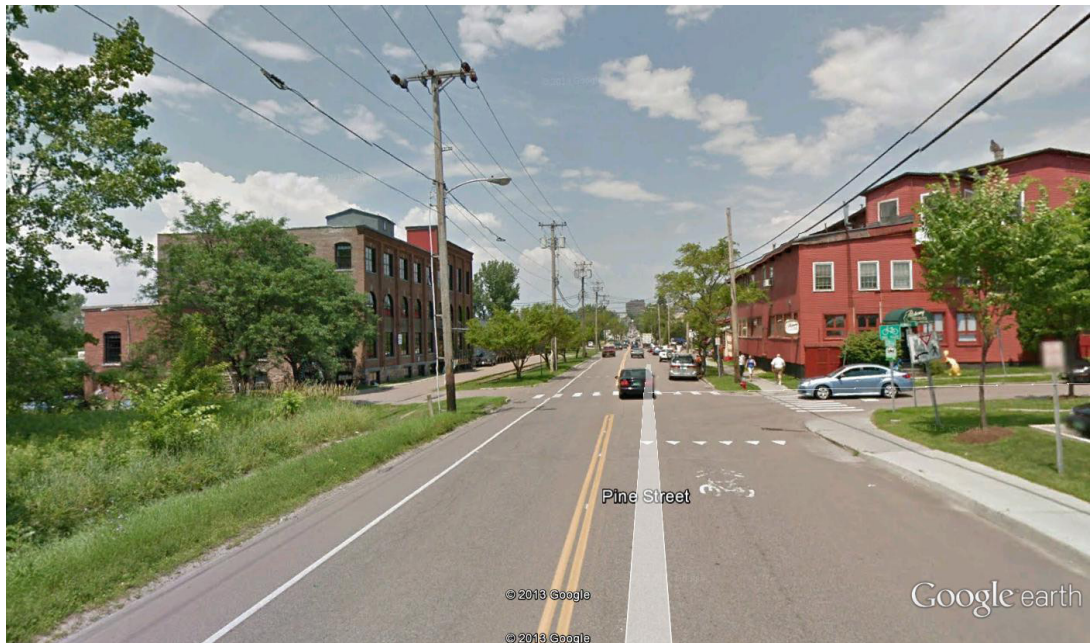
Long Term:

- **Arts and Artisan Culture.** Preserve the organic creative arts and artisan culture of the area by incentivizing affordable space, creating more flexible, artful, active public spaces, and promoting innovative local businesses (consider a ban or other restrictions on chain stores).
- **Safe Routes to Schools.** Identify eligible on-road improvements for Pine Street as a Safe Routes to Schools project, availing the area to federal funding through the Transportation Alternative Program. Improvements can include sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure projects.
- **Transit Facilities.** Work with CCTA (the local transit agency) to install transit shelters with lighting, seats, coverage from the elements, and bicycle racks.
- **Transit Service.** Identify funding to extend transit service hours in the area for residents that are transit dependent.
- **Traffic-Calming and Intersection Treatments.** Investigate intersection and traffic calming improvements. For example consider a traffic circle or other alternative design to address sub-standard conditions at Pine Street and Lakeside Avenue. Or consider some type of traffic calming on the streets adjoining Calahan Park.

3. PINE STREET IMPROVEMENTS



Rendering of Pine Street perspective showing separated multi-modal path, bus shelters, pedestrian crossings and stop lights



Existing condition of Pine Street without separated multi-modal path

SUSTAINABILITY ASSESSMENT

LEED-ND Checklist

The Sustainable Neighborhood Assessment tool includes an annotated LEED-ND checklist created by Global Green. It is a key component of the process used to document and compare the assessment area against the LEED-ND prerequisites and credits. Each credit within the three credit categories (Smart Location & Linkage, Neighborhood Pattern & Design, and Green Infrastructure & Building) is marked as "achieved," "not achieved," "unknown," or "not applicable" under baseline conditions. Additional analysis has been done based on local planning policy, regulatory support, technical feasibility, market support and stakeholder input. The preliminary checklist analysis was edited and augmented during our site visit, stakeholder meetings, and after the community workshop. This information was then translated into an overall assessment of sustainable neighborhood performance.

