



**CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS**

645 Pine Street, Suite A
Post Office Box 849
Burlington, VT 05402-0849
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802.863.0466 FAX
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www.burlingtonvt.gov/dpw

Chapin Spencer
DIRECTOR OF PUBLIC WORKS

MEMORANDUM

To: Tenzin Chokden, Clerks Office
From: Chapin Spencer, Director
Date: September 10, 2020
Re: Public Works Commission Agenda

Please find information below regarding the next Commission Meeting.

Date: **September 16, 2020**

Time: 6:30 – 9:00 p.m.

Due to current social distancing measures, this meeting will be held entirely virtually.

To view the meeting:

1. CCTV YouTube Channel (*streamed live*) or on Burlington Telecom Channel 317 (*not aired live*).

<https://www.youtube.com/channel/UCJkWMLSqRNKLoyUZQINoAcQ>

2. Join via Zoom: <https://us02web.zoom.us/j/83495330508>

3. Call in for audio only: Phone number: 301-715-8592 Webinar ID: 834 9533 0508

To participate in public comment:

1. You must either join the meeting via the Zoom link above (strongly encouraged) or by calling via the call-in information above.

2. If signed in via Zoom, please use the “Raise Your Hand” feature. This will alert DPW staff that you wish to speak and will automatically add you to the queue. When it’s your turn to speak, your name will be called and you will be unmuted.

3. If you are calling in, please press *9 which will alert DPW staff that you wish to speak. When it’s your turn to speak, your phone # will be called out and you will be unmuted.

4. If you encounter any difficulties when attempting to speak during public forum, please email DPWCommunications@burlingtonvt.gov.

AGENDA

ITEM

- 1 Call to Order – Welcome – Chair Comments

- 2 5 Min Agenda
- 3 10 Min Public Forum (3 minute per person time limit)
- 4 5 Min Consent Agenda
 - A No Parking Zone at the Locust Terrace Crosswalk
 - B ADA Space Adjacent to 65 Main St
 - C Appendix C Ordinance Updates for 194 St. Paul St. Parking
 - D Franklin Square Ordinance Revisions
- 5 15 Min Winooski Ave Traffic Regulatory Changes
 - A Presentation, N. Losch
 - B Commissioner Discussion
 - C Public Comment
 - D Action Requested –Vote
- 6 30 Min North Ave & Cambrian Way Discussion
 - A Oral Communication, N. Baldwin
 - B Commissioner Discussion
 - C Public Comment
 - D Action Requested –None
- 7 20 Min Appeal – 31 N Prospect St – Failed Electrical Inspection
 - A Communication, W. Ward, T. Hennessey
 - B Communication, K. Ram
 - C Commissioner Discussion
 - D Public Comment
 - E Action Requested –Vote
- 8 20 Min Traffic Calming Program Revisions
 - A Communication, N. Losch
 - B Commissioner Discussion
 - C Public Comment
 - D Action Requested –None
- 9 5 Min Approval of Draft Minutes of 7-15-2020
- 10 10 Min Director's Report
- 11 10 Min Commissioner Communications
- 12 **Adjournment & Next Meeting Date – October 21, 2020**

Non-Discrimination

The City of Burlington will not tolerate unlawful harassment or discrimination on the basis of political or religious affiliation, race, color, national origin, place of birth, ancestry, age, sex, sexual orientation, gender identity, marital status, veteran status, disability, HIV positive status, crime victim status or genetic information. The City is also committed to providing proper access to services, facilities, and employment opportunities. For accessibility information or alternative formats, please contact Human Resources Department at (802) 540-2505.



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City of Burlington
Department of Public Works

Technical Services Engineering Division
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Memo

Date: September 9, 2020

To: Public Works Commission *PCP*

From: Phillip Peterson, Associate Public Works Engineer

CC: Susan Molzon P.E., Senior Public Works Engineer

Subject: No Parking Zone Locust Terrace Crosswalk

Recommendations to the DPW Commission:

7 No-parking area.

No person shall park any vehicle at any time in the following locations:

- On the south side of Locust Street for twenty (20) feet east and fifty (50) feet west of the crosswalk at Locust Terrace.

Purpose & Need:

The purpose of the recommended traffic regulation amendment is to be in compliance with the Vermont Agency of Transportation (VTrans) guidelines. The parking prohibition adjacent to crosswalks is based on the VTrans "Guidelines for Pedestrian Crossing Treatments." This need will improve sight lines between pedestrians and motorists, increasing safety for those using the crosswalk.

Project Checklist:

	N/A	Yes	No	Reference
Aligns with MUTCD standards and/or established City Policy?		X		Vermont Agency of Transportation "Guidelines for Pedestrian Crossing Treatments"
Aligns with City plans?		X		PlanBTV Walk Bike
Followed Public Engagement Plan?		X		These Traffic Regulation changes are defined as an INVOLVE project in the Public Engagement Plan (PEP).

Summary and Conclusion:

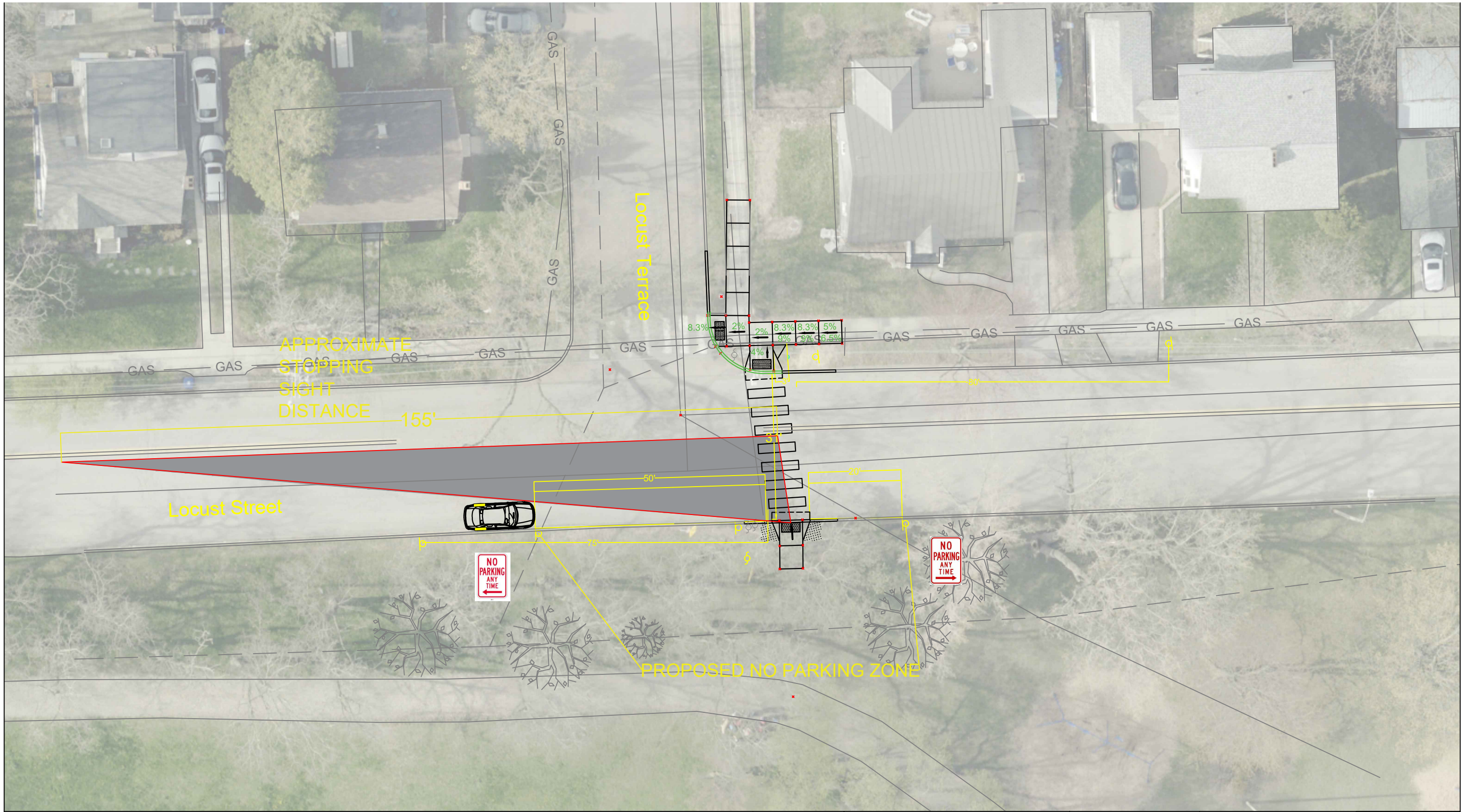
During the 2020 construction season, a crosswalk was installed across Locust Street at the Locust Terrace intersection. This change in traffic control resulted in a need to establish a no-parking zone on the south side of Locust Street for twenty (20) feet east and fifty (50) feet west of the new crosswalk at Locust Terrace. DPW Staff conducted a site visit and found the crosswalk requires a standard 20-foot parking prohibition on the east side; in order to maintain the proper stopping sight distance a 50-foot parking prohibition on the west side of the crosswalk has been deemed appropriate (see Attachment-1).

Public Engagement:

In preparation for the 9/16/20 DPW Commission Meeting, Staff placed flyers at each property along the block adjacent to the new crosswalk at Locust Street and Locust Terrace. Staff received five (5) emails in regards to this matter, all of the emails support the proposed no-parking zones adjacent to the new crosswalk on Locust Street and Locust Terrace.

Attachments:

1. Site map.
 2. Public Correspondence.
-



SCALE: 1" = 20'



LOCUST TERRACE
PROPOSED CROSSWALK
WITH
STOPPING SIGHT DISTANCE



**BURLINGTON
PUBLIC WORKS
ENGINEERING DIV.**

645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
(802) 863-0466 (Fax)

DESIGNED PMP	SCALE 1"=20'
DRAWN PMP	DRAWING NO.
CHECKED SM	DATE 9/5/2020
SHEET 1 OF 1	

Attachment 2

Public input correspondence emails

Fri 9/4/2020

Dear Phillip

Thank you for asking residents about parking, and thank you for putting in the crosswalk at the corner of Locust St and Locust Terrace. Though the crosswalk is an improvement, it is still dangerous because cars parked close to the crosswalk obscure the visibility of children standing on the side. Children must step out into the road to see around the parked cars to check for oncoming traffic, and though drivers may notice the crosswalk, they can NOT see children (who are shorter than cars) waiting to cross. I believe this is why, so frequently, cars do not stop to allow pedestrians to cross in the crosswalk. They don't see them in time.

Yes, please increase the "No Parking" zone around the crosswalk. 50' in BOTH directions would increase visibility and thus safety for both drivers and pedestrians. I see on the illustration that there is "no parking" only 20' on the east side of the crosswalk. Drivers coming down Locust St cannot see pedestrians waiting to cross from the park side of the road, and 50' would allow sufficient visibility to slow down.

Sincerely,
Ruby Perry

Thu 9/3/2020

Hi Peter,

My name is Megan Holt and I am a resident at 177 Locust Terr. I am completely on board with the "No-Parking" Zone adjacent to the new crosswalk at Locust Terrace.

Best,

-Megan

Sat 8/29/2020

Phillip,

In answer to the DPW leaflet received in our mailbox yesterday: yes, I am emphatically in favor of the 50 ft no parking zone shown in your diagram (west of the Locust Terrace crosswalk). I wonder if the eastside no parking zone should be bigger than 20 feet since kids still have to be able to see the westbound cars when they cross. Any no-parking change needs to be accompanied by a vigorous enforcement for long enough to get the message across. Is there a received wisdom in your field about how long it takes for people to start respecting the new parking norms?

I also want to comment on the work that was done this summer further up the street (refiguring crosswalks at Charlotte and Caroline Streets). I regret that no real traffic calming features (ex: speed bumps) were included in the new design. My perception is that cars now go faster on Locust Street than they did prior to the work. Suggestions/requests: more signs indicating the 25 mph speed limit (+ enforcement of that limit), possible additional traffic calming (bumps, not just paint and narrowing).

Thanks for getting the work done this summer. Now let's work together to make Locust Street safer for pedestrians, bikers and car drivers.

Andrew Simon

54 Locust Street

Sat 8/29/2020

Hi Phillip,

I live at 52 Locust Street. We are so excited about the new cross walk. Thank you to you and the other city employees who made that happen.

We strongly support the No Parking zone and would be happy for it to be the proposed size on the flyer or perhaps even bigger. maybe even 100 feet towards Pine Street and 30 feet towards Shelburne Road?

Thanks for all you do and your consideration.

Leighton Johnson

Fri 8/28/2020

Thank you very much!

I had written originally that 20 feet on the southern side of the street was not enough space to keep pedestrians safe, due to visibility issues on that hill coming up from Pine Street. Thank you very much for looking into this and proposing a 50' no parking zone to increase the sightline appropriately for the safety of all us, but especially the children.

Thank you again for all of the hard work you do for the city and residents.

Sincerely,

Emily Skoler



City of Burlington
Department of Public Works

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Memo

Date: September 9, 2020

To: Public Works Commission *PCP*

From: Phillip Peterson, Associate Public Works Engineer

CC: Susan Molzon P.E., Senior Public Works Engineer

Subject: Proposed Accessible (ADA) Parking Space adjacent to 65 Main Street

Staff recommends that the Commission adopt:

7A Accessible spaces designated.

No person shall park any vehicle at any time in the following locations, except automobiles displaying special handicapped license plates issued pursuant to 18 V.S.A. § 1325, or any amendment or renumbering thereof:

- On the east side of South Champlain Street in the fourth parking space south of Main Street.

Purpose & Need:

The purpose is to provide accessible parking on street as recommended by the Public Rights-of-Way Accessibility Guidelines (PROWAG). The need for accessible parking in this location will be close to several businesses which would benefit the disabled community in this area.

Project Checklist:

	N/A	Yes	No	Reference
Aligns with MUTCD standards and/or established City Policy?		X		PROWAG
Aligns with City plans?	X			
Followed Public Engagement Plan?		X		These Traffic Regulation changes are defined as an INVOLVE project in the Public Engagement Plan (PEP).

Summary and Conclusion:

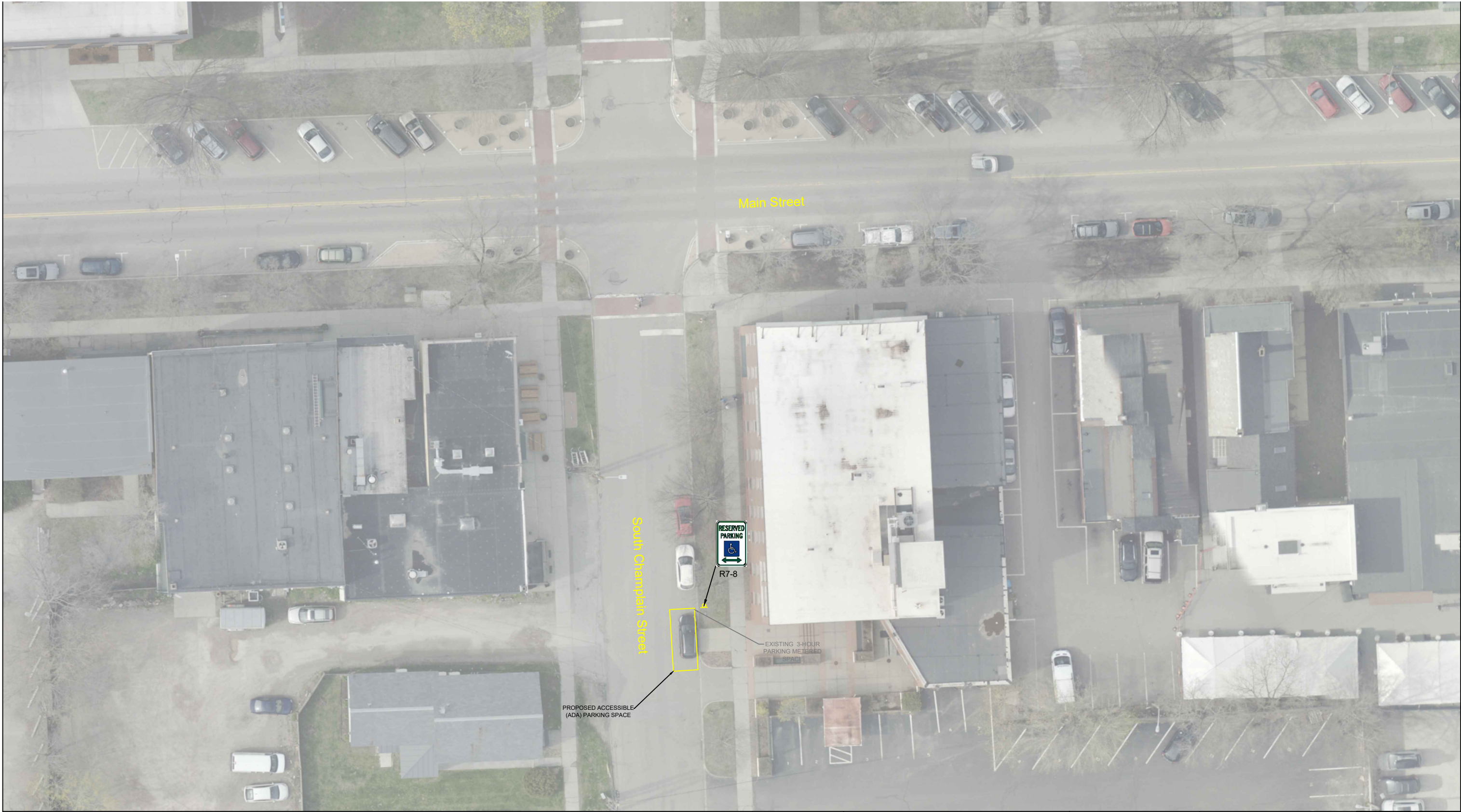
Staff received a request in July 2020 from a local business at 65 Main Street, to install an on-street accessible parking space close to their business (see Attachment-1). The owner states the space is necessary to give their disabled clients reasonable access to their office. Additionally other residents and businesses in the area may need to utilize the ADA space; it is important to note, this proposed ADA space will be the only ADA space on this segment of South Champlain Street.

Public Engagement:

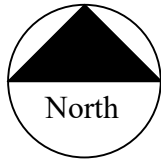
In preparation for the 09/16/20 DPW Commission Meeting, Staff distributed flyers to the homes and businesses on South Champlain Street and Main Street adjacent to 65 Main Street. Staff received two (2) responses (see Attachment-2) from local residents; one via email and the other via telephone. Both responses support the proposed placement of the ADA space.

Attachments:

1. Site map.
 2. Public correspondence.
-



SCALE: 1" = 30'



PROPOSED ADA PARKING
ADJACENT TO
65 MAIN STREET



**BURLINGTON
PUBLIC WORKS
ENGINEERING DIV.**

645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
(802) 863-0466 (Fax)

DESIGNED PMP	SCALE 1"=30"
DRAWN PMP	DRAWING NO.
CHECKED SM	
DATE 9/9/2020	SHEET 1 OF 1

Attachment 2

Public input correspondence emails

Tue 7/28/2020

Hi Jeff,

I'd like to request an on street parking space, be changed to an ADA accessible spot. I spoke to DPW customer service and then sent me a neighborhood traffic request form.

Since this is a commercial office building, I wasn't really sure how to fill it out. There are 5 companies in the building, 2 of which are moving in 30-60 days. One of the companies' clients are elderly, and they have asked us to assist in finding a nearby spot.

If you look at this photo, the ADA access to the building is the ramp that is located between the 2 parking spaces. There aren't any spots nearby, though.

Can you let me know how I can request this? I'm happy to speak to you or meet you on site as well.

Thanks in advance

Meg McGovern

Senior Associate, Broker

Designations: ABR

Certifications: PSA

Donahue & Associates

Public input correspondence Phone Calls

Tue 8/25/2020

Associate Engineer Phillip Peterson received a phone call from Delilah Hall, a resident of South Champlain Street; Ms. Hall supports the proposed ADA space.



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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Jeffrey A. Padgett, MBA
ASSISTANT DIRECTOR for PARKING & TRAFFIC

Date: September 16, 2020

To: Public Works Commission

From: Jeffrey A. Padgett, MBA
Assistant Director for Parking and Traffic

C.C. Chapin Spencer, Director of Public Works

Subject: Parking Lot Ordinance Update
194 St. Paul Street Lot Rate Update

The attached proposed update to City Ordinance, Appendix C, Chapters 18 and 19 provides clarification and updates to:

- terminology related to City Owned vs. City Managed Lots
- lot designations based on said clarification

These adjustments are not substantive but provide a streamlined legal structure that will better support future, potential public/private parking relationships.

Building off of those updates, specifically at the 194 St Paul Street lot (beneath Eagles Landing), this update also formally incorporates:

- hourly and monthly rates that were approved by City Council and agreed to with Champlain College.
- language that provides clear enforcement authority to the City.

These updates have been developed in direct coordination with the City attorney to ensure continuity of language and structure in Ordinance.

Please let me know if you have any questions.

Attachment:

- 1) Proposed Ordinance Language Update

An Equal Opportunity Employer
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CITY OF BURLINGTON

In the Year Two Thousand Twenty

A Regulation in Relation to

Rules and Regulations of the Traffic
Commission—
Section 18, Parking Facility Designations
Section 19. Parking Rates—
Clarification of lot terminology and
designations;
Addition of 194 St. Paul Street lot rates

Sponsor(s): Department of Public Works

Action: _____

Date: _____

Attestation of Adoption:

Phillip Peterson

Associate Engineer, Technical Services

Published: _____

Effective: _____

It is hereby Ordained by the Public Works Commission of the City of Burlington as follows:

- 1 That Appendix C, Rule and Regulations of the Traffic Commission, Section 18. Parking
2 Facility Designations, subs-sections (a)-(b) and Section 19. Parking Rates, sub-sections
3 (a)-(c), of the Code of Ordinances of the City of Burlington are hereby amended as
4 follows:

5 **Section 18. Parking Facility Designations.**

- 6 (a) ~~Metered~~ City-owned lot locations:

7

- 8 (1)—(6) As written.

9

- 10 (7) ~~Reserved.~~ The city-owned lot on the west side of Elmwood Avenue near
11 the intersection of Grant Street, known as the Elmwood Avenue Lot.

12

- 13 (8)—(10) ~~Reserved.~~

- 14 (8) The city-owned lot located on Main Street that is adjacent to the metered
15 lot on the northeast corner of Main and Winooski.

16

- 17 (9) The city-owned lot at the intersection of College Street and Lake Street on
18 the northwest corner, known as the Pease Grain lot.

19

- 20 (10) Reserved.

21

An Ordinance in Relation to Rules and Regulations of the Traffic Commission—Section 18, Parking Facility Designations Section 19. Parking Rates—Clarification of lot terminology and designations; Addition of 194 St. Paul Street lot rates

(b) ~~Leased~~ City-managed lot locations:

~~(1) The city-owned lot on the west side of Elmwood Avenue near the intersection of Grant Street, known as the Elmwood Avenue Lot.~~

~~(2) The city-owned lot located on Main Street that is adjacent to the metered lot on the northeast corner of Main and Winooski.~~

~~(3) The city-owned lot at the intersection of College Street and Lake Street on the northwest corner, known as the Pease Grain lot.~~

(4) (1) The city-leased and managed lot located on St. Paul Street between King Street and Maple Street, known as 194 St. Paul Street lot.

~~(5)~~ (2) The city-leased and managed lot located on Pearl Street between Hungerford Terrace and North Union Street, known as 247 Pearl Street.

(c)—(d) As written.

Section 19. Parking Rates.

(a) On-street ~~P~~parking meter spaces may be occupied for periods indicated by depositing the following sums:

(1)—(6) As written.

(b) The rate of charge for parking in metered city-owned lots shall be as follows:

Location Rate per Hour

(1) Main Street and South Winooski Avenue, known as Jail Lot: One dollar and fifty cents (\$1.50) per hour; monthly permit rate is fifty-five dollars (\$55).

An Ordinance in Relation to Rules and Regulations of the Traffic Commission—Section 18, Parking Facility Designations Section 19. Parking Rates—Clarification of lot terminology and designations; Addition of 194 St. Paul Street lot rates

53 (2) College Street, east of the Fletcher Library, known as the College Street Lot.
54 College Street (Library): One dollar (\$1.00) per hour for designated one-hour-
55 maximum meters One-hour meters 1.00; forty cents (\$0.40) per hour for
56 designated ten-hour-maximum meters. Ten-hour meters—0.40

57

58 (3) Pearl Street and Pine Street, known as the Pearl Street Lot: One dollar (\$1.00)
59 per hour for designated three-hour-maximum meters One-hour meters 1.00;
60 forty cents (\$0.40) per hour for designated ten-hour-maximum meters. Three-
61 hour meters 1.00 Ten-hour meters 0.40

62

63 (4)—(5) As written.

64

65 (6) ~~Reserved.~~ Elmwood Avenue and Grant Street, known as the Elmwood
66 Avenue Lot: Monthly permit rate is fifty-five dollars (\$55.00) per month.

67

68 (7) ~~Reserved.~~ Main Street adjacent to the metered parking lot located on the
69 northeast corner Main and Winooski: Monthly permit rate is sixty dollars
70 (\$60.00) per month.

71

72 (8)—(16) As written.

73

74 (c) ~~The rate of charge for parking in leased city-managed lots shall be as follows, and~~
75 ~~those vehicles without a vehicle tag displayed in the proper position will be removed~~
76 ~~by wrecker at the owners expense: listed in sections (1) below. Vehicles parking at the~~
77 hourly rate and not properly registered with the parking facility, or vehicles parking at
78 a monthly-rate and not displaying a tag in the proper position, will be ticketed as set
79 forth in Burlington Code of Ordinances Sections 20-66(a),(c) and 20-104 or removed by
80 wrecker at the owner's expense as set forth in Burlington Code of Ordinances Sections
81 20-75, 20-77 and 20-79.

82

83 **~~Location Rates~~**

84 (1) ~~Elmwood Avenue and Grant Street:~~

85 ~~———— Per month ——— \$55.00~~

An Ordinance in Relation to Rules and Regulations of the Traffic Commission—Section 18, Parking Facility Designations Section 19. Parking Rates—Clarification of lot terminology and designations; Addition of 194 St. Paul Street lot rates

86 St. Paul Street between King Street and Maple Street, known as 194 St.
87 Paul Street lot: One dollar and fifty cents (\$1.50) per hour; monthly
88 permit rate is eighty dollars (\$80.00) per month.

89

90 ~~(2) Main Street adjacent to the metered parking lot located on the N.E.~~
91 ~~corner Main and Winooski:~~

92 ~~Per month \$60.00~~

93

94 (d)—(f) As written.

95

96

97

98 ** Material stricken out deleted.

99 *** Material underlined added.

100

101 JP & TPD: BCO Appx. C. § 18 (a)-(b); § 19 (a)-(c)

102 9/16/2020



September 10, 2020

TO: Public Works Commission

FROM: Nicole Losch, Senior Planner
Madeline Suender, Associate Engineer

RE: South Winooski Avenue Parking & Circulation Changes

Recommendations

Staff recommends that the Commission adopt amended regulations to allow for the implementation of the Winooski Avenue Transportation Study short-term recommendations in the downtown area:

Appendix C §5 One-way streets designated

The following streets are hereby designated as one-way streets, and all traffic and travel thereon, except pedestrians, shall pass in the directions indicated and not otherwise:

(1) – (29) As written.

(30) South Winooski Avenue, southerly from ~~Maple~~ King Street to St. Paul Street, with the exception of bicycles traveling northbound in the designated contra-flow lane.

(31) – (42) As written.

Appendix C §7 No-parking areas

No person shall park any vehicle at any time in the following locations:

(1) - (148) As written.

(149) On the east side of South Winooski Avenue between ~~King~~ Main Street and Howard Street

(150) - (151) As written.

(152) ~~On the east side of South Winooski Avenue between King Street and Howard Street.~~
Reserved.

(153) – (559) As written.

Purpose & Need

Updated regulations will allow roadway space on South Winooski Avenue to be reallocated to address the need for safe, inviting, and convenient travel for people of all ages and abilities using any mode of transportation. These changes will also will remove redundancies.

Introduction

In March 2020, City Council directed the Department of Public Works to implement transportation improvements along South Winooski Avenue in 2020. This work was recommended in the Winooski Avenue Corridor Study after nearly 18 months of stakeholder interviews, public meetings, technical analysis and input from a project advisory committee comprised of members of the community.

South Winooski Avenue is the primary north-south corridor through the heart of downtown Burlington. It lacks consistent and intuitive transportation choices and navigation and experiences a high rate of crashes, particularly crashes involving people walking and biking. The proposed regulatory changes will complement a larger project on South Winooski Avenue between Pearl Street and Main Street. In addition to changes south of Main Street, the South Winooski Avenue roadway will be reallocated to include continuous bike lanes in both directions and will reduce the number of travel lanes. These changes will enable consistent and intuitive transportation choices for people biking and safer transportation choices for people walking, biking, or driving.

Public Engagement

This project falls under INVOLVE on the Spectrum of Engagement. The tools of engagement for this project included:

- ✓ Mailings to residents and owners of adjacent parcels
- ✓ Lawn signs posted in project area
- ✓ Notified area Councilors and Commission Chair / Vice Chair
- ✓ Front Porch Forum announcement
- ✓ Emailed the mailing list from the Winooski Avenue Transportation Study and notified the Burlington Walk Bike Council (BWBC)

To determine the appropriate level of engagement and engagement tools, we considered:

1. Who is positively impacted?

During the Winooski Avenue Transportation Study, the need for dedicated and continuous bicycle lanes was clear. Since a primary goal of this project is to improve biking on Winooski Ave, we have notified people who followed the Winooski Avenue Transportation Study and the BWBC. In addition, anyone receiving traditional mailed / signed notices may be positively impacted by this project.

2. Who may be negatively impacted and for how long?

People who traditionally park on the east side of South Winooski Avenue may be impacted by the removal of this parking. This would be a permanent change. RESIDENT ONLY parking may be pursued between King St and Maple St in response to concerns about spillover onto this block of unrestricted parking.

