September 18, 2020

TO: Transportation, Energy, and Utilities Committee

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

Stantec

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 viabe and enjoyable way to get around town." - PlanBTV

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

CONTENTS

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)

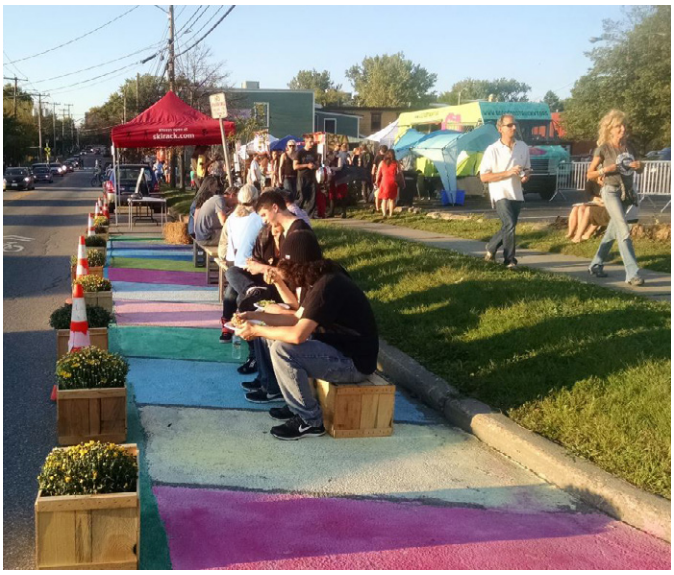


Figure 2. Tactical urbanism project in Burlington, VT (Source: Tactical Urbanist's Guide to Materials and Design)

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 leves 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]

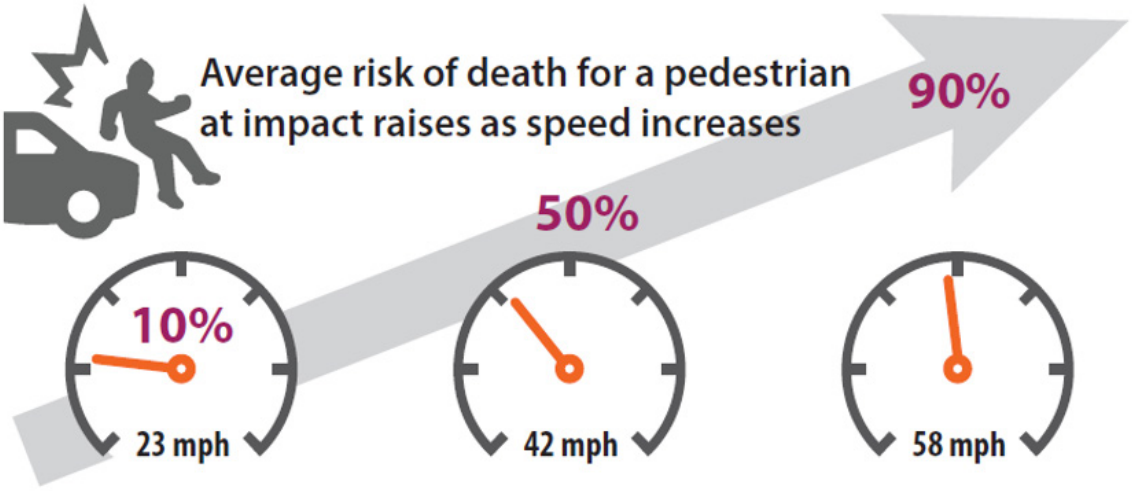


Figure 3. Pedestrian fatalities dramatically increase as vehicle speed increases

[1] *Traffic Calming ePrimer, Module 2. Federal Highways Administration (FHWA), Office of Safety. https://safety.fhwa.dot.gov/speedmgt/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.

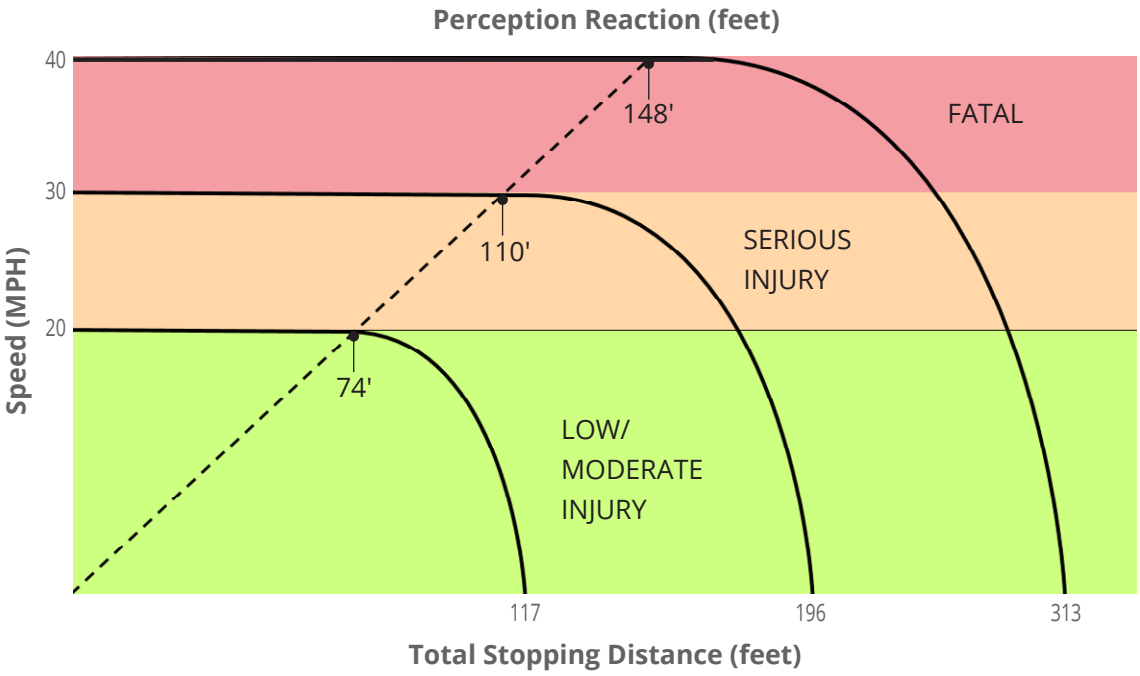


Figure 5. Stopping distance and reaction time increase with speed. (Source: National Complete Streets Coalition)

Peripheral Vision at 10 to 15 MPH

Peripheral Vision at 40+ MPH

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.

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.
- **Neigborhood 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 Encumbance 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 leves 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

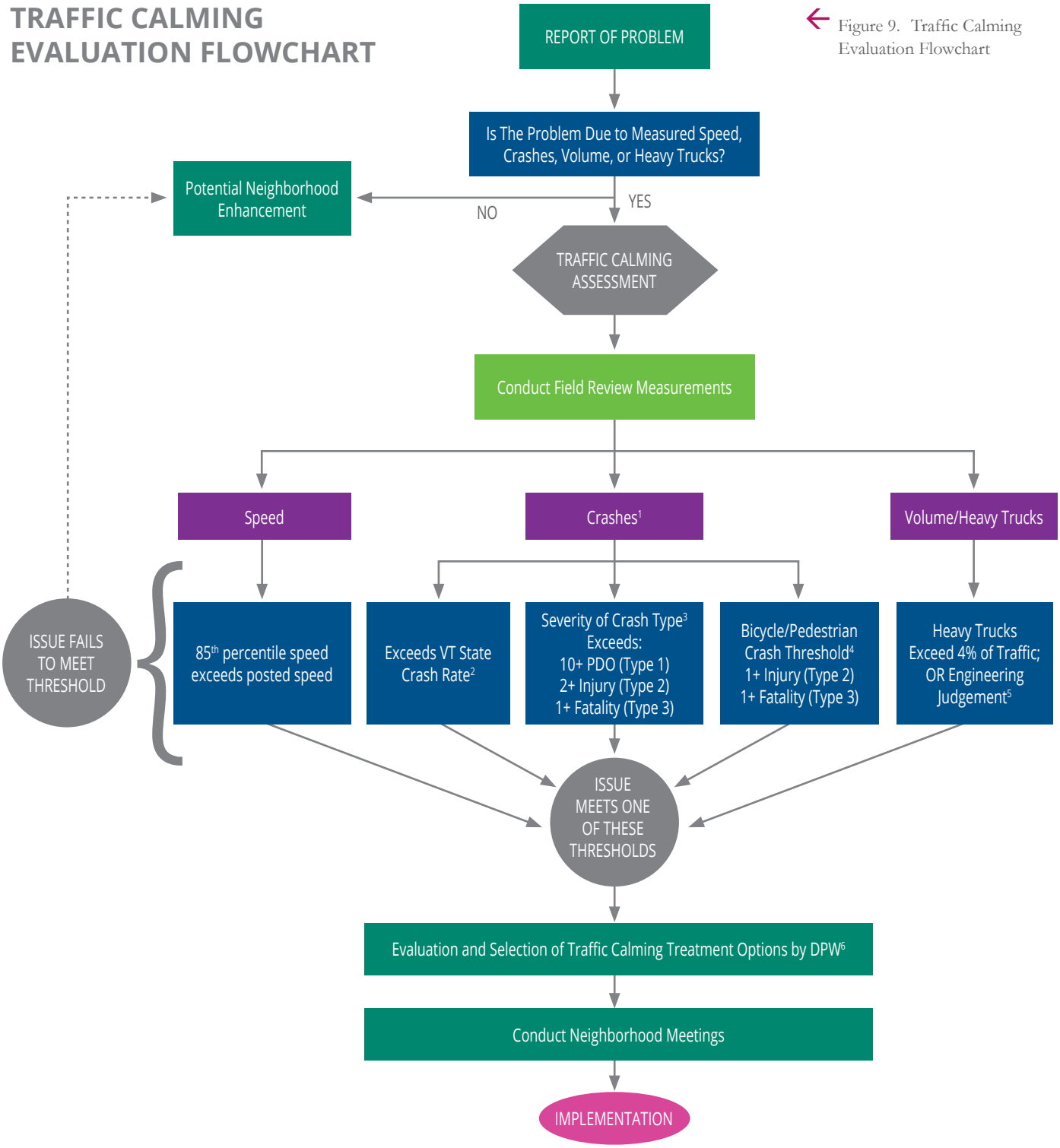


Figure 9. Traffic Calming Evaluation Flowchart

Assumptions:

[1] The 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.