LEED for Neighborhood Development: Project Assessment Checklist
PINE STREET/SOUTH WATERFRONT
BURLINGTON, VERMONT

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Legend</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">✓</td> <td>Achieved</td> </tr> <tr> <td style="text-align: center;">?</td> <td>Unknown</td> </tr> <tr> <td style="text-align: center;">X</td> <td>Not Achieved</td> </tr> <tr> <td style="text-align: center;">-</td> <td>Does not exist/ NA</td> </tr> <tr> <td style="text-align: center;">■ (Green)</td> <td>Explicit support/ no technical issues</td> </tr> <tr> <td style="text-align: center;">■ (Yellow)</td> <td>Lack of explicit support/ minor technical issues</td> </tr> <tr> <td style="text-align: center;">■ (Red)</td> <td>Opposition/ significant technical issues</td> </tr> <tr> <td style="text-align: center;">■ (Grey)</td> <td>Not Applicable</td> </tr> </tbody> </table>						Legend		✓	Achieved	?	Unknown	X	Not Achieved	-	Does not exist/ NA	■ (Green)	Explicit support/ no technical issues	■ (Yellow)	Lack of explicit support/ minor technical issues	■ (Red)	Opposition/ significant technical issues	■ (Grey)	Not Applicable
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■ (Grey)	Not Applicable																						
Smart Location and Linkage																							
✓	■	■	■	■	■																		
P 1	Smart Location																						
✓	■	■	■	■	■																		
P 2	Imperiled Species and Ecological Communities																						
✓	■	■	■	■	■																		
P 3	Wetland and Water Body Conservation																						
✓	■	■	■	■	■																		
P 4	Agricultural Land Conservation																						
✓	■	■	■	■	■																		
P 5	Floodplain Avoidance																						
X	■	■	■	■	■																		
C 1	Preferred Locations																						
✓	■	■	■	■	■																		
C 2	Brownfield Redevelopment																						
✓	■	■	■	■	■																		
C 3	Locations with Reduced Automobile Dependence																						
✓	■	■	■	■	■																		
C 4	Bicycle Network																						
X	■	■	■	■	■																		
C 4	Bicycle Storage																						
X	■	■	■	■	■																		
C 5	Housing and Jobs Proximity																						
-	■	■	■	■	■																		
C 6	Steep Slope Protection																						
X	■	■	■	■	■																		
C 7	Site Design for Habitat or Wetland and Water Body Conservator																						
X	■	■	■	■	■																		
C 8	Restoration of Habitat or Wetlands and Water Bodies																						
X	■	■	■	■	■																		
C 9	Long-Term Conservation Management of Habitat or Wetlands an																						

SUSTAINABILITY ASSESSMENT

LEED-ND Checklist

LEED for Neighborhood Development: Project Assessment Checklist

PINE STREET/SOUTH WATERFRONT BURLINGTON, VERMONT

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input
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Legend	
✓	Achieved
?	Unknown
X	Not Achieved
-	Does not exist/ NA
Green	Explicit support/ no technical issues
Yellow	Lack of explicit support/ minor technical issues
Red	Opposition/ significant technical issues
Grey	Not Applicable