3. What are the main concerns, issues, and interests of the community?

The community's vision for the Winooski Avenue Corridor includes:

- Traveling along and across Winooski Avenue will be safe, inviting, and convenient for people of all ages and abilities using any mode of transportation.
- Walking and bicycling will be viable and enjoyable ways to travel this corridor. Improvements will encourage active travel and alternatives to personal vehicle use.
- Businesses along and near Winooski Avenue will flourish with an activated streetscape and convenient access.
- The mobility and parking needs will be balanced for property owners, residents, businesses and the greater transportation system.
- The street can adapt to changes to the transportation system and land use

4. Will any individuals, institutions, or groups be disproportionately impacted?

People driving may perceive more negative impacts associated with this project south of Main Street, where parking will be reduced and circulation will be impacted. People walking and biking may perceive more positive impacts due to ease of travel.

5. Was the project recommended in earlier planning studies which included public engagement? Is additional public input needed or required?

This project is a direct recommendation of the 2020 Winooski Avenue Transportation Study. In accordance with DPW's Public Engagement Plan, additional public input is needed since this project would remove more than 3 parking spaces.

6. Are there any linguistic or cultural barriers to engaging with impacted residents?

There are no known linguistic or cultural barriers in the affected blocks of South Winooski Avenue.

Attachments & References

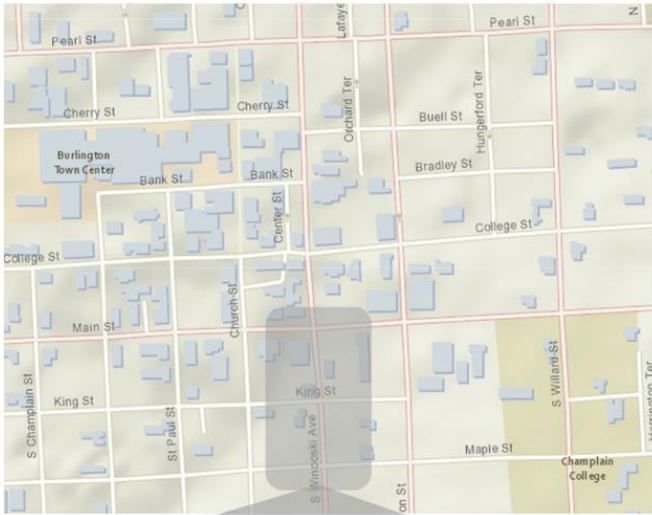
1. Public feedback
2. Map of recommended regulatory changes
3. Corridor concept plans available online: <https://www.burlingtonvt.gov/dpw/WinAveImprovements>

Winooski Ave Public Feedback

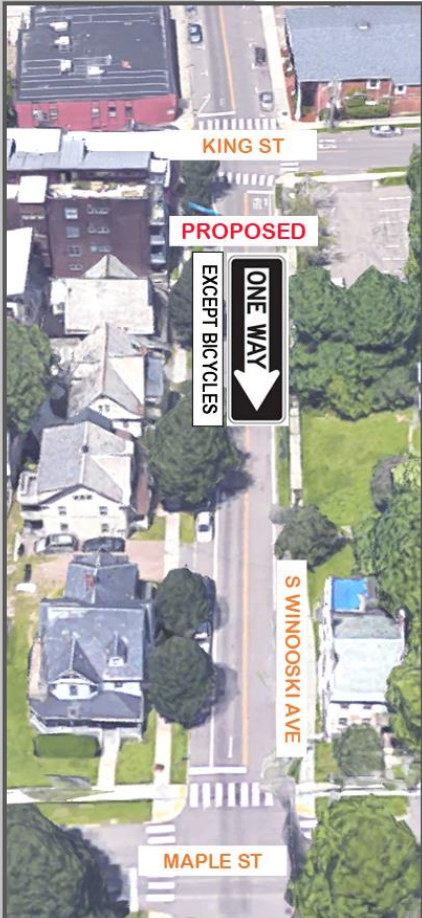
Hi DPW, Really glad to see this proposal hopefully come to fruition. As a regular bicyclist on South Winooski with its beautiful north/south lanes, I will be very happy seeing those extended north. Even better - all the way to Pearl, at least for now.

I'm wondering how you will address the lost parking spaces on South Winooski. I live on King St between South Winooski and South Union. Non-residents/ people who work downtown park on King St making it nearly impossible for the people who actually live here to park by our homes. The removal of these metered spaces will exacerbate this problem. Please let me know the steps you are taking to ensure bicyclists are safe, and folks who live here can park by our homes.

Project Area



Proposed NO PARKING on the east side of South Winooski Avenue between Main Street and King Street



Proposed southbound ONE WAY EXCEPT BICYCLES on South Winooski Avenue south of King Street



Permitting and Inspections Department

645A Pine St, PO Box 8
Burlington, VT 05402-08

VOICE (802) 863-04

FAX: (802) 652-42

To: Public Works Commission
From: William Ward/Director of Permitting and Inspections *W Ward*
Date: September 10, 2020
Property Address: 31 N Prospect – 3 Unit property
Appellant: Kesha Ram
Date of Appeal: August 28, 2020
Subject of Appeal: Electrical Inspection 8-27-20

Code Section subject to appeal

2017 National Electrical Code Section 210.52. (C) (1)

(C) Countertops and Work Surfaces. In kitchens, pantries, breakfast rooms, dining rooms, and similar areas of dwelling units, receptacle outlets for countertop and work surfaces shall be installed in accordance with 210.52 (C) (1) through (C) (5).

(1) Wall Countertop and Work Surface. A receptacle outlet shall be installed at each wall countertop and work surface that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space.

Page 84 and 85 of the 2017 National Electrical Code book are included for full reference of section 210.52 (C) (1) through (C) (5).

Timeline of Activity

May 26, 2020 Permit application received for a kitchen remodel with Electric Permit described as "Respective to State of VT VSA 26, Chapter 15, the National Electrical Code NFPA 70, the current Dept. of Fire Safety Electrical Safety Rules, & the Burlington Code of Ordinances and complying with all State and Local COVID-19 requirements: Install new wiring and/or rework existing wiring to serve a kitchen remodel. All work to be done on the second floor, addition of receptacles above kitchen counter, replacement of kitchen light fixture, move electrical panel in necessary."

June 4, 2020 – Permit approved as described in application.

June 8, 2020 – A rough-in Inspection was completed at the property by Inspector Hennessey.

August 27, 2020 - Electrical Inspector Tim Hennessey inspected the project and noted that one area of the countertop was 12 inches or greater in length and a second area along a separate section of the countertop that appeared to be 12 inches in length and each are required a receptacle to be installed. Inspector Hennessey notified project electrician Tom Grocki that the project would not pass a final inspection with the missing outlets. Mr. Grocki told Inspector Hennessey that the countertop was not supposed to be that wide next to the sink but the sink location had been adjusted to the side, creating a wider area.



Permitting and Inspections Department

645A Pine St, PO Box 8
Burlington, VT 05402-08

VOICE (802) 863-04

FAX: (802) 652-42

August 30, 2020 – Director Ward received an e-mail from the property owner appealing the inspector's decision that there were additional receptacles required.

September 7, 2020 – Inspector Hennessey confirmed with Director Ward that he agreed that one of the two areas on the countertop was accurately measured to be less than 12 inches and did not require a receptacle. This leaves one section of countertop that is in question in this appeal. That area of countertop is greater than 12 inches.

Summary: The property owner concedes that the area of countertop surface is slightly more than 12 inches wide but objects to the requirement. The National Electrical Code is clear that the receptacle shall be required in such an area.

Requested action from the Public Works Commission

Uphold the staff decision that the Electrical Code was interpreted correctly and the receptacle is required.

supplied by both of the small-appliance branch circuits. The wall receptacle outlets in the kitchen and dining room are permitted to be supplied by one or both of the circuits as shown in the two diagrams.

Exception No. 1: In addition to the required receptacles specified by 210.52, switched receptacles supplied from a general-purpose branch circuit as defined in 210.70(A)(1), Exception No. 1, shall be permitted.

Switched receptacles supplied from general-purpose 15-ampere branch circuits may be located in kitchens, pantries, breakfast rooms, and similar areas. See 210.70(A) and Exhibit 210.27 for details.

Exception No. 2: In addition to the required receptacles specified by 210.52, a receptacle outlet to serve a specific appliance shall be permitted to be supplied from an individual branch circuit rated 15 amperes or greater.

This exception allows a choice for refrigeration equipment receptacle outlets located in a kitchen or similar area. An individual 15-ampere or larger branch circuit may serve this equipment, or it may be included in the 20-ampere small-appliance branch circuit. Refrigeration equipment is exempt from the GFCI requirements of 210.8 where the receptacle outlet is greater than 6 feet from the edge of any sink and where it is located so that it cannot be used to serve countertop surfaces as shown in Exhibit 210.27.

(2) No Other Outlets. The two or more small-appliance branch circuits specified in 210.52(B)(1) shall have no other outlets.

Exception No. 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the rooms specified in 210.52(B)(1).

Exception No. 2: Receptacles installed to provide power for supplemental equipment and lighting on gas-fired ranges, ovens, or counter-mounted cooking units.

Because of the comparatively small load associated with ignition controls and other electronics, gas-fired appliances are permitted to be supplied by a receptacle connected to one of the small-appliance branch circuits. See Exhibit 210.27 for an illustration.

(3) Kitchen Receptacle Requirements. Receptacles installed in a kitchen to serve countertop surfaces shall be supplied by not fewer than two small-appliance branch circuits, either or both of which shall also be permitted to supply receptacle outlets in the same kitchen and in other rooms specified in 210.52(B)(1). Additional small-appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen and other rooms specified in 210.52(B)(1). No small-appliance branch circuit shall serve more than one kitchen.

In most dwellings, the countertop receptacle outlets supply more of the portable cooking appliances than the wall receptacles in the kitchen and dining areas, hence the requirement for the counter areas to be supplied by no fewer than two small-appliance branch circuits. The NEC does not specify that both circuits be installed to serve the receptacle outlet(s) at each separate counter area in a kitchen, but rather that the total counter area of a kitchen must be supplied by no fewer than two circuits, and the

arrangement of these circuits is determined by the designer or installer. For example, a single receptacle outlet on a kitchen island is not required to be supplied by both of the small-appliance circuits serving the countertop area.

The concept of evenly proportioning the load as specified in 210.11(B) (for loads calculated on the basis of volt-amperes per square foot) can be used as a best practice in distributing the number of receptacle outlets to be supplied by each of the small-appliance branch circuits. If additional small-appliance branch circuits are installed, they are subject to all the requirements that apply to the minimum two required circuits.

The two circuits that supply the countertop receptacle outlets may also supply receptacle outlets in the pantry, dining room, and breakfast room, as well as an electric clock receptacle and electric loads associated with gas-fired appliances. However, these circuits are to supply no other outlets/loads such as outdoor lighting or an outdoor receptacle.

See also

210.8(A)(6) for the GFCI requirements that apply to receptacles serving kitchen counters

(C) Countertops and Work Surfaces. In kitchens, pantries, breakfast rooms, dining rooms, and similar areas of dwelling units, receptacle outlets for countertop and work surfaces shall be installed in accordance with 210.52(C)(1) through (C)(5).

(1) Wall Countertop and Work Surface. A receptacle outlet shall be installed at each wall countertop and work surface that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space.

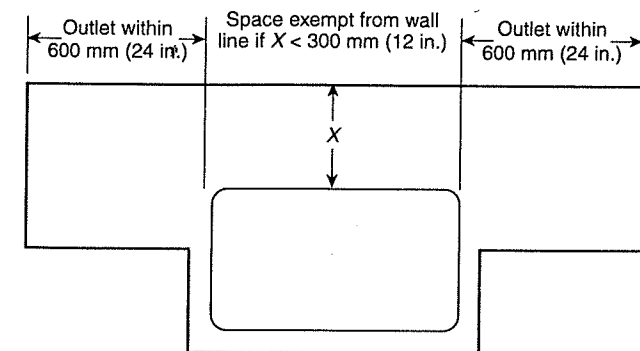
Exception: Receptacle outlets shall not be required on a wall directly behind a range, counter-mounted cooking unit, or sink in the installation described in Figure 210.52(C)(1).

This exception and Figure 210.52(C)(1) define the wall space behind a sink, range, or counter-mounted cooking unit that is not required to be provided with a receptacle outlet. Figure 210.52(C)(1) shows the wall space behind the sink or range that is exempt from the wall line measurement. Where the space behind a sink, range, or counter-mounted cooking unit is 12 inches or more (or 18 inches for corner-mounted configurations), the space must be included in measuring the wall countertop space. Receptacle outlets are not prohibited from being installed in this space.

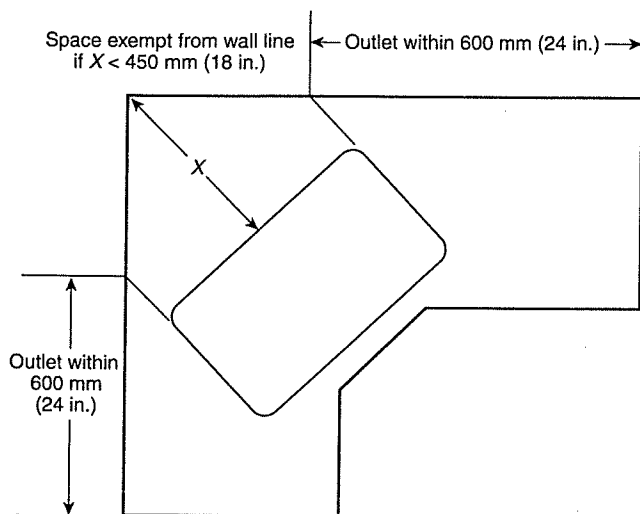
(2) Island Countertop Spaces. At least one receptacle shall be installed at each island countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater.

(3) Peninsular Countertop Spaces. At least one receptacle outlet shall be installed at each peninsular countertop long dimension space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater. A peninsular countertop is measured from the connected perpendicular wall.

(4) Separate Spaces. Countertop spaces separated by ranges, refrigerators, or sinks shall be considered as separate



Range, counter-mounted cooking unit extending from face of counter



Range, counter-mounted cooking unit mounted in corner

FIGURE 210.52(C)(1) *Determination of Area Behind a Range, Counter-Mounted Cooking Unit, or Sink.*

countertop spaces in applying the requirements of 210.52(C)(1). If a range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 300 mm (12 in.), the range, counter-mounted cooking unit, or sink shall be considered to divide the countertop space into two separate countertop spaces. Each separate countertop space shall comply with the applicable requirements in 210.52(C).

The general receptacle outlet requirement for qualifying island and peninsula countertop spaces in 210.52(C)(2) and (C)(3) calls for one receptacle outlet regardless of the size of the countertop space. However, if the island or peninsula countertop is separated into two spaces, such as by a cooktop or a sink, and each space meets the minimum dimension criteria in 210.52(C)(2) and (C)(3), a minimum of one receptacle outlet is required for each countertop space.

(5) Receptacle Outlet Location. Receptacle outlets shall be located on or above, but not more than 500 mm (20 in.) above,

the countertop or work surface. Receptacle outlet assemblies listed for use in countertops or work surfaces shall be permitted to be installed in countertops or work surfaces. Receptacles shall not be rendered not readily accessible by appliances fastened in appliance garages, sinks, or rangetops as covered in 210.52. Exception, or appliances occupying dedicated space shall be considered as these required outlets.

Informational Note: See 406.5(E) and 406.5(G) for requirements for installation of receptacles in countertops and 406.5(F) and 406.5(G) for requirements for installation of receptacles in work surfaces.

Exception to (5): To comply with the following conditions, (1) and (2), receptacle outlets shall be permitted to be mounted not more than 300 mm (12 in.) below the countertop or work surface. Receptacles mounted below a countertop or work surface in accordance with this exception shall not be located where the countertop or work surface extends more than 150 mm (6 in.) beyond its support base.

(1) Construction for the physically impaired

(2) On island and peninsular countertops or work surfaces where the surface is flat across its entire surface (no overhangs, splashes, dividers, etc.) and there are no means to obstruct a receptacle within 500 mm (20 in.) above the countertop or work surface, such as an overhead cabinet

Dwelling unit receptacles that serve countertop spaces in kitchen, dining areas, and similar rooms, as illustrated in Exhibit 210.28, are required to be installed as follows:

1. In each wall space wider than 12 inches and spaced so that no point along the wall line is more than 24 inches from a receptacle.
2. At each countertop island and peninsular countertop with a long dimension of at least 12 inches and a long dimension of at least 24 inches (The measurement of a peninsular-type countertop is from the edge of the counter to the connected perpendicular wall.)
3. Accessible for use and not blocked by appliances occupying dedicated space or fastened in place
4. Fed from two or more of the required 20-ampere small-appliance branch circuits and GFCI protected according to 210.8(A)(6)
5. Not more than 20 inches above the countertop (According to 406.5, receptacles cannot be installed in a face-up position, except for specifically listed countertop or work surface applications. Receptacles installed in a face-up position in a countertop could collect crumbs, liquids, and other debris, resulting in a potential fire or shock hazard.)

The standard practice is installing a cabinet 18 inches above the countertop. The 20 inches allows for this requirement to be met by installing multioutlet assemblies on the bottom of the upper cabinet.

(D) Bathrooms. At least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of the bathtub or shower basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, located on the countertop, or installed on the side or face of the basin cabinet. In no case shall the receptacle be located more than 300 mm (1

Valerie Ducharme

Subject:

FW: Appeal re: 31 N Prospect Electrical Inspection 8-27-20

From: William Ward <wward@burlingtonvt.gov>
Sent: Thursday, September 03, 2020 8:17 AM
To: Tim Hennessey <thennessey@burlingtonvt.gov>; Brad Biggie <bbiggie@burlingtonvt.gov>; Chapin Spencer <cspencer@burlingtonvt.gov>; Valerie Ducharme <vducharme@burlingtonvt.gov>; Timothy Devlin <tdevlin@burlingtonvt.gov>
Subject: Fwd: Appeal re: 31 N Prospect Electrical Inspection 8-27-20

This is the email I received regarding the appeal that I referenced in the other email I sent you.

Bill

Sent from my iPhone

Begin forwarded message:

From: Kesha Ram <kesha.ram@gmail.com>
Date: August 30, 2020 at 11:14:21 AM EDT
To: William Ward <wward@burlingtonvt.gov>
Subject: Appeal re: 31 N Prospect Electrical Inspection 8-27-20

WARNING: External Message

Department of Public Works Commission
645 Pine Street
Burlington, VT 05401

August 28, 2020

DPW Commission:

I am writing to appeal the decision of Electrical Inspector Tim Hennessey to fail the inspection and subsequently not close the electrical permit opened for a kitchen remodel project at 31 North Prospect Street. The failures, to my knowledge, were not installing outlets above a small counter next to the kitchen sink and above a butcher block surface next to the stovetop. This violated the code in terms of requiring outlets above surfaces wider than 12 inches for new construction.

First, I would wholly contest the directive to place an outlet next to the stovetop because that counter surface is not 12 inches wide, and I would be happy to provide a picture with measuring tape to demonstrate as such. It is a small surface next to an electric range, and I feel it would be unsafe to encourage plugging anything in on such a small strip of butcher block.

Second, I would generally contest the directive to place an outlet next to the kitchen sink, though I concede that the overall surface is slightly more than 12 inches wide. We fashioned shelving and left the proper amount of space for a dish rack to encourage safe use and make dish drying and storage convenient. Again, I am happy to provide pictures. My electrician, Tom Grocki of Thomas Electric, included the following statement: "In my professional opinion, to install an outlet next to your sink is counterproductive and would encourage tenants to plug things in there that could end up in the sink."

Should the outlet next the kitchen sink ultimately still be required, I would ask for an extended timeframe for the installation, as it would require running wire from a room occupied by a tenant behind the kitchen wall. As running that wire would require opening up the wall, it would be a hardship and an expense to move the tenant for several days and pay for the installation and wall repair. This would also place the tenant in a precarious situation, as they may not want to stay in a hotel or other accommodations for safety reasons.

Thank you for your attention to this matter,

Kesha Ram

(802) 881-4433

Please note that this communication and any response to it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.



September 10, 2020

TO: Public Works Commission

FROM: Nicole Losch, Senior Planner

RE: Updated Traffic Calming Manual

Recommendations

This item is Informational only.

Purpose & Need

The purpose of the Traffic Calming program is to support connected, safe, affordable, and efficient transportation choices. The Traffic Calming program needs to quickly respond to issues of speeding, crashes, or truck traffic on neighborhood streets.

Introduction

Burlington's Traffic Calming and Neighborhood Enhancement Program was established in the late 1990's and has not been updated since the early 2000's. Requests are neighborhood-initiated and require 1/3 of the neighborhood to support the request for traffic calming. Projects advance in the order they are received and take many years to complete. An assessment was completed in 2019 that identified ways to prioritize traffic calming projects on streets with demonstrable safety issues.

With support from Stantec, the Traffic Calming program has been updated and is now available for review. Key features of the updated program include:

- Removed the requirement for a neighborhood petition, making the program more equitable and accessible to all residents
- Thresholds for speeding, crashes, and truck volumes will determine when traffic calming should be pursued
- Traffic calming designs will target design speeds established in planBTV Walk Bike and the Burlington Transportation Plan

- Traffic calming design review will be streamlined by removing the neighborhood poll that allowed residents to opt in or out of traffic calming improvements. This will make the program more equitable for all streets that need to prioritize traffic safety improvements

These changes should streamline the process to deliver improvements and address traffic safety issues.

Considerations and Public Engagement

The following streets have active traffic calming requests (listed in the order they were received and not including projects actively in design):

Scarff Avenue

Mansfield Avenue

Foster Street / Ferguson Avenue / Lyman Avenue / Morse Place

Cayuga Court

East Avenue

Bright Street

Pine Street

Austin Drive / South Cove Road / Dunder Road

Gosse Court

These streets received preliminary analysis to determine if they meet the new thresholds of speeding, crash history, and truck traffic to warrant continuation in the traffic calming program. When the analysis has been cross-checked by DPW engineering or data collection is complete, the person who initiated each traffic calming request will be notified of their status under the new program.

This project falls under INFORM on the Spectrum of Engagement. While adopting new standards and policies only requires it be posted online once final, additional tools of engagement have been applied since this is an updated program with neighborhood significance. The tools of engagement for this project includes:

- ✓ Notifications to City Councilors
- ✓ Front Porch Forum announcement
- ✓ Individual notices pending for any street on which a traffic calming petition has already been received
- ✓ Informational guide posted on the DPW website
- ✓ NPA attendance as requested

Attachments

Final draft Traffic Calming Manual



TRAFFIC CALMING MANUAL

BURLINGTON, VERMONT

SEPTEMBER 2020



ACKNOWLEDGEMENTS

Thanks to the following of their involvement in reformatting this manual, adding the necessary elements to clarify the City's programs for Traffic Calming and Neighborhood Enhancement.

Burlington City Staff

Nicole Losch
Elizabeth Gohringer
Laura Wheelock
Susan Molzon
Chapin Spencer
Norm Baldwin

Stantec Consultant Team

Greg Goyette
Mike Rutkowski
Timothy Tresohlavy
Erica Ortman
Jaquasha Colon
Dan Hemme
Dylan McKnight



"We want to create safer streets for everyone, and make walking and biking a viable and enjoyable way to get around town." - PlanBTV

Burlington Public Works Department

645 Pine St Suite A
Burlington, VT 05401
(802) 863-9094





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02	Traffic Calming Evaluation Process	5
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04	Resources & Contacts	27

TRAFFIC CALMING HISTORY IN BURLINGTON

We work for you, residents and visitors of Burlington.

We are your Department of Public Works (DPW) and we provide drinking water, collect and treat wastewater, construct and maintain sidewalks, roads, and other infrastructure. We manage traffic and parking systems, maintain compliance with fire and life safety codes, pick up your recycling, and many more services. Traffic calming is merely one element of our commitment to you.

Transportation

Our Technical Services Division provides engineering and planning services relating to transportation, traffic signals, and long-range multimodal planning. We care about sidewalks, bicycle lanes, streetscape improvements, and quality of life just as much as you. We plan for the long-term, such as our PlanBTV Walk-Bike Master Plan, as well as our short-term, including our many demonstration projects to temporarily re-imagine public spaces.

This traffic calming manual builds upon and replaces prior guiding manuals, including the Neighborhood Traffic Management guide (2005), as well as the Traffic Calming section of the Burlington Transportation Plan - Street Design Guidelines. Moving forward, this manual will serve as the prevailing resource for Traffic Calming requests.

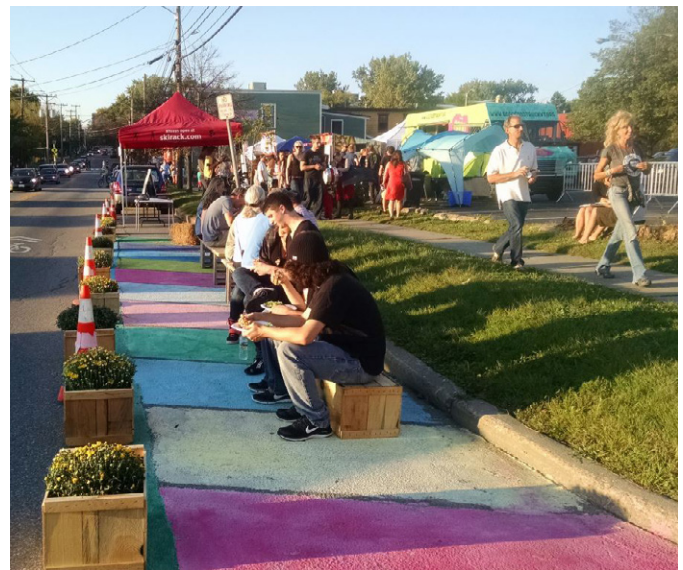
Commitment to Complete Streets

Our City is committed to providing connected, safe, affordable, efficient, and convenient transportation choices. These are our foundational principles for making every Burlington street “complete.”

We believe that our streets are public spaces, and serve more functions than simply moving cars. This is why we've maintained a Neighborhood Enhancement Program since 1996, to establish policies and process to balance mobility needs.



↑ Figure 1. Recent transportation planning documents for the City of Burlington (Source: City of Burlington, VT)



↑ Figure 2. Tactical urbanism project in Burlington, VT (Source: Tactical Urbanist's Guide to Materials and Design)

01 INTRODUCTION

This Traffic Calming Manual represents an important step for the City of Burlington in its mission to provide safe, Complete Streets within the community. Building upon previous efforts to identify traffic calming measures suitable for construction, this manual provides the City of Burlington with:

1. Guidance regarding the appropriate use, design, and signing and/or pavement markings of traffic calming measures;
2. Procedures by which residents may request and the City may investigate and pursue traffic calming measures on its residential and collector streets.

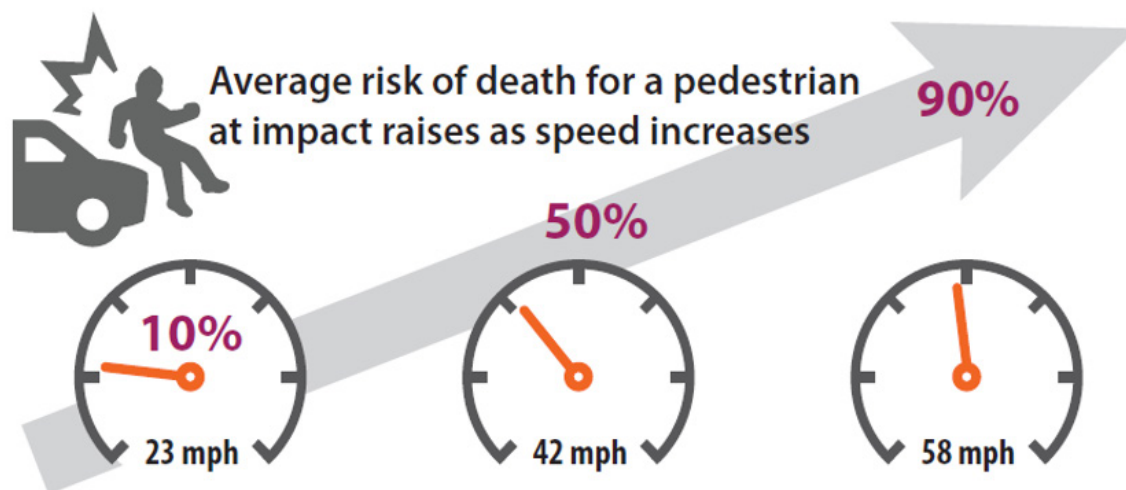
This Guide focuses on traffic calming measures for existing streets. The goals of this program are:

- **Protect** existing residential neighborhoods through traffic and speed management
- **Promote** safe, comfortable, multimodal transportation
- **Provide** acceptable levels of access, while minimizing unnecessary traffic or excessive speeds.

WHAT IS TRAFFIC CALMING? WHY IS IT IMPORTANT?

The Federal Highways Administration (FHWA) describes traffic calming as follows:

*The primary purpose of traffic calming is to support the **livability** and **vitality** of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by **reducing vehicle speeds** or **volumes** on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use **self-enforcing** physical or psycho-perception means to produce desired effects.¹*



↑ Figure 3. Pedestrian fatalities dramatically increase as vehicle speed increases

¹Traffic Calming ePrimer, Module 2. Federal Highways Administration (FHWA), Office of Safety. https://safety.fhwa.dot.gov/speedmgmt/ePrimer_modules/module2.cfm#mod21 Accessed March 2020.

The essential elements of traffic calming remain the same: (1) reduction of automobile speeds and/or volume, (2) through the use of physical measures, (3) to improve quality of life in residential and commercial areas, and (4) increase the safety of pedestrians and bicyclists.

Traffic calming is important because it increases the quality of living in urban and suburban settings by making movement safer and more efficient for all street users. Reducing vehicle speed is especially critical for pedestrians and vulnerable users of all streets, as the risk of death at impact increases with speed.



Figure 4. Traffic calming can help make Burlington's streets safer.

