What is a “great street”?
A GREAT STREET IS...

Burlingtonians have said they’d like to see improvements on the street and these are the zones where those improvements can happen.
A GREAT STREET IS...

WALKABLE & BIKEABLE

Burlingtonians have said they’d like to see improvements on the street and these are the zones where those improvements can happen.
A GREAT STREET IS...

WALKABLE & BIKEABLE

SUSTAINABLE

PRIVATE

PUBLIC

Burlingtonians have said they’d like to see improvements on the street and these are the zones where those improvements can happen.

Clear Sidewalks

Bike Path & Buffer

Stormwater/Rain Gardens

A Great Street is built to endure many decades and reflect Burlington’s values—values which have been articulated in community plans such as planBTV Downtown & Waterfront, Burlington Transportation Plan, planBTV Walk/Bike and many others. According to these plans, a Great Street is truly transformative, and is:

• walkable and bikeable,
  safe for all modes and levels of accessibility

• sustainable,
  both environmentally and in long-term durability

• vibrant,
  to support downtown’s diverse range of public and private facilities

• functional,
  serving all users, flexible, maintainable and affordable
A GREAT STREET IS...

WALKABLE & BIKEABLE

- Burlingtonians have said they’d like to see improvements on the street and these are the zones where those improvements can happen.

- Building Frontage
- Clear Sidewalks

SUSTAINABLE

- Bike Path & Buffer
- Stormwater/ Rain Gardens

VIBRANT
A GREAT STREET IS...

WALKABLE & BIKEABLE

SUSTAINABLE

VIBRANT

FUNCTIONAL

Burlingtonians have said they’d like to see improvements on the street and these are the zones where those improvements can happen.

Building Frontage

Clear Sidewalks

Tree Belt/Furnishings

Bike Path & Buffer

Stormwater/Rain Gardens

Parking/Roadway
Great Streets for Downtown Burlington:

What is a Great Street? Why Great Streets for Burlington?

Downtown Street Design Standards  City of Burlington

Burlington's Previous Planning Efforts & Studies

Burlington Transportation Plan

A broad policy document that supports the Great Streets philosophy, Complete Street initiatives, and improved walking, biking and transit; anticipates the new transit center on St. Paul

Plan BTV Burlington Parks, Recreation & Waterfront Master Plan

A key development within downtown that will be designed and built concurrently

Transportation Demand Management Action Plan

Offers strategies for City of Burlington to reduce automobile dependence, support transit, bikes, and walking, especially within downtown

Plan BTV Walk Bike (Draft)

Provides detailed guidance on pedestrian and bike improvements that directly affect downtown streets

Burlington Form Based Code (Draft)

Positions City Hall Park within a linked system of parks, open spaces, and waterfront; provides reference for City Hall Park and downtown waterfront park areas

TV Downtown & Waterfront

A vision, long-term, citywide effort that also the private and public sectors, visible, walkable, attainable, transit-oriented district

Department Financial (TIF) Plan

Provides the basis for funding streetscape and public realm improvements, especially within downtown

BTV Burlington Parks, Recreation & Waterfront Master Plan

Establishes state standards that may apply to some segments of the downtown grid

Re-Imagining City Center

A new initiative to re-envision the mall, notably through the repositioning of long-closed street segments on Pine and St. Paul

NACTO Urban Street Design Guide

An influential national document that provides the policy support and detailed design guidance on creating urban streets that serve multiple users and purposes

Complete Streets - A Guide for Vermont Communities

Establishes statewide standards and policy support, critical for the Complete Street segments in downtown

Burlington Transportation Plan

Offers strategies for City of Burlington to reduce automobile dependence, support transit, bikes, and walking, especially within downtown

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BTV Burlington Parks, Recreation & Waterfront Master Plan

Establishes state standards that may apply to some segments of the downtown grid
How will the standards transform BTV’s streets?
RESTORE BALANCE AMONG USERS/USES...
City of Burlington
Downtown Street Design & Construction Standards
REFRAME THE CENTER OF DOWNTOWN...
What do the standards do?
THE STANDARDS DO:

• Identify **common palette of materials & furnishings** to implement on streets over time

• **Compliment Church Street’s visual character,** without replicating wholesale

• Create a public realm that **showcases buildings, signs, public art,** etc as the unique and authentic elements within downtown

• **Combine city, state, federal requirements** regarding rights-of-way in a single document

• Include **preferred and alternate elements to allow flexibility** to adapt to unique conditions, project budgets, other constraints

• Take **precedence over other City policies/guidance** regarding the right-of-way, unless otherwise noted
THE STANDARDS DO NOT:

- Mandate the **immediate reconstruction of streets or replacement** of all fixtures/elements; instead, anticipate application of standards as projects occur or elements reach end of life.