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

[3]Use 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

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

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

[6]See page 11 for Treatment Options

[7]Engineering 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)

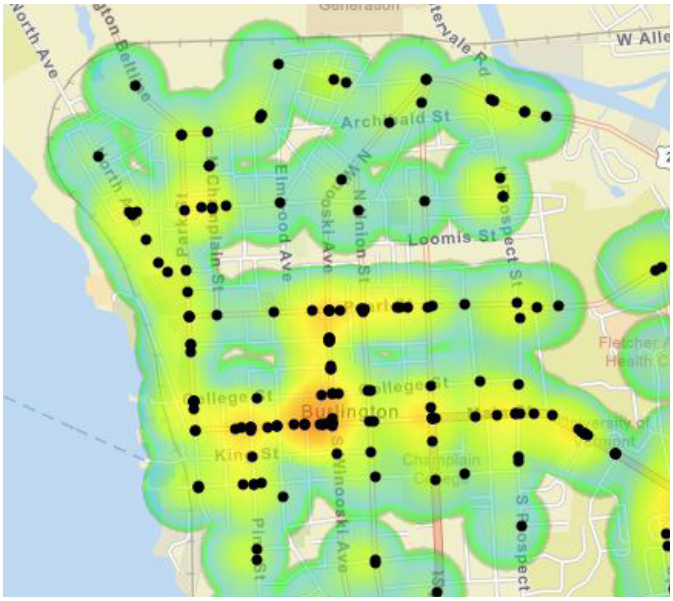


Figure 11. Pedestrian priority and safety is paramount, especially on neighborhood streets.

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

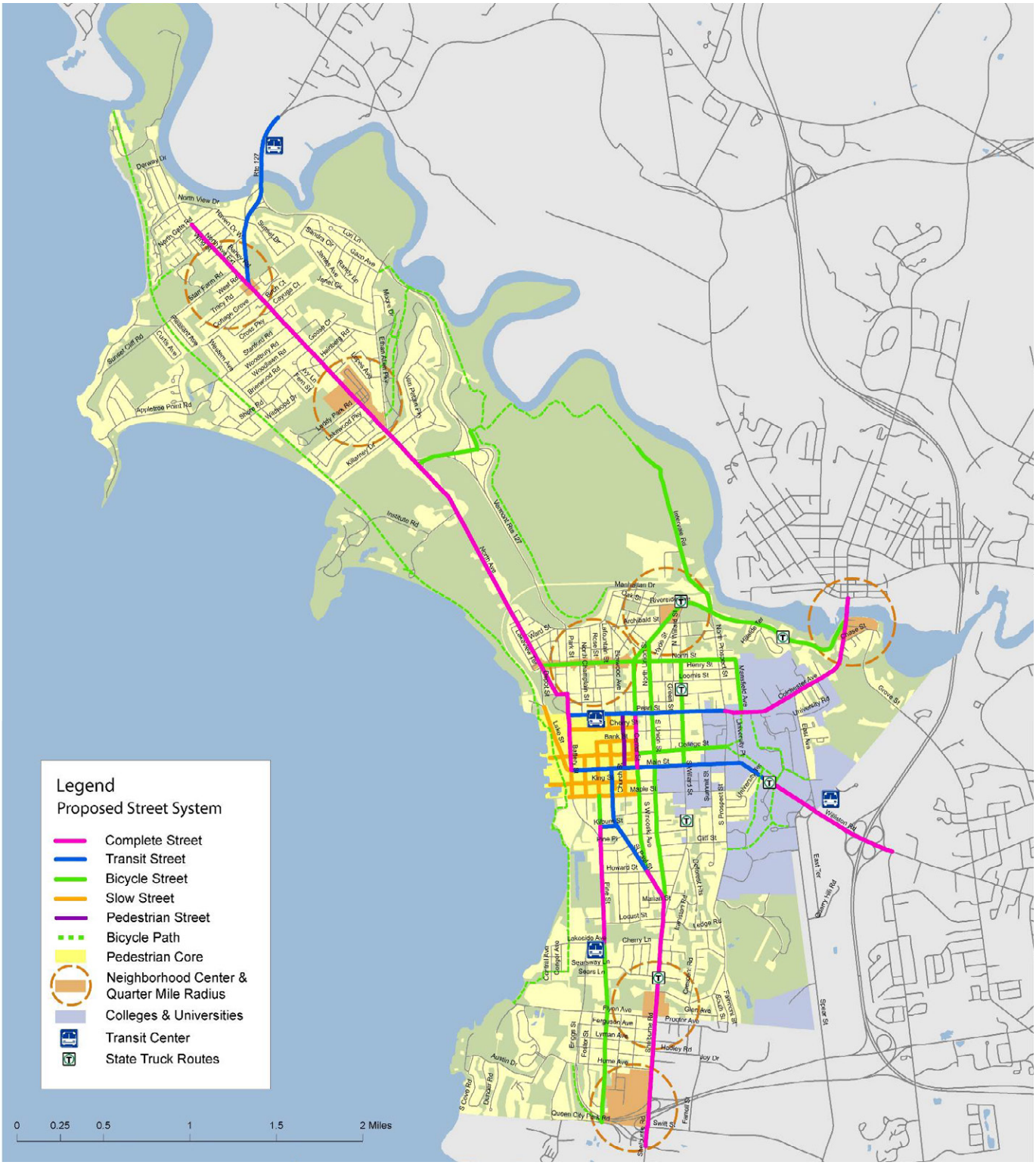


Figure 12. Burlington Street Types and Street Network, 2011 City of Burlington Transportation Plan

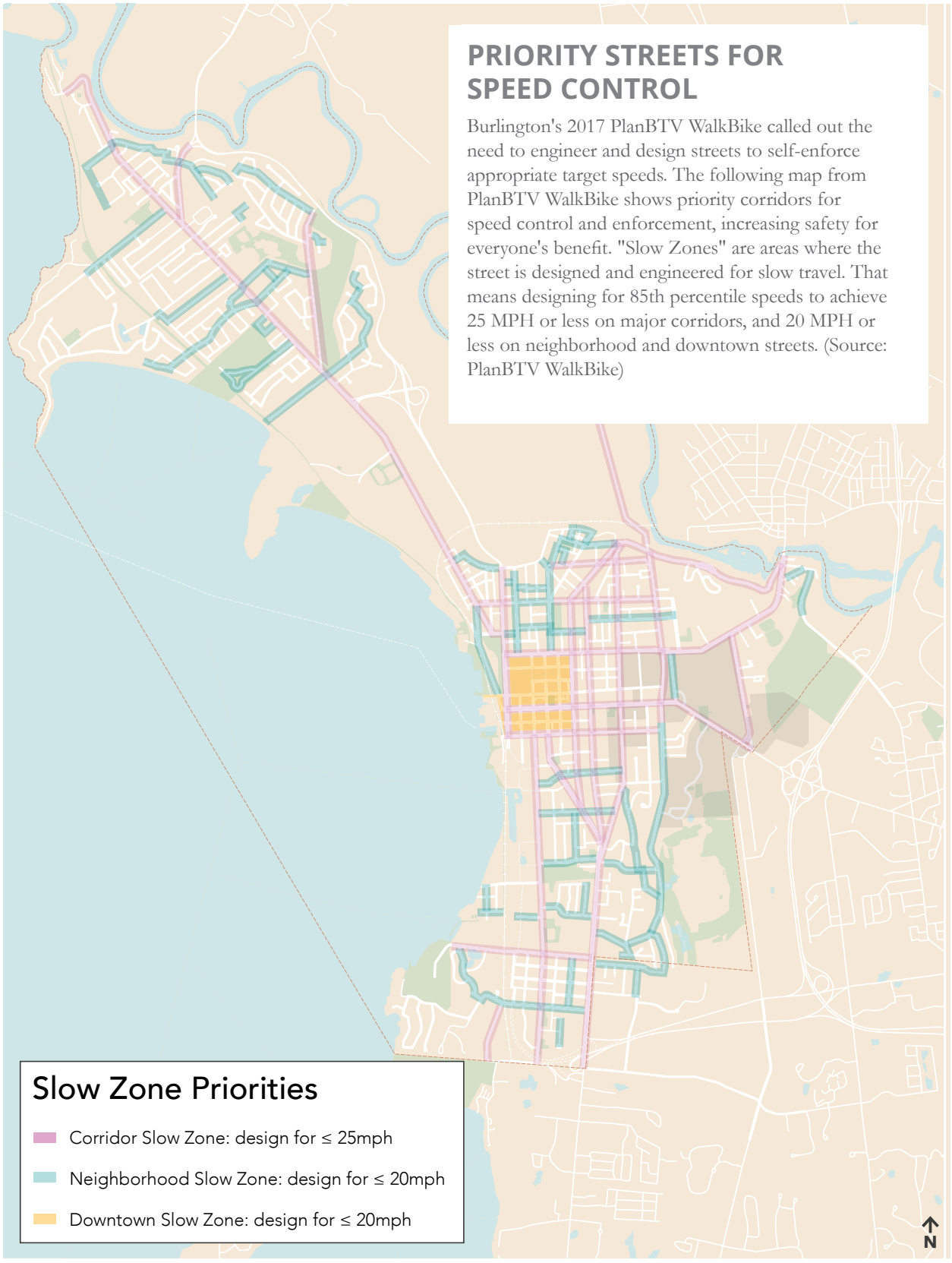


Figure 13. Priority Streets for Speed Control (Source: PlanBTV WalkBike)

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 Prioroities: 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 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

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

Figure 17. Pearl Street - Transit Street

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 ¼-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

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

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.

+	Most desirable
!	Engineering judgment
-	Not recommended

TRAFFIC CALMING MEASURES AND CONTEXTUAL GUIDANCE

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 PlanBTVWalkBike 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

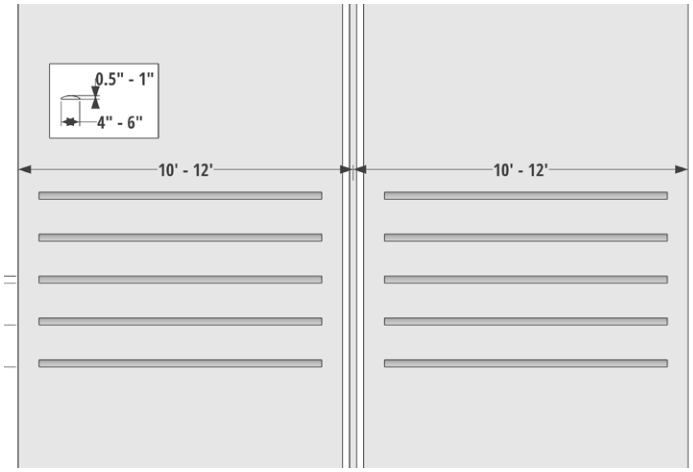
- FHWA studies show 34% reduction in crashes on urban and suburban roads
- Relatively low cost
- Relatively quick installation

Disadvantages

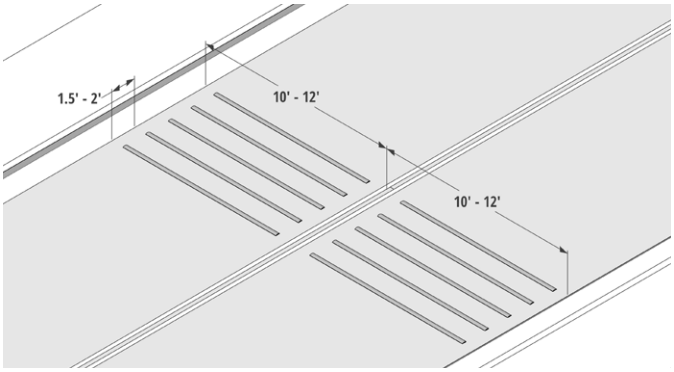
- Not effective on roadways with lower posted speeds
- High noise levels generated by traffic