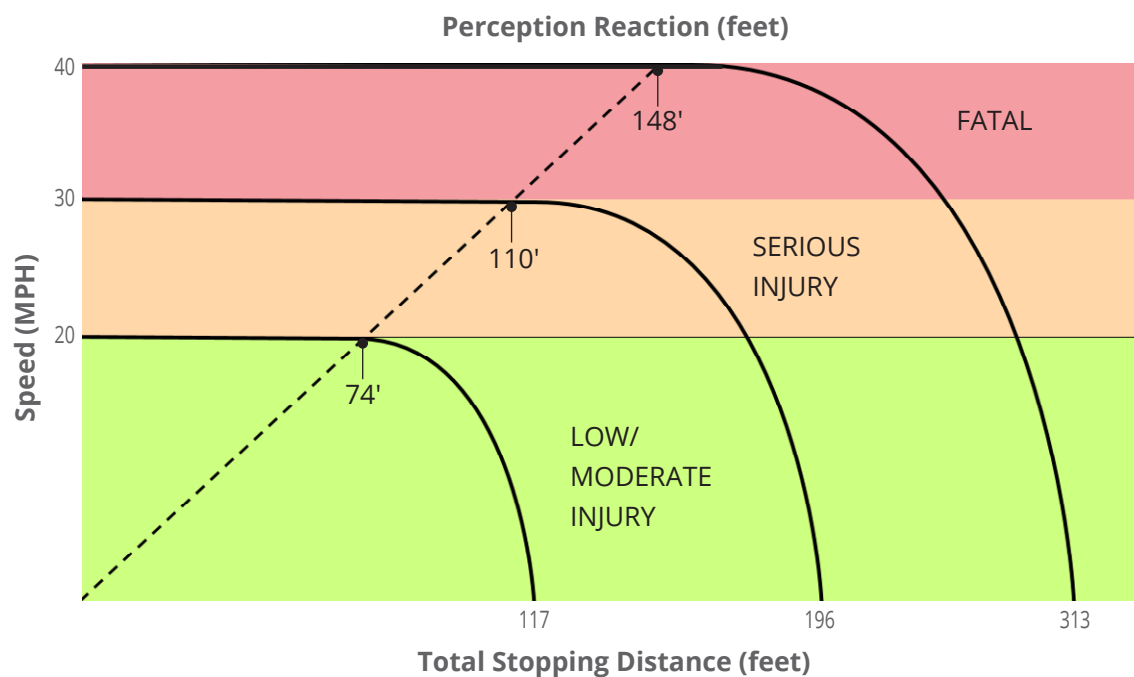


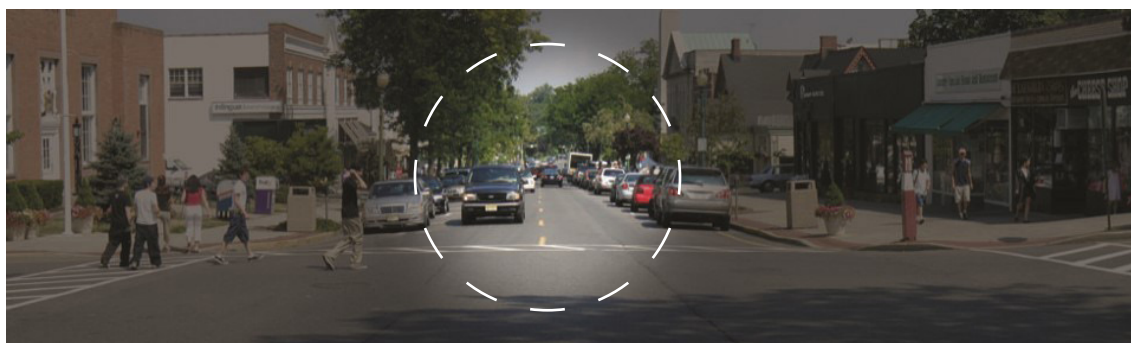
Figure 5. Stopping distance and reaction time increase with speed.
(Source: National Complete Streets Coalition)



Figure 6. Diagrams (above and below) illustrating how driver vision narrows and widens at high and low speeds respectively. Studies show that driver behavior, including speed, is predicated on their peripheral vision, which decreases greatly at higher speeds.



Peripheral Vision at 10 to 15 MPH



Peripheral Vision at 40+ MPH

WHAT IS NOT TRAFFIC CALMING?

It's important to clarify potential treatments that will not be considered as traffic calming measures. Four common requests from residents include: **stop sign installation requests, speed radar equipment installation, driver safety education, or speed limit enforcement efforts** by local police. While stop signs and other traffic control signs are means by which traffic operations may be managed, they are not traffic calming devices because they are not **self-enforcing**. As regulatory traffic control devices, traffic control signs obligate the motorist to alter their driving behavior and reduce speed, but require enforcement by authorities in order to be effective rather than the operator's voluntary modification of their behavior. Vehicle safety education is an essential requirement for obtaining a state drivers' license, but is not in itself a traffic calming measure because it is not a physical treatment that is self-enforcing. For these reasons, requests of this nature will not be considered under the City's Traffic Calming Program.

What is "Self-Enforcing?"

Physical treatments (countermeasures) that are engineered to alter a motorists speed or direction of travel.

HOW IS TRAFFIC CALMING DIFFERENT FROM NEIGHBORHOOD ENHANCEMENT?

- **Traffic Calming:** Physical, self-enforcing measures that will mitigate an issue that exceeds specific quantitative warrants for speed, crashes, and heavy traffic/truck traffic are considered traffic calming. Traffic calming measures will be evaluated in accordance with Chapter 2 of this manual.
- **Neighborhood Enhancements:** Issues or desired improvements at locations which do not meet the specific quantitative warrants for speed or crashes (e.g., maintenance, street trees, sidewalks, lighting, education, enforcement). The following are examples of neighborhood-led requests through other established programs within the City of Burlington:
 - "Welcome to the Neighborhood" signs, planters, or other beautification (apply for Encumbrance Permit through DPW)
 - New tree requests through Burlington, Parks, Recreation and Waterfront
 - Street light improvements through Burlington Electric Department
 - Intersection murals (apply for an Encumbrance Permit through DPW)

The Traffic Calming Program addresses specific *roadway deficiencies as demonstrated by data* through proven countermeasures, and are guided by accepted engineering standards established by research administered and endorsed by Federal and State agencies.



↑ Figure 7. DPW employees installing traffic calming measures



↑ Figure 8. An artistic neighborhood enhancement installation in Burlington that serves to beautify the area and may calm traffic

A NOTE ON INTERSECTION MURALS

Intersection murals have the potential to compromise safety of motorists, pedestrians, and bicyclists by interfering with, detracting from, or obscuring official traffic control devices, especially nearby crosswalks. Intersection murals will only be considered after careful review of their location, impact to nearby official traffic control devices, and the safety of the public. For more information, refer to the [Manual on Uniform Traffic Control Devices, Frequently Asked Questions - Part 3 - Markings](#).

02 TRAFFIC CALMING EVALUATION PROCESS

This manual is intended to assist DPW and the citizens of Burlington. It will be used by Department of Public Works (DPW) staff to evaluate whether requests for traffic calming will follow the Traffic Calming Program. The objective is to provide clear, transparent guidance to the public, and simplify the overall process from initiation to implementation.

The traffic calming program is designed for streets with posted speeds less than or equal to 30 mph, and is not necessarily appropriate for multilane corridors.

The goals of this program are:

- *Protect existing residential neighborhoods through traffic and speed management*
- *Promote safe, comfortable, multimodal transportation*
- *Provide acceptable levels of access, while minimizing unnecessary traffic or excessive speeds*

HOW TO USE THIS MANUAL

Refer to the Traffic Calming Evaluation Flowchart on the following page.

Upon receipt of a formal **Report of Problem** (public request via SeeClickFix or contacting DPW directly), the first decisionpoint is whether the problem relates to: speed, crashes, traffic volume, or heavy truck traffic.

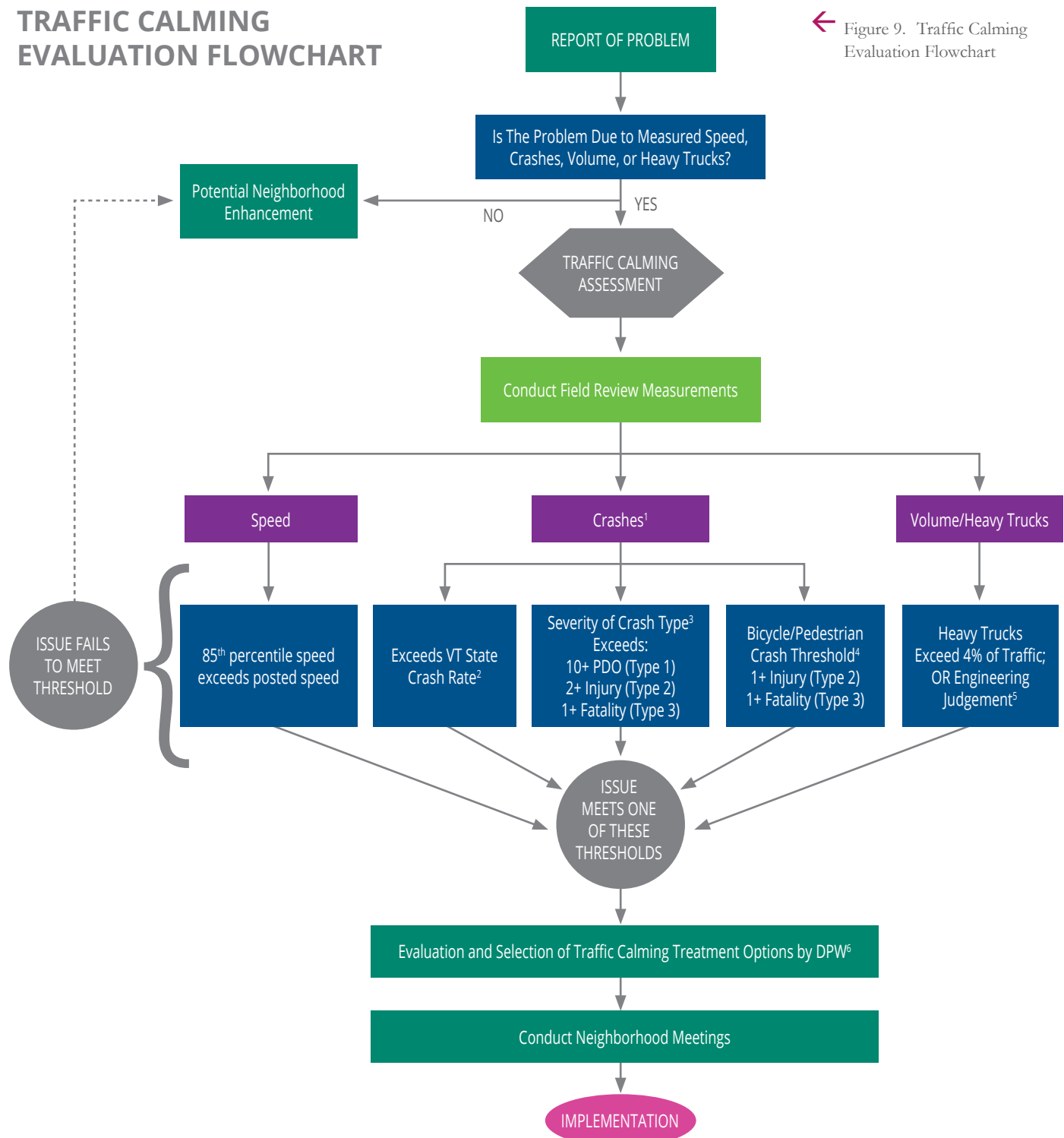
The next step is a formal **Traffic Calming Assessment** by conducting a field review, collecting traffic data, or analyzing existing data. The type of traffic data collected will be dictated by the nature of the problem (speed, traffic, crash records). **Speed** data may involve the collection and analysis of vehicles over a 48-hour period to determine the 85th percentile differential measurement, operating under typical traffic conditions while schools are in session. **Crash** data may involve research on the current VTrans annual Crash Rates calculations, as well as crash records from VTrans Annual State Crash Database, or Crash Public Query Tool. **Volume/Heavy Truck** data may involve conducting a 24- or 48-hour vehicle classification count, specifically for vehicles with three or more axles. The Department of Public Works will collect and analyze these data to determine if specific threshold criteria warrants are exceeded.

Basics of Traffic Calming Process:

- *Requests are initiated by contacting DPW or using [SeeClickFix](#)*
- *If warrants are met (See Criteria Warrants, p.7), DPW will develop traffic calming concepts that address the problems identified by the data*
- *A neighborhood meeting will be scheduled to provide feedback on concepts. If needed, a second meeting will be scheduled to share updated plans. DPW will follow the Public Engagement Plan for neighborhood outreach.*
- *If warrants are not met, the traffic calming request will be closed and new requests for that location will not be considered for 5 years unless traffic or development has substantially changed. Neighborhood enhancements can be considered.*
- *DPW will post the results of warrant analysis onto www.burlingtonvt.gov/dpw*

TRAFFIC CALMING EVALUATION FLOWCHART

Figure 9. Traffic Calming
Evaluation Flowchart



Assumptions:

¹The City of Burlington may adopt a Vision Zero policy. When the policy is adopted, severity of crash thresholds will be re-evaluated to align with the policy.

²Use Annual Crash Rate; Source: <https://vtrans.vermont.gov/docs/highway-research>

³Use Annual State Crash Database; Source: <https://vtrans.vermont.gov/crash-manual>
Property Damage Only (Type 1) – No injuries or deaths involved
Injury (Type 2) – A person(s) is injured, but no one is killed
Fatality (Type 3) – If any person is killed in the crash

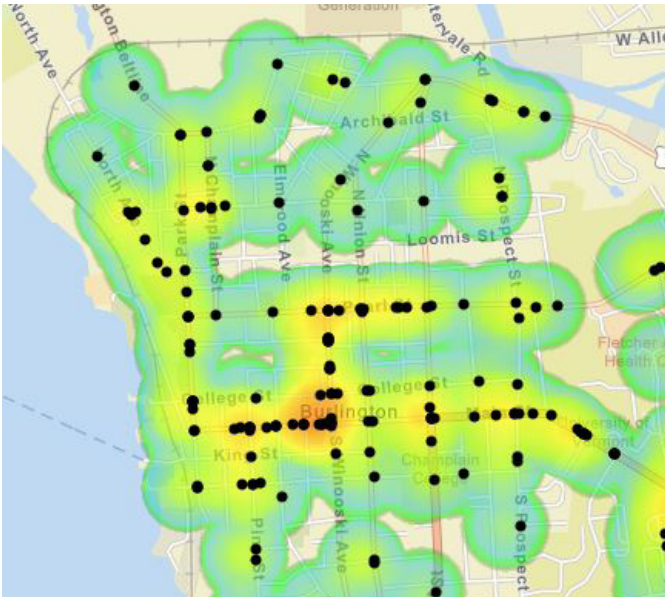
⁴Bike/Ped crashes based on one year occurrence; Source: <http://apps.vtrans.vermont.gov/CrashPublicQueryTool/>

⁵Truck volume percentage based on 24-hr volume classification count, Heavy Trucks represent 3+ axles

⁶See page 11 for Treatment Options

⁷Engineering judgment applies to assumptions 2-6 above.

↓ Figure 10. Crashes in Burlington, VT from March 15, 2019 to April 14, 2020 (Source: VTrans Public Crash Data Query Tool)



↓ Figure 11. Pedestrian priority and safety is paramount, especially on neighborhood streets.



THRESHOLD CRITERIA WARRANTS

With the appropriate data collected, the next decision point is whether the reported problem meets or exceeds the established Criteria Warrants, which are minimum criteria for correction of a deficiency. These are listed in the column to the right.

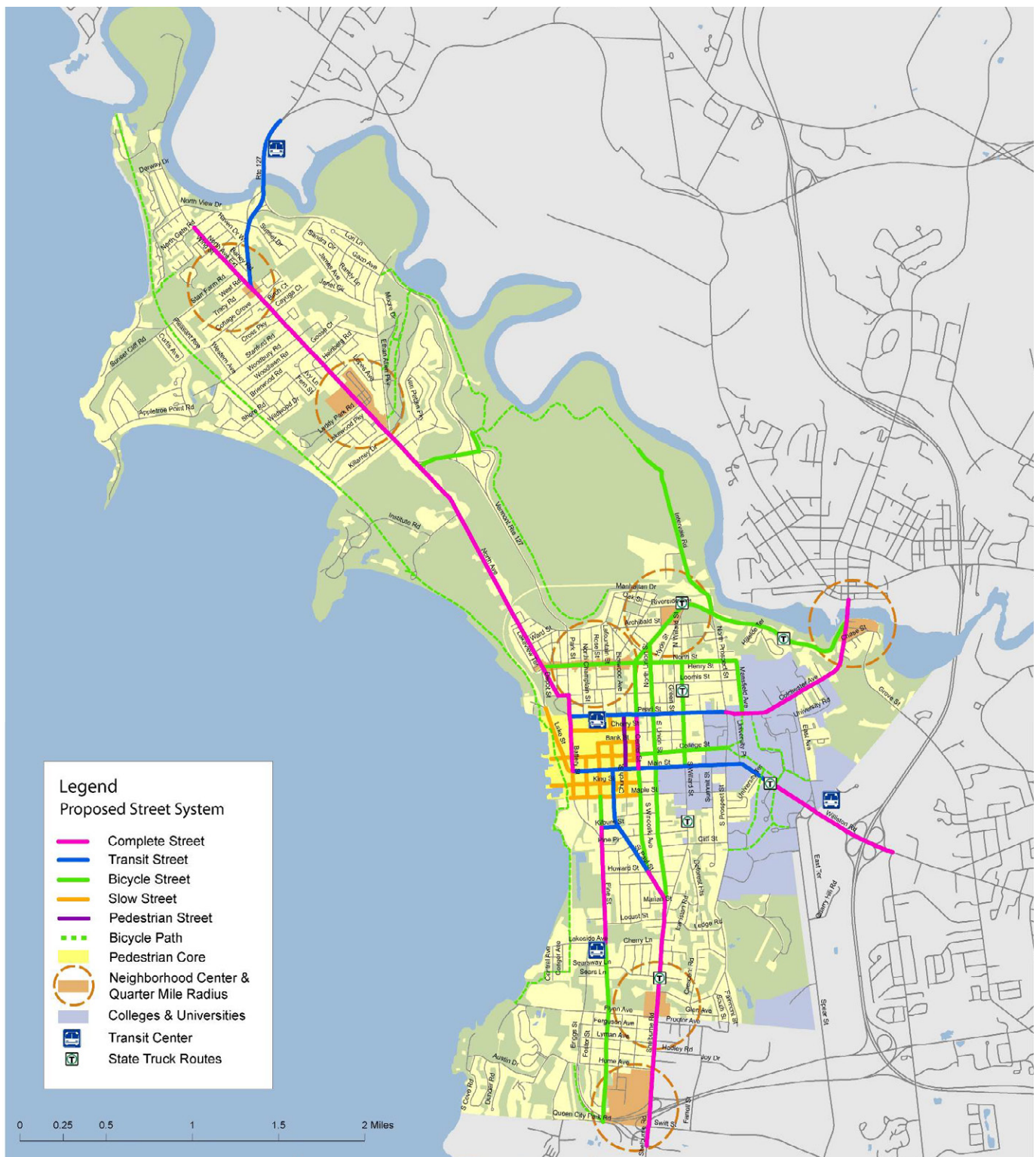
An assessment that satisfies these warrants proceeds to the next decision point, consideration of methods and treatment options, presented in the next section. Cost-effective treatments will largely depend on the characteristics of the roadway, as not all traffic calming treatments will be effective on different streets. Further discussion of street typologies follows.

An assessment that *does not* satisfy these warrants will not advance for traffic calming treatments. New requests for traffic calming will not be advanced for 5 years unless there is a substantial change in traffic or development nearby. DPW will provide results of all assessments at www.burlingtonvt.gov/dpw.

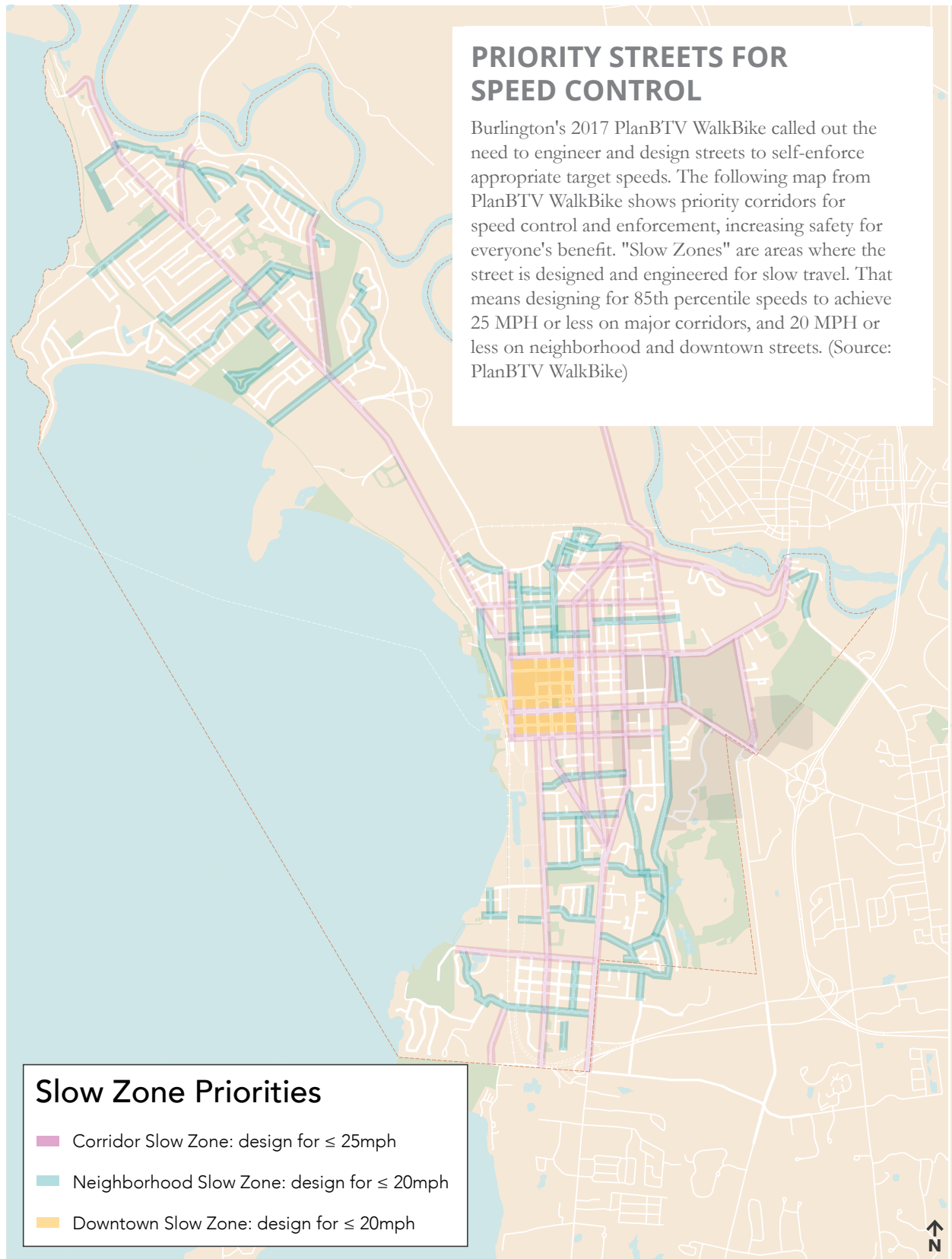
Criteria Warrants

- **Speed Warrant:** The reported 85th percentile speed differential measurement is greater than the posted speed.
- **Safety Warrant:** Documented crash history along the roadway:
 - » Exceeds the annual Vermont State Crash Rate for streets of similar roadway conditions (number of lanes, posted speed, and/or functional classification)
 - » In the last 5-years exceed:
 - 10 or more Type 1 crashes (property damage only) or,
 - Two (2) Type 2 crashes (injury) or,
 - One (1) Type 3 crashes (fatality)
 - » In the last year exceed:
 - One (1) Type 2 crashes (injury) involving pedestrian or bicycle or,
 - One (1) Type 3 crashes (fatality) involving pedestrian or bicycle
- **Heavy Trucks:** The reported 24-hour traffic volume classification count must:
 - » Exceed 4% for heavy truck (three or more axles), or
 - » Engineering judgment considering surrounding land use context

BURLINGTON STREET TYPES AND STREET NETWORK



↑ Figure 12. Burlington Street Types and Street Network, 2011 City of Burlington Transportation Plan



↑ Figure 13. Priority Streets for Speed Control (Source: PlanBTV WalkBike)

STREET TYPOLOGIES

This section describes the five street typologies included in the **City of Burlington Transportation Plan**, Adopted March 2011 and **PlanBTV WalkBike** adopted in 2017.

Neighborhood Street

This category makes up the majority of Burlington's streets. They vary widely in their character and volumes, but predominately are located in residential contexts. It is critical to provide a high quality pedestrian experience and accomplish traffic calming through design on these streets.

Includes: Isham Street, Cedar Street



↑ Figure 14. Isham Street - Neighborhood Street

Slow Street (Slow Zones)

Slow Streets (or Slow Zones) are located within the pedestrian-oriented downtown core of Burlington, and are intended to promote safety and slow travel speeds. PlanBTV described "Slow Zones" as areas where the street is designed and engineered to self-enforce slow travel. That means designing for 85th percentile speeds to achieve 25 MPH or less on major corridors, and 20 MPH or less on neighborhood and downtown streets. PlanBTV includes three Slow Zone Priorities: Corridor, Neighborhood and Downtown. In these areas, all modes of transportation are in high demand, but pedestrian convenience and safety is prioritized. Slow Streets are designed to accommodate the highest density of use and the greatest concentration of pedestrians.

Includes: College Street, Pine Street (from Maple to Pearl)

Traffic Calming Elements of the Slow Street

- High-Visibility Crosswalks
- Medians and Pedestrian Refuge Islands with countdown signals at intersections
- Curbs: Extensions at intersections and high-visibility crosswalks, wider radii for buses
- Vehicle Lanes: Typical width 10 to 11 feet, maximum width 12 feet



↑ Figure 15. College Street - Slow Street

Complete Streets help create livable communities for various types of users, including children, people with disabilities, and older adults. Complete Streets improve equity, safety, and public health, while reducing transportation costs and traffic woes.

- Smart Growth America



↑ Figure 16. Flynn Avenue - Bicycle Street



↑ Figure 17. Pearl Street - Transit Street



↑ Figure 18. Park Street (Source: Google Street View)

Bicycle Street

Bicycle Streets, like Transit Streets, have the purposes of giving one mode of transportation priority over other modes. The 2017 PlanBTV WalkBike provided an updated network of Bicycle Streets from those provided in the 2011 Transportation Plan. The Bicycle Street functions to give bicycles priority treatment through improved signage and physical improvements to promote convenience and safety. Along with Slow Streets, Complete Streets, and shared-use paths, Bicycle Streets form a citywide network that will promote greater usage of bicycles as a mode of transportation.

Includes: North Street, Union Street, College Street, Intervale Road

Traffic Calming Elements of the Bicycle Street

- Crosswalks
- On-Street Parking: Parallel or Angled
- Bicycle Lanes: Preferable width 5 to 6 feet, minimum width 4 feet outside of gutter
- Vehicle Lanes: Typical width 10 to 11 feet, minimum width 10 feet

Transit Street

Transit Streets, like Complete Streets, facilitate travel to and through Burlington's core and are main thoroughfares for the city. Transit Streets, however, differ from Complete Streets in that their purpose is to give transit a "leg up" on other modes of transportation by promoting efficient transit movement on these designated streets. Transit Streets transition from Complete Streets where bicycles are diverted to a parallel Bicycle Street or other path. These streets can promote significant economic development, especially within 1/4-mile of a transit stop. Higher volumes of pedestrian traffic may be expected on Transit Streets.

Includes: Main Street, St. Paul Street (from Main to Howard), Pearl Street

Traffic Calming Elements of the Transit Street

- Corner Turning Radius: Minimum 60 foot radius
- Vehicle Lanes: Typical width 10 to 11 feet, maximum width 12 feet

Complete Streets

Complete Streets are the main thoroughfares providing access into and through Burlington. These roadways typically have more travel lanes, wider rights-of-way, and higher traffic volumes and speeds. The goal of the Complete Street is to accommodate all modes as effectively as possible within the right-of-way.

Includes: North Avenue, Colchester Avenue

Traffic Calming Elements of the Complete Street

- High-Visibility Crosswalks
- Medians & Pedestrian Refuge Islands
- Curb extensions and wider radii for buses
- On-Street Parking (if possible)
- Buffered/Conventional Bike Lane: Preferable width 5 to 6 feet, minimum width 4 feet outside of gutter
- Vehicle Lanes: Typical width 10 to 11 feet, maximum width 12 feet

03 TRAFFIC CALMING METHODS & TREATMENTS

Once DPW staff have determined that installation of traffic calming measures is warranted, the next step that they will take will be to evaluate the various traffic calming methods and treatments appropriate for the street typology. This section describes which traffic calming methods/treatments are appropriate for the various street typologies, and includes cut sheets for each method/treatment to assist DPW staff in deciding which methods/treatments to install.

Not all traffic calming treatments are appropriate for all street typologies, and engineering judgment should be incorporated into the consideration of potential context-sensitive design.