- Provide **specific designs for each street**; some streets will require corridor-specific studies.

- Inventory **all conditions that may exist** in the right-of-way, especially unknown subsurface conditions.
PROVIDE A CRITICAL RESOURCE TO:

- **Planners & project managers** responsible for overseeing projects within the public right-of-way, including city departments and outside agencies

- **Professional street designers** preparing the specific plans for a public right-of-way

- **People who experience streets**, via all modes and for all purposes, and will benefit from a more predictable development of public streets
How to use the standards?
1. Review Design Considerations for the street/corridor

2. Identify Proposed Future Street Type

Include details in Scope of Work, RFPs/RFQs for consultant services...
1. Review Design Considerations for the street/corridor

2. Identify Proposed Future Street Type

Include details in Scope of Work, RFPs/RFQs for consultant services...

Then, project development or scoping phase...

3. Select appropriate options to layout Roadway & Pedestrian Zones

PROJECT MANAGER

PROJECT MANAGER or PROFESSIONAL & USERS
1. Review Design Considerations for the street/corridor
   - Identify Proposed Future Street Type
     - Include details in Scope of Work, RFPs/RFQs for consultant services...

2. Then, project development or scoping phase...

3. Select appropriate options to layout Roadway & Pedestrian Zones
   - PROFESSIONAL STREET DESIGNER
     - Finally, prepare plans & construction documents, cost estimates, etc. based on...

4. Layout design, applying all pertinent Zone Dimensions to selected options
   - PROFESSIONAL & USERS

5. Utilize Street & Intersection Assemblies to select & place needed elements

6. Use Materials & Furnishings Palette to select materials, furnishings, etc
Bringing it all together: St. Paul Street Plans
1. Review Design Considerations for the street/corridor

2. Identify Proposed Future Street Type

Include details in Scope of Work, RFPs/RFQs for consultant services...
1.a. REVIEW INVENTORY OF CONDITIONS

- Current pavement width 38.5’ - 55’; two-way street, left turn lane at Main

- Current parallel on-street parking all block-faces, with diagonal east side b/w Main-King

- Overhead utilities King-Maple, standard cobrahead lighting assembly

- Limited street trees in sidewalk cut-outs north of King, standard greenbelt south of King

- Major linkage into downtown from south; anticipated future connectivity through mall site
1.b. REVIEW DESIGN CONSIDERATIONS

- **Recommended Street Type:** Typical Downtown Commercial

- **Pairs with Church St. to “reframe center” of downtown; gateway from south**

- **Proposed Roadway Width:** 35’ (i.e. curb-to-curb); **Proposed Design Speed:** less than 25mph

- **All street frontages require shop fronts per planBTV Downtown Code**

- **Walk-Bike Plan does not indicate separated bike facilities; transit service**

- **Underground overhead utilities**
2. IDENTIFY FUTURE STREET TYPE

- **Downtown Commercial Street**
  - Typical (66’ ROW, 35’ Roadway)
  - Minimum (66’ ROW, 28’ Roadway)

- **Special Downtown Commercial Street**
  (99’ ROW, 38’ Roadway)

- **Downtown Commercial Street- Transit**
  - Typical (66’ ROW, 40’ Roadway)
  - Minimum (66’ ROW, 37’ Roadway)

- **Downtown Residential Street**
  (66’ ROW, 30’ Roadway)
2. STREET TYPE- Cross Section & Zone Options

Public Right-of-Way Building Great Streets: Standard Zone Dimensions

ROADWAY AND PEDESTRIAN ZONES

The second critical dimension for street design is the roadway zone width—the distance between the curb face on one side and the curb face on the other—and the resulting width of the pedestrian zone on either side of the street. If the right-of-way is like an outer lining, the roadway width is the inner lining, and the relationship of the two determines the proportion of roadway space for vehicles in relation to the pedestrian space for everything else.