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

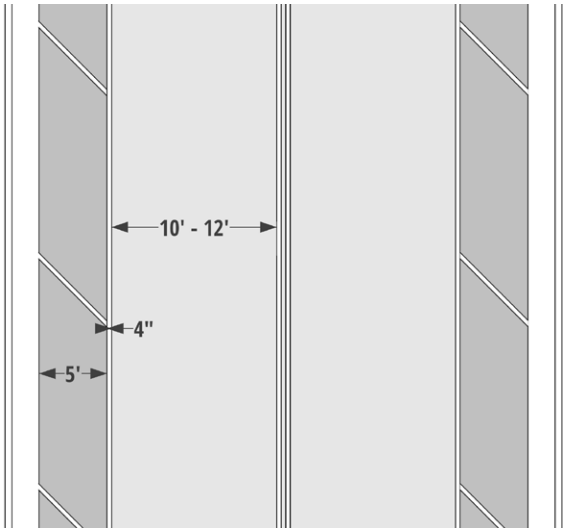
- Lane removal can reduce higher speeds achieved through passing
- Can reduce crashes by 19-47%
- Retains sufficient flow despite lane removal

Disadvantages

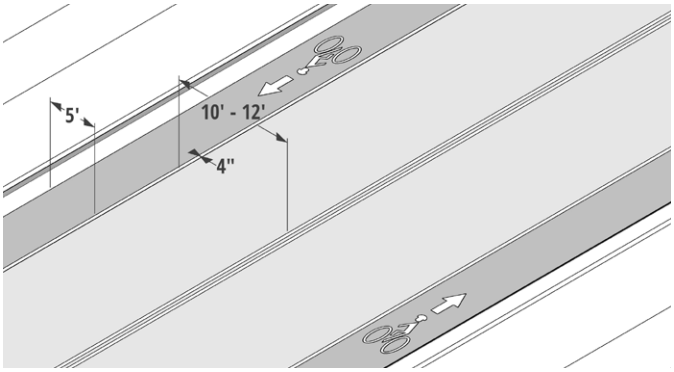
- No significant disadvantages

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

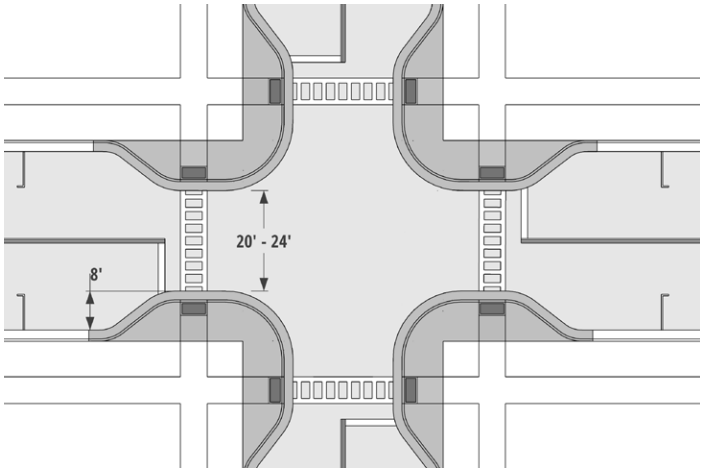
- Slows automobile turning speeds and increases sight triangles for motorists, increasing pedestrian visibility
- Shortens pedestrian crossing distance and improves pedestrian visibility
- Provides protected parking bays
- Creates opportunities for landscaping and amenities at extensions, enhancing beautification

Disadvantages

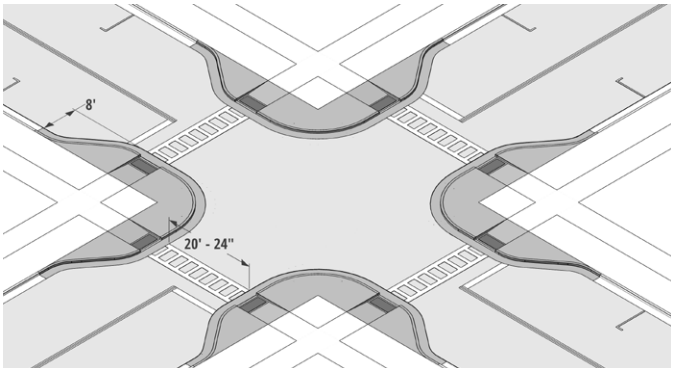
- May require relocation of above- and below-ground utilities, drainage features
- May require some parking removal adjacent to intersections
- Potential for higher costs due to drainage considerations
- Potential to cause vehicle damage to drivers with larger class vehicles who are lost

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.

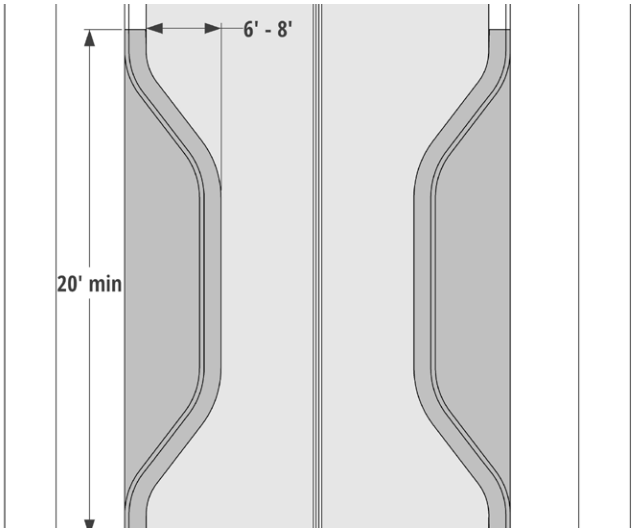
Cost

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

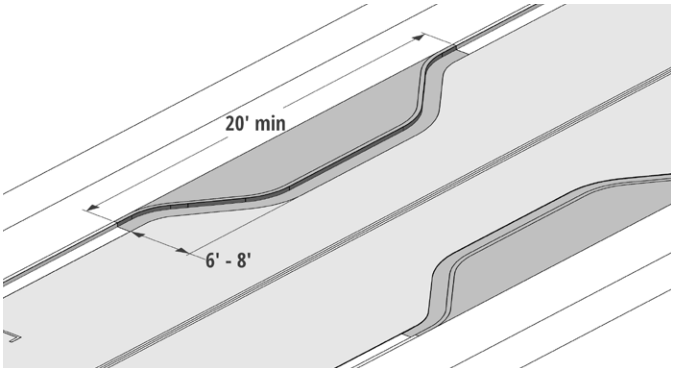
- Drainage considerations
- Utilities relocation
- Size of the extension

FAIR — *Speed Reduction Potential*

-3 to -4 MPH



Plan View Detail



Oblique Angle Detail

Built Example

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

CHICANE

C T B P 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

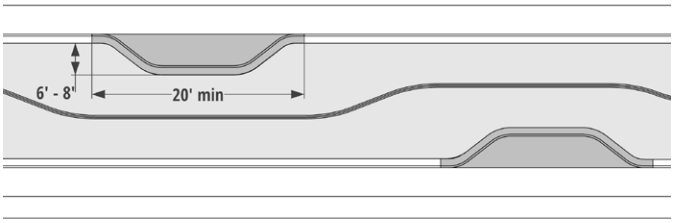
- Appropriate in both urban and suburban settings
- Landscaping the areas of deflection can create green space
- Slows traffic by encouraging motorists to moderate vehicle speed through the horizontal deflection

Disadvantages

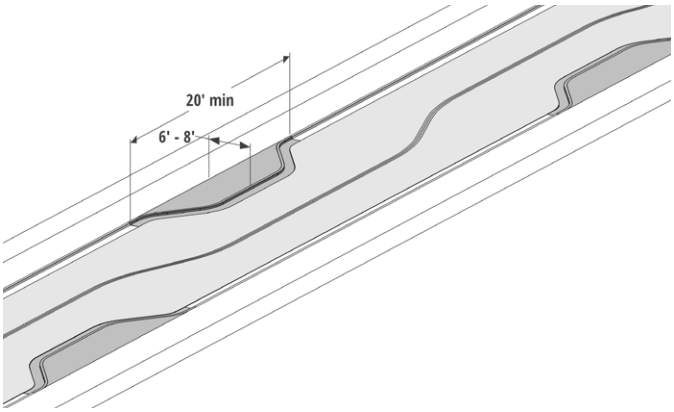
- Bicyclists and motor vehicles share the lane
- Drivers may cut straight paths across center line (striping, without median)

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

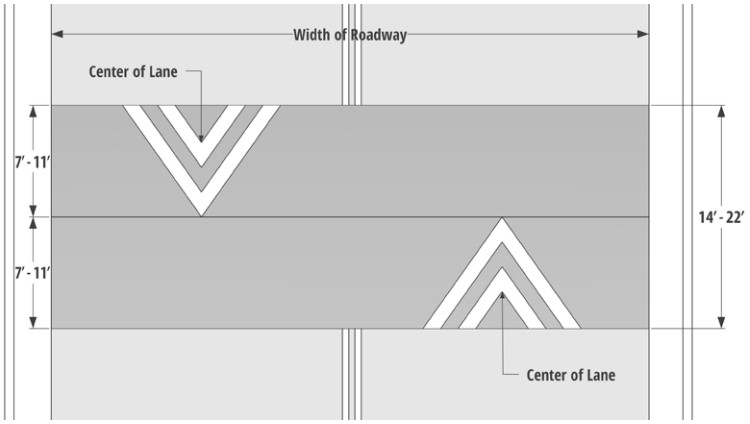
- Bicyclist safety is relatively unaffected
- Typical traffic volume reductions of 20% (series of humps)
- Crash rate reductions of approximately 40% are typical

Disadvantages

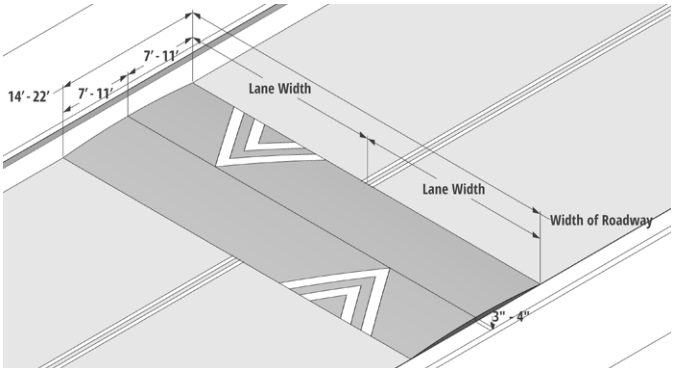
- When applied as a single treatment, little to no traffic volume reduction or diversion should be expected
- Increased noise levels from vehicles impacting the hump
- Not appropriate for primary emergency vehicle routes or streets providing access to a hospital or emergency medical services
- Not appropriate 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