TRAFFIC CALMING MEASURES AND CONTEXTUAL GUIDANCE

+	Most desirable
!	Engineering judgment
-	Not recommended

Street Typology	Neighborhood & Slow Street ^{1,3}		Bicycle Street ¹		Transit Street ¹			Complete Street ¹		
Low-Impact Physical Design	2-lane	3-lane	2-lane	3-lane	2-lane	3-lane	4-lane	2-lane	3-lane	4-lane
Rumble Strips	-	-	-	-	!	!	+	!	+	+
Reallocation of Pavement Space	-	-	+	+	+	+	!	+	+	-
Curb Extension	+	+	+	+	!	!	!	+	+	+
Choker	+	!	+	!	!	!	-	+	!	-
Chicane	+	!	+	!	!	!	-	!	!	-
Speed Hump	+	+	!	!	-	-	-	!	-	-
High-Impact Physical Design										
Raised Crosswalk	+	+	!	!	-	-	-	!	-	-
Raised Intersection	+	+	!	!	-	-	-	!	-	-
Median Refuge Island (intersection treatment)	+	!	+	!	+	!	!	+	!	!
Median Island (midblock treatment)	+	+	+	+	!	!	!	+	+	!
Neighborhood Traffic Circle	+	-	+	-	+	-	-	!	-	-
Road Closure	+	+	+	+	!	-	-	!	-	-
Other Traffic Calming										
Parking Conversion ² (or modification of parking space)	!	!	!	!	!	!	+	!	!	+

¹ Street Typology represents the priority mode for the specific street. This does not suggest that other modes are not in use.

² Parking Conversion is context dependent, but may refer to widening of on-street parking to restrict the travel lane or conversion of angled- to parallel-parking.

³ See PlanBTV/WalkBike Corridor, Neighborhood and Downtown Slow Zones.

↑ Figure 19. Table of Traffic Calming Measures and Contextual Guidance

RUMBLE STRIPS



LOW-IMPACT PHYSICAL DESIGN

Description

Rumble strips are patterned sections of rough pavement or topical applications of raised material, perpendicular to the direction of travel, that cause vibration and noise when driven over by the operator of a motor vehicle. This noise and vibration is intended to direct the motorist's attention back to the roadway. FHWA-approved treatments include white- and black-painted stripes. Avoid conflicts with driveways. Typical spacing is 50 - 100 feet apart.

Typical Conditions

Speed: Generally appropriate for roadways with higher posted speed limits, such as transitions from freeways to lower class roadways.

Traffic & Volume: Generally appropriate for any traffic volumes and do not impair truck access, transit, or primary emergency response routes, not appropriate on bicycle routes.

Cost

Ranges between \$0.10 to \$0.60 per linear foot dependent on:

- Project length
- Availability and selection of materials
- Roadway surface

BASIC

Speed Reduction Potential
-1 to -2 MPH

Advantages and Disadvantages

Advantages

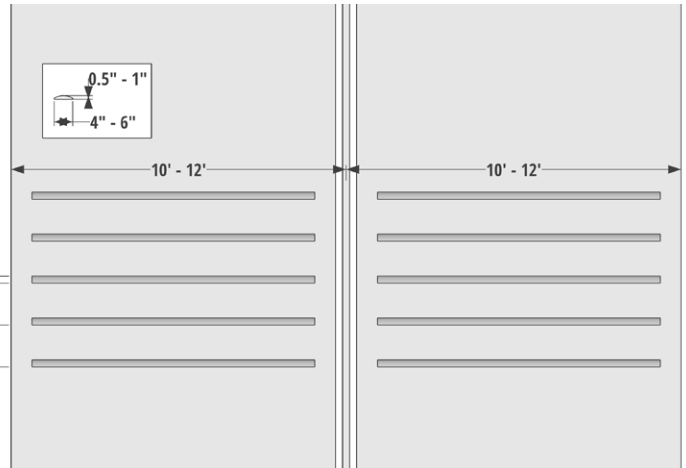
- FHWA studies show 34% reduction in crashes on urban and suburban roads
- Relatively low cost
- Relatively quick installation

Disadvantages

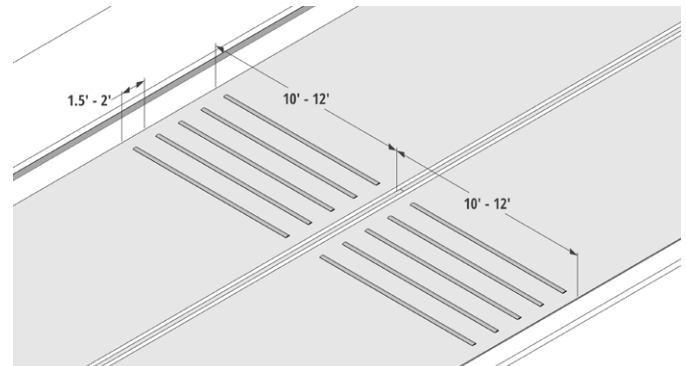
- Not effective on roadways with lower posted speeds
- High noise levels generated by traffic

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example - Source: National Complete Streets Coalition

REALLOCATION OF PAVEMENT SPACE



LOW-IMPACT PHYSICAL DESIGN

Description

Reallocation of pavement space can include removing and/or reconfiguring existing travel lanes or replacing lanes with other facilities such as bicycle lanes, on-street parking or transit uses for example.

Typical Conditions

Speed: Generally appropriate for roadways with lanes in excess of 12 feet wide.

Traffic & Volume: Generally appropriate for all types of urban roadways and have been applied to roadways with daily maximum volumes from 15,000 - 25,000.

Cost

Can be designed internally and implemented with scheduled resurfacing making costs minimal.

BASIC

Speed Reduction Potential

-1 to -2 MPH

Advantages & Disadvantages

Advantages

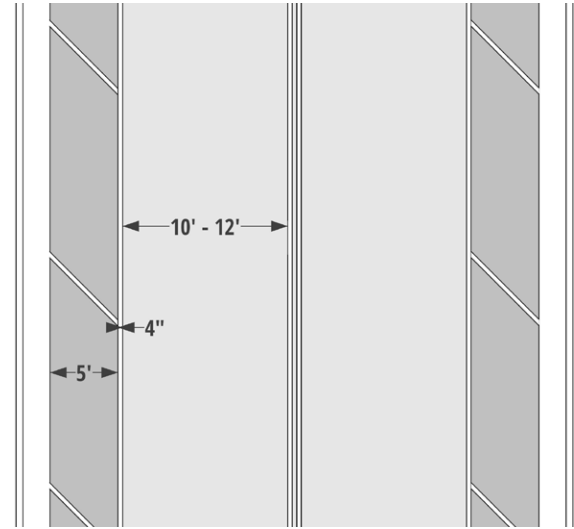
- Lane removal can reduce higher speeds achieved through passing
- Can reduce crashes by 19-47%
- Retains sufficient flow despite lane removal

Disadvantages

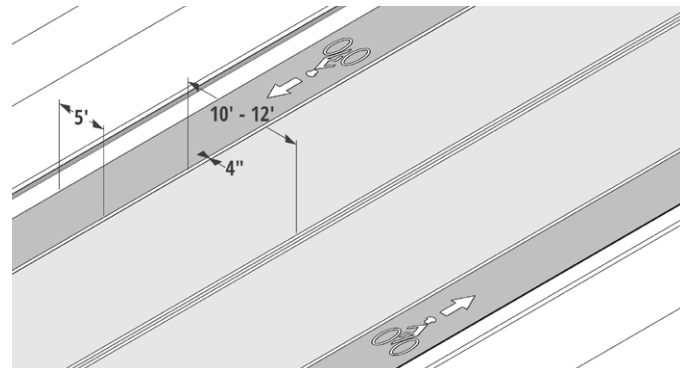
- No significant disadvantages

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail (Roadway striping as lane diet)



Oblique Angle Detail (Conventional bike lanes as lane diet)



Built Example (Buffered bike lanes as a road/lane diet)

CURB EXTENSIONS



LOW-IMPACT PHYSICAL DESIGN

Description

A curb extension (or bulb out) is a horizontal extension of the sidewalk into the street at an intersection effectively narrowing the roadway.

Typical Conditions

Speed: Generally appropriate for all common urban speed limits, provided adequate distance is provided between travel lane and curb.

Traffic & Volume: Generally appropriate for roadways with low to moderate traffic volumes, and are appropriate for all vehicle types, including primary emergency vehicles and transit.

Cost

Ranges between \$10,000 and \$25,000, dependent upon:

- Drainage considerations
- Utilities relocation
- Size of the extension

FAIR

Speed Reduction Potential

-3 to -4 MPH

Advantages & Disadvantages

Advantages

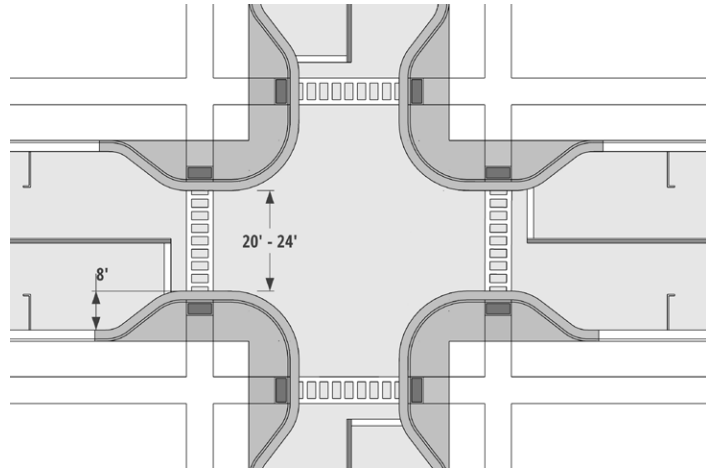
- Slows automobile turning speeds and increases sight triangles for motorists, increasing pedestrian visibility
- Shortens pedestrian crossing distance and improves pedestrian visibility
- Provides protected parking bays
- Creates opportunities for landscaping and amenities at extensions, enhancing beautification

Disadvantages

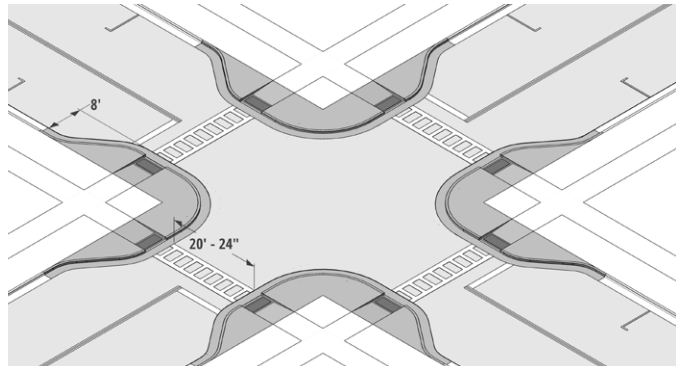
- May require relocation of above- and below-ground utilities, drainage features
- May require some parking removal adjacent to intersections
- Potential for higher costs due to drainage considerations
- Potential to cause vehicle damage to drivers with larger class vehicles who are lost

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

CHOKER



LOW-IMPACT PHYSICAL DESIGN

Description

A choker is the narrowing of a roadway through the use of curb extensions or roadside islands. It can be created by a pair of curb extensions at a midblock location that narrows the street by widening the sidewalk or planting strip at that location. A choker can also be created through the use of roadside islands or through a curb extension with parking on the opposite side.

Typical Conditions

Speed: Generally appropriate for all common urban speed limits, provided adequate distance is provided between travel lane and curb.

Traffic & Volume: Generally appropriate for roadways with low to moderate traffic volumes, and are appropriate for all vehicle types, including primary emergency vehicles and transit.

Cost

Between \$10,000 and \$25,000 per extension, dependent upon:

- Drainage considerations
- Utilities relocation
- Size of the extension

FAIR

Speed Reduction Potential

-3 to -4 MPH

Advantages and Disadvantages

Advantages

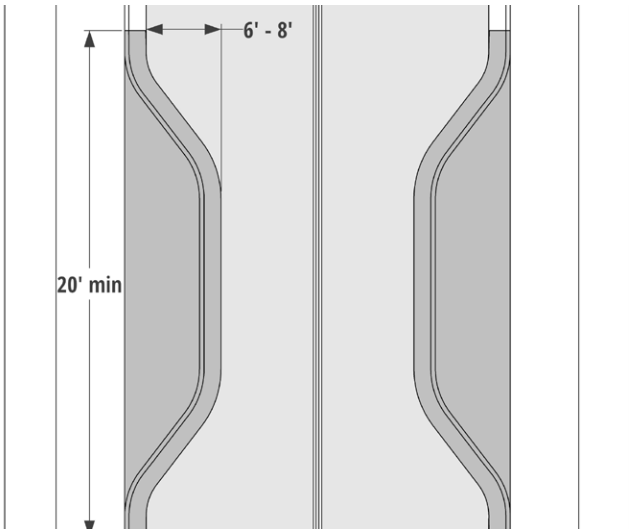
- Opportunities for landscaping and amenities can significantly increase neighborhood and streetscape beautification
- Provides opportunity for a mid-block crosswalk
- Provides protection for on-street parking
- Applicable with or without dedicated bicycle facilities

Disadvantages

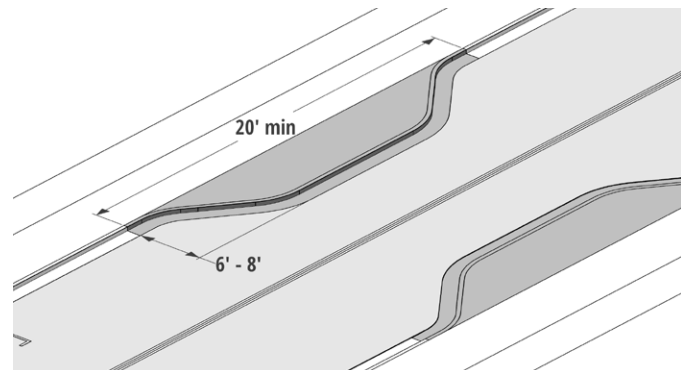
- May require relocation of drainage features and utilities
- May require some parking removal
- Potential for higher costs due to drainage considerations

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

CHICANE



LOW-IMPACT PHYSICAL DESIGN

Description

A chicane is a series of alternating curves or lane shifts that are located in a position to force a motorist to steer back and forth out of a straight travel path. The chicane curves can be created with a curb extension that alternates from one side of the street to the other. A chicane-like effect can also be achieved by alternating on-street parking from one side of the street to the other.

Typical Conditions

Speed: Generally appropriate for roads with posted speed limits of up to 35 miles per hour.

Traffic & Volume: Generally appropriate for roads with low traffic volumes and for all vehicle types, including emergency response vehicles and transit routes.

Cost

Range from \$5,000 to \$10,000 per chicane dependent upon:

- Materials used (temporary or permanent)
- Drainage considerations
- Utilities relocation
- Size/length of the chicane

GOOD

Speed Reduction Potential

-6 to -9 MPH

Advantages and Disadvantages

Advantages

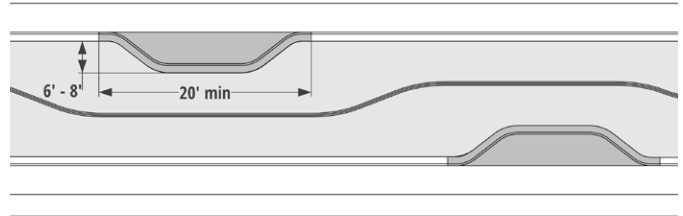
- Appropriate in both urban and suburban settings
- Landscaping the areas of deflection can create green space
- Slows traffic by encouraging motorists to moderate vehicle speed through the horizontal deflection

Disadvantages

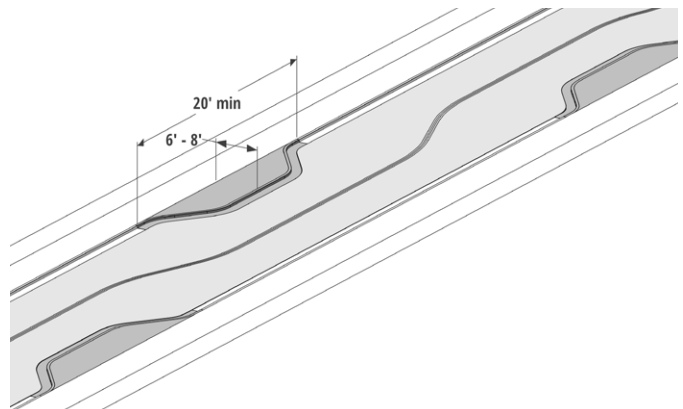
- Bicyclists and motor vehicles share the lane
- Drivers may cut straight paths across center line (striping, without median)

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example - Source: Dan Burden, Walkable Communities

SPEED HUMP



LOW-IMPACT PHYSICAL DESIGN

Description

A speed hump is an elongated mound in the roadway surface extending across the travel way at a right angle to the traffic flow. It uses vertical deflection to create motorist discomfort and thereby reduces speed. Burlington DPW offers two sizes of speed humps, 14 feet or 22 feet wide, the larger size being more appropriate for higher volume streets. Typical placement is midblock and spaced 300 - 500 feet apart. Avoid conflicts with driveways.

Typical Conditions

Speed: Generally not appropriate for roadways with a posted speed of 45 miles per hour or above.

Traffic & Volume: Not appropriate for truck access routes, transit routes, or primary emergency response routes; Appropriate for roads with grades below eight percent.

Variation: Speed Cushions can be used as a variation along primary emergency routes or transit routes.

Cost

Between \$2,000 - \$4,000 dependent on drainage design

GOOD

Speed Reduction Potential

-6 to -8 MPH

Advantages and Disadvantages

Advantages

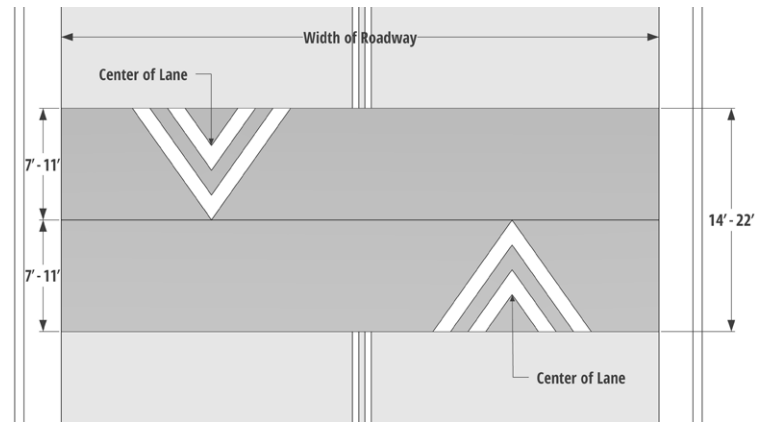
- Bicyclist safety is relatively unaffected
- Typical traffic volume reductions of 20% (series of humps)
- Crash rate reductions of approximately 40% are typical

Disadvantages

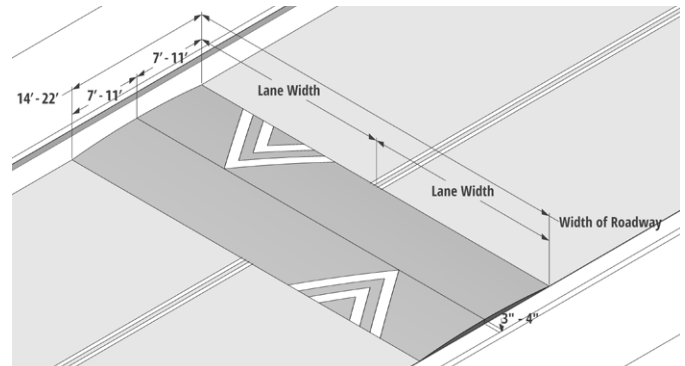
- When applied as a single treatment, little to no traffic volume reduction or diversion should be expected
- Increased noise levels from vehicles impacting the hump
- Not appropriate for primary emergency vehicle routes or streets providing access to a hospital or emergency medical services
- Not appropriate for transit routes or primary access routes for industrial or commercial sites
- Adequate stopping sight distance or warning signs provided
- Snow plow damage to speed hump

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

RAISED CROSSWALK



HIGH-IMPACT PHYSICAL DESIGN

Description

A raised crosswalk is a raised area extending perpendicular to the roadway, accompanied by a pedestrian crosswalk on the raised surface, designed to physically limit the speed at which a vehicle can traverse it. Raised crosswalks may be installed at both midblock and intersections and ranges in height based on the roadway type. Refer to Burlington Crosswalk Guidelines. Crosswalks should not be installed solely for the purpose of traffic calming, they must also meet the warrants for a marked crosswalk or an enhanced crosswalk.

Typical Conditions

Speed: Generally appropriate for roadways with posted speed limits up to 35 miles per hour.

Traffic & Volume: Not appropriate for primary emergency vehicle response routes, or roadways providing access to medical facilities.

Cost

Ranges between \$2,500 to \$8,000 for asphalt table. Higher costs may be incurred for brickwork, stamped asphalt, concrete ramps, and other pedestrian crossing enhancements.

GOOD

Speed Reduction Potential

-6 to -9 MPH

Advantages and Disadvantages

Advantages

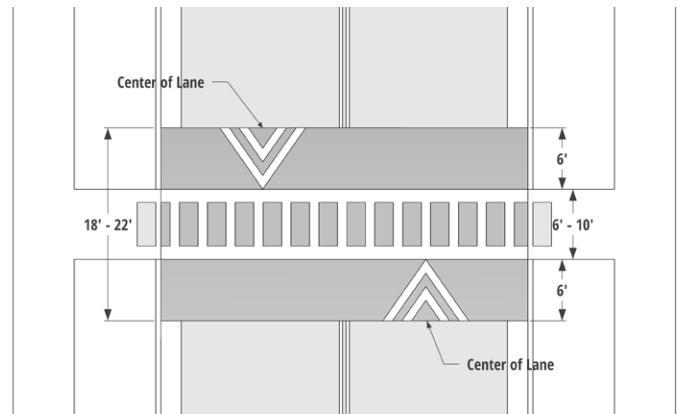
- Increased pedestrian connectivity creates a more walkable community
- Reduces speeds to between 25 to 35mph at the crosswalk
- Bicycle safety relatively unaffected
- When used in a series, traffic volume reductions of up to 20% observed

Disadvantages

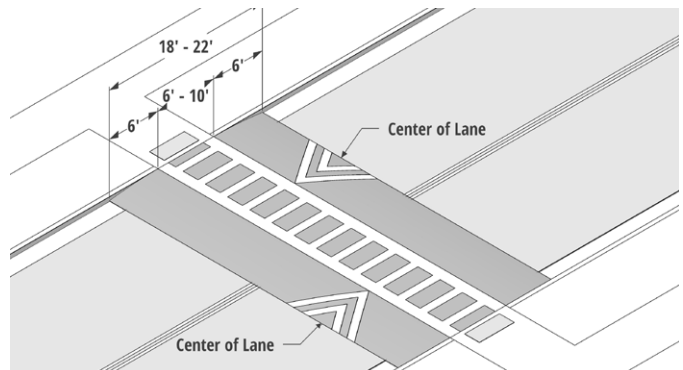
- Should not be located within 50-75 feet of bus stops
- Not appropriate for primary emergency vehicle routes or streets providing access to a hospital or medical services
- Snow plow damage to raised crosswalk
- Potential increase in noise and in traffic on adjacent streets

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- Burlington's Crosswalk Guidelines
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example - Source: Dan Burden, Walkable Communities

RAISED INTERSECTION



HIGH-IMPACT PHYSICAL DESIGN

Description

A raised intersection is a flat, raised area covering an entire intersection, including the crosswalks, with ramps on all approaches. A raised intersection typically rises no more than 3 inches. They often have brick or other decorative materials or textures applied.

Typical Conditions

Speed: Generally appropriate for posted speed limits of up to 30 miles per hour.

Traffic & Volume: Generally appropriate in lower volume conditions and are suitable for transit and emergency response vehicle routes.

Cost

Ranges between \$25,000 to \$70,000 dependent upon several factors, including road size, drainage conditions, materials, and pedestrian enhancements.

BASIC

Speed Reduction Potential

-1 to -2 MPH

Advantages and Disadvantages

Advantages

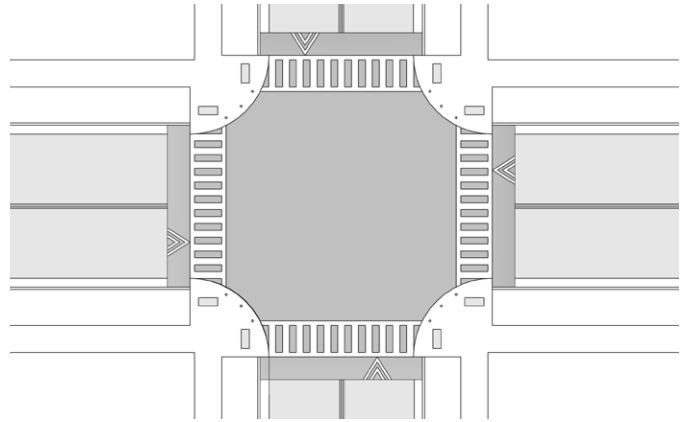
- Versatile in both residential and commercial settings, and can enhance intersection aesthetics
- Large trucks are slowed and/or delayed between two to six seconds crossing the intersection
- Works well with curb extensions and textured crosswalks
- Improves accessibility
- Detectable warnings and/or color contrasts must be incorporated to differentiate the roadway and the sidewalk

Disadvantages

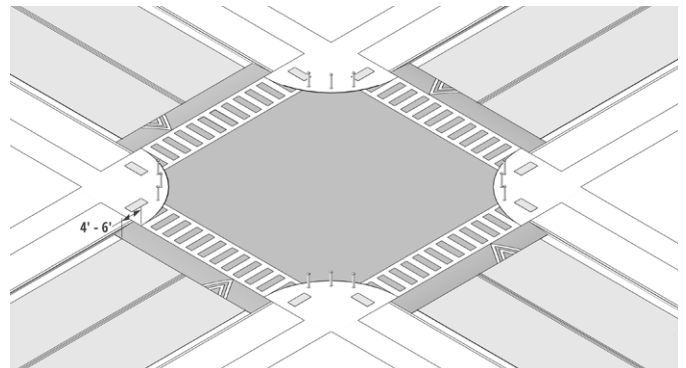
- Reduction in mid-block speeds typically less than 10 percent
- May require bollards to define edge of roadway
- Storm drainage/underground utility modifications are likely necessary
- Potential for higher costs depending upon width of intersecting roads and drainage considerations
- Maintenance of materials used (brick, striping)

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

MEDIAN ISLAND (INTERSECTION)



HIGH-IMPACT PHYSICAL DESIGN

Description

A median island (intersection) is also called a median refuge island and is a median located at an intersection along the centerline that narrows the travel lanes. A median island may be a painted area or a raised curb, with or without landscaping. A central cutout can create a pedestrian refuge. At intersections, a median island may also be called a pedestrian or splitter island.

Typical Conditions

Speed: Generally appropriate for roads with posted speed limits of up to 35 miles per hour.

Traffic & Volume: Appropriate for all traffic volumes and vehicle types.

Cost

Ranges between \$10,000 to \$15,000 are expected for installation of the median island, dependent upon size, material, landscaping and drainage considerations.

FAIR

Speed Reduction Potential

-3 to -6 MPH

Advantages and Disadvantages

Advantages

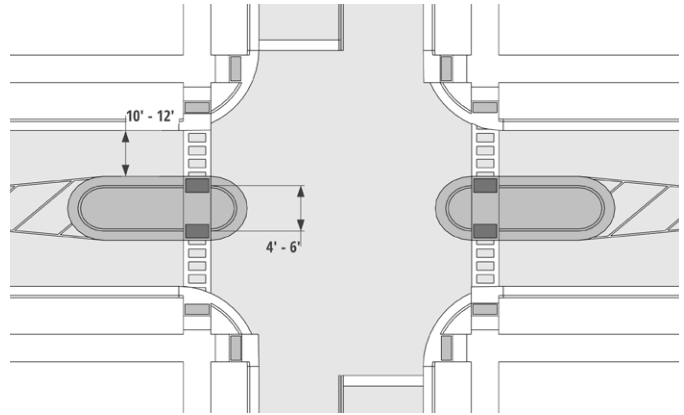
- Reduces pedestrian crossing distance and increases visibility,
- With a variety of materials, medians can greatly enhance neighborhood aesthetics
- Raised curbing increases visibility and nighttime safety
- Reduces vehicle conflict points
- 46 to 56% reduction in pedestrian crashes observed

Disadvantages

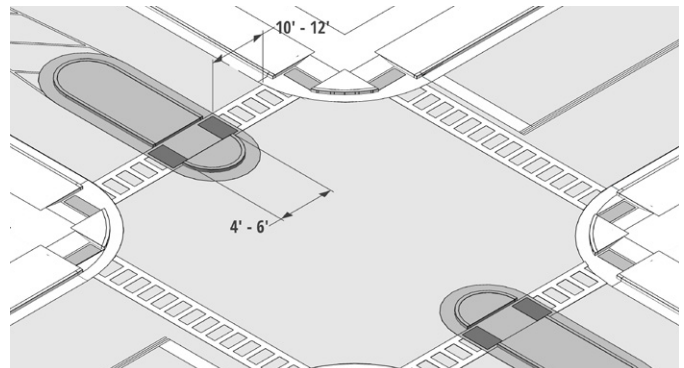
- Landscaping maintenance costs can increase depending on vegetation used
- Potential for higher costs depending upon drainage and utilities considerations
- Turning radius may be impacted for larger vehicles

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

MEDIAN ISLAND (MIDBLOCK)



HIGH-IMPACT PHYSICAL DESIGN

Description

A median island (midblock) is a raised island located along the street centerline that narrows the travel lanes. Unlike the median refuge island, the median island is located at midblock locations. A median island may be a painted area or a raised curb (preferred), with or without landscaping, to further reduce the open feel of a street.

Typical Conditions

Speed: Generally appropriate for roads with posted speed limits of up to 35 miles per hour.

Traffic & Volume: Appropriate for all traffic volumes and vehicle types.

Cost

Ranges between \$10,000 to \$15,000 are expected for installation of the median island, dependent upon size, material, landscaping and drainage considerations.