For the purpose of these standards, zones are organized as follows:

- **The Roadway Zone** includes turn lanes, travel lanes, parking lanes, and bicycle lanes. Although parklets function as an extension of the pedestrian zone, they typically occupy space in the parking zone therefore, standards/dimensions for those will be included here.

- **The Pedestrian Zone** includes the curb, stormwater raingardens, buffer zones, tree belt/furnishing zones, clear sidewalk zones, and frontage zones (special circumstances may call for a cycle track to be incorporated into the pedestrian zone).

In the “Street Types and Zone Options” section, the minimum and recommended dimensions for the roadway and pedestrian zones are based on the individual street types described. While there are some outliers due to larger or smaller row, in general the application of these standards will result in the following proportions:

- 40' roadway zone yields 13.5' pedestrian zone
- 37' roadway zone yields 14.5' pedestrian zone
- 35' roadway zone yields 15.5' pedestrian zone
- 30' roadway zone yields 18' pedestrian zone
## ROADWAY ZONE OPTIONS

### 35’ Roadway Zone—31’ Pedestrian Zone

<table>
<thead>
<tr>
<th>Frontage Zone</th>
<th>Clear Sidewalk Zone</th>
<th>Treebelt / Furnishing Zone</th>
<th>Parking Lane</th>
<th>Travel Lane</th>
<th>Travel Lane</th>
<th>Park Travel Travel Bike Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>3’</td>
<td>6’</td>
<td>6’</td>
<td>7.5’</td>
<td>10’</td>
<td>10’</td>
<td>7.5’</td>
</tr>
<tr>
<td>Pedestrian Zone</td>
<td>15.5’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Roadway Zone Options**

Options for zone arrangements within the roadway based on streets' unique characteristics and identified plans.

- **Park**: 7.5’
- **Travel**: 10’
- **Travel**: 10’
- **Park**: 7.5’

- **Bike**: 5’ + 2.5’
- **Travel**: 10’
- **Travel**: 10’
- **Bike**: 2.5’ + 5’

---

* A 12” buffer is required to meet the 18” minimum setback from curb face to vertical obstructions when adjacent to parking. When there is no buffer zone, no vertical elements can be within the outermost 18” of the tree belt.

**The ADA minimum 4’ walkway (with 5’ width every 200’) may be applied.**

**Minimum 1’ Frontage Zone required next to built structure, except on residential streets.**
Pedestrian Zone Options
Options for zone arrangements outside the curb based on streets' unique characteristics and adjacent land uses.

* A 12” buffer is required to meet the 18” minimum setback from curb face to vertical obstructions when adjacent to parking. When there is no buffer zone, no vertical elements can be within the outermost 18” of the tree belt.

** The ADA minimum 4’ walkway (with 5’ width every 200’) may be applied.

*** Minimum 1’ Frontage Zone required next to built structure, except on residential streets.
1. Review Design Considerations for the street/corridor

2. Identify Proposed Future Street Type

Include details in Scope of Work, RFPs/RFQs for consultant services...

Then, project development or scoping phase...

PROJECT MANAGER or PROFESSIONAL & USERS

3. Select appropriate options to layout Roadway & Pedestrian Zones
3. SELECT APPROPRIATE LAYOUT OPTIONS

VS

BALANCE USERS & USES

WALKABLE & BIKEABLE

SUSTAINABLE

VIBRANT

FUNCTIONAL
1. Review Design Considerations for the street/corridor

2. Identify Proposed Future Street Type

Include details in Scope of Work, RFPs/RFQs for consultant services...

Then, project development or scoping phase...

3. Select appropriate options to layout Roadway & Pedestrian Zones

4. Layout design, applying all pertinent Zone Dimensions to selected options

Finally, prepare plans & construction documents, cost estimates, etc. based on...