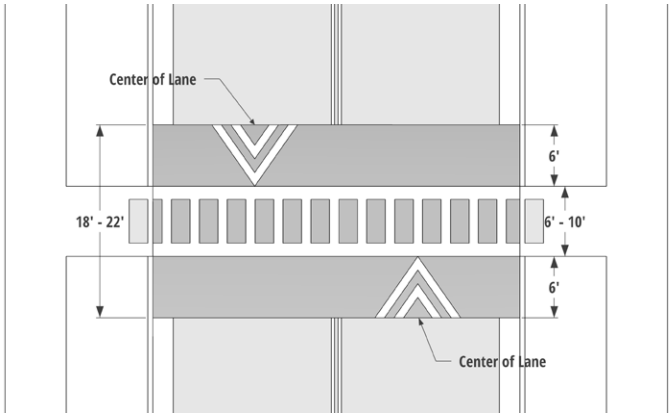
- Increased pedestrian connectivity creates a more walkable community
- Reduces speeds to between 25 to 35mph at the crosswalk
- Bicycle safety relatively unaffected
- When used in a series, traffic volume reductions of up to 20% observed

Disadvantages

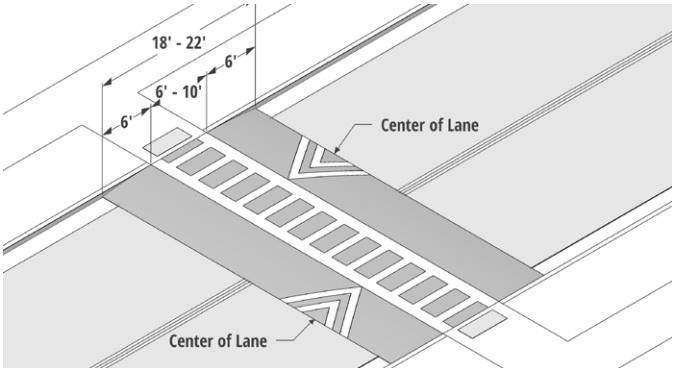
- Should not be located within 50-75 feet of bus stops
- Not appropriate for primary emergency vehicle routes or streets providing access to a hospital or medical services
- Snow plow damage to raised crosswalk
- Potential increase in noise and in traffic on adjacent streets

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

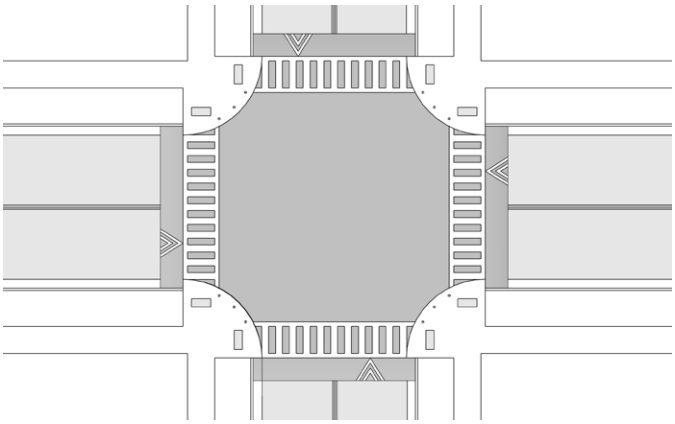
- Versatile in both residential and commercial settings, and can enhance intersection aesthetics
- Large trucks are slowed and/or delayed between two to six seconds crossing the intersection
- Works well with curb extensions and textured crosswalks
- Improves accessibility
- Detectable warnings and/or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

Disadvantages

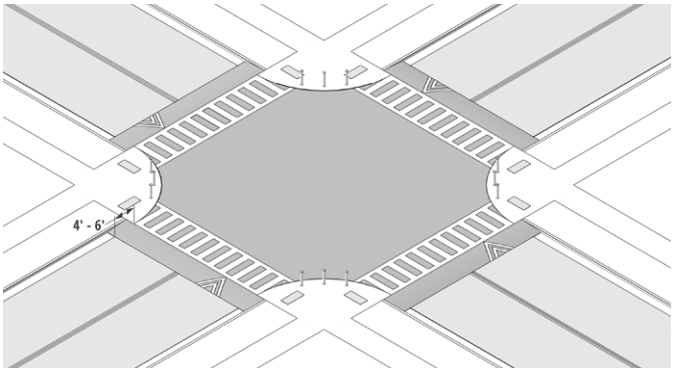
- Reduction in mid-block speeds typically less than 10 percent
- May require bollards to define edge of roadway
- Storm drainage/underground utility modifications are likely necessary
- Potential for higher costs depending upon width of intersecting roads and drainage considerations
- Maintenance of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

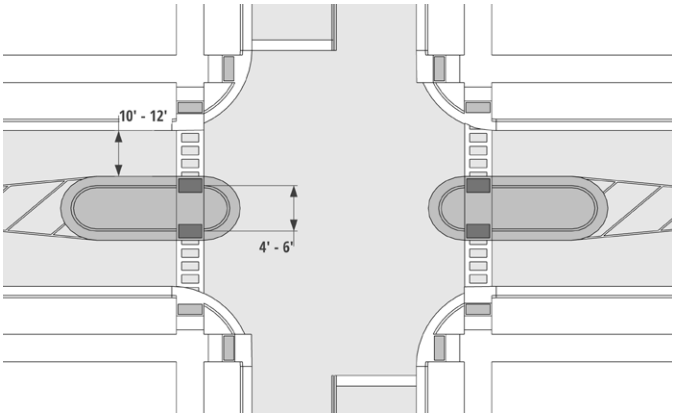
- Reduces pedestrian crossing distance and increases visibility,
- With a variety of materials, medians can greatly enhance neighborhood aesthetics
- Raised curbing increases visibility and nighttime safety
- Reduces vehicle conflict points
- 46 to 56% reduction in pedestrian crashes observed

Disadvantages

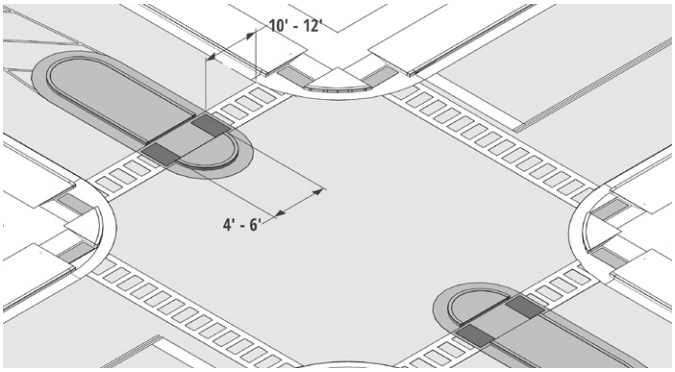
- Landscaping maintenance costs can increase depending on vegetation used
- Potential for higher costs depending upon drainage and utilities considerations
- Turning radius may be impacted for larger vehicles

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

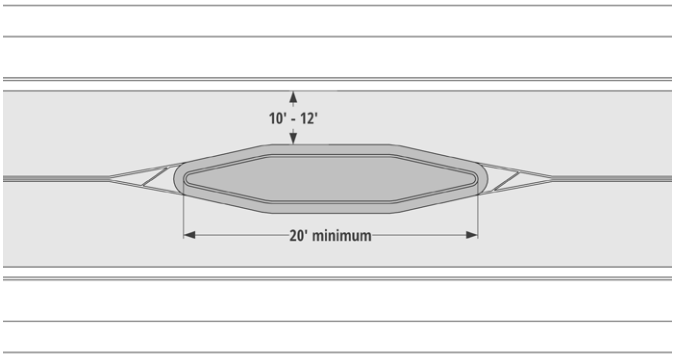
- Can function as a midblock pedestrian refuge island
- With a variety of materials, medians can greatly enhance neighborhood aesthetics
- Light crowning increases visibility and nighttime safety
- Reduces vehicle conflict points

Disadvantages

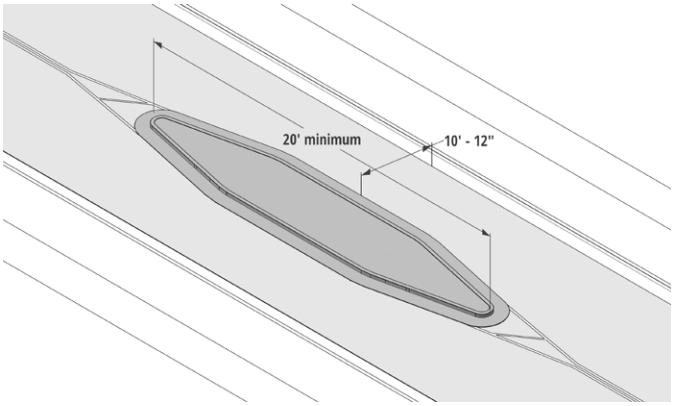
- Bicyclist and motor vehicles share the lane
- Landscaping maintenance costs
- Potential for higher costs depending upon drainage and utilities considerations
- Can restrict driveway access where driveways are located within the limits of the island
- Damage to snow plows, damage from snow plows

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

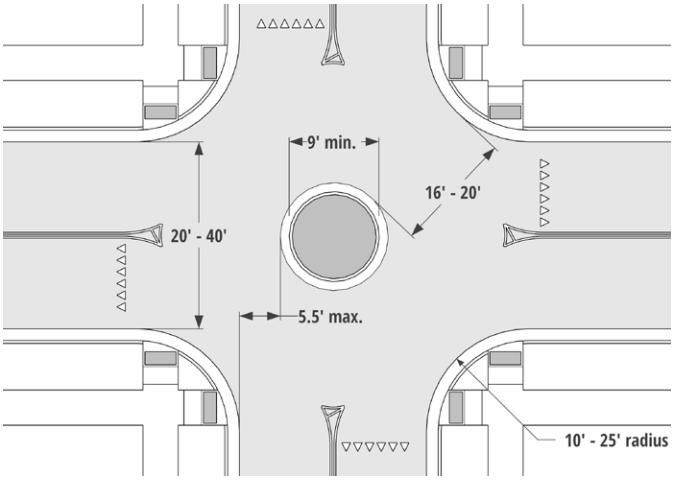
- Observed speed reductions of four miles per hour are typical at the traffic circle; reduced speeds continue beyond the intersection
- Greater speed reductions achieved with installation of splitter islands
- Reduction in number of angle and turning crashes

Disadvantages

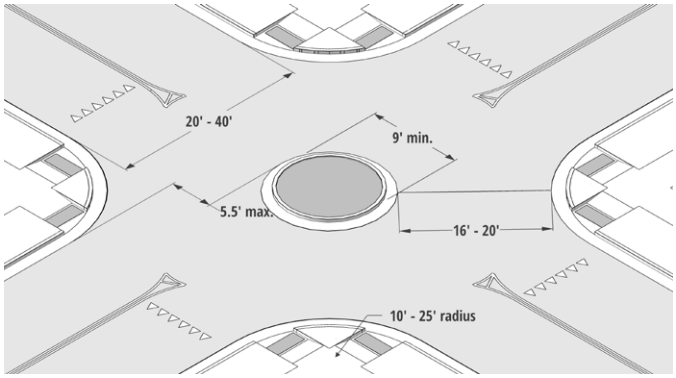
- Not appropriate where transit routes must make left turns
- Emergency vehicles and large trucks typically may turn left in front of the circle in order to navigate the intersection