FAIR

Speed Reduction Potential

-3 to -6 MPH

Advantages and Disadvantages

Advantages

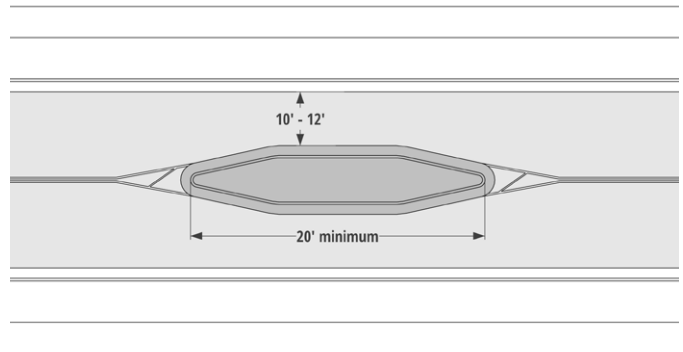
- Can function as a midblock pedestrian refuge island
- With a variety of materials, medians can greatly enhance neighborhood aesthetics
- Light crowning increases visibility and nighttime safety
- Reduces vehicle conflict points

Disadvantages

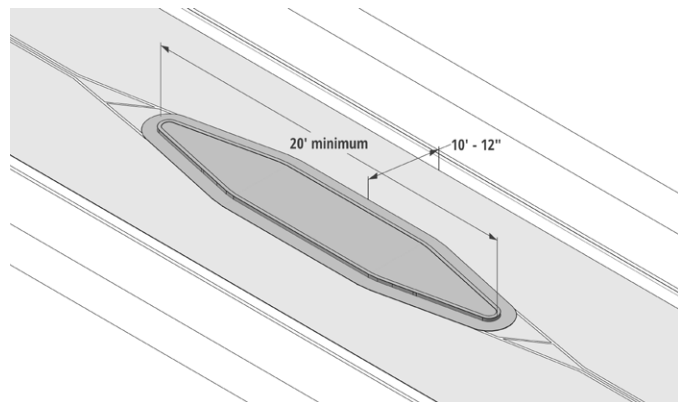
- Bicyclist and motor vehicles share the lane
- Landscaping maintenance costs
- Potential for higher costs depending upon drainage and utilities considerations
- Can restrict driveway access where driveways are located within the limits of the island
- Damage to snow plows, damage from snow plows

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

NEIGHBORHOOD TRAFFIC CIRCLE



HIGH-IMPACT PHYSICAL DESIGN

Description

A traffic circle is a raised island, placed within an unsignalized intersection, around which traffic circulates. The circle may have Stop signs or Yield signs on the intersection approaches. The island forces a motorist to use reduced speed when entering and passing through an intersection. Though similar to a roundabout, traffic circles do not follow modern design roundabout principles, as there is no horizontal deflection on the approach.

Typical Conditions

Speed: Generally appropriate only for streets with low posted speed limits of up to 30 miles per hour.

Traffic & Volume: Generally appropriate for streets with less than 2,000 vehicles per day, and are not appropriate for trucks with more than two axles, emergency vehicles, or transit routes.

Cost

Ranges between \$10,000 to \$25,000, dependent upon drainage considerations, utilities, landscaping, and circle diameter.

FAIR

Speed Reduction Potential

-4 MPH

Advantages and Disadvantages

Advantages

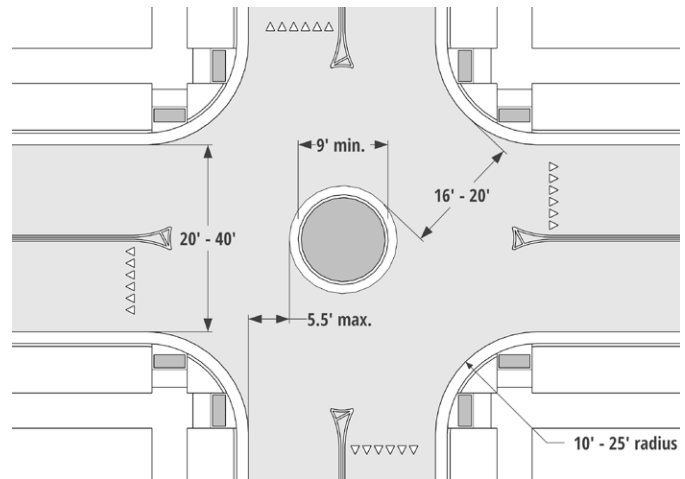
- Observed speed reductions of four miles per hour are typical at the traffic circle; reduced speeds continue beyond the intersection
- Greater speed reductions achieved with installation of splitter islands
- Reduction in number of angle and turning crashes

Disadvantages

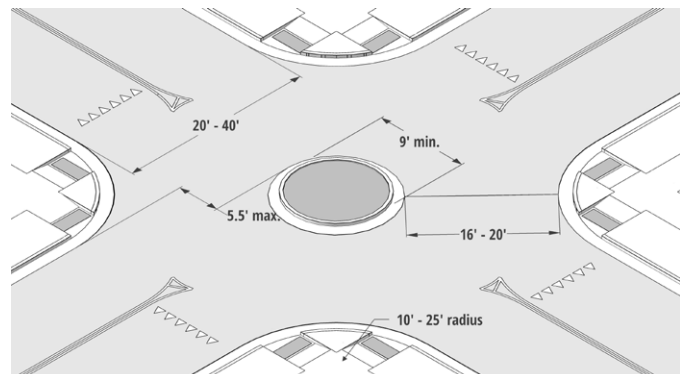
- Not appropriate where transit routes must make left turns
- Emergency vehicles and large trucks typically may turn left in front of the circle in order to navigate the intersection

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

ROAD CLOSURE (FULL)



HIGH-IMPACT PHYSICAL DESIGN

Description

A full street closure is a physical barrier, whether at an intersection or midblock, that is placed across a street to close the street completely to through vehicle traffic. A full closure can be designed to allow bicyclists and pedestrians to pass through. An operational analysis shall be completed prior considering this treatment.

Typical Conditions

Speed: Generally appropriate for all common urban posted speed limits, with adequate advance warning given to road users.

Traffic & Volume: Generally appropriate for roadways with low traffic volume, and are not appropriate for primary emergency vehicle response, truck, or transit routes.

Cost

Ranges from as little as \$1,500 to \$10,000 depending upon method of closure chosen. Costs vary substantially dependent on treatment, and include potential considerations for drainage, construction, and restriping.

FAIR

Speed Reduction Potential

N/A - Diverts traffic

Advantages and Disadvantages

Advantages

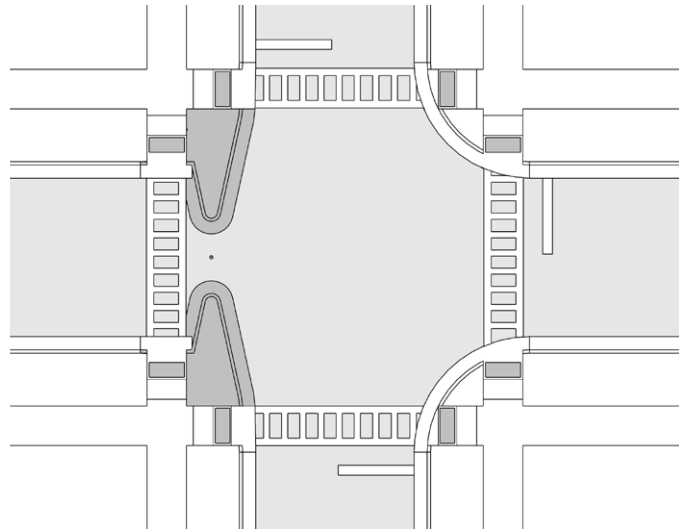
- Highest degree of traffic volume reduction
- Increased pedestrian and bicyclist safety
- Eliminates vehicle conflict points

Disadvantages

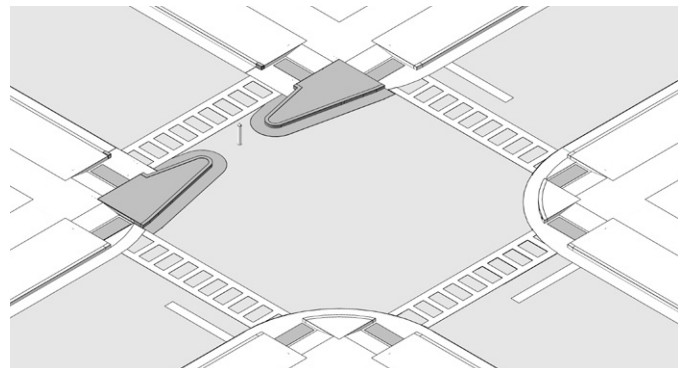
- Without design considerations (e.g., mountable curbs, removable delineators) restricts emergency response vehicles and thereby affects access and response time
- Reduces overall network connectivity
- Adverse effects to property accessibility
- Diverts traffic to other streets and may increase volume elsewhere
- Potential for high costs dependent upon degree of integration with streetscape, drainage considerations

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

ROAD CLOSURE (PARTIAL)



HIGH-IMPACT PHYSICAL DESIGN

Description

A partial closure is a physical barrier that blocks vehicle travel in one direction for a short distance on an otherwise two-way street. A partial closure can block either traffic entering the side or exiting the side street, depending on its placement. The traffic movement that is obstructed by the half closure is rerouted along an alternative path.

Typical Conditions

Speed: Generally appropriate for all common urban posted speed limits, with adequate advance warning given to road users.

Traffic & Volume: Generally appropriate for roadways with low traffic volume, and are not appropriate for primary emergency vehicle response, truck, or transit routes.

Cost

Costs range from as little as \$3,000 to \$10,000 depending upon the complexity of the closure. They vary substantially dependent on treatment, and include potential considerations for drainage, construction, and restriping.

GOOD

Speed Reduction Potential

-6 MPH

Advantages and Disadvantages

Advantages

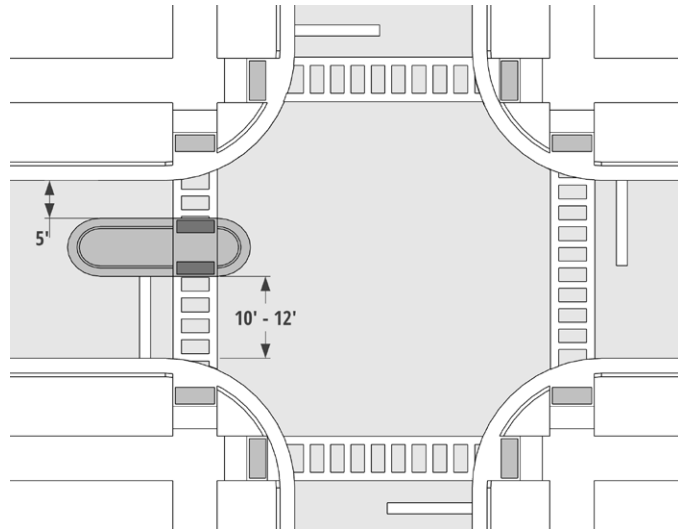
- Speed and volume reductions for the closed travel lane
- Increased pedestrian and bicyclist safety

Disadvantages

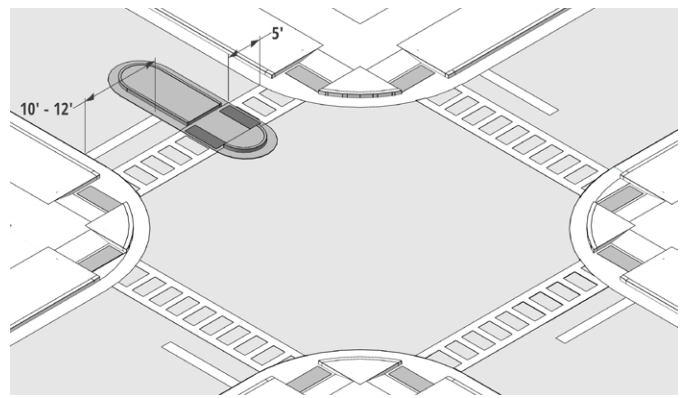
- Not appropriate for emergency vehicle response routes
- Reduces overall network connectivity
- Adverse effects to property accessibility
- Diverts traffic and increases volume elsewhere

References

- Burlington's Intersection Design Vehicle Policy
- Burlington's Engineering Standards
- FHWA Traffic Calming ePrimer
- ITE Traffic Calming Measures



Plan View Detail



Oblique Angle Detail



Built Example

A NOTE ON NEIGHBORHOOD ENHANCEMENTS

Welcome Signage

These signs are not regulatory traffic control signs, such as stop signs, speed limit signs, or yield signs, but are instead unique to the neighborhood context. In addition to signs, planters, or other beautification elements may be implemented and may serve to calm traffic. An application for an Encumbrance Permit through DPW is required to implement these elements.

Examples:

- DPW provides lawn signs at no cost to neighbors
- "Welcome to our Neighborhood" signs can be requested through an Encumbrance Permit (DPW)



↑ Figure 20. Neighborhood signage

New Tree Requests

Through Burlington, Parks, Recreation and Waterfront, new trees may be requested for neighborhood enhancement. Trees placed between the street and sidewalk can serve to beautify the area as well as protect pedestrians along the sidewalk.

Advantages & Disadvantages

- Neighborhood beautification
- Potential traffic calming
- Enhances pedestrian experience



↑ Figure 21. Street trees can beautify the streetscape and protect pedestrians from vehicles traveling the roadway

Street Light Improvements

Through Burlington Electric Department, street light improvements may be requested. Adequate street lighting can improve safety for pedestrians and motorists and is a valuable neighborhood enhancement tool.

Advantages & Disadvantages

- Increased visibility for motorists and pedestrians
- Potential enhancements to street and neighborhood safety

Street Murals

Street murals can be a very creative way to bring art and color to the neighborhood. They provide visual interest and may serve to calm traffic. An application for an Encumbrance Permit through DPW is required to implement these elements.



↑ Figure 22. Street or intersections murals bring color and art to neighborhood streets

04 RESOURCES & CONTACTS

TRAFFIC CALMING RESOURCES

Visit the Department of Public Works (DPW) Traffic Calming and Neighborhood Enhancement Program webpage for more information:

<https://www.burlingtonvt.gov/DPW/Traffic-Calming-Neighborhood-Enhancement-Program>

SOURCES, REFERENCES & STANDARDS

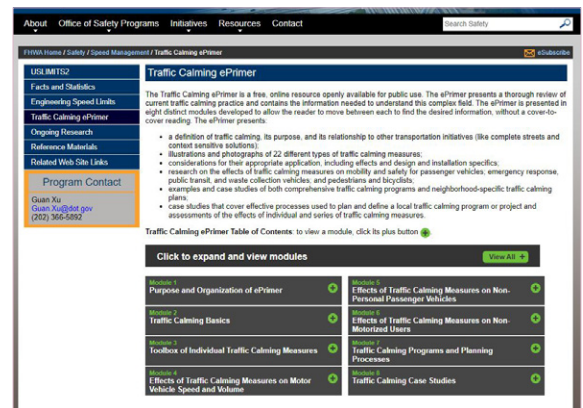
This Manual was created with reference to national standards for traffic calming and roadway design engineering, including the following:

- Federal Highways Administration (FHWA) Office of Safety. Traffic Calming ePrimer. Available: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm; Accessed March 2020. Last modified: February 15, 2017.
- Institute of Transportation Engineers (ITE). Traffic Calming Measures Guide. Available: <https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>; Accessed March 2020. Last Modified:
- Federal Highways Administration (FHWA). Manual on Uniform Traffic Control Devices (MUTCD). Available: https://mutcd.fhwa.dot.gov/kno_2009r1r2.htm; Accessed March 2020. Last Modified: March 30, 2020.

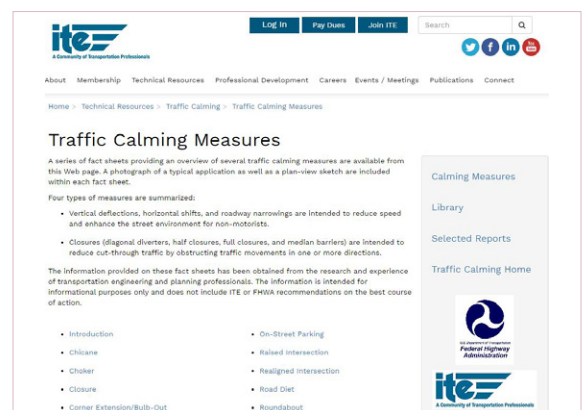
Traffic Calming Program


Insert general contact email


Insert general contact phone number




↑ Figure 23. FHWA website for the Manual on Uniform Traffic Control Devices



↑ Figure 24. Top: FHWA webpage for the Traffic Calming ePrimer; Above: ITE webpage for the Traffic Calming Measures Guide.



Burlington Public Works Department
645 Pine St Suite A
Burlington, VT 05401
(802) 863-9094



Burlington Department of Public Works Commission Meeting
Draft Minutes, July 15, 2020
645 Pine St. – Main Conference Room
Meeting video link: <https://www.cctv.org/watch-tv/programs/burlington-public-works-commission-153>

Commissioners Present: Tiki Archambeau (Chair); Brendan Hogan (Vice Chair); Solveig Overby; Peggy O'Neill-Vivanco, Pablo Bose; Jim Barr

Commissioners Absent: Chris Gillman

Item 1 – Call to Order – Welcome – Chair Comments

Director Spencer calls meeting to order at 6:31 p.m. and made opening comments. Tonight the Commission is voting for Chair, Vice Chair and Clerk.

Item 2 – Agenda

ACTION: Commissioner Barr made a motion to approve the agenda. Commissioner Hogan seconded. Motion was unanimously approved.

Item 3 – Election of Chair, Vice Chair & Clerk

Director Spencer stated that the Commission needed to elect its Chair, Vice Chair and Clerk at this first meeting of the new fiscal year. Commissioner Barr nominated Commissioner Archambeau for Chair. Commissioner Archambeau thanked them for nomination but he stated he would like to nominate Commissioner Hogan. Commissioner Barr retracted his nomination. Commissioner O'Neill Vivanco thanked Commissioner Archambeau for his service and is glad he wants to share responsibilities. Commissioner Hogan is pleased to share the responsibilities in the role of Chairman and is willing to serve. Director Spencer asked the Commission to vote on the nomination of Commissioner Hogan. Unanimous approval.

Director Spencer passed the gavel to newly-elected Chair Hogan. Chair Hogan asked for Vice Chair nominees. Commissioner Barr nominated Commissioner Peggy O'Neill-Vivanco as Vice Chair. Commissioner Archambeau seconded. Unanimous approval.

Chair Hogan looks for nomination for Clerk. Commissioner Barr nominated Commissioner Overby. Commissioner Overby is willing to do it and will follow up to get details on the role. Commissioner Bose seconded. Unanimous approval.

Item 4 – Public Forum

Tony Redington of 125 St. Paul Street talked about pedestrian safety. His expressed concern regarding the traffic safety at the North Avenue / Cambrian Rise intersections. He stated that roundabouts were safer than traffic signals and that the projected vehicle traffic at the Cambrian Rise intersections should be within the capacity of a modern

roundabout. He stated that DPW ended the discussion about a roundabout in this area and instead supported the developer's proposed traffic light.

Item 5 – Consent Agenda

A. Proposed Accessible Parking Space at 141 Manhattan Drive

ACTION: Commissioner Barr made a motion to accept the consent agenda.
Commissioner Archambeau seconded. Unanimous approval

Item 6 – Integrated Planning Presentation – Jenna Olson, Water Resources Division

Policy & Programs Manager Jenna Olson presented an update on Water Resource's Integrated Plan initiative. The Integrated Plan will serve as the road map for addressing the City's water quality challenges. This effort represents years of planning, modeling, engineering, and financial assessments to help Burlington not only achieve their water regulatory goals, but to do so in the most cost-effective, and efficient way. The City must reduce phosphorus from all sources by 63% by 2036 to meet state and federal regulatory requirement. To accomplish this goal, we currently are looking at several strategies including: projects for the City's three wastewater treatment plants, combined sewer system improvements, enhanced storm water management, non-structural programs (such as expanded street sweeping), and private property improvements. We are looking for community feedback. The final product will guide the City's investments and actions over the next ten to twenty years. More information is at:
<https://www.burlingtonvt.gov/dpw/water/integratedplan>.

Commissioners Hogan, O'Neill-Vivanco, and Overby asked questions about online impervious surface mapping, data collection and performance measurement, and engaging youth in the Drain Defender initiative. Commissioner O'Neill-Vivanco stated that BHS students have to do 40 hours of community service before graduating and stated she thought this would be a good way for some of these high school students to get their hours in by helping to clean the catch basins.

ACTION: No action taken.

Item 7 – Appeal of Building Permit After the Fact Fee

Contractor Shawn Vance of GW Savage has appealed an after the fact fee for work being done prior to issuance of a permit. Director Ward of Permitting and Inspections provided an overview of the appeal summarizing the narrative in his written memorandum to the Commission that was included in the meeting packet.

-) A building permit was applied for October 28th and was issued on the 29th for demolition on a residence that was damaged due to a structure fire.
-) Shawn Vance asked for the permit to be expedited 12 days before the zoning permit was to be released so he would not have to lay off any workers.
-) Unfortunately, circumstances did not allow for this and an e-mail was sent to Sean on March 23 stating that work for the roof only could be done to keep the weather elements from going inside the house.

-) On March 24 there was an executive order from the Governor that only COVID related repairs and emergency repairs could be done on any buildings.
-) On April 8th no action was taking place but work was done and a stop work order was issued. I went out and took photos and there were no workers on site.
-) On April 17th the Governor's Order allowed for two workers on site and the building permit was released.
-) Zoning staff on May 22nd stated conditions were met.
-) On 6/1 the building permit was issued by Brad Biggie and included the penalty for starting work.

Mr. Vance stated he wanted to secure the building. There was a delay in the insurance payment. There was also asbestos removal that had to be done which his company is not able to do. They had to wait on the other company to come and do this. He submitted permits at the end of February/beginning of March to get things done by April 1. We could not shut everything down and leave the building open. He stated he wanted to protect the building occupants so they will not have to pay anything out of pocket.

Building Inspector Brad Biggie stated the building was secure from weather. The roof was mostly intact and windows were boarded up. The building remained in this condition throughout winter. Brad stated the permit was specific for a roof cover and after the roof was on then the windows and the trim were done. Brad stated that what he found in April was window and siding work being done. Contractor went beyond the extension of the olive branch to put on the roof cover.

Commissioner Overby asked about what the conditions of the zoning permit were. The zoning permit was not released until pre-release conditions were met. Mr. Vance stated he sent over samples of what was being proposed. Sean stated they pulled the windows on the demo permits and there are other ways to waterproof but they were only getting paid once as the insurance stated they were no longer giving money for the project. He stated that if it was not for COVID they would have been okay.

Building Inspector Biggie stated that on the March 26th a work order to stop work was issued so they should not have been working on April 8th. Demoing out windows with no approval and have a way to weather that in. The roof was the only thing approved for work on the 8th. There were two or three guys pulling off siding and no permit was authorized for this work. Director Ward stated that in the report which was given to the commission the building was made safe October 5th and it was no longer an emergency. They only had approval for the roof.

Commissioner Archambeau asked if we should go into executive session and Director Ward stated that it was up to the commission. The Commission discussed whether they wanted assistance from the City Attorney.

Commissioner Barr makes a motion to deny the appeal but to deduct the value of the permitted roof work in the calculation of the after the fact fee. Commissioner O'Neill-Vivanco seconded. Commissioner Archambeau stated opposition to the motion. Commissioner Barr, Hogan, and O'Neill-Vivanco are in favor. Commissioners Archambeau, and Overby are opposed. Chair indicates that the motion fails.

Commissioner Overby makes a motion to deny the appeal but to reduce the after the face fee by half. Commissioner Barr seconded. Commissioner Archambeau and O'Neill-Vivanco stated opposition to the motion. Commissioners Barr and Overby are in favor. Commissioners Archambeau, Hogan, and O'Neill-Vivanco are opposed. The motion fails.

ACTION: Commissioner Archambeau makes a motion to go into a deliberative session at the end of the meeting. Commissioner Barr seconded. Archambeau, Barr, Hogan, ~~Bese~~, O'Neill-Vivanco are all in favor. Commissioner Overby opposed. The motion passes.

Item 8 – Marketplace Garage Rate Implementation

Director Spencer introduced Jeff Padgett who, after a public search process, has been hired as the Assistant Director overseeing the Parking and Traffic Division.

Assistant Director Padgett summarized the Commission's approved rate changes and policy changes from the June meeting. The June motion included an implementation date of July 1, 2020. However, for two important reasons this was not possible.

- 1) The July 1, 2020 date did not provide the required 21 day public notice period require for ordinance changes
- 2) Due to the impacts of Covid-19, the Marketplace garage has not yet returned to its historic stated of "overcapacity" and staff recognizes that this is not the time to make changes to the business environment in the Downtown.

Assistant Director Padgett stated that he met with the Church Street Marketplace Commission since the last DPW Commission meeting and they unanimously supported the replacement of 2 hours free in the Marketplace Garage in early 2021 with a free parking program for restaurant and retail workers and a merchant validation program. Assistant Director Padgett stated that the Department was focused on standing up these additional programs by January 1, 2021.

ACTION: Commissioner Archambeau moved to adopt the following motion: To Suspend any immediate effort to publish and notice of the previously approved June 17, 2020 updates to the Burlington Code of Ordinances, Appendix C, Chapter 19 Parking Rates, Sections (b) and (d), and instead publish and notice the updates according to the following schedule:

- 1) Holidays, as described in Appendix C, Chapter 19(d)(1), and amended by the Public Works Commission on June 17, 2020, will be published and noticed to become effective on approximately September 1, 2020.
- 2) Policy Updates, as described in Appendix C, Chapter 19(d)(2)-(6), and amended by the Public Works Commission on June 17, 2020, will be published and noticed to become effective on approximately September 1, 2020."
- 3) Parking Rates as described in Appendix C, Chapter 19(b)(8)-(10), and amended by the Public Works Commission on June 17, 2020, will be published and noticed to become effective on approximately January 1, 2021.

Commissioner Barr seconded. Unanimous approval.

Item 9 – FY'21 Budget Update and Parking Enforcement Update

Director Spencer stated that the City's Fiscal Year 2021 budgets have been approved. As part of the City Council's deliberations on the budgets and police reform, the decision was made to transfer Parking Enforcement from the Burlington Police Department to DPW. We are excited by the opportunity this presents and is asking that the transition not occur until we have time to go through a deliberate transition plan.

Assistant Director Padgett stated having this opportunity for parking enforcement at DPW is a good thing. He will be working on a potential roadmap in August and hopes to have a broad conceptual plan to share with the respective Commissions for feedback. The goal would be to implement the plan over the fall and early winter so that Parking Enforcement can transition to DPW on January 1, 2021. This is a preliminary timeline and is subject to change. This is just an update, no action is needed.

Commissioners Archambeau, Barr, Overby and O'Neill-Vivanco commented and asked questions on the potential benefit, data-driven policy, and the importance of a customer-service focus.

ACTION: No action taken.

Item 10 – Approval of Draft Minutes of 6-17-2020

ACTION: Commissioner Archambeau made a motion to approve the June 17, 2020 minutes with one modification at Commissioner Overby's request – striking the last sentence in the fifth bullet under Commissioner Communications. The sentence being struck read "Ordinance meeting making space continues and the ordinance language was approved through the rest of the season." Commissioner Barr seconded. Unanimous approval.

Item 11- Director's Report

Director Spencer referred to the written Director's Report in the packet and highlighted one item – the upcoming Champlain Parkway public hearing to get feedback on the Limited Scope Draft Supplemental Environmental Impact Statement focused on the Maple and King Street neighborhoods. The public hearing will be July 29th, 6:00pm. It will be hosted both in-person (at the 645 Pine St garage) and virtually. See the new project website at www.champlainparkway.com for more detail.

Item 12 – Commissioner's Communications

-) Commissioner Overby updated the Commission on her research on Cambrian Rise and looks forward to the discussion at an upcoming meeting.
-) Commissioner Barr wants to applaud the DPW crews who promptly address service requests via SeeClickFix and are painting the roadway lines and markings.
-) Commissioner O'Neill-Vivanco brought up North Avenue / Institute Rd and how to enhance safety at this congested intersection. Given the occupancy limits on GMT buses, she hopes that many more kids will ride their bikes or walk to school – but wants to make sure the intersection is safe.

) Chair Hogan thanked the Commissioners for their support in electing him Chair.

Item 14 – Adjournment and Next Meeting Date – September 16, 2020

Commissioner Barr motion for adjournment. Commissioner O’Neill-Vivanco seconded.
Unanimous approval. Meeting adjourned at 9:50 p.m.



**CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS**

645 Pine Street, Suite A
Burlington, VT 05401
802.863.9094 VOICE
802.863.0466 FAX
802.863.0450 TTY
www.burlingtonvt.gov/dpw

To: DPW Commissioners
Fr: Chapin Spencer, Director
Re: **DPW Director's Report**
Date: September 10, 2020

The September Public Works Commission meeting will be held online via Zoom.

INTEGRATED PLAN

We are at the key and final phase of developing the City's Integrated Water Quality Plan. There will be a series of 24 Integrated Plan outreach sessions over the next two weeks. The purpose of these sessions is to collect the community's input on the final selection of projects that will make up our Integrated Water Quality Plan. The final plan will directly inform how we prioritize our investments in wastewater and stormwater treatment moving forward, and will serve as the City's regulatory framework to meet our regulatory obligations to DEC and the EPA. The attached mailer is being distributed to approximately 18,000 residential addresses throughout Burlington and we will be sending out two city-wide Front Porch Forum posts. Residents can come to a session or participate online. We will offer translation services for the survey as needed. We welcome Commissioners participating and spreading the word. Contact: Jenna Olson, jolson@burlingtonvt.gov.

UNIVERSITY PLACE DESIGN UPDATE

The City and UVM entered into an agreement on February 28, 2018 in order to set forth the University of Vermont's (UVM) financial commitment to the City with respect to the City's Ten-Year Capital Plan. As part of that agreement, the parties agreed to jointly advance investments in the hardscape and streetscape of University Place that would improve safety and accessibility for students, faculty, and residents. It anticipated four phases to the improvements, including conceptual design, final design and construction, regulation, and maintenance. We are currently in the conceptual design stage and are starting the public engagement process. The upcoming engagement opportunities will be listed on the project webpage soon:

<https://www.burlingtonvt.gov/DPW/UniversityPlaceStreetImprovements>. Contact: Phillip Peterson, ppeterson@burlingtonvt.gov.