5. Utilize Street & Intersection Assemblies to select & place needed elements

6. Use Materials & Furnishings Palette to select materials, furnishings, etc
# 4. Layout Design - Zone Dimensions

## PEDESTRIAN ZONE

<table>
<thead>
<tr>
<th>Zone</th>
<th>Dimensions</th>
<th>Considerations</th>
<th>Add'l Info</th>
</tr>
</thead>
</table>
| Travel Lane        | 10’ minimum; 10.5’ minimum on transit/truck routes                        | • Wider travel lanes (11’ to 12’) are appropriate in locations with high volumes of heavy vehicles.  
• Travel lane widths of 10’ generally provide adequate safety in urban settings while discouraging speeding. City may choose to use 11’ lanes (10.5’ min.) on designated truck and bus routes. | VTrans ref. dwg. Standard E-193 Pavement Marking Details [App. A-1](#)                                                                                       |
| Clear Sidewalk Zone| 5’ width minimum; see Preferred for each street type                      | The Sidewalk Zone should be clear of any obstructions including utilities, traffic control devices, trees, and furniture. While these guidelines prescribe more generous preferred sidewalk zone widths during street reconstruction projects, they also establish a total minimum sidewalk width of 5’ for several Street Types. The ADA minimum walkway width is 4’, with a 5’ width every 200’; this may be applied when severe dimensional constraints exist. When reconstructing sidewalks and relocating utilities, all utility access points and obstructions should be relocated outside of the Sidewalk Zone. |                                                                                                                                                  |
5. SELECT STREETSCAPE ELEMENTS & SITING

MIDBLOCK
5. SELECT STREETSCAPE ELEMENTS & SITING
Public Placemaking & Gathering

Building Great Streets: Public Placemaking

The creation of active, successful public places—public placemaking—usually occurs in or along publicly owned spaces or rights-of-way: parks, plazas, streets, walkways. These are places which allow not just free public movement, but stopping and gathering for a variety of purposes. This may be as simple as a single person finding a place to sit and enjoy the view or observe passersby, to larger groups gathering to talk, socialize, eat, drink, and share the outdoor setting.

On a typical street, this gathering can generally occur in one of four locations:

1. in a so-called sidewalk “Frontage Zone” adjacent to abutting private property and buildings;
2. in the “Tree Belt/Furnishing Zone” along the sidewalk next to the roadway curb or edge;
3. at an intersection on a so-called “Bumpout” (also sometimes referred to as a “Bulb-Out” or “Curb Extension”), which is an intentional widening of the sidewalk to provide more space for furnishing and/or activities; and
4. on a newer form of public space known as a “Parklet,” which is a temporary or permanent construction in a parking space to create an occupiable public place. These Standards establish guidelines for the design of these four areas with enough flexibility to respond to adjacent private uses, which may change over time.

All of these public spaces can function to some extent on their own, independent of private property and private places. But along most great streets, these horizontal public places interact harmoniously with the vertical facades and features of private buildings and spaces. Burlington’s PlanBTV Downtown Code, in its section on “Frontage Types,” encourages active physical frontage and uses along the sidewalk; a well-designed sidewalk helps facilitate that symbiotic relationship. Though they are driven by different rules and considerations, when public space and adjacent private activity work together, the result is usually a more vibrant public environment.

The Downtown Code describes three street types are in downtown: “core,” “center” (the ring around the core), and “residential” (see Zoning map). The public placemaking described in these Standards is primarily intended for “core” and “center” streets which have commercial or cultural activity predominating the street level, not residential uses. Public gathering is not intended along blocks or in front of properties which are entirely residential.

- **Frontage Zone** (directly along property line)
- **Bumpouts** (usable extension into roadway)
- **Parklets** (designated usable space within curb parking lane)
- **Tree Belt/Furnishing Zone** (along curb)
5. SELECT STREETSCAPE ELEMENTS & SITING

What if you could watch the sun set over the lake while sitting on a swing at Main and Pine?

Great Streets BTV

Main Street Concept Plan - Final Draft - Feb. 2017
5. SELECT STREETSCAPE ELEMENTS & SITING
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

- Bikeway types, marking & signage

- Street tree species, treebelt types, planting and spacing details, and subsurface details

- Stormwater facility types, planting and sizing details

- Street light design parameters, technology, poles & fixtures, layouts; utility pole lights and traffic control signals; temporary/festive lighting
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

- Bikeway types, marking & signage

- Street tree species, treebelt types, planting and spacing details, and subsurface details

- Stormwater facility types, planting and sizing details

- Street light design parameters, technology, poles & fixtures, layouts; utility pole lights and traffic control signals; temporary/festive lighting
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

- Pedestrian & Roadway Zone materials (road, sidewalk, curb, ramps, crosswalks, etc)
- Seating- benches, movable seating
- Bike parking facilities, bus shelters
- Parking Meters
- Parklets, bollards
- Planters
- Trash & Recycling containers
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

- Public toilets
- Tree & trench grates, tree guards
- Street Light Pole Banners
- Wayfinding Signs & Info
- Map Kiosks
- Bulletin Boards
- Street Signs
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE
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6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

Visual Integration

Church Street is a great success - how do we extend that to other downtown streets with different conditions, including motor vehicles? Should Church Street provide the model for downtown, or should it stand out as a special and unique place? Should all of downtown have a single consistent look, or should it be characterized by its variety? How should downtown's character -- its look and feel -- relate to the rest of Burlington's neighborhoods?