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

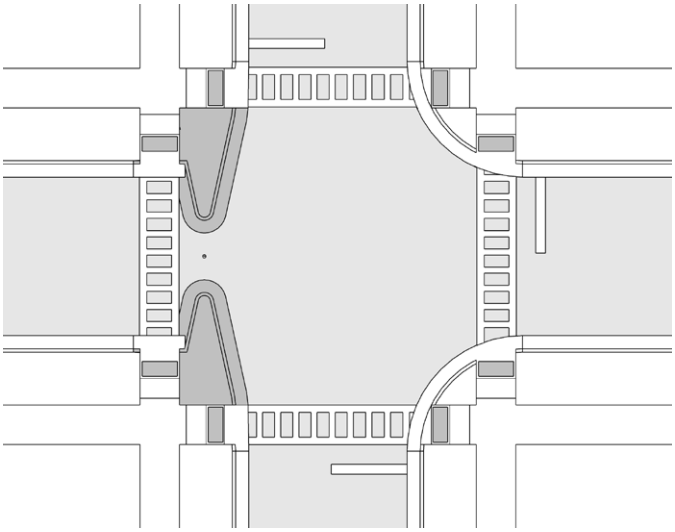
- Highest degree of traffic volume reduction
- Increased pedestrian and bicyclist safety
- Eliminates vehicle conflict points

Disadvantages

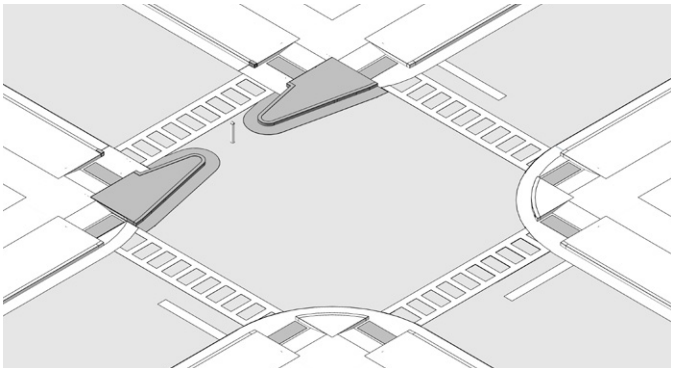
- Without design considerations (e.g., mountable curbs, removable delineators) restricts emergency response vehicles and thereby affects access and response time
- Reduces overall network connectivity
- Adverse effects to property accessibility
- Diverts traffic to other streets and may increase volume 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

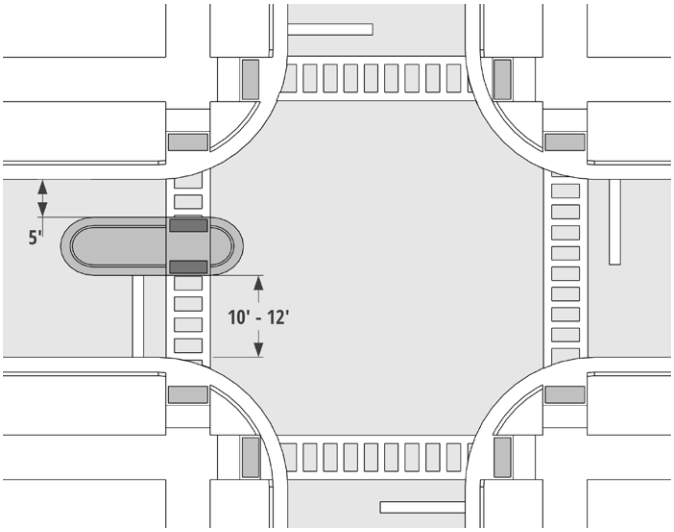
- Speed and volume reductions for the closed travel lane
- Increased pedestrian and bicyclist safety

Disadvantages

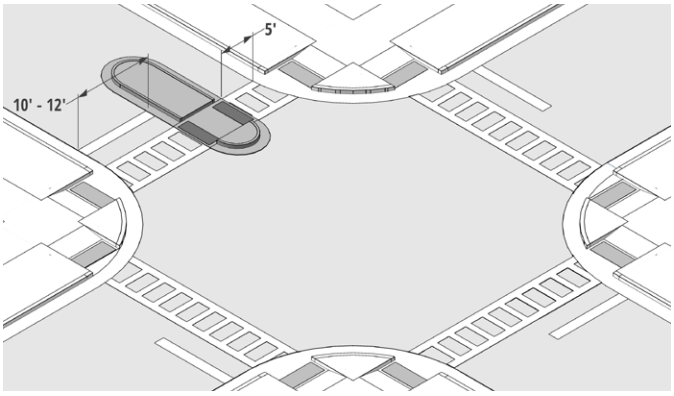
- Not appropriate for emergency vehicle response routes
- Reduces overall network connectivity
- Adverse effects to property accessibility
- Diverts traffic and increases volume elsewhere

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

Traffic Calming Program

Insert general contact email

Insert general contact phone number

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 Engineeers (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 Trafffic Control Devices (MUTCD). Available: https://mutcd.fhwa.dot.gov/kno_2009r1r2.htm; Accessed March 2020. Last Modified: March 30, 2020.

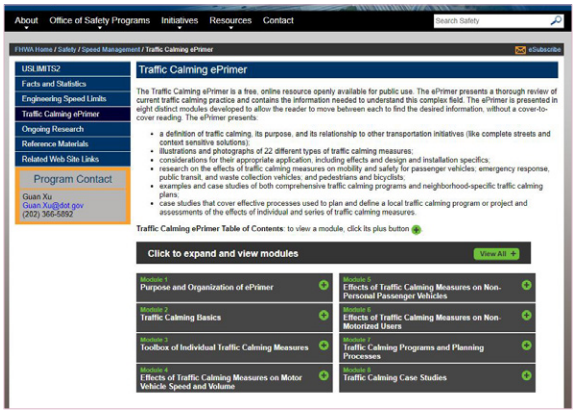


Figure 23. FHWA website for the Manual on Uniform Trafffic Control Devices

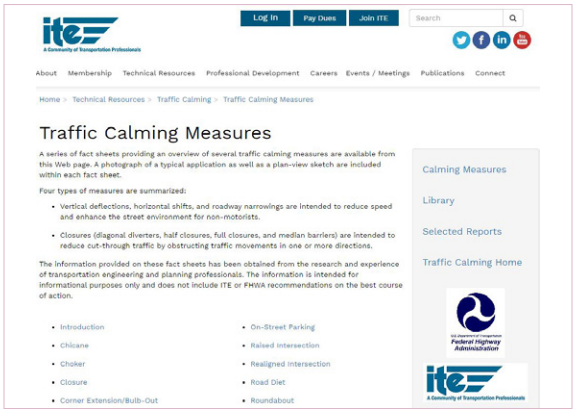


Figure 24. Top: FHWA webpage for the Traffic Calming ePrimer; Above: ITE webpage for the Traffic Calming Measures Guide.

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

CITY OF BURLINGTON, VERMONT
CITY COUNCIL TRANSPORTATION, ENERGY & UTILITIES COMMITTEE

c/o Department of Public Works
645 Pine Street, Suite A
Post Office Box 849
Burlington, VT 05402-0849

802.863.9094 VOX
802.863.0466 FAX
802.863.0450 TTY
www.burlingtonvt.gov

Councilor Franklin Paulino, Chair *North District*
Councilor Jack Hanson, *East District*
Councilor Jane Stromberg, *East District*

Inquiries:
Kim Bleakley
802.557.7082
k.bleakley@burlingtonvt.gov

Transportation, Energy and Utilities Committee of the City Council

Tuesday, September 22, 2020 5:30 PM

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

To view the meeting:
1. Join via Zoom: https://us02web.zoom.us/j/84603122855
2. Call in for audio-only – Phone number: 312-626-6799 and Webinar ID: 846 0312 2855

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, please email DPWCommunications@burlingtonvt.gov.

–AGENDA–

1. **Agenda**
2. **Minutes of 8/25/2020**
3. **Public Forum**
4. **Franklin Square Acceptance Proposal**
   - Norm Baldwain and Phillip Peterson, DPW
   - 20 Minute Duration
   - Discussion / Possible Action
5. **University Place Conceptual Designs**
   - Phillip Peterson, DPW
   - 20 Minute Duration
   - Information
6. **CSWD 195 – 201 Flynn Avenue**
   - Chapin Spencer and Lee Perry, DPW
   - 20 Minute Duration
   - Action
7. **Roadmap for Parking Services Transition: BPD to DPW**
   - Jeff Padgett, DPW
   - 20 Minute Duration
   - Action

8. **Traffic Calming Update**
   - Nicole Losch, DPW
   - 15 Minute Duration
   - Informational, See Attachments
9 **Director's Report**
10. **Councilors' Update**
11. **Adjourn**

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

Chapin Spencer
DIRECTOR OF PUBLIC WORKS

MEMORANDUM:

To: Transportation, Energy, and Utility Committee, City Council
Fr: Chapin Spencer, Director
Lee Perry, Assistant Director – Maintenance Division
Re: **Burlington CSWD Drop-Off Center and 195-201 Flynn Avenue MOU**

Date: September 21, 2020

Request:

- Receive Committee guidance on next steps for the current 339 Pine Street Chittenden Solid Waste District (CSWD) Drop-Off Center (DOC) and the 195-201 Flynn Avenue parcel.

Background:

- The City of Burlington has long leased the current 339 Pine Street site to CSWD for $1 per year to serve as CSWD's Burlington DOC. The 339 Pine Street site is not optimal from CSWD's perspective as there are no tipping walls, the traffic circulation pattern is confusing, the site is constrained and there are environmental limitations on the site.

- During the late 1990's, the Champlain Parkway's alignment was going to significantly impact the 339 Pine Street parcel and operations on the parcel – so efforts were made to clear the roadway's path. The DPW facility was relocated to 645 Pine Street and Chittenden Solid Waste District (CSWD) acquired 195-201 Flynn Avenue in 2001 with the intent of setting up an expanded Drop Off Center (DOC) at that location.

- CSWD purchased 195-201 Flynn Avenue for approximately $510,000 – including fees. This acquisition was a major deviation from CSWD policy that requires a municipality to provide the site and lease it to the District for a DOC. This policy deviation occurred because South Burlington at the time stated they wouldn't allow non-residents to use their DOC unless Burlington had a DOC. The vote at the CSWD Board to acquire the parcel was very close.

