
SCOPING STUDY

Colchester Avenue: Bikeways, Parking, and Intersection Safety Study

Burlington, VT

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Executive Summary

The Colchester Avenue: Bikeways, Parking, and Intersection Safety Study was conducted in coordination with the Chittenden County Regional Planning Commission, City of Burlington, and an Advisory Committee consisting of community stakeholders. Public meetings and targeted outreach were also conducted to gather input from residents, property owners, and business owners along the corridor.

The goal of this study was to identify transformational, long-term improvements along the Colchester Avenue corridor and at the intersection of Colchester Avenue and East Avenue that re-envision the multimodal gateway corridor following years of incremental change outlined in previous planning and design efforts. The study focused on consistent, multimodal improvements for the one-mile long corridor from the connection with Pearl Street at the intersection of North and South Prospect Streets, east to the Greenmount Cemetery, then north to Barrett Street and the Winooski River crossing. In addition, the study pursued safety improvements for the intersection of Colchester Avenue and East Avenue.

Purpose and Need

The purpose of the Colchester Avenue: Bikeways, Parking, & Intersection Safety Study was to identify and prioritize improvements along the corridor which will enhance bicycle mobility and improve parking management while supporting local businesses and at the intersection of East Avenue which will improve safety for all modes of transportation. The needs identified for this project are to improve intersection safety, improve corridor safety for all users, enhance mobility for bicyclists, and manage parking while supporting local businesses, employers, and residents.

Existing Conditions

This corridor is used by up to 15,000 vehicles per day and serves as a major corridor for transit, including service for Green Mountain Transit (GMT) and UVM Campus Area Transit Service (CATS). Existing land uses along the corridor are varied and include institutional, neighborhood activity center, neighborhood mixed use, recreation and conservation areas, and low and medium-density residential. The corridor has been identified by VTrans as a priority for safety improvements with three High Crash Location (HCL) intersections and one HCL segment, representing 55 injury and 2 fatal crashes over a five-year period. A Highway Safety Improvement Program (HSIP) Location Review conducted at the Colchester Avenue and East Avenue intersection included recommendations to realign East Avenue and update signal equipment to improve safety.

Stakeholder and Public Outreach

Public outreach through a Local Concerns Meeting early in the study revealed some common themes, including desire for consistent and protected pedestrian and bicycle accommodations, improved accommodations at intersections for pedestrians and bicyclists, curbside access to transit, and neighborhood based solutions to on-street parking while supporting the high turnover parking needs of businesses.

Corridor Concepts and Intersection Alternatives

The following three focus areas were examined along the corridor: 1) the Colchester Avenue corridor west of East Avenue, 2) the Colchester Avenue corridor east of East Avenue, and 3) the intersection of Colchester Avenue and East Avenue. Based on existing conditions assessments, previous studies, and input gathered from stakeholders and the public, concepts were developed for the corridor segments. Alternatives that also considered the safety analyses were developed for the intersection. An analysis conducted for each of three focus areas evaluated to arrive at preferred corridor concepts and intersection alternative plan for Colchester Avenue from South Prospect Street to Barrett Street. Metrics of evaluation fell into the categories of cost, safety outcomes, project impacts, and community character. Relative comparisons of these metrics across the options helped guide stakeholders to arrive at a package of preferred improvements for the corridor.

Preferred Corridor Concept and Intersection

Based on findings from technical analyses and input from the public and the project Advisory Committee, conceptual plans were developed to reflect the preferred corridor concepts and intersection alternative. This consisted of a combination of raised and separated bike lanes along the corridor segments with targeted on-street short-term parking and pull-outs for transit stops, delivery vehicles, or other short-term uses as well as new equipment, striping, a crossing on the western leg of the intersection, and a dedicated bike signal for the intersection with East Avenue.



1

Introduction

The Colchester Avenue: Bikeways, Parking, and Intersection Safety Study examines the length of the Colchester Avenue corridor and the intersection with East Avenue to identify a suite of transportation recommendations that improve intersection safety, enhance mobility for bicyclists, improve safety for all users, and manage parking along the corridor. The corridor has seen incremental implementation of shorter-term improvements based on the recommendations from the 2011 Corridor Study. Building on that study and the more recent scoping for the Riverside Avenue / Barrett Street / Mill Street intersection, this study focused on re-envisioning the Colchester Avenue to make long-term, multimodal improvements to this vital gateway corridor. Significant input from the Advisory Committee, public, and business owners helped to guide the study, [input final notes after meetings with Burlington TEUC and City Council]

1.1 Project Overview

The Colchester Avenue: Bikeways, Parking, and Intersection Safety Study was conducted in coordination with the Chittenden County Regional Planning Commission (CCRPC), City of Burlington, and an Advisory Committee consisting of representatives from the Vermont Agency of Transportation (VTrans), Green Mountain Transit (GMT), University of Vermont (UVM), University of Vermont Medical Center (UVMC), Burlington Walk Bike Council (BWBC), Burlington Wards 1 & 8 Neighborhood Planning Assembly (NPA), Burlington Community Economic Development Office (CEDO), and Burlington City Council. Public meetings and targeted outreach were also conducted to gather input from residents, property owners, and business owners along the corridor.