PARKING ENFORCEMENT TRANSITION

Assistant Director Jeff Padgett is working regularly with Burlington Police Department to coordinate the transition of Parking Enforcement operations to DPW – as was directed from the FY'21 budget process. We are planning to take over management of the program in early 2021 but do not expect major changes in their office location or reorganization until months after the management transition. Contact: Jeff Padgett, jpadgett@burlingtonvt.gov.

MARKETPLACE GARAGE PILOT

We are considering a fall 2020 pilot to test a new model for downtown garage operations. Due to the upcoming South Winooski Avenue lane changes, COVID-19 and related economic constraints, and with potential operational opportunities in the garages – we seek to pilot a payment system similar to our on-street metered system. The pilot would have gates up and have customers pay via ParkMobile or at a pay-on-foot station using their license plate number. Enforcement team members

would confirm payment the same way they do for on-street parkers. We are considering this pilot for mid-October and will share updated information with you at the Commission meeting. Contact: Jeff Padgett, jpadgett@burlingtonvt.gov.

CITY HALL PARK CONSTRUCTION & OPENING

DPW Technical Services team, with Senior Engineer Laura Wheelock's leadership, has been the project manager for the full-scale rehabilitation of City Hall Park and the project is nearing its final phase. Stay tuned for news of an opening event in October that will also highlight the St Paul Street Great Streets project. These generational projects have made major improvements in stormwater management, pedestrian accommodations, and place making. Contact: Rob Goulding, rgoulding@burlingtonvt.gov.

COVID-19 OFFICE UPDATES

The lobby at 645 Pine Street is now open from 7am to 3pm Monday through Friday for walk in customers. Customers are still encouraged to conduct business remotely as is feasible and we are monitoring phones and SeeClickFix until 4:30pm on weekdays. Our Water Resources Customer Service area remains closed to the public to best protect Water Plant employees and the plant's operations, but a drop off area at the front of the building is accessible for customers who cannot conduct business by phone or email. Contact: Chapin Spencer, cspencer@burlingtonvt.gov.

CONSTRUCTION SEASON:

We have worked diligently and safely and carry out many of our planned activities for this construction season. Sidewalk and paving projects have progressed largely as planned – and we fully expect to meet our 3 mile sidewalk reconstruction target this year. Water Resources' relining projects were substantially delayed though we are progressing with a number of stormwater and wastewater relining projects this fall. As usual, the public can always get information on our Construction Portal: <https://www.burlingtonvt.gov/construction>. Contact: Rob Goulding, rgoulding@burlingtonvt.gov.

CONSOLIDATED COLLECTION

At their last meeting, the Council's Transportation, Energy & Utilities Committee (TEUC) requested DPW staff to evaluate the costs and operational considerations of having a consolidated collection approach for trash, recycling and organics be operated by the City with City staff. Our consultant evaluated a franchise model with private haulers – and now the TEUC has requested we study a municipally run model. We will be working on this over the fall and winter and will come back to the TEUC in the spring with our results. Contact: Lee Perry, lperry@burlingtonvt.gov.

Feel free to reach out with any questions prior to Wednesday's Commission meeting. Thank you.

CITY OF BURLINGTON

2020 INTEGRATED

WATER QUALITY PLAN



The Integrated Plan will guide how the City invests in stormwater management, street sweeping / leaf collection, green infrastructure, wastewater treatment, and grants to residents. Your input and priorities are important in selecting options for the final Plan. Please join us at an upcoming event or participate online—see reverse for details.

Le Plan intégré guidera la façon dont la Ville investit dans la gestion des eaux pluviales, la collecte des rues et des feuilles, l'infrastructure verte, le traitement des eaux usées et les subventions aux résidents. Vos commentaires et vos priorités sont importants dans la sélection des options pour le plan final. Venez vous joindre à nous lors d'un événement à venir ou participez en ligne, voir le verso pour plus de détails.

Mpango uliyojumuishwa ataongoza jinsi mji utawekeza katika usimamizi wa maji ya dhoruba, kufagiliwa kwa barabara, mkusanyo wa majani, miundombinu ya kijani, matibabu ya maji taka, na ruzuku kwa wakaaji. Maoni na vipaumbele vyako ni muhimu katika uchaguzi ya chaguo ya mpango wa mwisho. Kuja kujiunga na sisi katika tukio ijayo ao kushiriki mtandaoni kwenyi internet, angalia nyuma maelezo ya zaidi.

Qorshaha Isku-Dhafan ayaa hagi doona sida Magaaladu u maal gasho maareynta biyaha daadadka, ururinta jidadka / caleen ururinta, kaabayaasha cagaaran, daaweynta biyaha wasakhda ah, iyo deeqaha dadka deegaanka ah. Fikirkaaga iyo mudnaantaadu waxay muhiim u yihiin xulashada xulashooyinka qorshaha ugu dambeeya. Fadlan nagu soo biir munaasabad soo socota ama ka qeyb gal khadka tooska ah — ka eeg faahfaahinta wixii faahfaahin ah.

एकीकृत योजना (Integrated Plan) ले आँधी-वर्षाको पानी व्यवस्थापन, बाटो सोहोर्ने/ पात-पतिंगर सोहोर्ने, हराभरा पूर्वाधार, फोहोरपानीको उपचार, र बासिन्दाहरूलाई अनुदानमा शहरले कसरी लगानी गर्ने भनेर निर्देशन दिनेछ। तपाईंको बिचार र प्राथमिकताहरू अन्तिम योजनाको लागि बिकल्पहरू छान्न महत्वपूर्ण छन्। कृपया आउँदो कार्यक्रममा सामेल हुनुहोस् वा अनलाईनमा सहभागी हुनुहोस्-विस्तृत जानकारीको लागि पछाडी हेर्नुहोस्।

ပေါင်းစုထားသည့် အစီအစဉ် (Integrated Plan) ဆိုသည်မှာ မြို့အနှံ့နှံ့ မိုးရေနှင့်ရေကို စီမံခန့်ခွဲခြင်း၊ လမ်းများပေါ်တွင် တံမျက်စည်းလှဲခြင်း၊ သစ်ရွက်အမှိုက်သိမ်းခြင်း၊ သဘာဝပတ်ဝန်းကျင်ကို ထိမ်းသိမ်းသည့် အခြေခံ အဆောက်အအုံများတည်ဆောက်ခြင်း၊ ရေဆိုး သန့်စင်ခြင်း၊ နှင့် နေထိုင်သူများကို ငွေကြေးထောက်ပံ့မှုများ တို့တွင် မည်သို့ ရင်းနှီးမြှုပ်နှံမည် ဆိုသည့် အချက်ကို လမ်းညွှန်မှု ပေးမည် ဖြစ်သည်။

You can provide feedback anytime between 9/14 and 9/25 by visiting the following link and completing the survey
 Vous pouvez fournir des commentaires à tout moment entre le 14/09 et le 25/09 en visitant le lien suivant et en remplissant le sondage
 Unaweza kutoa maoni wakati wowote kati ya 09/14 na 9/25 kwa kutembelea kiungo kinachofuata na kukamilisha uchunguzi
 Waxaad ku siin kartaa jawaab celin waqti kasta inta u dhexeysa 9/14 iyo 9/25 adoo booqanaya xiriiriyaha soosocda kuna buuxi sahaminta

9/14 र 9/25 बीच कुनै पनि समयमा लिंकको सर्वेक्षण पूरा गरेर प्रतिक्रिया जनाउन सक्नुहुन्छ

ဩဂုတ်လ ၈ ရက်မှ နိုဝင်ဘာလ ၉ နေ့ အတွင်း မည်သည့် အချိန်မဆို အောက်ဖော်ပြပါလင့်ကို ဝင်ရောက်၍ စစ်တမ်းကို ဖြေဆိုခြင်းဖြင့် သင့်ရဲ့သဘောထားမှတ်ချက်ပေးနိုင်ပါသည်။

www.burlingtonvt.gov/DPW/water/IPsurvey

In-person options to learn more and participate
 Options en personne pour en savoir plus et participer
 Chaguzi ya kipekee kwa kujifunza zaidi na kushiriki

Ikhtiyaaryada shaqsi ahaaneed ee waxbadan ka sii baran kana qaybgal
 व्यक्तिगत रुपमा सिक्न र सहभागी बन्न विकल्पहरू
 လူကိုယ်တိုင် လေ့လာသိရှိ၊ ပါဝင်လိုပါကလည်း

9/15/2020 | 15/09/2020

Oakledge Park | 10:00 a.m.-12:00 p.m.
 Starr Farm Park | 10:00 a.m.-12:00 p.m.
 Pomeroy Park | 1:00 p.m.-3:00 p.m.
 Church Street @ City Hall | 1:00 p.m.-3:00 p.m.

9/21/2020 | 21/09/2020

Calahan Park | 10:00 a.m.-12:00 p.m.
 Leddy Park | 10:00 a.m.-12:00 p.m.
 Dewey Park | 1:00 p.m.-3:00 p.m.
 Church Street @ City Hall | 1:00 p.m.-3:00 p.m.

9/16/2020 | 16/09/2020

Church Street @ City Hall | 10:00 a.m.-12:00 p.m.
 Pomeroy Park | 10:00 a.m.-12:00 p.m.
 Starr Farm Park | 1:00 p.m.-3:00 p.m.
 Oakledge Park | 1:00 p.m.-3:00 p.m.

9/23/2020 | 23/09/2020

Church Street @ City Hall | 10:00 a.m.-12:00 p.m.
 Dewey Park | 10:00 a.m.-12:00 p.m.
 Leddy Park | 1:00 p.m.-3:00 p.m.
 Calahan Park | 1:00 p.m.-3:00 p.m.

9/17/2020 | 17/09/2020

Oakledge Park | 3:00 p.m.-5:00 p.m.
 Starr Farm Park | 3:00 p.m.-5:00 p.m.
 Pomeroy Park | 6:00 p.m.-8:00 p.m.
 Church Street @ City Hall | 6:00 p.m.-8:00 p.m.

9/25/2020 | 25/09/2020

Calahan Park | 3:00 p.m.-5:00 p.m.
 Leddy Park | 3:00 p.m.-5:00 p.m.
 Dewey Park | 6:00 p.m.-8:00 p.m.
 Church Street @ City Hall | 6:00 p.m.-8:00 p.m.





City of Burlington
Department of Public Works

Technical Services Engineering Division
645 Pine Street, Suite A
Burlington, VT 05402
P 802-863-9094 / F 802-863-0466 / TTY 802-863-0450
www.burlingtonvt.gov/DPW

Memo

Date: September 14, 2020

To: Public Works Commission

From: Phillip Peterson, Associate Public Works Engineer *PCP*

CC: Chapin Spencer, Director of Public Works
Norm Baldwin, P.E., City Engineer/Asst. Director – Technical Services
Susan Molzon P.E., Senior Public Works Engineer
Timothy Devlin, City Attorney's Office

Subject: Red Maple Lane & Franklin Square Street Acceptance

Recommendations to the DPW Commission:

The Department of Public Works requests the Public Works Commission adopt the following motion:

"Adopt the attached proposed amendments to the Burlington Code of Ordinances § 20-5 (Parking ban) (f) (Delineation of parking ban zones) and Appendix C § 5 (One-way streets) (8). Amended language will be published and noticed to become effective only if the Burlington City Council formally accepts the proposed Red Maple Lane & Franklin Square right-of-way."

Proposed amendments, in brief:

The below amendments are necessary to facilitate parking and traffic along Red Maple Lane & Franklin Square Street, if these are accepted into the right-of-way. Please note that the underlined language would be added.

BCO § 20-56 Parking ban.

(f) Delineation of parking ban zones:

- Zone A shall include all streets to the east of North Avenue, including North Avenue, beginning south of Institute Road moving north to the northern boundary of the city, with the exception of the northern and eastern portion of Franklin Square.
- Zone H shall include the northern and eastern portion of Franklin Square.

BCO Appendix C § 5 One-way streets designated.

The following streets are hereby designated as one-way streets, and all traffic and travel thereon, except pedestrians, shall pass in the directions indicated and not otherwise:

- (8) Franklin Square, in a counterclockwise direction.

Background:

DPW, the City Attorney's Office, and Burlington Housing Authority (BHA) have been collaborating on the formal acceptance of Red Maple Lane and Franklin Square into the City of Burlington's public Right-of-Way (ROW). DPW Staff and the City Attorney's Office have reviewed the City's Land Records and other historical documentation. Records indicate that in 1975 the City Council, with the support of the City Engineer, passed a Resolution accepting Franklin Square as a City street, see Attachment-2. However, there is no documentation that Burlington Housing Authority, or any previous owner, completed the process of dedicating the street to the City. Therefore, the process was not fully completed, though the intent may have been there, and the transfer of property rights was never effectuated.

Over the years, the incomplete transfer of property rights led to differing opinions between BHA and the City on whose responsibility it was to maintain the infrastructure. This disagreement led to minimal maintenance activities occurring on the various systems and the overall condition of the assets declined. The deferred work over many decades has impacted the quality of life for Franklin Square residents – all of whom are low-income and many of whom are new Americans.

Previous City Administrations have sought to resolve this situation but have not been successful. Most recently, representatives from the City and BHA worked from 2010 through early 2012 but were unable to come to agreement mainly around the issue of parking management.

With support of New North End City Councilors and Councilor Ali Dieng in particular, Public Works Staff restarted efforts in early 2019 to resolve this impasse. After a number of meetings, additional research, and creative problem solving, the staff of the respective parties have developed a solution.

Now, based on the general terms outlined below, the Burlington Housing Authority intends to formally dedicate portions of the property located at 1554 North Avenue, commonly known as Franklin Square, to the City of Burlington. In order to complete this process, the City Council will need to accept the dedication of Franklin Square as a City street and establish it is a public right-of-way.

Proposed Right-of-Way:

In collaboration with BHA, DPW is advancing with this process to complete the dedication and acceptance of Franklin Square under the following assumptions:

- Red Maple Lane will be renamed Franklin Square.
- Proposed Right of Way to be deeded would be approximately 2 feet outside the outside curb and approximately 2 feet off the sidewalks adjacent to the buildings.
- For the sidewalk to be properly maintained, BHA will provide a 2 foot clear zone along the building side of all sidewalks, which will require relocation of some of the existing yard fencing.
- The proposed City street will maintain one-way circulation on Franklin Square in a counterclockwise direction.

- Existing on-street parallel parking on the north and south sides of Franklin Square will be reconfigured to 45-degree angled parking which will increase parking capacity for residents.
- Parallel parking on Red Maple Lane will be retained.
- On-street parking will be divided into two winter parking ban zones which would be alternated with the first evening being the Standard Parking Ban-Zone A and the next day, Zone H Parking Ban would be in effect.
 - Existing Zone A - South and West Side of Franklin Square and Red Maple Lane.
 - Proposed Zone H-North and East Side of Franklin Square.
- BHA will educate residents on this dual parking zone approach.

Recommended Parking Ban Policy:

The purpose of the proposed two-night parking ban system is to provide parking needs to Franklin Square residents given the development's unique history and layout. Franklin Square is an affordable housing project that was designed fifty years ago with virtually no off-street parking. There is not a nearby public parking facility which is available to residents during overnight parking bans. Furthermore, the layout of this street is insular to itself and there is only one way in and one way out for cars and pedestrians – limiting options for residents to utilize, and safely get to and from, other community parking resources.

Ongoing Efforts:

In order to prepare a formal dedication and acceptance proposal to City Council, DPW Staff continue to advance the following items:

- DPW and BHA held a neighborhood meeting (see Attachment-2) on January 28, 2020 to inform the residents of these proposed changes and to gather feedback. The presentation prepared for this meeting is attached. Additional Franklin Square neighborhood meetings will be held as this process continues.
- DPW Staff communication of Franklin Square work was submitted to the TEUC through a memo February 4, 2020.
- DPW and BHA will share evenly in the cost to perform a boundary survey, deed research and monumenting to establish the limits of the proposed right-of-way.
 - Land Surveyors are finalizing this work in collaboration with the City Attorney's office and BHA's Attorney's.
- DPW continues to coordinate with the City Attorney's Office related to the legal instruments for street acceptance and the establishment of public right-of-way.
- The various City departments, to include Burlington Parks Recreation and Waterfront, BED, DPW, Water Resources; have assessed the conditions of water resource infrastructure (stormwater, sanitary sewer, water), street lighting, electrical distribution, pavement, and sidewalks. Anticipated near-term capital investments are discussed below.
- DPW continues to collaborate with Burlington Police and Fire Departments on ability for Emergency Services response on Franklin Square.
- BHA and DPW continues to evaluate Zoning implications of changing the acreage and boundary lines of the BHA parcel.
- DPW continues to coordinate with the City's E911 Coordinator to implement any necessary re-addressing.

Near-term Capital Investment:

Following the dedication and acceptance of Franklin Square as public right-of-way, DPW anticipates near-term capital investment by the City will be required within the next 1-3 years. Based on the condition assessments performed in 2019, DPW anticipates the following:

- Burlington Electric Department: street lighting upgrades (Estimated \$16,000)
- DPW Traffic Division: Re-striping and signage for reconfiguration of on-street parking. Installation of snow ban signal equipment and signage. (Estimated \$2,500)
- DPW Water Resources Division: Stormwater drainage repairs (Estimated \$36,000).
- DPW Technical Services: Street pavement reconstruction (Estimated \$450,000), scope includes repaving of Red Maple Lane and Franklin Square, replacement of all sidewalks, and replacing approximately half of the existing curb.
- DPW Streets Maintenance: Pothole repair, street sweeping, and snow plowing.
- With increased State stormwater regulations, additional stormwater management will likely be required for the additional impervious surfaces (Estimated \$288,000).

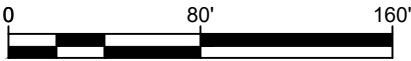
These are significant costs. The City typically requires a street be up to City Standards prior to recommending the City Council accept the street. The critical distinction in this case is that a prior City Engineer and a prior City Council signed off on accepting this particular street in 1975. The action by the City appears to indicate that the street was up to standard at that time – soon after the development was constructed. DPW knows of no other street in the City that has been accepted, but not dedicated.

Next Steps:

DPW and BHA will continue to coordinate efforts to advance the dedication and acceptance process through the ongoing efforts discussed above. DPW anticipates bringing forward a recommendation for the City Board of Finance and City Council to accept the proposed Franklin Square right-of-way at the October 5, 2020 meetings.

Attachments:

1. Proposed parking map.
 2. City of Burlington City Council Resolution Accepting Franklin Square as a City Street.
 3. Franklin Square Neighborhood Presentation 1.28.20
 4. Proposed Changes to Burlington Code of Ordinances § 20-5 and Appendix C § 5.
-



SCALE: 1" = 80'

FRANKLIN SQUARE
PROPOSED PARKING LAYOUT



**BURLINGTON
PUBLIC WORKS
ENGINEERING DIV.**

645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
(802) 863-0466 (Fax)

DESIGNED PMP	SCALE 1"=80'
DRAWN PMP	DRAWING NO.
CHECKED SM	DATE
9/09/2020	SHEET 1 OF 1

Resolution Relating to

ACCEPTANCE OF STREET--FRANKLIN SQUARE

CITY OF BURLINGTON

In the year One Thousand Nine Hundred and Seventy-five
Resolved by the City Council of the City of Burlington, as follows:

That all prior requirements thereto having been met, Franklin
Square is hereby accepted as a public street of the City of
Burlington.

ORIGINAL

Resolution Relating to

ACCEPTANCE OF STREET--FRANKLIN

SQUARE

Adopted by the City Council

Oct 22, 1925

St. L. Wagner Clerk

Approved 10-23, 1925

Frank H. O. Mayor

Vol. Page

Offered by William J. Blumberg
Alderman

BURLINGTON, VERMONT

October 14, 1975
(Date)

City Council
City Hall
Burlington, Vermont

Gentlemen:

The requirements of the Burlington City Charter and Ordinances having been fulfilled, to the best of our knowledge, the acceptance by the City, as a City Street of Franklin Square, so-called as described in a proposed deed, a copy of which description is herewith attached, is hereby approved.

Edward J. Spaulding 10/14/75
Burlington City Engineer

Will N. Brown 10/14/75
Chairman, Burlington Planning
Commission

Robert R. Lawrence
Superintendent, Burlington Water
Department

Robert C. Young
Superintendent, Burlington Light
Department

James L. Ogden Oct 14, 75
Superintendent, Burlington Street
Department



Franklin Square Neighborhood Meeting

FRANKLIN SQUARE COMMUNITY ROOM
JANUARY 28, 2020

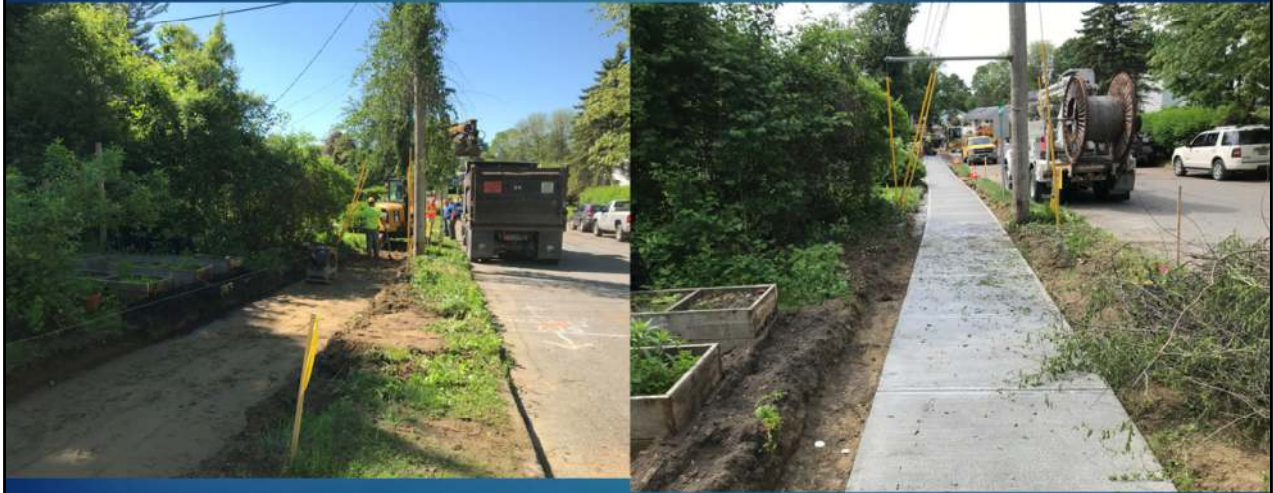
The City of Burlington and the Burlington Housing Authority (BHA) are collaborating on efforts for the City of Burlington to accept Franklin Square as a City street in the public Right-of-Way. This street acceptance would allow the Department of Public Works (DPW) to conduct maintenance operations on existing utilities and infrastructure as well as manage parking around Franklin Square. Future correspondence will be provided regarding change of addresses for the Franklin Square apartments.

What is the Right-of-Way



Essentially the right-of-way is public property; specifically property that the City has accepted, and property which has been deeded over to the city. The right-of-way does vary, a good rule of thumb on most streets is, the right-of-way is about one foot away from the sidewalk toward private property.

Why the Right-of-Way is important



Planners, Engineers, Utilities, Construction staff and City Leadership coordinate efforts to establish the location and design of transportation projects that will minimize impact and be of the greatest benefit to the public. The final product takes into consideration feasible engineering, safety, economics, public well-being, and convenience for the travelling public in parallel with the needs of local residents.

Franklin Square Street Acceptance Impact to Residents

1. Change of Address
2. New parking layout
 - a) Diagonal parking scheme
 - b) Snow ban parking zones
3. Maintenance
 - a) Street sweeping
 - b) Pothole repair
 - c) Plowing
4. Future Improvements
 - a) Stormwater drainage
 - b) Street Lighting
 - c) Street Paving
 - d) Sidewalk reconstruction



Franklin Square Proposed Parking Layout



The diagonal parking should give residents an additional 10 parking spaces.

Franklin Square Parking Snow Ban



Snow parking bans are an important and necessary tool for the City to remove snow and ice from City streets, and Franklin Square cannot be excluded. However, we have developed a promising solution. A snow parking ban on Franklin Square will be a two day process; on the first day of a snow parking ban residents will not be allowed to park in the existing Zone-A which includes parking on Red-Maple Lane, the south side of Franklin Square, and the spaces directly adjacent to the community center; on day two of a snow parking ban residents will not be allowed to park in the new Zone-H which includes the parking on the north side of Franklin Square and the pull in parking on the east side.

Maintenance

- Street-sweeping, Pothole repair, and plowing



Utilities Stormwater

■ 8 Catchbasins need replacement



A total of 8 catch basins were identified as in need of replacement in the near term (deteriorated brick structures or cinder block style). 1 catch basin was discovered as no longer functioning as it has been overrun with root intrusions.

Utilities Electrical



- Lighting upgrades



The work involves replacing fixtures on existing poles – no new poles are required.

Paving & Sidewalks

- Paving and Sidewalk Work



The paving plan this Summer is well set, and Franklin Square is not on the list. 2021 is a possibility, however 2022 is the earliest Franklin Square would be considered. Sidewalk assessment will be this Summer. Franklin Square will be compared equally to the rest of the City.

Franklin Square Acceptance Timeline

1. City Meetings

- 2.4.20 Update for Transportation, Energy, and Utilities Committee
- 2.18.20 Update for City Council
- Fall 2020 – City Council Street Acceptance

2. Parking layout change

- Fall 2020

3. Planned Work

- Stormwater drains, Anticipated in 2021
- Street Lighting, Anticipated in 2020
- Paving, Anticipated in 2022



Comments or questions?

Contact:

Phillip Peterson, Associate Engineer

Desk: 802.865.5832

Email: ppeterson@burlingtonvt.gov

CITY OF BURLINGTON

In the Year Two Thousand Twenty

Regulations in Relation to

Burlington Code of Ordinances—
Chapter 20. Motor Vehicles and Traffic—
§ 56. Parking Ban—
Alteration of Zone A, Addition of Zone H

Appendix C. Rules and Regulations of the
Traffic Commission—
§ 5. One-way street designations—
Addition of Franklin Square

Sponsor(s): Department of Public Works

Action: _____

Date: _____

Attestation of Adoption:

Phillip Peterson

Associate Engineer, Technical Services

Published: _____

Effective: _____

It is hereby Ordained by the Public Works Commission of the City of
Burlington as follows:

- 1 That the Code of Ordinances of the City of Burlington, Chapter 20. Motor Vehicles and Traffic,
2 § 56. Parking Ban, and Appendix C, Rules and Regulations of the Traffic Commission, Section
3 5, One-way street designated, is hereby amended as follows:

4

5 **Burlington Code of Ordinances § 20-5. Parking Ban.**

6 (a)—(e) As written.

7 (f) Delineation of parking ban zones:

8

9 Zone A shall include all streets to the east of North Avenue, including North
10 Avenue, beginning south of Institute Road moving north to the northern
11 boundary of the city, with the exception of the northern and eastern portion of
12 Franklin Square.

13

14 Zones B—G. As written.

15

16 Zone H shall include the northern and eastern portion of Franklin Square.

17

18

19 **Appendix C, Rules and Regulations of the Traffic Commission, Section 5. One-way**
20 **streets designated.**

21 The following streets are hereby designated as one-way streets, and all traffic and travel
22 thereon, except pedestrians, shall pass in the directions indicated and not otherwise:

23

24 (1)—(7) As written.

25

26 (8) ~~Reserved.~~ Franklin Square, in a counterclockwise direction.

27

28 (9)—(42) As written.

29

30

31

32 ** Material stricken out deleted.

33 *** Material underlined added.

34

35 PP & TPD: BCO § 20-56. Parking Ban—Alteration of Zone A, Addition of Zone H; BCO Appx. C, § 5. One-way street designations—

36 Addition of Franklin Square

37 9/16/2020



CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS

OFFICE OF PLANNING
645 PINE STREET, SUITE A
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WWW.BURLINGTONVT.GOV

CHAPIN SPENCER
DIRECTOR OF PUBLIC WORKS

NORMAN J. BALDWIN, P.E.
ASSISTANT DIRECTOR OF PUBLIC WORKS

Date: July 24, 2018

To: Eric Farrell, Developer
Mark Smith, Traffic Engineer Resource Systems Group
Tony Reddington, Interested Burlington Citizen
Jim Holway, Interested Burlington Citizen

C.C. Chapin Spencer, Director of Public Works

From: Norman J. Baldwin, P.E. 
City Engineer/Ass't Director of Public Works

Subject: Cambrian Rise-Review of Mini-Roundabout Proposal South Road and North Avenue

In reviewing the proposal provided by Eric Farrell's Traffic Consultant, Mark Smith of RSG and the independent research regarding Roundabout Design, I have considered the following facts and I am providing my recommendation.

Here are my given assumptions; I have made use of these assumptions to render my recommendation:

- North Avenue Right of Way is a 66-foot right of way, and no other opportunities for land acquisition are available.
- Design Year 2027, PM Peak Hour Traffic-
- Assuming .5% annual growth, (CCRPC uses .6% for North Ave Corridor, Cambrian rise .47%)
- Assuming 75% of the traffic will make use of South Road, 25% North Road
- 2016 AADT-11,042 vpd
- $2018\ AADT = 11,042(1 + .005)^2 = 11,042 * 1.010 = 11,152\ vpd$
- $2019\ AADT = (11,152\ vpd * 1.005) + .25 * 4,500\ vpd = 11,208\ vpd + 1,125\ vpd = 12,333\ vpd$, Phase I Developed
- $2020\ AADT = (12,333\ vpd * 1.005) + .25 * 4,500\ vpd = 12,392\ vpd + 1,125\ vpd = 13,519\ vpd$, Phase II Developed
- $2021\ AADT = (13,519\ vpd * 1.005) + .25 * 4,500\ vpd = 13,587\ vpd + 1,125\ vpd = 14,712\ vpd$, Phase III Developed
- $2022\ AADT = (14,712\ vpd * 1.005) = 14,785\ vpd$, Phase IV Developed access to North Rd. available
- $2023\ AADT = (14,785\ vpd * 1.005) = 14,858\ vpd$, Full Build Out Year after
- $2024\ AADT = (14,858\ vpd * 1.005) = 14,932\ vpd$, Full Build Out 2 Years after
- $2025\ AADT = (14,932\ vpd * 1.005) = 15,006\ vpd$, Full Build Out 3 years after
- $2026\ AADT = (15,006\ vpd * 1.005) = 15,081\ vpd$, Full Build Out 4 years after
- $2027\ AADT = (15,081\ vpd * 1.005) = 15,157\ vpd$, Full Build Out 5 years after

An Equal Opportunity Employer

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- Inscribed Circle Diameter-57'
 - Circulatory Roadway Width-30'
 - Cross Street Traffic 4,500 vpd
 - 1% truck traffic During Peak Hour
- Conclusions:

Check #1: AADT Capacity of 50' ICD Mini-Roundabout

Given the entering traffic volumes, the dimensional limitations of the Right of Way, the proposed dimensions of the roundabout proposed as a Mini-Roundabout.