- Today, nineteen years later, South Burlington is in a different place and isn't concerned whether Burlington has a DOC or not. As a result, CSWD wants to sell the 195-201 Flynn Avenue parcel to the City so Burlington's DOC will be consistent with CSWD policy of having

the municipality provide the property for the DOC. The one-acre parcel has a building that is occupied by (3) tenants with a total annual rental income of $40,920.00 (in 2018). Less the annual lease payment (CSWD), property taxes, water, and electricity for outside light the net income would be approximately $7,604.00 annually.

- The 195-201 Flynn Ave property is comprised of 2 parcels:
    - Front parcel: 1 acre, pays taxes, has cement block garage on site
    - Back parcel: 2+ acres, tax exempt, undeveloped

- In 2015, CSWD's Board and Staff indicated to the City that they had held the property long enough and wanted to sell it – either to Burlington for a DOC or put it on the general market. CSWD obtained two appraisals for Flynn Avenue parcel – one was $490K and the other was 615K – averaging $552K.

- With all the proposed and active development projects in South End, and the various traffic concerns in this area of the City, the South End City Councilors requested more time for the neighborhood to better understand the progress on Champlain Parkway and other projects before advancing the DOC at the Flynn Avenue. The Champlain Parkway provides direct access to the 195-201 Flynn Avenue parcel without having DOC traffic travelling through residential neighborhoods. Without the Champlain Parkway, DOC commercial and private vehicles would be traveling through South End neighborhoods already impacted by commercial traffic.

- Through multiple back and forth negotiations in 2016, CSWD and City Staff settled on a 3-year Memorandum of Understanding (MOU) offering the City a $50,000 option with the yearly $16,667 option payments counted towards the ultimate purchase price. Through the executed 2016 MOU, CSWD offered the parcel to the City for $500K at a 20-year 0% lease purchase arrangement as long as the City sub-leases it back to the District for $1/year for two 20-year lease terms. The District would then invest $500-$800K in developing a modern full-service Drop Off Center at the site. CSWD expects to need only the back 2 acres for their DOC, so the City would have the front 1 acre for its use right away and all three acres free and clear after 40 years.

- In 2019, with the 3-year MOU expiring and the Champlain Parkway not yet under construction, South End Councilors requested the MOU be extended. The respective Staff members from the City and CSWD hammered out a new MOU providing a 1-year option from the date of execution with an additional extension of one year if (1) the Champlain Parkway project is under contract for construction prior to the expiration of the initial one-year option period, or (2) the City of Burlington provides a Champlain Parkway project status report to the CSWD Board and the Board approves a second year extension. The City Council approved the new MOU at its October 28, 2019 meeting.

Current Status:

- Currently, the Burlington DOC at 339 Pine Street is limited to the collection of food scraps two days a week. CSWD has said that they have no plans for expanding its collection to include trash, or recycling in the future. They cite safety concerns amid COVID-19 as the primary reason as well as site constraints, and undersized queuing areas. They are also concerned with the possibility of traffic backing up on to Pine St. Burlington staff has

communicated multiple times with CSWD pushing to have the site open for the four basics (trash, recycling, compost and yard waste), but to date CSWD has not budged.

- For the 195-201 Flynn Avenue property, the City is approaching the end of the first option period (November 1, 2020), of the 2nd MOU with CSWD. DPW staff is preparing to go to the CSWD Board of Commissioners meeting on September 30, 2020 to provide an update on the Champlain Parkway project and request the one year extension of the MOU that would extend it through October 2021. Depending on how the CSWD Board views the progress on the Champlain Parkway project, they will decide, likely at their October 2020 meeting, whether to extend the current MOU for a second year.

- The City has paid $16,667 per year for the option rights described in the MOU for the last four years and is proposing to pay that same amount for the upcoming fifth year. Money for these payments have been paid through the City's General Fund Capital Budget.

Options

Here are some options that have been discussed by DPW Staff around the next steps for 195-201 Flynn Avenue and how it may impact the CSWD Burlington DOC at 339 Pine Street:

1. Extend MOU for another year: Give the CSWD Board of Commissioners an update on the progress of The Champlain Parkway Project, and have the CSWD Board extend the option for another year.

   Pros:

   - This would give the City another year to make progress towards construction of the Champlain Parkway project before having to decide whether to purchase 195-201 Flynn Avenue and allow CSWD to advance their DOC to the local permitting process.

   Cons:

   - If the extension is granted, and the City does not have the Parkway under construction before the end of the MOU term in the fall of 2021, CSWD could decide to sell the property on the open market and keep all City monies paid through both the 2016 and 2019 MOUs ($83,334).

   - The City would be left with limited services provided by CSWD at the existing DOC site until a decision was made on 195-201 Flynn Avenue (unless CSWD changes their position on 339 Pine in the interim).

2. Not Extend 2nd MOU with Chittenden Solid Waste District: We could let the existing 2nd MOU expire on November 1, 2020.

   Pros:

   - The City would save $16,667 for the second option payment under the 2019 MOU.

- There would not be additional traffic impacts in the South End residential areas due to a new DOC.

Cons:

- The proposed Flynn Avenue DOC would likely be dropped by CSWD.
- The City would lose what has been paid to date from the 2016 and 2019 MOUs. Total - $66,667
- The City would be left with limited services provided by CSWD at the existing DOC site for the foreseeable future.
- The City would lose the ability to control how, and who develops the site, as well as losing out on the one acre parcel with the existing building. This could be used for storage of equipment and materials that we are currently lacking.

3. <u>Request the City Council proceed with purchase without the Parkway under construction</u>: City would negotiate and sign a Lease Purchase Agreement with CSWD.

Pros:

- Proceeding with the purchase of the property would allow for storage of equipment and materials that we are currently lacking at both 645 Pine St and 339 Pine St – or continue leasing the property and generating General Fund revenue.
- The City would benefit more quickly a modern drop off facility by advancing it now – understanding it would not be open for several years.
- If for some reason CSWD decides not to build a new drop off center, the City would get back all Lease and Option payments and could chose to purchase the three acres of valuable commercial property in the City's South End.
- City could sell part or all of 339 Pine Street which would provide revenue and the opportunity for infill development.

Cons:

- South End residents will be concerned that CSWD would be seeking a permit to construct and operate an expanded DOC that would have additional truck/vehicle traffic in their neighborhoods without having a guaranteed timeline for the Champlain Parkway construction.
- City would be taking on additional financial burden (~$400K) though at favorable terms (0% interest) during an economic downturn.

Thank you in advance for you input.

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 21, 2020

To: Transportation, Energy, and Utilities Committee (TEUC)

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 TEUC:

The Department of Public Works requests the TEUC recommend full acceptance of Red Maple Lane & Franklin Square to Board of Finance and City Council, see Attachement-1, subject to final review and approval by the City Attorney's Office of forthcoming legal documents to be provided by the Burlington Housing Authority.

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 or 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 counter-clockwise 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 approved (see Attachment-3 and Attachment-4) 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-5) 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.
    - See Attachment-5 for a DRAFT of the Plat
- 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. Specifically, the Burlington Housing Authority will provide the City an irrevocable offer of dedication and a warranty deed. Motion language presented to the City Council will require any formal acceptance of the streets to be conditioned upon ultimate review and approval of these legal documents by the City Attorney's Office.
- 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. Franklin Square DRAFT Plat.
2. City of Burlington City Council Resolution Accepting Franklin Square as a City Street.
3. Approved Changes to Burlington Code of Ordinances § 20-5 and Appendix C § 5; pending full dedication and acceptance.
4. DPW Commission Approved parking map.
5. Franklin Square Neighborhood Presentation 1.28.20.

Location Plan

Survey Notes

1. The aforesaid is a portion of the lands owned by the Burlington Housing Authority as shown on a Plan entitled "Plan of land to be Conveyed to the Burlington Housing Authority, Low ncome Family Housing Project VT", 1-3, North Avenue, Burlington, Vermont, dated May, 1968 prepared by Fred Koemer, C.E. and recorded in Volume188, page 165 of the Land Records of the City of Burlington and a plan entitled "Plat of Survey of Lands of Burlington Housing Authority at Franklin Square, 1554 North Avenue, Burlington, Vermont", dated April 4, 2006 and prepared by Albert W. Harris L.S. and recorded in Slide 408-B of the Land Records of the City of Burlington.
2. Bearings based on Vermont Grid computed from GPS observations in 2016 from a Leica GS15 GPS Unit with RTK correction from the Vermont Cors network.
3. Survey methods employed (total station) and the resulting error of closure/precision ratio, meet or exceed minimum precision requirements for Urban Surveys as outlined in, "Standards for the Practice of Land Surveying", adopted by the Vermont Board of Land Surveyors, effective 01/07/2013.
4. There may be additional easements, restrictions, and/or reservations not shown hereon that may or may not be found in the City of Burlington Land Records.
5. This survey depicts the property lines of Norwich University based on the City of Burlington Land Records as of June 2020.
6. This plat is for the depiction of boundaries based upon V.S.A. Title 26 Chapter 45 § 2502 (3) a-c and (4) a-e. Any information identified graphically or noted on this plat which is outside the scope and expertise of a Vermont Licensed Land Surveyor as outlined in the statues herein referenced to, is not warranted to be correct and is not covered by the certification contained hereon.
7. Where conflicts between physical evidence and written evidence are substantial, deed and/or documents should be executed to eliminate any color of title or conflict.
8. Limitation and encumbrances created by state and local permits for the parcel delineated hereon are not covered by the Land Surveyors Certification.

Vermont Grid North

Plattsburg Ave

New Mount Calvary Cemetery
St. Joseph Parish
Book 108 Page 254
Recorded Aug 15th 1936
Tax Map 13 Parcel #024-2-154-000

1" D.I. iron pipe
0.2' below grade
with L.S. 38 cap
N: 736279.64
E: 1443712.70

Parcel #024-2-157-000

N38° 17' 31"W
4.59'
N51° 42' 29"E
100.00'

CH=N6° 46' 40"E CH. LEN.=129.31
Δ=89.92 L=143.60 R=91.50

Parcel #024-2-029-000

N51° 36' 26"E
667.27'
N51° 44' 16"E
490.37'

4x4 CONCRETE MONUMENT
BELOW GRADE 0.2'

Burlington Housing Authority
Book 910 Page 606
Recorded Apr 4th 2005
Parcel #024-2-030-000

N38° 10' 57"W
26.10'
N38° 17' 05"W
131.17'

Burlington
Housing Authority
Book 922 Page 663
Recorded June 30th 2005
Parcel #024-2-031-000

4x4 CONCRETE MONUMENT
BELOW GRADE 0.2'

4x4 CONCRETE MONUMENT
BELOW GRADE 0.2'

Tracy Drive

N46° 15' 03"W
2.82'
S51° 56' 41"W
99.64'
S51° 39' 48"W
135.22'
N52° 03' 19"E
304.76'
N6° 56' 11"E
21.17'

Franklin Square
Formerly (Red Maple Lane)

49.5' R.O.W.