These are some of the questions we will seek to answer through community and staff input. Below is a sample scorecard of the type we will use to evaluate different options for each element of the streetscape standards. In some cases, one of the options will be the continued use of an element, such as a bus shelter, bench, streetlight, or bollard, that is already being used on the Church Street Marketplace or elsewhere in downtown. The public may be asked to weigh in on some of the more subjective criteria such as appearance and appropriateness, while staff may prefer to assess some of the more technical questions such as maintenance, cost, and availability.

Scope of Work

_______________________________

Project 1 (cont.)

PEDESTRIAN LIGHTS

OPTION A.

OPTION B.

OPTION C.

STREET TREES

OPTION A.

OPTION B.

OPTION C.

TREE GRATES

OPTION A.

OPTION B.

OPTION C.

Innovation and Pragmatism:

We recognize that exemplary street design must consider long-term maintenance. Finding innovative design solutions that are affordable and maintainable will be a key team goal from the earliest conceptual phase. We understand the need to be practical and responsible in selecting appropriate plantings and furnishings, with materials that are attractive to look at and to touch, but also easy to maintain and keep clean.
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE
6. CHOOSE FROM MATERIALS & FURNISHINGS PALETTE

**RECOMMENDED OPTION**

**Vera—by mmcité**

**Dimensions**
- 28" W x 32" H
- 3 lengths available: 2', 5', 6'

**Material**
- Galvanized Steel Frame & Resysta Board Seat & Back OR Galvanized Steel Frame & Steel Round Grid Seat & Back

**Finish**
- RAL 9007 Gray Aluminum powdercoat

**Armrests**
- Intermediate armrest available

**Installation**
- Anchor with manufacturer-provided hardware. Install per manufacturer instructions.

**Manufacturer**
- mmcité

**Models**
- Resysta: 2' (LV157); 5' (LV155); 6' (LV156)
- Metal: 2' (LV257); 5' (LV255); 6' (LV256)

**Note**
- Resysta material information on next page and in Appendix section A-8

**RECOMMENDED OPTION**

**Resysta Material**

**Materials**
- Rice husk, common salt, mineral oil

**Characteristics**
- Water resistant
- Frost proof
- UV resistant
- No pest or fungal decay
- Long lifetime
- Low maintenance
- Fully recyclable
- Contributes to LEED Certification

**Color**
- Color can range from a pale greenish-yellow to a darker brown.

**Manufacturer**
- mmcité

**Reference**
- http://www.resysta.com/material-resysta.html

**Custom Bench**

**Description**
- Custom benches may be designed for incorporation into the row subject to city approval based on structural performance and aesthetic considerations.

**Performance**
- Custom Benches shall meet or exceed the requirements of applicable local and state building codes.

**Material**
- Custom Benches must be made of durable materials, capable of resisting corrosion in Burlington’s high-salt environment.

**Finish**
- Custom Benches shall be finished to resist rust, peeling, chipping, cracking, mold, and mildew. Warranty for 5 years from date of installation.

**Installation**
- Mount permanent Custom Benches to streetscape pavement or a concrete base with corrosion-resistant hardware.
Adopting the Standards
DESIGN TEAM PROCESS INCLUDED:

- **Analysis of existing elements** in use in the public ROW, in some cases on adjacent private property

- Collect **feedback about the elements of a Great Street** in first public meeting

- **Selection of elements** to meet Great Streets Principles; local conditions; applicable local, state, federal standards

- **Compliment**, not replicate Church Street aesthetics

- Provide a range of **recommended, alternative options** for elements

- **Tested elements on concept plans** - city & public feedback

- **Refined recommendations** & provided additional detail

- Detailed review of elements by **staff in 10+ departments/divisions of the City**
NEXT STEPS

• Review with City Boards & Commissions- October, November

• Staff complete technical evaluation & revisions with design team

• DPW approval & recommendation of adoption to City Council

• City Council adoption upon Board & Commission recommendations- December