Neighborhood Pattern and Design

X	Green	Green	Yellow	Red	Green	P 1 Walkable Streets- Principal Entries
X	Green	Green	Yellow	Green	Green	P 1 Walkable Streets- Building Height to Street Width Ratio
X	Green	Yellow	Yellow	Green	Green	P 1 Walkable Streets-Continuous Sidewalks
X	Green	Yellow	Yellow	Red	Green	P 1 Walkable Streets-Garage and Service Bays
✓	Green	Green	Green	Green	Green	P 2 Compact Development
X	Green	Green	Yellow	Red	Green	P 3 Connected and Open Community
X	Green	Green	Green	Red	Green	C 1a Walkable Streets : Facades and Entries
X	Green	Green	Yellow	Yellow	Green	C 1b Walkable Streets: Ground-Level Use and Parking
✓	Green	Green	Yellow	Yellow	Green	C 1c Walkable Streets:Design Speed for Safe Ped and Bike Travel
X	Green	Green	Yellow	Yellow	Green	C 1d Walkable Streets: Sidewalk Intrusions
X	Green	Yellow	Green	Green	Green	C 2 Compact Development
X	Green	Yellow	Green	Yellow	Green	C 3 Mixed-Use Neighborhood Centers
✓	Green	Red	Red	Yellow	Green	C 4 Affordable Housing
✓	Green	Red	Red	Yellow	Green	C 4 Housing Diversity
X	Green	Yellow	Green	Red	Green	C 5 Reduced Parking Footprint
X	Green	Yellow	Red	Green	Green	C 6 Street Network
X	Yellow	Yellow	Green	Yellow	Green	C 7 Transit Facilities
✓	Green	Green	Green	Green	Green	C 8 Transportation Demand Management
✓	Green	Green	Yellow	Yellow	Green	C 9 Access to Civic and Public Spaces
✓	Green	Green	Yellow	Yellow	Green	C 10 Access to Recreation Facilities
X	Yellow	Yellow	Green	Yellow	Green	C 11 Visitability and Universal Design
✓	Green	Green	Green	Yellow	Green	C 12 Community Outreach and Involvement
X	Yellow	Yellow	Green	Green	Green	C 13 Local Food Production
X	Green	Green	Yellow	Yellow	Green	C 14 Tree-Lined and Shaded Streets
X	Green	Yellow	Yellow	Green	Green	C 15 Neighborhood Schools

Burlington, VT

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6/26/2013

SUSTAINABILITY ASSESSMENT

LEED-ND Checklist

LEED for Neighborhood Development: Project Assessment Checklist PINE STREET/SOUTH WATERFRONT BURLINGTON, VERMONT

Baseline Conditions	Local/Regional Planning Priority	Regulatory Support	Technical feasibility	Market Support	Neighborhood Need/ Stakeholder Input
---------------------	----------------------------------	--------------------	-----------------------	----------------	--------------------------------------

Legend	
✓	Achieved
?	Unkown
X	Not Achieved
-	Does not exist/ NA
Green	Explicit support/ no technical issues
Yellow	Lack of explicit support/ minor technical issues
Red	Opposition/ significant technical issues
Grey	Not Applicable

Green Infrastructure and Buildings

✓	Green	Green	Green	Green	Green	P 1	Certified Green Building
X	Green	Yellow	Green	Green	Green	P 2	Minimum Building Energy Efficiency
X	Yellow	Yellow	Green	Yellow	Green	P 3	Minimum Building Water Efficiency
✓	Green	Green	Red	Yellow	Yellow	P 4	Construction Activity Pollution Prevention
✓	Green	Green	Green	Green	Green	C 1	Certified Green Buildings
X	Green	Yellow	Green	Green	Green	C 2	Building Energy Efficiency
X	Yellow	Yellow	Green	Yellow	Green	C 3	Building Water Efficiency
X	Yellow	Yellow	Green	Yellow	Yellow	C 4	Water-Efficient Landscaping
✓	Green	Green	Green	Green	Green	C 5	Existing Building Use
✓	Green	Yellow	Green	Green	Green	C 6	Historic Resource Preservation and Adaptive Reuse
X	Yellow	Yellow	Yellow	Red	Yellow	C 7	Minimized Site Disturbance in Design and Construction
X	Green	Yellow	Red	Red	Green	C 8	Stormwater Management
X	Yellow	Yellow	Red	Yellow	Yellow	C 9	Heat Island Reduction
X	Yellow	Yellow	Yellow	Yellow	Yellow	C 10	Solar Orientation
X	Green	Yellow	Green	Yellow	Green	C 11	On-Site Renewable Energy Sources
X	Yellow	Yellow	Red	Red	Green	C 12	District Heating and Cooling
✓	Green	Green	Green	Green	Green	C 13	Infrastructure Energy Efficiency
X	Yellow	Yellow	Yellow	Red	Yellow	C 14	Wastewater Management
?	Green	Yellow	Green	Yellow	Yellow	C 15	Recycled Content in Infrastructure
✓	Green	Yellow	Green	Yellow	Yellow	C 16	Solid Waste Management Infrastructure
?	Green	Yellow	Green	Yellow	Green	C 17	Light Pollution Reduction