Franklin Square

N51° 44' 16"E
364.03'

CH=N6° 46' 40"E CH. LEN.=59.36
Δ=89.92 L=65.92 R=42.00

PROPOSED R.O.W.
APROX. 2' BEHIND
EDGE OF SIDEWALK

S86° 36' 18"E
85.55'

R.O.W.
VARIES

PROPOSED R.O.W. OF FRANKLIN SQUARE
FOLLOWS THE EDGE OF DEVELOPMENT RIGHTS
OWNED BY THE CITY OF BURLINGTON
PARKS AND REC.
SAID R.O.W. LINE IS APROX. 1.7' FROM THE
BACKSIDE OF CURB

394.78'
S38° 17' 31"E

S43° 35' 11"E
60.29'

299.08'
S52° 03' 19"W

60'

S43° 35' 10"E
51.18'

1" D.I. IRON PIPE
0.2' BELOW GRADE
NO CAP

N83° 03' 49"W
21.26'
N38° 10' 57"W
87.64'

299.51'
S51° 46' 24"W

Burlington Housing Authority
Book 190 Page 724
Book 188 Page 319
Book 910 Page 606
Recorded Apr 4th 2005
Tax Map 13 Parcel #024-2-033-000
Span 114-035-10791

N38° 10' 57"W
196.69'

159.76'
S38° 18' 36"E
387.76'
S38° 17' 31"E

Subject to development
rights
to the City of Burlington
Parks & Recreation
department
Book 902 Page 583
Recorded Apr 4th 2005

Litwhicer Enterprises
Book 352 Page 159
Recorded Dec 29th 1986
Parcel #024-2-034-000

4x4 CONCRETE
MONUMENT
1' BELOW GRADE

N43° 35' 56"W
149.27'

Dominos
1548 North Ave.

North Avenue
66' R.O.W.

Parcel #024-2-035-000

Nguyen Hung D. Lee
Book 1390 Page 131
1540 North Ave.
Recorded Apr 11th 2018
Parcel #024-2-036-000

1" D.I. IRON PIPE
0.2' BELOW GRADE
NO CAP

1" D.I. IRON PIPE
0.2' BELOW GRADE
NO CAP

Nguyen Hung D. Lee
Book 1296 Page 693
1536 North Ave.
Recorded Dec 30th 2015
Parcel #024-2-037-000

4x4 CONCRETE MONUMENT
1' BELOW GRADE

CH=N83° 09' 43"W CH. LEN.=129.35
Δ=89.96 L=143.66 R=91.50

359.04'
S51° 51' 31"W

98.47'
S5° 14' 40"W

69.75'
N83° 29' 35"W

429.78'
S51° 51' 31"W

578.15'
S51° 42' 23"W

N38° 08' 35"W
2.58'

S51° 42' 23"W
49.50'

S38° 08' 35"E
2.46'

S51° 51' 25"W
11.77'
N38° 17' 31"W
2.43'

100.00'
S51° 42' 29"W

1" D.I. iron pipe
0.3' above grade
with L.S. 38 cap
N: 735969.72
E: 1443957.54

Parcel #024-2-038-000

1" D.I. IRON PIPE
0.2' BELOW GRADE
NO CAP

Loaldo Drive

Fairmont Place

Fairmont Place
(Town Houses)
Book 315 Page 204
Recorded Dec 31st 1984
Parcel #024-2-200-000

City of Burlington, Received for Record
_____ A.D. _____
at _____ o'clock _____ minutes M.
recorded in _____
attest: _____
City Clerk

Legend

- Property Line
- Abutting Property Line
- Easement Line
- Tree Line
- Iron Pipe Found
- Set Rebar w/ LS 60852 Cap
- Calculated Point
- C.M.F. Concrete Monument Found
- C.M.F. Concrete Monument Set

Graphic Scale

60 0 30 60 120 240

1 inch = 60 ft.

Plat References

1. Certain survey data shown heron may vary from recorded data due to differences in declination, orientation, or methods of measurement.
2. The following surveys were consulted in the preparation of this plat:
   a. "Plan of a portion of Lands Herman B. & Exelda Stockinger - 1562 North Avenure, Burlington, Vt." dated May 20, 1948, by L.A. Kavanagh, Surveyor, filed in Volume 134, Page 46.
   b. "Plan of Land to be COnveyed to the Burlington Housing Authority - Low Income Family Housing Project" dated May 1968 by Fred C. Koerner, C.E., filed in Volume 188, Page 165.
   c. "Howe Farm Estates - Phase 6 Lot Layout owned by Adrien B. Thibault, Contractor" dated Oct. 1970, revised Jan. 1971, by L.H. Wilis, C.E., filed in Volume 199, Page 478.
   d. "Burlington Housing Authority - Parcel of Land to be Acquired by City of Burlington for Highway Purposes" dated Jan. 1975 by Fred C. Koerner, C.E., filed in Vol. 1, Page 51 (now in Slide 97).
   e. "Subdivision Plat - Birch Court Extension - Burlington, Vermont" dated 12/10/87, by Scott D. Taylor, L.S. of Trudell Consulting Engineers, filed in Slide 196-E
   f. "Plan Showing Fairmont Place Condo's - North Avenue, Burlington, Vermont" dated Jan. 1988 by Warren A. Robenstien, L.S., filed in Slide 190-D.
   g. "Property Plat - Lands of Burlington Housing Authority, North Avenue, Burlington, Vermont" dated 12/20/00, by Leonard A. Lamoureux, L.S., filed in Slide 347-D.
3. No legal instrument has been recovered in my record research for the grant or dedication of the existing Franklin Square roadway improvements and underlying land to the City of Burlington.

Franklin Square Right of Way

Properties of Franklin Square

in

Burlington, Vt.

Scale: 1"=60'	Date: July 29, 2020	Project number 426262P1	Drawing Number
Drafted by : Jason Putnam	Checked by : Randall Otis		Sheet 1 of 1

DuBois & King inc.
engineering
planning
management
surveying
6 Green Tree Drive, So. Burlington Vermont 05403

Certification

This plat is for the identification of boundary lines of Franklin Square. Other information is shown for both illustrative purposes and to offer assistance in the conclusions reached by this survey. Only the Bound lines of Franklin Square are certified to, all others are not warranted to correct and are subject to revisions.

I hereby certify that the information shown hereon is correct to the bes my knowledge and belief and is based upon a collaboration of pertine deeds, plats, parol, and other recorded evidence. This plat was prep in accordance with and complies with Vermont Statute Title 27, § 140 through (e).

Randall P. Otis, L.S. 60852 Dated

Randall P. Otis, L.S. 60852; I certify that this plat is an original ink on mylar drawing.

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 27, 1925
G. L Wagner Clerk
Approved 10-28, 1925
Mark H Sexton Mayor

Vol. Page

Offered by Alderman William J Blanchard

IM QCP 472

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 Conway 10/14/75
Burlington City Engineer

William N. Osward 10/16/75
Chairman, Burlington Planning Commission

Robert R Towse
Superintendent, Burlington Water Department

Robert C Young
Superintendent, Burlington Light Department

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

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:

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

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

(a)—(e) As written.

(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.

Zones B—G. As written.

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

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

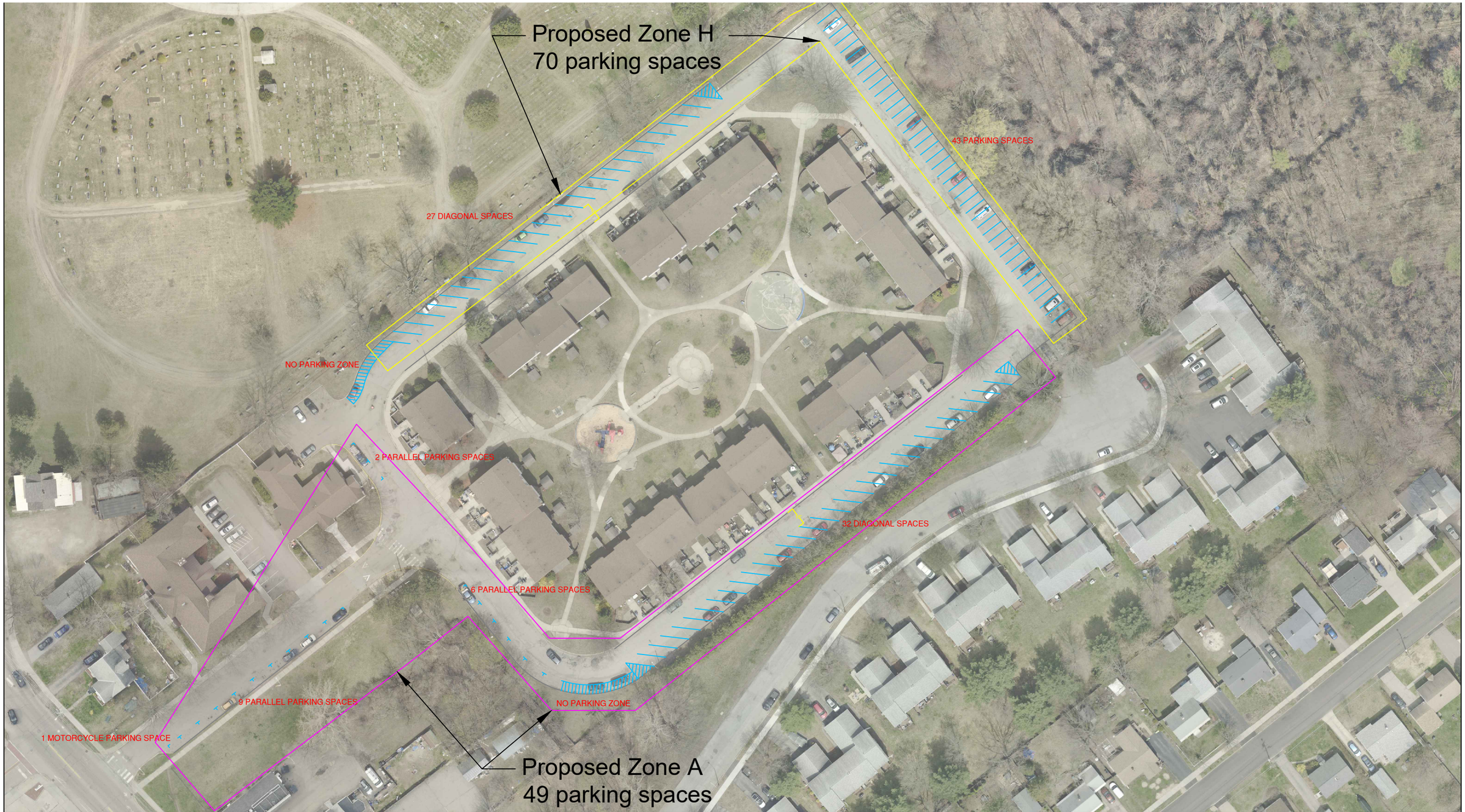
The following streets are hereby designated as one-way streets, and all traffic and travel thereon, except pedestrians, shall pass in the directions indicated and not otherwise:

(1)—(7) As written.

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

(9)—(42) As written.