Cross Street Traffic(Cambrian Rise-South Road)=3,375 vpd
Major Street Traffic(North Avenue)=11,152 vpd

$$\% \text{ Cross Street Traffic} = 3,375 \text{ vpd} / (11,152 \text{ vpd} + 3,375 \text{ vpd}) = 23.2\%$$

Referencing Transportation Research Boards, Roundabouts: An informational Guide, Second Edition, Exhibit 3-16, Page 3-25,

Assuming 30% Left Turns, 22% Cross Street Traffic, the Exhibit Indicates a Maximum AADT of 12,500 vpd for a Mini-Roundabout.

Comparing the referenced exhibit against the predicted AADT's. This suggests that capacity for the proposed Mini-Roundabout will exceed the performance capacity ratio by 2020.

Check #2: PM Peak Hour Design Year 2042

In addition to the AADT analysis above I took the opportunity to email Wei Zheng, Ph.D., P.E., Highway Research Engineer/Program Manager, Intersection Safety R&D, FHWA Office of Safety R&D. I had asked if he had any suggested performance analysis tools that would be useful to performing an operational analysis for a mini-roundabout.

In response, Mr. Zheng provided some example mini-roundabout installations and offered the following commentary.

"We have evaluated 15 mini-roundabouts in 7 states, including snow regions in Michigan and Minnesota. In my experience, for intersections on 2-lane and 3-lane roads, a mini-roundabout has the same or higher capacity than traffic signal (especially if the left-turn volumes are high), plus less demand for ROW, and less delay during non-peak hours. If the total peak hour demand is 1,300 vph or less, a mini-roundabout will work."

He then provided me with the Roundabout Planning/Operational Analysis tool entitled "CAP-X".

2027 PM Peak Hour Demand Totals-1,754 vph(RSG TIS dated 12.21.16, PM 2027 Build) exceeds suggested 1,300 vph as suggest above.

2027 PM Peak+15 years (20 Year Design Life), assuming 2% Heavy Vehicle Traffic, and .5% growth for the additional 15 years, the analysis tool indicated for:

- 50' ICD Mini-Roundabout, **V/C ratio of .96**
- 75' ICD Mini-Roundabout, **V/C ratio of .93**

2027 PM Peak+5 years (10 year Design Life), assuming 2% Heavy Vehicle Traffic, and .5% growth for the additional 5 years, the analysis tool indicated for:

- 50' ICD Mini-Roundabout, **V/C ratio of .90**
- 75' ICD Mini-Roundabout, **V/C ratio of .88**

According to reference materials at a $v/c \geq .85$ the predicted performance of a roundabout begins to be more random and unpredictable.

RECOMMENDATION:

Given both methods operational analysis of the proposed 50' ICD Mini-Roundabout indicate exceedance prior to or shortly after full build out. It is my recommendation that we **not support** the request to consider the installation of a Mini-Roundabout. I welcome further conversations if I have in anyway misunderstood the constraint parameters.

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	Cambrian Rise Mini-Roundabout Site Evaluation
Project Number:	2027 North Avenue and South Road PM Peak+15 Years
Location	North Avenue and South Road, Burlington, Vermont
Date	April 15, 2018

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Truck	Volume Growth
Eastbound	0	37	0	128	2.00%	7.50%
Westbound	0	1	0	1	2.00%	7.50%
Southbound	0	1	677	50	2.00%	7.50%
Northbound	0	158	700	1	2.00%	7.50%
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
Critical Lane Volume				1600		

Equivalent Passenger Car Volume				
	Volume (Veh/hr)			
	U-Turn 	Left 	Thru 	Right 
Eastbound	0	41	0	140
Westbound	0	1	0	1
Southbound	0	1	742	55
Northbound	0	173	768	1

Notes:	
Left-Turn Adjustment Factor	Conversion of left-turning vehicles to equivalent through vehicles
Right-turn Adjustment Factor	Conversion of right-turning vehicles to equivalent through vehicles
U-turn Adjustment Factor	Conversion of U-turning vehicles to equivalent through vehicles
Truck to PCE Factor	1 truck = X Passenger Car Equivalents
Critical Lane Volume Sum Limit	Saturation Value for Critical Lane Volume Sum at an intersection

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	Cambrian Rise Mini-Roundabout Site Evaluation				Critical Lane Volume Sum		
Project Number:	2027 North Avenue and South Road PM Peak+15 Years				Acceptable Configurations		
Location	North Avenue and South Road, Burlington, Vermont				< 1200	1200 - 1399	1400 - 1599
Date	April 15, 2018				27	2	3
							0

Results for Intersections														
#	TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
1	Conventional	<u>FULL</u>									584	<u>0.37</u>	0.37	7
2	Conventional Shared RT LN	<u>CSRL</u>									753	<u>0.47</u>	0.47	14
3.1	Quadrant Roadway	<u>S-W</u>			596	<u>0.37</u>			214	<u>0.13</u>	385	<u>0.24</u>	0.37	8
3.2		<u>N-E</u>	447	<u>0.28</u>			204	<u>0.13</u>			635	<u>0.40</u>	0.40	12
3.3		<u>S-E</u>			488	<u>0.31</u>	488	<u>0.31</u>			549	<u>0.34</u>	0.34	1
3.4		<u>N-W</u>	596	<u>0.37</u>					295	<u>0.18</u>	635	<u>0.40</u>	0.40	11
4.1	Partial Displaced Left Turn	<u>N-S</u>	406	<u>0.25</u>	554	<u>0.35</u>					406	<u>0.25</u>	0.35	3
4.2		<u>E-W</u>					1	<u>0.00</u>	79	<u>0.05</u>	575	<u>0.36</u>	0.36	6
5	Displaced Left Turn	<u>FULL</u>	406	<u>0.25</u>	554	<u>0.35</u>	1	<u>0.00</u>	79	<u>0.05</u>	406	<u>0.25</u>	0.35	3
6.1	Restricted Crossing U-Turn	<u>N-S</u>	400	<u>0.25</u>	497	<u>0.31</u>	406	<u>0.25</u>	554	<u>0.35</u>			0.35	3
6.2		<u>E-W</u>	1507	<u>0.94</u>	1592	<u>0.99</u>	589	<u>0.37</u>	555	<u>0.35</u>			0.99	15
7.1	Median U-Turn	<u>N-S</u>	508	<u>0.32</u>	497	<u>0.31</u>					683	<u>0.43</u>	0.43	13
7.2		<u>E-W</u>					135	<u>0.08</u>	92	<u>0.06</u>	550	<u>0.34</u>	0.34	2
8.1	Partial Median U-Turn	<u>N-S</u>	615	<u>0.38</u>	472	<u>0.30</u>					601	<u>0.38</u>	0.38	10
8.2		<u>E-W</u>					27	<u>0.02</u>	91	<u>0.06</u>	601	<u>0.38</u>	0.38	9

Capacity Analysis for Planning of Junctions

Input Worksheet

Results for Roundabouts

#	TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ranking
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3		
9.1	<u>50 ICD</u>	0.96			0.83			0.93			0.19			0.96	7
9.2	<u>75 ICD</u>	0.92			0.59			0.93			0.02			0.93	6
9.3	<u>1 X 1</u>	0.84			0.34			0.87			0.00			0.87	5
9.4	<u>1 X 2</u>	0.80			0.08	0.26		0.86			0.00	0.00		0.86	4
9.5	<u>2 X 1</u>	0.39	0.45		0.27			0.51	0.36		0.00			0.51	3
9.6	<u>2 X 2</u>	0.38	0.43		0.00	0.00		0.51	0.35		0.06	0.21		0.51	2
9.7	<u>3 X 3</u>	0.00	0.37	0.40	0.04	0.04	0.20	0.08	0.41	0.34	0.00	0.00	0.00	0.41	1

Results for Interchanges

#	TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
10.1	Diamond	<u>N-S</u>					453	0.28	358	0.22					0.28	6
10.2		<u>E-W</u>					113	0.07	88	0.05					0.07	2
11.1	Partial Cloverleaf	<u>N-S</u>					430	0.27	315	0.20					0.27	5
11.2		<u>E-W</u>					42	0.28	43	0.03					0.03	1
13.1	Displaced Left Turn	<u>N-S</u>	406	0.25			406	0.25	425	0.27			554	0.35	0.35	7
13.2		<u>E-W</u>	144	0.09			88	0.05	183	0.11			2	0.00	0.11	4
14.1	Double Crossover Diamond	<u>N-S</u>	406	0.25	373	0.23	776	0.49	842	0.53	514	0.32	519	0.32	0.53	8
14.2		<u>E-W</u>	151	0.09	107	0.07	22	0.01	183	0.11	1	0.00	2	0.00	0.11	3
15.1	Single Point	<u>N-S</u>	271	0.17			689	0.43					412	0.26	0.43	#N/A
15.2		<u>E-W</u>	151	0.09			225	0.14					2	0.00	0.14	#N/A

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	Cambrian Rise Mini-Roundabout Site Evaluation
Project Number:	2027 North Avenue and South Road PM Peak+5 Years
Location:	North Avenue and South Road, Burlington, Vermont
Date:	April 15, 2018

Traffic Volume Demand						
	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Truck	Volume Growth
Eastbound	0	37	0	128	2.00%	2.50%
Westbound	0	1	0	1	2.00%	2.50%
Southbound	0	1	677	50	2.00%	2.50%
Northbound	0	158	700	1	2.00%	
Adjustment Factor	0.80	0.95		0.85		
Suggested	0.80	0.95		0.85		
Truck to PCE Factor				Suggested = 2.00		2.00
Critical Lane Volume				1600		

Equivalent Passenger Car Volume				
	Volume (Veh/hr)			
	U-Turn 	Left 	Thru 	Right 
Eastbound	0	39	0	134
Westbound	0	1	0	1
Southbound	0	1	708	52
Northbound	0	161	714	1

Notes:

Left-Turn Adjustment Factor	Conversion of left-turning vehicles to equivalent through vehicles
Right-turn Adjustment Factor	Conversion of right-turning vehicles to equivalent through vehicles
U-turn Adjustment Factor	Conversion of U-turning vehicles to equivalent through vehicles
Truck to PCE Factor	1 truck = X Passenger Car Equivalents
Critical Lane Volume Sum Limit	Saturation Value for Critical Lane Volume Sum at an intersection

Capacity Analysis for Planning of Junctions

Input Worksheet

Project Name:	Cambrian Rise Mini-Roundabout Site Evaluation			Critical Lane Volume Sum		
Project Number:	2027 North Avenue and South Road PM Peak+5 Years			Acceptable Configurations		
Location	North Avenue and South Road, Burlington, Vermont			< 1200	1200 - 1399	1400 - 1599
Date	April 15, 2018			27	3	2
						0

Results for Intersections														
#	TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
1	Conventional	<u>FULL</u>									553	0.35	0.35	7
2	Conventional Shared RT LN	<u>CSRL</u>									714	0.45	0.45	14
3.1	Quadrant Roadway	<u>S-W</u>			565	0.35			205	0.13	358	0.22	0.35	8
3.2		<u>N-E</u>	426	0.27			190	0.12			595	0.37	0.37	12
3.3		<u>S-E</u>			466	0.29	466	0.29			515	0.32	0.32	1
3.4		<u>N-W</u>	565	0.35					277	0.17	595	0.37	0.37	11
4.1	Partial Displaced Left Turn	<u>N-S</u>	378	0.24	524	0.33					378	0.24	0.33	3
4.2		<u>E-W</u>					1	0.00	74	0.05	544	0.34	0.34	6
5	Displaced Left Turn	<u>FULL</u>	378	0.24	524	0.33	1	0.00	74	0.05	378	0.24	0.33	3
6.1	Restricted Crossing U-Turn	<u>N-S</u>	381	0.24	462	0.29	378	0.24	524	0.33			0.33	3
6.2		<u>E-W</u>	1438	0.90	1506	0.94	548	0.34	530	0.33			0.94	15
7.1	Median U-Turn	<u>N-S</u>	482	0.30	463	0.29					641	0.40	0.40	13
7.2		<u>E-W</u>					126	0.08	88	0.05	516	0.32	0.32	2
8.1	Partial Median U-Turn	<u>N-S</u>	582	0.36	439	0.27					569	0.36	0.36	10
8.2		<u>E-W</u>					25	0.02	87	0.05	569	0.36	0.36	9

Capacity Analysis for Planning of Junctions

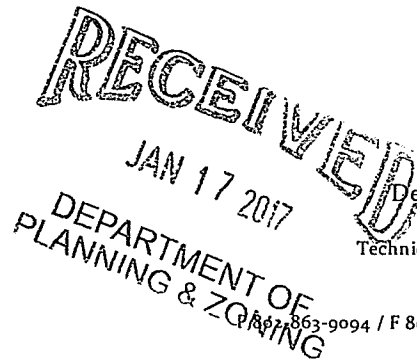
Input Worksheet

Results for Roundabouts

#	TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ranking
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3		
9.1	<u>50 ICD</u>	0.90			0.70			0.86			0.03			0.90	7
9.2	<u>75 ICD</u>	0.87			0.51			0.86			0.01			0.87	6
9.3	<u>1 X 1</u>	0.79			0.31			0.81			0.00			0.81	5
9.4	<u>1 X 2</u>	0.75			0.07	0.24		0.80			0.00	0.00		0.80	4
9.5	<u>2 X 1</u>	0.37	0.42		0.25			0.48	0.33		0.00			0.48	3
9.6	<u>2 X 2</u>	0.35	0.40		0.00	0.00		0.47	0.33		0.06	0.19		0.47	2
9.7	<u>3 X 3</u>	0.00	0.35	0.38	0.03	0.03	0.18	0.07	0.38	0.31	0.00	0.00	0.00	0.38	1

Results for Interchanges

#	TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
10.1	Diamond	<u>N-S</u>					422	0.26	334	0.21					0.26	6
10.2		<u>E-W</u>					106	0.07	82	0.05					0.07	2
11.1	Partial Cloverleaf	<u>N-S</u>					406	0.25	293	0.18					0.25	5
11.2		<u>E-W</u>					40	0.27	41	0.03					0.03	1
13.1	Displaced Left Turn	<u>N-S</u>	378	0.24			378	0.24	396	0.25			524	0.33	0.33	7
13.2		<u>E-W</u>	135	0.08			82	0.05	171	0.11			2	0.00	0.11	4
14.1	Double Crossover Diamond	<u>N-S</u>	378	0.24	356	0.22	731	0.46	792	0.50	479	0.30	496	0.31	0.50	8
14.2		<u>E-W</u>	142	0.09	100	0.06	21	0.01	170	0.11	1	0.00	2	0.00	0.11	3
15.1	Single Point	<u>N-S</u>	252	0.16			651	0.41					394	0.25	0.41	#N/A
15.2		<u>E-W</u>	142	0.09			211	0.13					2	0.00	0.13	#N/A



City of Burlington
Department of Public Works

Technical Services Engineering Division
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www.burlingtonvt.gov/DPW

To: City of Burlington Planning & Zoning
Eric Farrell – Cambrian Rise

From: Norman J. Baldwin P.E. – City Engineer/Ass't Director, DPW
Laura K. Wheelock P.E. - Public Works Engineer, DPW

Subject: Cambrian Rise, BCCH, LLC & 375 North Ave.

The Department of Public Works (DPW) has been working with the Cambrian Rise Development Team to review and discuss details of the project as it relates to the public Right-of-Way (ROW) along North Avenue, the project intersections on North Avenue, as well as the internal streets as the applicant has indicated that they would like to turn over to the City 60-foot public ROW for the three internal streets. DPW has conducted our review on both the progress plans dated 12/23/2016 as well as the Traffic Impact Assessment dated 12/21/16 and corresponding memo dated 12/28/16. Water Resources review to be submitted separately.

Traffic Impact Assessment (TIA):

DPW has been working with the Development Team for over a year to review various iterations of the projects traffic impact within the City's transportation network. The projects impacts are primarily concentrated in the northern areas of the Old North End with some project generated traffic reaching as far south as Main Street; as well as the southern areas of the New North End.

Based on the mix of uses identified in the RSG memo 12/28/2016; the anticipated external project trips will be 381 in the AM Peak, and 425 in the PM Peak. In general the impact to the levels of service, queue lengths, or overall delay at studied intersections is minor.

The only exception is the intersection of North Ave/Berry/Washington. This intersection currently has stop control on the side street approaches, and is slightly offset. It is anticipated that with the project generated traffic the Level of Service (LOS) in the PM Peak will change from a C to an E, and the corresponding delay to vehicles will change from 23 seconds to 46 seconds in the 5 year buildout future year of 2027. DPW has discussed this intersection with the developer, and the change in LOS and delay is significant, it is however within an acceptable change per VTrans Traffic Impact Assessment Guidelines. To mitigate concerns and impacts that are anticipated in future years DPW will continue to monitor and assess this intersection for improvements that can be implemented with impact fees.

DPW has also asked the Development Team to address crosswalks both immediately adjacent to the project and for 1000 feet north and south of their project to ensure the addition of crosswalks at the project's southern drive work with other existing or planned crosswalks along North Ave. The TIA had two findings with regards to crosswalk locations:

1. The existing crosswalk (and bus stop) near Champlain Farms should be removed, as the ultimate spacing of crosswalks and stops will be more uniform with the planned crossings and stops at the Project's southern drive.
2. New crosswalk should be placed proximate to the new Parks & Recreation redeveloped path near Covent Square with that project
3. At the northern project drive, a crosswalk should be considered if/when future activity warrants such a facility.
4. Per the project plan set, crosswalks shown at the project intersection of South Road/North Ave.

Conditions from the Traffic Study:

DPW's agrees with the review of the crosswalk recommendations and requests for the third recommendation that the Applicant be made responsible prior to the close of their permit to conduct pedestrian counts and submit a memo to DPW reviewing the northern project drive on North Ave and the warrant for installation of a crosswalk at that location to be paid by the Applicant should a crosswalk warrant be met.

Progress Plans Dated 12/23/2016:

DPW reviewed the project plans for impacts on North Ave, as well as the three internal project streets in anticipation that the Applicant will seek to have these streets and their ROW accepted by the City in the future. DPW's findings are as follows.

North Ave

The proposed improvements as shown in the submitted plan meet or exceed City Standards as currently specified with the following exceptions, notes, or comments:

1. The Applicant will be required to replace the sidewalk more than 5 years old on the West side of North Ave between the southern property line (Building K) and the northern property line (north of North drive)
2. The signal at North Ave and South Road should be installed during phase one of the project and left in flash, until either trip/pedestrian warrants are met, at which time the signal should become active.
3. A No Parking flashing beacon should be installed at/near the intersection of North Ave and South Road, the cost of the beacon is the responsibility of the Applicant. Due to the unique nature of these beacons DPW will install the beacon and seek reimbursement for the materials and cost of installation.
4. DPW and Applicant to discuss narrowing of the painted median on the north side of the intersection of North Ave and South Road, DPW to review final plan before line work is implemented.
5. Bike lane shall have stop bars marked within the bike lanes, these could be offset from the travel lane stop bars if appropriate.
6. Bike lane markings across intersection at South Road shall be consistent with City typical markings in both size and configuration. This should include skip lines at the intersection and bike size chevron in the lane. Also diagonal line striping in the separated portion of the bike lane should be removed

7. DPW and Applicant to review bicycle left turns at North Ave and South Road. DPW would like to see a pull off ahead of the crosswalk to allow bicycles to utilize the pedestrian push button, an alternative we would consider is a bicycle box in the lane striping. DPW to review and approve final plan before work is implemented.
8. At the Northwest corner of North Ave and South Road the proposed bus stop area shows a significant amount of concrete/hardscape area. This area will need to be revisited/revised with DPW.
9. Applicant will seek to adjust property boundary lines in the future on North Ave to place the sidewalk along North Ave back in the ROW.

Project Streets (South, West, North)

The proposed improvements as shown in the submitted plan meet or exceed City Standards as currently specified with the following exceptions, notes, or comments:

1. A crosswalk needs be placed at the west side of the intersection of South Road and West Road. This will facilitate pedestrian movements given the planned commercial activity in the area, adjacent recreational facilities, and ability for DPW to maintain and clear snow at the intersection.
2. Applicant to review location of stop bars relative to the crosswalks at the intersection of North Road and West Road. Crosswalks should be placed in front of stop bars.
3. Signage and Striping:
 - a. Crosswalk warning signs MUST reflect YIELD to pedestrians, per VT State Law
 - b. Share the lane signage should be independent of the pedestrian crossing signs
 - c. The only on street striping should be for crosswalks, stop bars, and in the immediate vicinity of the proposed signal for center line delineation. No line striping should be placed for individual parking spaces, center line, or fog lines.
 - d. No speed limit signs within the development
4. Sidewalk configuration/alignment and connection to Lakeview Cemetery will need to be reviewed by DPW/Parks prior to construction if Applicant pursues acceptance of project streets by the City.
5. Applicant to review bicycle/pedestrian connection from Building O and P to the bike path to the west to determine whether additional connection will be at back of building or at end of sidewalk.
6. Applicant will be required to submit design drawings for retaining wall along North Road, stamped by a Professional Engineer registered in the State of Vermont.

General Comments

1. Applicant will be required to place monuments at all parcel boundaries.
2. All public infrastructure intended to be part of the dedication must be within the proposed limits of the ROW.
3. Any materials used in the ROW that exceed City Standards will be the responsibility of the Applicant, and the Applicant will be required to enter into a License Agreement with DPW, unless otherwise waived, for the care, maintenance, replacement, removal for the life that material unless otherwise replaced with a Standard material, at which time the Agreement can be dissolved.

4. For the dedication process the Applicant must, at minimum, provide the following:
 - a. As-built drawings of all infrastructure in the ROW
 - b. Certification from the engineer of record that infrastructure constructed was completed per plans and specification
 - c. All documentation by the project resident engineer for all infrastructure in the ROW. This shall include but is not limited to: Notes, photographs, reports, quality control testing, change orders, submittals.
 - d. The City shall be invited to participate at all construction meetings
 - e. The City shall have the right to have oversight during construction, review of resident engineer documentation, submittals.
5. Review the sequence of work to connect South Road sidewalk/path to the proposed Parks Path, a connection to those facilities in advance of 2022.
6. There is a discrepancy between the phasing of the project shown on P1.0 by CEA and sheet 2 of 2 by VHB with regard to when Building H, Q, and R will be constructed. Of concern is the varying stormwater treatments that occur during construction, treatment types shown varies.

Should you have any questions please contact me at LWheelock@burlingtonvt.gov or 540-0397.

Burlington Development Review Board
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Geoff Hand
Alexander J. LaRosa
Brad Rabinowitz
Israel Smith
Wayne Senville
Alexandra Zipparo,
Jim Drummond, (alternate)
Rob Purvee, (alternate)



**Burlington Development Review Board
Corrected Findings of Fact
Deliberative Hearing Monday, February 6, 2017**

Board Members Present: Austin Hart, Brad Rabinowitz, Alexander LaRosa, Ali Zipparo, Wayne Senville, Jim Drummond (alternate) and Rob Purvee (alternate.)

Absent: Israel Smith, Geoff Hand (recused.)

Staff members present: O'Neil, Kimberlee Sturtevant.

File: ZP17-0623CA/MA

Location: 329-375 North Avenue

Zone: NAC-CR **Ward:** 4N

Date application accepted:

Applicant/ Owner: BCCH, LLC & 375 North Avenue LLC / Eric Farrell

Request: Proposed development consisting of 11 buildings containing 739 residential units, approximately 45,000 sq. ft. of non-residential support/amenity space, approximately 40,000 sq. ft. of neighborhood commercial spaces and 1,092 off-street parking spaces.

Evidence Presented:

The Board examined the materials submitted in support of this request.

I. Findings

Background: Known as Cambrian Rise, the application proposes development with mixed commercial and residential uses, related buildings and infrastructure across approximately 21.65 acres (per plan BA1) at 329-375 North Avenue. The total unit count has fluctuated somewhat but settles to 739 residential units, inclusive of the 65 units already permitted in the former orphanage building.

During the summer and fall of 2016, this project underwent several sketch plan reviews with the Conservation Board, Design Advisory Board, and Development Review Board. Conservation Board comments centered on stormwater management and commended the proposed management of stormwater management onsite, rather than utilization of the city system. The Design Advisory Board reviewed the sketch plans twice. Doing so allowed the DAB an opportunity to get an overview of the proposal; comments were limited to questions about the overall development, and a desire to cut back the hard edges of the buildings along North Avenue as they abutted smaller structures (to the south). The Board acknowledged the large scope of the project, and their limited time or opportunity to discuss any

- i) At building Q, the stair tower at the northwest corner of the building shall be treated with similar cladding and screening materials as the main building, to improve the terminus view from North Road. [See QR-1 and QR-2.] ✓
- 2. **Prior to release of the zoning permit**, final approval of the post-construction stormwater management system and the erosion prevention and sediment control plan by the city's stormwater program staff is required.
- 3. Per Section 10.1.10 and **prior to the release of any zoning permit** for construction associated with an approved final plat, the applicant shall file with the administrative officer and the city clerk for recording, a covenant acceptable to the city attorney, running with the land committing the applicant to complete all required improvements within ten years (phasing permitted by the DRB as a condition of approval) of the final plat. Financial surety (bond, letter of credit, or escrow) shall secure the covenant. The amount of such bond, letter of credit, money, or negotiable securities (security deposit) shall be based upon the estimated cost of such improvements verified by the city engineer or appropriate department head, plus a ten percent (10%) contingency factor and the estimated maintenance cost for such improvements for a period of 2 years following their completion. If a performance bond is filed, the penal sum of such bond shall be one hundred percent (100%) of the above determined amount. The bond or any other form of surety or security shall be approved as to legal sufficiency, form, and manner of execution by the city attorney and as to credit worthiness by the city's chief administrative officer. If money or negotiable securities are filed, the necessary sum shall be one hundred percent (100%) of such above determined amount. Bonding for public improvements may be broken into segments to correlate to the phasing schedule of the overall development.
- 4. **Prior to release of the zoning permit**, revised plans or related documentation addressing the following shall be submitted, subject to staff review and approval.
 - a) Definition of the cemetery access plan and the written acceptance by the Department of Parks & Recreation;
 - b) Confirmation of driveway access grading into Building E;
 - c) Continuous concrete sidewalks across all driveways;
 - d) Compliant parking space and circulation aisle dimensions for all parking areas (surface and structured);
 - e) Final selection of street trees with the written approval of the City Arborist;
 - f) Revised outdoor lighting plan compliant with Sec. 5.5.2 and IESNA standards, as applicable. Confirmation of compliance by an independent lighting consultant at the cost of the applicant will be sought;
 - g) Buried electrical transformers where feasible;
 - h) Identified mailbox locations;
 - i) Identification of all screening materials;
 - j) Intercom systems for multi-family housing is recommended;
 - k) Compliant inclusionary housing proposal, including 25% of the entire 739-unit count. Written approval of the inclusionary housing proposal by the manager of the city's Housing Trust Fund is required.

5. **Prior to construction**, final plat approval of the subdivision of the property shall be sought and obtained.
6. The following comments and requirements of the Department of Public Works are incorporated into these conditions of approval. All improvements are at the expense of the applicant:
 - a. The existing crosswalk (and bus stop) near Champlain Farms should be removed, as the ultimate spacing of crosswalks and stops will be more uniform with the planned crossings and stops at the Project's southern drive.
 - b. New crosswalk should be placed proximate to the new Parks & Recreation redeveloped path near Covent Square with that project
 - c. At the northern project drive, a crosswalk shall be provided if requested by the Department of Public Works. Pedestrian counts shall be taken prior to issuance of a certificate of occupancy. If warrants for a crosswalk are met at this location, it shall be installed.
 - d. Per the project plan set, crosswalks shown at the project intersection of South Road/North Ave.
 - e. The Applicant will be required to replace the sidewalk more than 5 years old on the West side of North Ave between the southern property line (Building K) and the northern property line (north of North drive)
 - f. The signal at North Ave and South Road should be installed during phase two of the project and left in flash, until either trip/pedestrian warrants are met, at which time the signal should become active.
 - g. A No Parking flashing beacon should be installed at/near the intersection of North Ave and South Road; the cost of the beacon is the responsibility of the Applicant. Due to the unique nature of these beacons DPW will install the beacon and seek reimbursement for the materials and cost of installation.
 - h. DPW and Applicant to discuss narrowing of the painted median on the north side of the intersection of North Ave and South Road, DPW to review final plan before line work is implemented.
 - i. Bike lane shall have stop bars marked within the bike lanes, these could be offset from the travel lane stop bars if appropriate.
 - j. Bike lane markings across intersection at South Road shall be consistent with City typical markings in both size and configuration. This should include skip lines at the intersection and bike size chevron in the lane. Also diagonal line striping in the separated portion of the bike lane should be removed
 - k. DPW and Applicant to review bicycle left turns at North Ave and South Road. DPW would like to see a pull off ahead of the crosswalk to allow bicycles to utilize the pedestrian push button, an alternative we would consider is a bicycle box in the lane striping. DPW to review and approve final plan before work is implemented.