Burlington, VT

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SUSTAINABILITY ASSESSMENT

LEED-ND SCORE

Based on in-field assessment, planning document review, various stakeholder meetings, and the community workshop, the Global Green team estimated which LEED-ND credits were "Likely," "Possible with Effort," "Unlikely" to be achieved, or "Not Applicable," considering existing conditions, technical feasibility, policy readiness, financial burden, and applicability to neighborhood conditions. The bar graph summary identifies the overall level of sustainable neighborhood performance for the Pine Street/South Waterfront area, while a high percentage of credits fall into the "Likely" category. Of the remaining credits, a significant percentage fall within the "Possible with Effort" category, which shows the large potential for improving the sustainability of the South Waterfront specifically by pursuing the high-priority recommendations described in this report.

The summary table below shows the numeric values extrapolated from the percentage of credits identified as "Likely" below. While these values do not correlate exactly to specific LEED-ND points, they provide an estimate of the neighborhood's potential level of future achievement. It should be noted that this is a rough measure of performance and not an exact representation of the project's level of possible certification. It should also be noted that all the prerequisites need to be achieved if certification will be pursued.

Smart Location and Linkages



Neighborhood Pattern and Design



Green Infrastructure and Building



Legend

- "Likely"
- "Possible with Effort"
- "Unlikely"
- "Not Applicable"