** Material stricken out deleted.
*** Material underlined added.



0 80' 160'

SCALE: 1" = 80'

FRANKLIN SQUARE
PROPOSED PARKING LAYOUT

BURLINGTON, VT PUBLIC WORKS

BURLINGTON PUBLIC WORKS ENGINEERING DIV.
645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
(802) 863-0466 (Fax)

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

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.

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

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.

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

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


BURLINGTON HOUSING AUTHORITY
affordable housing for all
BURLINGTON, VT
PUBLIC WORKS
Comments or questions?
Contact:
Phillip Peterson, Associate Engineer
Desk: 802.865.5832
Email: ppeterson@burlingtonvt.gov

CITY OF BURLINGTON, VERMONT
CITY COUNCIL TRANSPORTATION, ENERGY & UTILITIES COMMITTEE

c/o Department of Public Works
645 Pine Street, Suite A
Post Office Box 849
Burlington, VT 05402-0849

802.863.9094 VOX
802.863.0466 FAX
802.863.0450 TTY
www.burlingtonvt.gov

Councilor Franklin Paulino, Chair *North District*
Councilor Jack Hanson, *East District*
Councilor Jane Stromberg, *East District*

Inquiries:
Kim Bleakley
802.557.7082
kbleakley@burlingtonvt.gov

Transportation, Energy and Utilities Committee of the City Council

Draft Minutes – Tuesday, September 22, 2020 5:30 PM

Attendees: Franklin Paulino (arrived at 7:15pm), Jane Stromberg, Jack Hanson

1. **Meeting Started at 5:32 PM**

2. **Agenda Amendment: On motion of Acting Chair Hanson the agenda was amended to change item number six to item number 8. Seconded by Councilor Stromberg.**

3. **Minutes of 8/25/2020. On motion of Councilor Hanson the minutes were approved as written. Seconded by Councilor Stromberg.**

4. **Public Forum**
   - There were no public comments made.

5. **Franklin Square Acceptance Proposal**
   - Norm Baldwin (DPW), Phillip Peterson (DPW)
   - History: This is a 45 year unresolved issue. The City Council acted in 1975 to accept the street, but we can't find any record of the street being dedicated by Burlington Housing Authority (BHA). Past Administrations had worked to resolve the issue, but were unable to come to agreement with BHA. After significant effort and productive dialogue with BHA, the staff is proposing a path to accepting Franklin Square as a City street. Staff worked with Parks, BED, our Water Resources Division, and emergency service personnel to assess existing assets and what additional work was necessary prior to acceptance. DPW has had final walk through with Burlington Housing Authority (BHA) and is recommending the Council accept the street on the terms described in the packet.
   - Councilor Discussion
     - Councilor Stromberg – Asked for clarification on two night parking ban. Staff replied that managing snow ban parking was one of the long-term challenges. The proposed solution is a two stage parking ban where half the parking is banned during the city-wide ban and the remainder is banned on the second night. Given the layout of the development, lack of off-street parking, and lack of options beyond the development, this two-stage solution makes the most sense.
     - Councilor Hanson – In support of this. How after 45 years puzzle is unlocked? What changed? Staff replied that this has been a battle for decades. Fundamentally a can do attitude figured it out. Changing the parking from parallel to parallel, creating a two stage parking ban, and having the City willing to consider accepting with street "as is" is what made the big change. Memo states financial responsibility which City will need to reconcile and address. What is the benefit to the City? Staff described the existing liability. We want to keep residents safe. Honoring commitment.
       Councilor Hanson – Proposed zoning of additional parking spaces? Staff said we were not changing any green space and only using paved surface.
   - ACTION: Councilor Stromberg move to support the recommendation for full acceptance to BOF and City Council subject to final review.Seconded by Councilor Hanson.All in favor. Passed unanimously.

6. **University Place Conceptual Designs**
   - Laura Wheelock (DPW), Phillip Peterson (DPW), Lisa Kingsbury (UVM), Joe Speidel (UVM)
   - Staff presented on the University Place initiative. It is a collaboration with UVM and Stantec. Staff introduced Lisa Kingsbury and Joe Speidel from UVM. The goal is to make University Place safer for all. Staff presented two concepts: basic and enhanced. Prioritize bikes, pedestrians and shuttles. Improve visibility. Reduce vehicles. Widen sidewalks. Remove parking. Improve streetscape.
     - Basic: Pedestrian safety, accessibility, consolidated crosswalks, bike lanes, one way vehicular travel, food truck accommodations, improved road surface, elimination of long term parking.
     - Enhanced: Basic plus wider sidewalks, place making and aesthetic improvements, green infrastructure, narrower roadway.

- Staff presented the stakeholder engagement schedule.
- Public Discussion:
  - Jonathan Silverman: UVM Student intersections feel unsafe. Likes one way and pervious roads.
  - James Kelliher: Does not matter to get rid of parking. Likes one-way plan.
- Councilor Discussion
  - Councilor Stormberg – Concerned curbless design may be less safe. Laura: Idea behind curbless design is to have people slow down and pay more attention. Good to have straight line for plowing.
    Norm: Less challenging for people with accessibility issues.
  - Councilor Stormberg – Likes food truck space. Could a survey go out? Staff responded that a survey is out.
  - Councilor Hanson – Prefers curbless design. Are we loosing green space? Staff responded no, it narrows the road.
  - Councilor Hanson – In support. Well thought out. Great public engagement. If TEUC approves what is the timeline? Laura responded that the concept needs to be approved by end of 2020. It will hopefully move forward through design 2021. Bidding and construction 2022.

7. Roadmap for Parking Services Transition: BPD to DPW

- Assistant Director Jeff Padgett presented the current roadmap to define the parking experience in Burlington with an integrated approach to sales, service and compliance.
- Purpose: Integrate parking operations, improve customer experience, increase operational efficiency, redefine traffic ordinance compliance.
- Vision: Convenience, safe, right sized, sustainable. Mission: parking products, which support downtown, create operations and infrastructure to be safe and easy, collect data to match community needs, manage operations.
- Values: Intentionality and inclusion.
- Project Phases:
  1. Administrative Integrations and Reorganization
  2. Operational Integration
  3. Physical Migration
- Timeline: Finalize Integration plan in Fall 2020. Phase 1 by January 2021. Phase 2 and 3 into late FY'21.
- Councilor Discussion
  - Councilor Stromberg – Are there any stakeholders that we need to watch out for? Jeff: reaching out to stakeholders now with BPD and BBA. Is there a plan for broad stakeholders? Jeff: believes stakeholders will be glad to be involved.
  - Councilor Hanson – Describe cultural shift and change from enforcement to compliance. Jeff: Work with the players on how to make compliance favorable and change framing. Goal is not to look at rates and dollars. How to redefine compliance.
    Councilor Hanson – Are private towing companies part of the conversation. Jeff: They only two from City streets when John King calls them. Contract currently being renewed.
  - Director Spencer: Suggestion to include a cover letter with the presentation to the full council, if the TEUC is in support. Is the TEUC comfortable with the timeline?
    Councilor Stromberg: Comfortable with timeline.
    Councilor Hanson: Comfortable with timeline. Recommend to place on Council's Consent Agenda for an upcoming meeting.

8. Traffic Calming Update

- Senior Planner Nicole Losch and Director Spencer provided an overview of the proposed Traffic Calming changes. Time to review the program after two decades. Experiencing long line for requests. Want to make sure that this meets the needs for the public.
- Removes neighborhood partition which creates inequities. Traffic calming requests take years to complete. Seeks to speed processing by removing the neighborhood poll and uses data driven decisions.
- How is this different? Data driven program to determine needs. Advances street design towards established design speeds. Prioritizes traffic safety. Streamlines community process. Focuses on redesigning streets.
- Councilor Discussion
  - Councilor Stromberg: Likes overall effort and creativity. Very supportive.
  - Councilor Hanson: Very supportive. Makes sense. Likes equity approach in not requiring petitions.

9. CSWD 195 – 201 Flynn Avenue

Director Spencer summarized the memo in the meeting packet. Two issues:

- 1. Level of service at 339 Pine, which CSWD only wants to open only for compost needs.
- 2. Long term plan for 195 – 201 Flynn, which CSWD purchased in 2001, with the plan to move the Drop Off Center from 339 Pine.

Need to make a decision on which direction to go, and have three options:

1. Extend the current MOU and go another year.
2. Not extend the MOU and let it expire on November 1st.
3. Have City Council execute option to purchase.

- Councilor Discussion
  - Councilor Stromberg: Why are we not planning for an expansion at 339 Pine. Lee: CSWD feels it is not safe to reopen at 339 Pine because of COVID and employee safety. Not a lot of space. Worried about traffic back up.

- Councilor Stromberg: Why is selling 339 Pine a good thing? Moving DOC to Flynn Ave allows an acre of the Flynn Ave site to be used for City purposes and offers the City an opportunity to re-envision the use for 339 Pine in the vibrant South End Arts District.
- Councilor Hanson: To clarify: Administration has publicly urged CSWD to reopen? Director Spencer: Yes. We believe this can be operated safely, but it is CSWD's decision, not ours.
- Councilor Hanson: Are we still feeling like the parkway is going as planned? Director Spencer: Yes. Responding to questions from the Environmental Justice public input and planning for construction next Spring.
- Councilor Hanson: What happens if CSWD sells the property to someone else? Director Spencer: Motivating factor for us to purchase the property. Lee: In the MOU we do have first right of refusal to purchase the property at fair market value.
- Councilor Hanson: If the Parkway is delayed would option three still make sense? Director Spencer: Option one: if we are committed, this gives us time with the community. If option three, they will do a traffic study with and without the Parkway and the SE neighborhood will likely be concerned.
- Councilor Hanson: Does this purchase still make sense if the Parkway is delayed or can't be completed? Director Spencer: They make sense to be done together and we are committed to moving them across the finish line.
- Councilor Hanson: Is it true that there is a risk with option one? Director Spencer: For Option I, the MOU terms remain valid. It is probably best to move forward with Option 1, but Option 3 could work if the Council is ready to purchase.

ACTION: Motion by Councilor Paulino to direct the Department of Public Works to take next steps regarding 195 – 201 Flynn Avenue to give CSWD Board an update for the progress of the Parkway and request the CSWD board extend the option for a year – and continue to call on CSWD to collect trash and recycling at 339 Pine. Second by Councilor Stromberg. All in favor. Passes unanimously.

10. Director's Report

- There is a VTRANS grant coming up and we are proposing to apply for the multi-use path concept on Intervale Rd. It requires a local match and we wanted to seek the TEUC member's support. Members indicated support.

11. Councilors' Update.

- Councilor Hanson: Any updates on Winooski Ave or Colchester Ave? Director Spencer: Winooski Ave is moving forward. Under contract for late October.
- Councilor Hanson: Is there a sense for process on North Winooski Parking Management Plan? Can we assemble committee for the parking management plan? Director Spencer stated that Council resolution called for a parking management plan. It was postponed due to COVID. We have secured a consultant to do the work and it is appropriate that we look to constitute the committee.

12. Next TEUC Meeting

- October 27, 2020 at 5:30 PM.

13. Adjourn 8:03 PM

- Meeting adjourned at 8:03 PM.