- l. At the Northwest corner of North Ave and South Road the proposed bus stop area shows a significant amount of concrete/hardscape area. This area will need to be revisited/revised with DPW.
- m. Applicant will seek to adjust property boundary lines in the future on North Ave to place the sidewalk along North Ave back in the ROW.
- n. A crosswalk needs be placed at the west side of the intersection of South Road and West Road. This will facilitate pedestrian movements given the planned commercial activity in the area, adjacent recreational facilities, and ability for DPW to maintain and clear snow at the intersection.
- o. Applicant to review location of stop bars relative to the crosswalks at the intersection of North Road and West Road. Crosswalks should be placed in front of stop bars.
- p. Signage and Striping:
 - i. Crosswalk warning signs MUST reflect YIELD to pedestrians, per VT State Law
 - ii. Share the lane signage should be independent of the pedestrian crossing signs
 - iii. The only on street striping should be for crosswalks, stop bars, and in the immediate vicinity of the proposed signal for center line delineation. No line striping should be placed for individual parking spaces, center line, or fog lines.
 - iv. No speed limit signs within the development
- q. Sidewalk configuration/alignment and connection to Lakeview Cemetery will need to be reviewed by DPW/Parks prior to construction if Applicant pursues acceptance of project streets by the City.
- r. Applicant to review bicycle/pedestrian connection from Building O and P to the bike path to the west to determine whether additional connection will be at back of building or at end of sidewalk.
- s. Applicant will be required to submit design drawings for retaining wall along North Road, stamped by a Professional Engineer registered in the State of Vermont.
- t. Applicant will be required to place monuments at all parcel boundaries.
- u. All public infrastructure intended to be part of the dedication must be within the proposed limits of the ROW.
- v. Any materials used in the ROW that exceed City Standards will be the responsibility of the Applicant, and the Applicant will be required to enter into a License Agreement with DPW, unless otherwise waived, for the care, maintenance, replacement, removal for the life that material unless otherwise replaced with a Standard material, at which time the Agreement can be dissolved.

- w. For the dedication process the Applicant must, at minimum, provide the following:
 - i. As-built drawings of all infrastructure in the ROW
 - ii. Certification from the engineer of record that infrastructure constructed was completed per plans and specification
 - iii. All documentation by the project resident engineer for all infrastructure in the ROW. This shall include but is not limited to: Notes, photographs, reports, quality control testing, change orders, submittals.
 - iv. The City shall be invited to participate at all construction meetings;
 - v. The City shall have the right to have oversight during construction, review of resident engineer documentation, submittals.
 - x. Review the sequence of work to connect South Road sidewalk/path to the proposed Parks Path, a connection to those facilities in advance of 2022.
 - y. There is a discrepancy between the phasing of the project shown on P1.0 by CEA and sheet 2 of 2 by VHB with regard to when Building H, Q, and R will be constructed. Of concern is the varying stormwater treatments that occur during construction, treatment types shown varies.
7. All proposed sidewalk construction within the public street right-of-way is subject to review and approval of the Dept. of Public Works. *All other construction within the public street right-of-way is subject to an encumbrance permit issued by the City Council in conjunction with the Dept. of Public Works.*
 8. There shall be the addition of an enhanced and heated bus stop on the corner of South Road [so called] and North Avenue;
 9. On site car share pod(s) are to be developed in consultation with CarShare VT or similar organization;
 10. There shall be continued membership in CATMA or similar Transportation Demand Management association;
 11. **At least 7 days prior to the issuance of a certificate of occupancy**, the applicant shall pay to the Planning & Zoning Department the impact fee as calculated by staff based on the gross square footage of the proposed development. Impact fees may be paid on a per-phase basis. Per the development agreement, a \$300K credit will apply to parks impact fees due.
 12. A 10-year construction period is included in this zoning permit. Project phasing shall be as depicted in Plan L-EX4. Any change, variation, rearrangement of phases, or request to omit buildings shall require review and approval by the Development Review Board, with such request submitted prior to expiration of the 10-year period. Board review of a change to the phasing schedule will be limited to: (a) assurance that amenities are constructed to support the phasing plan; (b) inclusionary unit are being constructed appropriately in each phase; (c) the project, if no further phases are constructed, presents an integral project that

will stand on its own; and (d) in review of the phasing schedule, the applicant must return to the Board to show how project would look under revised phasing schedule if subsequent changes are made where further phases are not constructed. As this was presented as an integrated project, the Board requires completion of the green areas and public access westerly from the parking area marked "D"; including handicap accessible walkways toward the public lands.

13. Days and hours of construction are limited to Monday – Friday 7:00 AM – 6:00 PM; interior work only on Saturdays; no construction activities on Sundays.
14. A State of Vermont wastewater permit is required.
15. All new utility lines shall be buried.
16. It is the applicant's responsibility to comply with all applicable ADA requirements.
17. All new construction is required to meet the Guidelines for Energy Efficient Construction pursuant to the requirements of Article VI. Energy Conservation, Section 8 of the City of Burlington Code of Ordinances.
18. Any outdoor signage will require a separate sign permit.
19. During the course of construction, a pathway shall be maintained to the city public lands.
20. Standard Conditions 1-15.

Second: A. J. LaRosa

Vote: 6-1 (AZ)

Vote: motion carried

This **amended** set of Findings is dated at Burlington, Vermont, this _____ day of March, 2017.

Respectfully Submitted,

Austin D. Hart, Development Review Board Chair

Please note that an interested person may appeal a decision of the Development Review Board to the Vermont Superior Court, Environmental Division. (Comprehensive Development Ordinance Article 12, Section 12.2.3 Appeals of Development Review Board Decisions: An interested person may appeal a decision of the Development Review Board to the Vermont Environmental Court within 30 days of the date of the written decision as follows:

(a) Notice of Appeal: The appeal shall be taken in such a manner as the Supreme Court or the environmental court may by rule provide for appeals from state agencies governed by Sections 801 through 816 of Title 3, Vermont Statutes Annotated. Notice of the appeal shall be sent by mail to every interested person appearing and having been heard at the hearing before the DRB, and, if any one or more of those persons are not then parties to the appeal, upon motion they shall be granted leave by the court to intervene.)

Burlington Department of Public Works Commission Meeting
Draft Minutes, September 16, 2020
645 Pine St. – Main Conference Room
Meeting video link: <https://www.cctv.org/watch-tv/programs/burlington-public-works-commission-151>

Commissioners Present: Tiki Archambeau; Jim Barr; Brendan Hogan (Chair); Peggy O’Neill-Vivanco (Vice Chair); Pablo Bose; Solveig Overby (Secretary)

Commissioners Absent: Chris Gillman

Item 1 – Call to Order – Welcome – Chair Comments

Chair Hogan calls meeting to order at 6:30 p.m. and made opening comments.

Item 2 – Agenda

ACTION: Commissioner Barr made a motion to approve the Agenda. Commissioner O’Neill-Vivanco seconded. Director Spencer stated that Item 7 can be removed from the agenda as the appeal has been withdrawn. Commissioners Barr and O’Neill Vivanco stated that the amendment to remove Item 7 was friendly. Unanimously approved.

Item 3 – Public Forum

Public Information Manager Rob Goulding provided information on the various ways to participate in the meeting. No one requested to speak at the public forum.

Item 4 – Consent Agenda

- A No Parking Zone at the Locust Terrace Crosswalk
- B AD Space Adjacent to 65 Main Street
- C. Appendix C Ordinance Updates for 194 St. Paul St Parking
- D. Franklin Square Ordinance Revisions

ACTION: Commissioner Barr made a motion to approve the Consent Agenda. Commissioner O’Neill-Vivanco seconded. Unanimously approved.

Item 5 – Winooski Ave Traffic Regulatory Changes – Nicole Losch

Senior Transportation Planner Nicole Losch provided a presentation on the first phase implementation of the Winooski Avenue Transportation Study and the two proposed regulatory changes necessary to install the recommended complete street design:

-) Removal of parking on South Winooski between Main St and King St (13 spaces)
-) Designation of South Winooski between King St and Maple St as one-way

The Commission discussed the bus stop accommodation, crash data, residential permit parking, work schedule, pre-work notice signs and public engagement. Staff responded. Commissioner Archambeau asked whether the Commission needed to approve the lane reassignment between Pearl and Main Streets. Staff replied that changes to the line and grade of road require Council approval and traffic regulations require Commission

approval, but lane re-assignments in the past have not been determined by the City Attorney to need Council or Commission approval.

Public Comment:

-) James Kelleher – supports proposal
-) Isaac Apberg – supports proposal
-) Michael Setsy – supports proposal
-) Sandy Bender – supports proposal
-) Vikas Mangipudi – supports proposal
-) Kai Forlie – supports proposal

ACTION: Commissioner Archambeau made a motion to approve staff's recommendation to remove on-street parking on the east side of South Winooski Avenue between Main and King Streets and to designate South Winooski Avenue between King and Maple Streets as a one-way street. Commissioner Barr seconded. Unanimously approved.

Item 6 – North Ave & Cambrian Way Discussion – Norm Baldwin

City Engineer Baldwin summarized his written memo where he outlined the evaluation of a mini-roundabout and the steps that led to the decision to signalize the new North Avenue & Cambrian Way intersection. Due to site constraints including limited right-of-way and existing residential homes on the east side of North Avenue, well locating a full sized roundabout would have been a challenge. A mini-roundabout was determined by the developer's traffic consultant and by the City Engineer to not have sufficient capacity to handle projected traffic during peak times. Due to these and other factors, a signalized intersection was advanced. City Engineer Baldwin recognized the project's developer for working for months with DPW's staff in designing upgrades to North Avenue, finalizing the components of the new Cambrian Way street, and refining the North Avenue and Cambrian Way intersection to well accommodate all modes. The intersection includes full pedestrian signalization, a heated bus waiting area, and continuous bike lanes.

Commissioners Archambeau, O'Neill-Vivanco and Overby asked how come a full roundabout wasn't studied more thoroughly early on, how the Commission could be engaged earlier before decisions on intersection control are made, how staff considered the input from outside experts such as Clive Sawyers, how traffic experts looking at the same data could reach different conclusions, and how to make this corridor to the high school as safe as possible for all modes. Commissioner Overby stated that she does not agree with the decision to signalize the intersection and a roundabout should have been constructed instead. Director Spencer responded that staff would be willing to work with the Commission to evaluate potential ordinance revisions to provide the Commission a role in reviewing intersection control. Commissioner Barr stated that he's been involved in multiple planning efforts seeking to locate roundabouts in Burlington and that there are challenges to design them given Burlington's topography, narrow rights-of-way, diverse uses and limited funding. Nonetheless, he encouraged us to address the challenges so Burlington can install roundabouts where they make sense.

Public Comment:

-) Cambrian Rise developer Eric Farrell stated that he worked closely with Public Works to design transportation facilities in and adjacent to his project. At a

resident's request, he asked his consultant to review the potential for a mini-roundabout. His consultant determined it was not appropriate. He stated his commitment to transit, bikes and a multi-modal design for North Avenue.

- J Resident Lee Terhune submitted a written statement that was read by Public Information Manager Rob Goulding expressing support for a roundabout here and frustration with the decision making that led to a signalized intersection.

ACTION: No action was taken.

Item 7 – Appeal – 31 North Prospect Street – Failed Electrical Inspection

This Item was removed from the agenda at the beginning of the meeting as the appellant withdrew the appeal.

Item 8 – Traffic Calming Program Revisions – Nicole Losch

Senior Transportation Planner Nicole Losch summarized the proposed revisions to the City's long standing Traffic Calming program. Traffic calming seeks to address issues of speeding, traffic volume and/or crashes on residential streets. The revisions propose to:

- J Enhance equity by removing the petition requirement
- J Increase transparency by setting clear thresholds for speed, volumes and crashes
- J Streamline the process by specifying acceptable elements and removing the neighborhood polling

Commissioners expressed support for the equity approach and asked about how to remove the backlog of requests, what requests are currently active, and how to transition out of the 'Local Traffic Only' COVID-19 designated streets.

Public Comment:

- J Jonathan Weber of Local Motion expressed support for the overhaul of the Traffic Calming program as the City needs to advance self-enforcing designs for our streets. He expressed concern about one part of the proposed changes – that of the speed threshold. He suggests measuring actual speeds against the design speed for a particular street is a better threshold for traffic calming eligibility than comparing to the posted speed limit. Commissioner Overby concurred.

ACTION: No action was taken. The Traffic Calming program policies are established by staff. Staff will be reviewing input received from the Commission and the Council's Transportation, Energy & Utilities Committee before finalizing the updated program.

Item 9 – Approval of Draft Minutes 7-15-2020

Commissioner Hogan requested it be noted that Commissioner Bose left the meeting at 6:57 p.m.

ACTION: Commissioner Barr made a motion to accept the minutes with the change requested by Commissioner Hogan. Commissioner Archambeau seconded. Unanimously approved.

Item 10 – Director's Report

Director Spencer referenced his written report and highlighted the following items:

-) Current public engagement for the **Integrated Water Quality Plan** and encouraged Commissioners to get involved and spread the word
-) Upcoming public input on the **University Place design concepts** – this item will be on the Commission’s October agenda
-) The managerial transition of **Parking Enforcement** to DPW would likely happen around the new calendar year and Assistant Director Jeff Padgett will come to a future Commission meeting to get feedback on his Parking Services vision
-) An operational pilot is being considered for **Marketplace Garage** this October to facilitate smooth entrances and exits by raising the gates and having parkers pay with ParkMobile or at kiosks – more news next month
-) The Department’s draft **FY’21 goals and objectives document** is ready for Commission review and it will be posted on the Commission webpage

Item 11- Commissioner Communications

-) Commissioner O’Neill-Vivanco supports prioritizing equity in our work.
-) Commissioner Overby wants the Department to look into privacy concerns with the license plate data as more of our platforms require plate numbers to park.
-) Commissioner Overby asked about the water tower repainting. Director Spencer stated that the work is underway and is expected to be complete this season.
-) Commissioner Overby asked about the sewer force main repair on Flynn Avenue and how big the pipe was. Director Spencer stated it was a four-inch pipe, the repair has been completed and a comprehensive rehabilitation of the force main will be completed as part of the Flynn Avenue pump station upgrade.
-) Commissioner Overby asked about signage under stop signs with a warning about the fines underneath the stop sign. Staff is still evaluating the idea.
-) Commissioner Overby asked about parking revenues. Director Spencer stated that traffic revenues are trending low – around 50% of budget – and that staff is monitoring the situation carefully and some initial cost cutting actions have been taken. Others are likely unless revenues improve dramatically soon.
-) Commissioner Overby stated she was elected Secretary of the Board in July but does not know what she is supposed to do. She stated whoever is doing the minutes is doing a great job.
-) Commissioner Archambeau asked about the status of 1 Intervale Avenue for parking change. The spaces are striped too wide and the signs have not been placed in the greenbelt. Director Spencer stated he will get an update.
-) Commissioner Barr is pleased with City Hall Park, the Colchester Ave bike lanes and the Colchester & Chase Street intersection.
-) Commissioner Barr wants staff to look at Grove Street double yellow line. He is not sure it is placed appropriately.
-) Commissioner Hogan requests a pre-winter update on winter maintenance at an upcoming Commission meeting.
-) Commissioner Hogan is pleased with the progress on the five corners project.

Item 12 – Adjournment & Next Meeting – October 21, 2020

ACTION: Commissioner Archambeau moved to adjourn. Commissioner Barr seconded. Unanimously approved. Meeting adjourned at 9:30pm.

Burlington Public Works FY'21 Goals and Objectives - Draft v9-16-20

Our Mission: To steward Burlington's infrastructure and environment by providing efficient, effective and equitable public services



		DPW GOALS			METRICS	DIVISION	COMMISSION ROLE
	OBJECTIVE	Operational Excellence	Exemplary Cust. Serv.	Culture of Innovation			
	DPW-wide Objectives						
1	Respond to COVID-19 pandemic with internal protocols and external initiatives that protect our staff and meet the needs of our community	✓	✓	✓	Written policies developed and pandemic-tailored services delivered.	DPW-wide	Approve changes that require Commission adoption
2	Stand up asset management program to advance City's capabilities and procure CMMS (computerized maintenance management system)	✓	✓	✓	Complete Phase II Asset Management work for GF and procure CMMS tool in FY'21.	DPW-wide	Provide feedback on draft plan
3	Continue to close capital funding gaps across asset classes (Water, WW, Stormwater, Fleet, Streets, Sidewalks, Signals, Facilities) by developing and implementing funding strategies with stakeholders	✓			Budgeted Funding vs. Actual investments vs. funding targets for each asset class. Service reliability (number of main breaks / year).	DPW-wide	Evaluate and recommend funding strategies
4	Enhance growth opportunities within department through professional development, job shadowing, succession planning, etc.	✓	✓	✓	% of staff participating in a professional development opportunity each year. % of mid and upper level positions that are filled internally.	DPW-wide	
5	Increase engagement of under-represented constituencies through enhanced outreach efforts while also ensuring capital project and maintenance prioritization does not inadvertently underinvest in these areas of the community	✓	✓	✓	DPW staff and engaged community members reflect the diversity of our city. Enhanced outreach engages more unrepresented residents. Capital project and maintenance prioritization evaluated for equity.	DPW-wide	
6	Reduce injuries through strengthened safety program that includes active safety committee and online Learning Management System	✓	✓		DPW Safety Team meets at least quarterly. Reduction in recordable incidents and lost time injuries.	DPW-wide	
7	Improve capital project accounting with enhanced systems, provide leadership in the development of formalized policies and procedures, and transition to multi-year capital budget accounting	✓		✓	Written policies and multi-year capital budgeting in place.	Tech Services, Water Res.	
8	Provide effective coordination with private projects through project review and coordinated investments	✓	✓		Deptment turns material review in agreed upon timelines. Assists applicants with helpful guidance. Cambrian Rise, Cambria Hotel, Bove's, CityPlace progress according to timelines.	DPW-wide	
	Cross-Division Objectives						
9	Expand preventative maintenance program of pavement, pavement markings, sidewalk, guardrails, railings, fences, valves, fleet and other infrastructure that has historically not been adequately maintained -- and better prepare the department to maintain new assets	✓			Number of potholes, sewer plugs, main breaks decrease. Percent of fleet PMs to repairs increases. Maintenance crews trained and provided maintenance schedule for new assets.	DPW-wide	
10	Develop engineering standards that will efficiently direct future investments.	✓		✓	First phase of engineering standards compiled in FY'21.	Tech Services, Water Resources	Recommend adoption of standards to Council
11	Advance high priority capital projects (Champlain Parkway, Amtrak, PlanBTV Walk/Bike, Downtown Great Streets) in accordance with project schedules	✓			Projects advance according to project schedules. Annually budgeted capital projects completed.	Tech Services, Water Resources	Review and approve ordinance changes related to projects.

Draft Burlington Public Works FY'21 Goals and Objectives

12	Improve cost allocations between DPW and other departments (ie. have Water credited for fire protection service, contain growth of PILOT payments, end payment for parking enforcement, transfer crossing guard program to schools)	✓			More appropriate cost allocations between departments / funds. Would enable Traffic and Water divisions to better reinvest in their aging systems.	Traffic, Water Resources, CT office, Schools	
	Division Objectives						
13	Integrate BPD & DPW Parking Services through an plan that integrates Parking Enforcement budget, personnel and facilities into DPW	✓	✓	✓	Articulated plan, community engagement and administrative integration completed. Identification of efficiency opportunities for the creation of a "Parking Services" group.	Parking & Traffic	Provide feedback and input on integration plan.
14	Leverage parking technology within Parking & Traffic Division	✓	✓	✓	Integrate parking revenue and enforcement systems / technology across all parking services	Parking & Traffic	Review and approve proposed parking rate and regulation changes
15	Unify parking resources within DPW, branded as ParkBurlington, providing a singular parking resource		✓		Integrate DPW-managed, Parks-managed and third party parking assets unthe the management of Park Burlington	Parking & Traffic	Review and approve parking operations agreements and policy changes
16	Improve parking experience through new services and technology	✓	✓		Provide improved signage, communication tools and service (online and in person)	Parking & Traffic	Review and provide input
17	Expand use of transportation options while increasing safety of system and reducing overall environment impact consistent with City plans			✓	Implement first phase of Winooski Corridor Study in FY'21. Launch e-bike share in FY'21. Consider launching Vision Zero in FY'21. Non-SOV mode share increases. Annual # of crashes decreases.	Technical Services	Review and approve ordinance changes related to projects.
18	Transition solid waste collection system for garbage, recycling and organics to a more integrated system		✓	✓	Complete consolidated collection study (including evaluation of a municipally operated model) and get City Council direction in FY'21.	Maintenance	Review study and recommend approval to City Council.
19	Implement Phase I of Clean Water Resiliency Plan capital upgrades in FY'21	✓			Complete upgraded programmable logic control system and disinfection system at WWTPs. Initiate construction of Green Stormwater Infrastructure and pump station upgrades in FY'21.	Water Resources	Recommend approval of CWRP borrowing to City Council.
20	Restart and complete rate study and get Council approval for updated rate structure for Water, Wastewater and Stormwater utilities	✓	✓		Develop options for rates / incentives / programs for public review. Council decides on new rate structure by April 2021 for FY'22 budgeting. Postponed due to COVID. Considering how to advance in FY21 given COVID financial impact to customers who may be impacted by rate structural changes	Water Resources	Review proposed rate structure, recommend to Council
21	Advance second phase of Water Resources staffing plan for increased operational sustainability	✓	✓		Advance second phase of WR Re-org with proposed hiring of Customer Care II, Water Resources Technician, and WW Operator in Training.	Water Resources	
22	Complete Integrated Water Quality Management Plan for how City will meet its Clean Water Act regulatory obligations and its local water quality priorities & begin implementation	✓		✓	Completion of interim project milestones such as: Wet weather/stormwater master plan, selection of high priority projects, completion of financial capability analysis.	Water Resources	Review and provide feedback on final draft of Integrated Plan
23	Improve process for customer requests related to transportation, traffic calming, and parking regulations	✓	✓	✓	Reduce outstanding traffic calming requests and reduce time to resolution and closing customer requests in SeeClickFix.	Technical Services, Administration	Consider potential process changes for evaluating requests.

Burlington Department of Public Works Commission Meeting
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- D. Franklin Square Ordinance Revisions

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- Designation of South Winooski between King St and Maple St as one-way

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Public Comment:

- James Kelleher – supports proposal
- Isaac Apberg – supports proposal
- Michael Setsy – supports proposal
- Sandy Bender – supports proposal
- Vikas Mangipudi – supports proposal
- Kai Forlie – supports proposal

ACTION: Commissioner Archambeau made a motion to approve staff's recommendation to remove on-street parking on the east side of South Winooski Avenue between Main and King Streets and to designate South Winooski Avenue between King and Maple Streets as a one-way street. Commissioner Barr seconded. Unanimously approved.

Item 6 – North Ave & Cambrian Way Discussion – Norm Baldwin

City Engineer Baldwin summarized his written memo where he outlined the evaluation of a mini-roundabout and the steps that led to the decision to signalize the new North Avenue & Cambrian Way intersection. Due to site constraints including limited right-of-way and existing residential homes on the east side of North Avenue, well locating a full sized roundabout would have been a challenge. A mini-roundabout was determined by the developer's traffic consultant and by the City Engineer to not have sufficient capacity to handle projected traffic during peak times. Due to these and other factors, a signalized intersection was advanced. City Engineer Baldwin recognized the project's developer for working for months with DPW's staff in designing upgrades to North Avenue, finalizing the components of the new Cambrian Way street, and refining the North Avenue and Cambrian Way intersection to well accommodate all modes. The intersection includes full pedestrian signalization, a heated bus waiting area, and continuous bike lanes.

Commissioners Archambeau, O'Neill-Vivanco and Overby asked how come a roundabout wasn't studied more thoroughly early on, how the Commission could be engaged earlier before decisions on intersection control are made, how staff considered the input from outside experts such as Clive Sawers, how traffic experts looking at the same data could reach different conclusions, and how to make this corridor to the high school as safe as possible for all modes. Commissioner Overby asked questions about the traffic data used as the basis of City Engineer Baldwin's July 24, 2018 memo where he reviewed Cambrian Rise's traffic consultant's memo and rendered a determination on whether or not a roundabout would work within the existing right of way under the existing and predicted future traffic volumes. She question how Baldwin arrived at the opposite recommendation to that of international roundabout expert Clive Sawers when both Sawers and Baldwin based their recommendation on the same RSG consulting

company's traffic projections. Sawyer recommended a single mini roundabout at the south entrance and emergency only access at the north entrance.

Overby asked about the pedestrian and bicycle counts considered in Baldwin's recommendations for the intersection as they were not referred to in the July 24, 2018 memo. Baldwin said they were separately assessed in 2016 as part of the Development Review process, before the Commission became involved in May 2020. He agreed to provide staff's document provided to the DRB after the meeting.

Director Spencer responded that staff would be willing to work with the Commission to evaluate potential ordinance revisions to provide the Commission a role in reviewing intersection control. Commissioner Barr stated that he's been involved in multiple planning efforts seeking to locate roundabouts in Burlington and that there are challenges to design them given Burlington's topography, narrow rights-of-way, diverse uses and limited funding. Nonetheless, he encouraged us to address the challenges so Burlington can install roundabouts where they make sense.

Public Comment:

- Cambrian Rise developer Eric Farrell stated that he worked closely with Public Works to design transportation facilities in and adjacent to his project. At a resident's request, he asked his consultant to review the potential for a mini-roundabout. His consultant determined it was not appropriate. He stated his commitment to transit, bikes and a multi-modal design for North Avenue.
- Resident Lee Terhune submitted a written statement that was read by Public Information Manager Rob Goulding expressing support for a roundabout here and frustration with the decision making that led to a signalized intersection.

ACTION: No action was taken.

Item 7 – Appeal – 31 North Prospect Street – Failed Electrical Inspection

This Item was removed from the agenda at the beginning of the meeting as the appellant withdrew the appeal.

Item 8 – Traffic Calming Program Revisions – Nicole Losch

Senior Transportation Planner Nicole Losch summarized the proposed revisions to the City's long standing Traffic Calming program. Traffic calming seeks to address issues of speeding, traffic volume and/or crashes on residential streets. The revisions propose to:

- Enhance equity by removing the petition requirement
- Increase transparency by setting clear thresholds for speed, volumes and crashes
- Streamline the process by specifying acceptable elements and removing the neighborhood polling

Commissioners expressed support for the equity approach and asked about how to remove the backlog of requests, what requests are currently active, and how to transition out of the 'Local Traffic Only' COVID-19 designated streets.

Public Comment:

- Jonathan Weber of Local Motion expressed support for the overhaul of the Traffic Calming program as the City needs to advance self-enforcing designs for our streets. He expressed concern about one part of the proposed changes – that of

the speed threshold. He suggests measuring actual speeds against the design speed for a particular street is a better threshold for traffic calming eligibility than comparing to the posted speed limit. Commissioner Overby concurred.

ACTION: No action was taken. The Traffic Calming program policies are established by staff. Staff will be reviewing input received from the Commission and the Council's Transportation, Energy & Utilities Committee before finalizing the updated program.

Item 9 – Approval of Draft Minutes 7-15-2020

Commissioner Hogan requested it be noted that Commissioner Bose left the meeting at 6:57 p.m.

ACTION: Commissioner Barr made a motion to accept the minutes with the change requested by Commissioner Hogan. Commissioner Archambeau seconded. Unanimously approved.

Item 10 – Director's Report

Director Spencer referenced his written report and highlighted the following items:

- Current public engagement for the **Integrated Water Quality Plan** and encouraged Commissioners to get involved and spread the word
- Upcoming public input on the **University Place design concepts** – this item will be on the Commission's October agenda
- The managerial transition of **Parking Enforcement** to DPW would likely happen around the new calendar year and Assistant Director Jeff Padgett will come to a future Commission meeting to get feedback on his Parking Services vision
- An operational pilot is being considered for **Marketplace Garage** this October to facilitate smooth entrances and exits by raising the gates and having parkers pay with ParkMobile or at kiosks – more news next month
- The Department's draft **FY'21 goals and objectives document** is ready for Commission review and it will be posted on the Commission webpage

Item 11- Commissioner Communications

- Commissioner O'Neill-Vivanco supports prioritizing equity in our work.
- Commissioner Overby wants the Department to look into privacy concerns with the license plate data as more of our platforms require plate numbers to park.
- Commissioner Overby asked about the water tower repainting. Director Spencer stated that the work is underway and is expected to be complete this season.
- Commissioner Overby asked about the sewer force main repair on Flynn Avenue and how big the pipe was. Director Spencer stated it was a four-inch pipe, the repair has been completed and a comprehensive rehabilitation of the force main will be completed as part of the Flynn Avenue pump station upgrade.
- Commissioner Overby asked about signage under stop signs with a warning about the fines underneath the stop sign. Staff is still evaluating the idea.
- Commissioner Overby asked about parking revenues. Director Spencer stated that traffic revenues are trending low – around 50% of budget – and that staff is monitoring the situation carefully and some initial cost cutting actions have been taken. Others are likely unless revenues improve dramatically soon.

- Commissioner Overby stated she was elected Secretary of the Board in July but does not know what she is supposed to do. She stated whoever is doing the minutes is doing a great job.
- Commissioner Archambeau asked about the status of 1 Intervale Avenue for parking change. The spaces are striped too wide and the signs have not been placed in the greenbelt. Director Spencer stated he will get an update.
- Commissioner Barr is pleased with City Hall Park, the Colchester Ave bike lanes and the Colchester & Chase Street intersection.
- Commissioner Barr wants staff to look at Grove Street double yellow line. He is not sure it is placed appropriately.
- Commissioner Hogan requests a pre-winter update on winter maintenance at an upcoming Commission meeting.
- Commissioner Hogan is pleased with the progress on the five corners project.

Item 12 – Adjournment & Next Meeting – October 21, 2020

ACTION: Commissioner Archambeau moved to adjourn. Commissioner Barr seconded. Unanimously approved. Meeting adjourned at 9:30pm.