Point Requirements for LEED-ND Certification

<i>Certified:</i>	40-49
Silver:	50-59
<i>Gold:</i>	60-79
<i>Platinum:</i>	80+

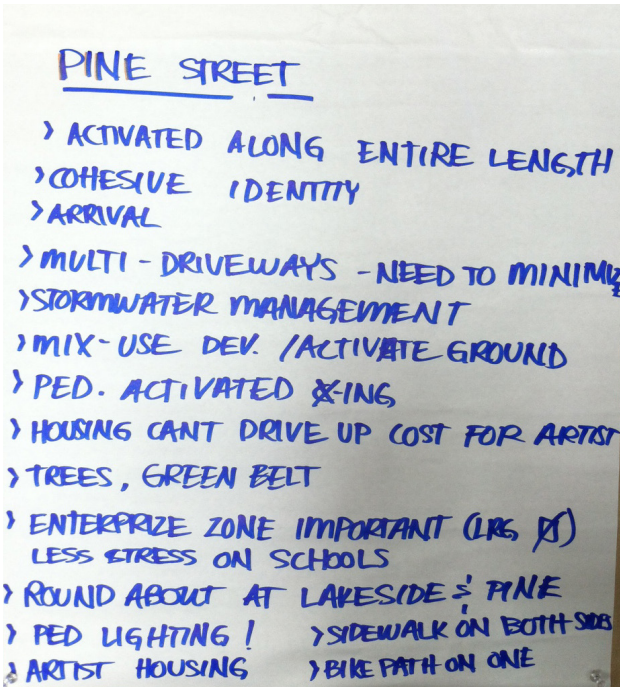
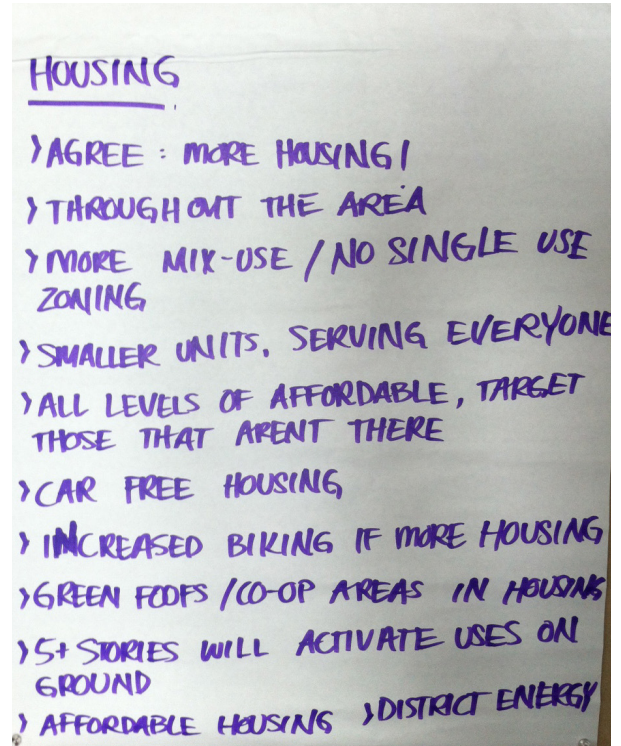
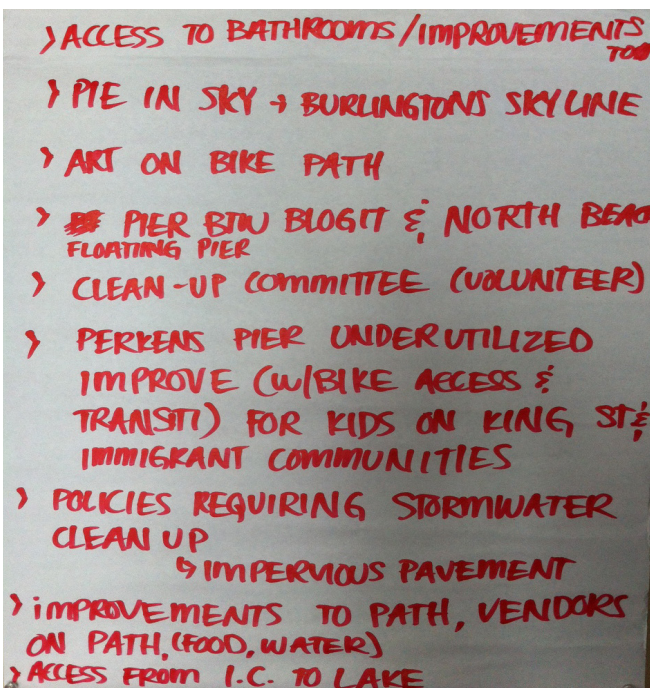
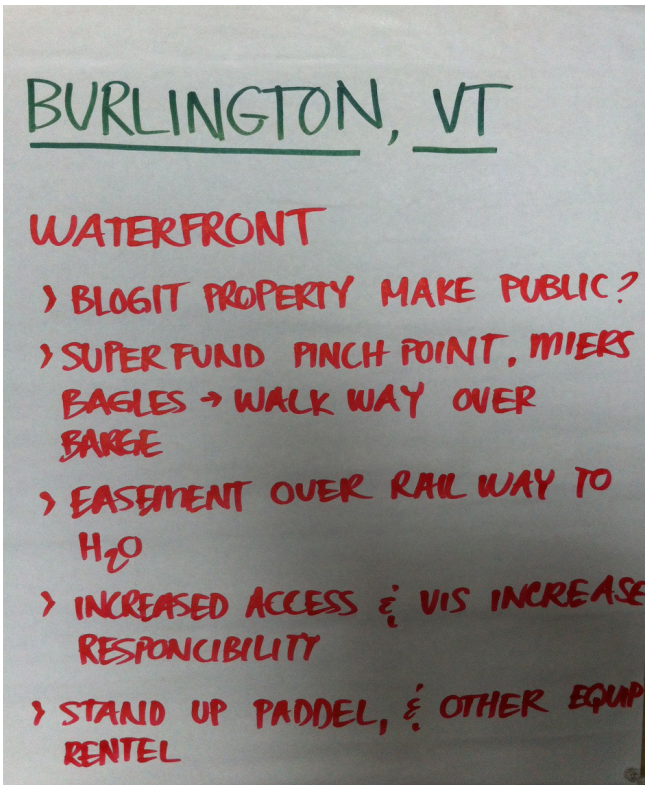
City of Burlington

LEED for Neighborhood Development

	Total	Achievable	Possible
Smart Location and Linkage	27	13	11
Neighborhood Pattern and Design	44	25	16
Green Building and Infrastructure	29	13	13
	100	51	40

WORKSHOP NOTES

An evening Public Workshop was held on June 27th in the VEIC "Town Hall" meeting room at 128 Lakeside Avenue. About 50 attendees split up into self-selected groups focusing on 1) access to the waterfront; 2) integrating housing into the district; and 3) improving Pine Street as a neighborhood asset. The following notes represent the summary report of each of the three groups.



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