The goal of this study was to identify transformational, long-term improvements along the Colchester Avenue corridor and at the intersection of Colchester Avenue and East Avenue that re-envision the multimodal gateway corridor following years of incremental change outlined in previous planning and design efforts.

Along the one mile stretch of Colchester Avenue, the study focused on consistent, multimodal improvements for the corridor from the connection with Pearl Street at the intersection of North and South Prospect Streets, east to the Greenmount Cemetery, then north to Barrett Street and the Winooski River crossing. In addition, the study pursued safety improvements for the intersection of Colchester Avenue and East Avenue.

1.2 Purpose and Need

The purpose and need for the Colchester Avenue: Bikeways, Parking, & Intersection Safety Study were developed with the Advisory Committee with input from the public. The resulting project purpose and needs are outlined below.

1.2.1 Purpose of the Project

The purpose of the Colchester Avenue: Bikeways, Parking, & Intersection Safety Study is to identify and prioritize improvements:

- › along Colchester Avenue from South Prospect Street to Barrett Street which will enhance bicycle mobility and improve parking management while supporting local businesses;
- › at the intersection of Colchester Avenue and East Avenue which will improve safety for all modes of transportation.

1.2.2 Needs for the Project

The needs for this project are:

- › **Improve Intersection Safety:** There are four designated High Crash Locations (HCL) along the Colchester Avenue corridor, including three intersections and one section. The HCL intersections of Colchester Avenue / Prospect Street / Pearl Street and Colchester Avenue / Barrett Street / Riverside Avenue have been studied separately with recommendations to improve the safety at those intersections. However, the Colchester Avenue / East Avenue intersection, where 44 crashes occurred between 2012 and 2016, remains an HCL requiring further investigation and improvement. A Highway Safety Improvement Program Location Review identified the visibility and alignment of signal heads as problematic and recommended relocating signals with new mast arms and signal heads.
- › **Improve Corridor Safety for all Users:** The section of Colchester Avenue between Mansfield Avenue and East Avenue is the most heavily utilized segment of the corridor and an HCL with 88 crashes over the period from 2012 to 2016. Access to the region's only Level I Trauma Center and one of the largest employers in the state is facilitated by the segment, as well as the movement of people by foot, bike, transit, and vehicle. This makes the corridor a critical link in the region's infrastructure as well as a complex, multimodal corridor in terms of operation. Of the 347 crashes identified for the length of Colchester Avenue from 2014 through 2018, 14 crashes involved bikes and 9 crashes involved pedestrians.
- › **Enhance Mobility for Bicyclists:** The BTV Walk Bike Master Plan calls for a "more robust treatment in the long-term" to provide protected bicycling infrastructure on Colchester Avenue and the 2017 CCRPC Active Transportation Plan identified Colchester Avenue as a high priority, high feasibility corridor for improvement in the active transportation network. The existing bicycle facilities are inconsistent, changing multiple times along the one-mile corridor, and not well connected, both from segment to segment along the corridor and to other adjacent or intersecting facilities.
- › **Manage Parking while Supporting Local Businesses, Employers, and Residents:** The limited right-of-way available to facilitate this heavily utilized multimodal corridor with vehicles, bicyclists, pedestrians, and transit-users has limited the on-street parking supply along the roadway. However, coordination between the City and the adjacent institutions and landowners presents an opportunity for shared parking that may address business, employer, and residential parking needs.



2

Existing Conditions

The first step of the Colchester Avenue: Bikeways, Parking, and Intersection Safety Study was to identify the existing transportation, natural resource, and land use conditions along the project corridor to identify issues and opportunities to be addressed through the study. This chapter includes an evaluation of the corridor's existing conditions, including land use characteristics, existing transportation infrastructure, historic safety data, and a review of previous studies.

2.1 Study Corridor Description

The mile-long study corridor is located along Colchester Avenue with a western terminus at South Prospect Street and an eastern terminus at Barrett Street, immediately south of the Colchester Avenue and Riverside Avenue intersection. Colchester Avenue serves as the main connection between Burlington and Winooski and provides direct access to downtown Burlington to the west and to downtown Winooski to the northeast. This corridor is used by up to 15,000 vehicles per day. Colchester Avenue is also a major corridor for Green Mountain Transit (GMT) routes: the Blue Line (Essex to Shelburne), the Purple Line (Burlington to Burlington International Airport), and six commuter routes utilize the corridor. The UVM campus buses also use Colchester Avenue from Trinity Campus to South Prospect Street.

The full project study corridor is shown in **Figure 1** on the following page.

2.2 Land Use & Zoning Characteristics

Existing land uses along the corridor are varied and include institutional, neighborhood activity center, neighborhood mixed use - Riverside, RCO-Conservation, RCO-Recreation/Greenspace, and low and medium-density residential. The immediate surrounding land use for Colchester Avenue is primarily institutional to the west and changes to low-density residential as it moves east, away from UVM.

The zoning districts along the corridor and adjacent area are shown in **Figure 2**.

Figure 1: Project Area

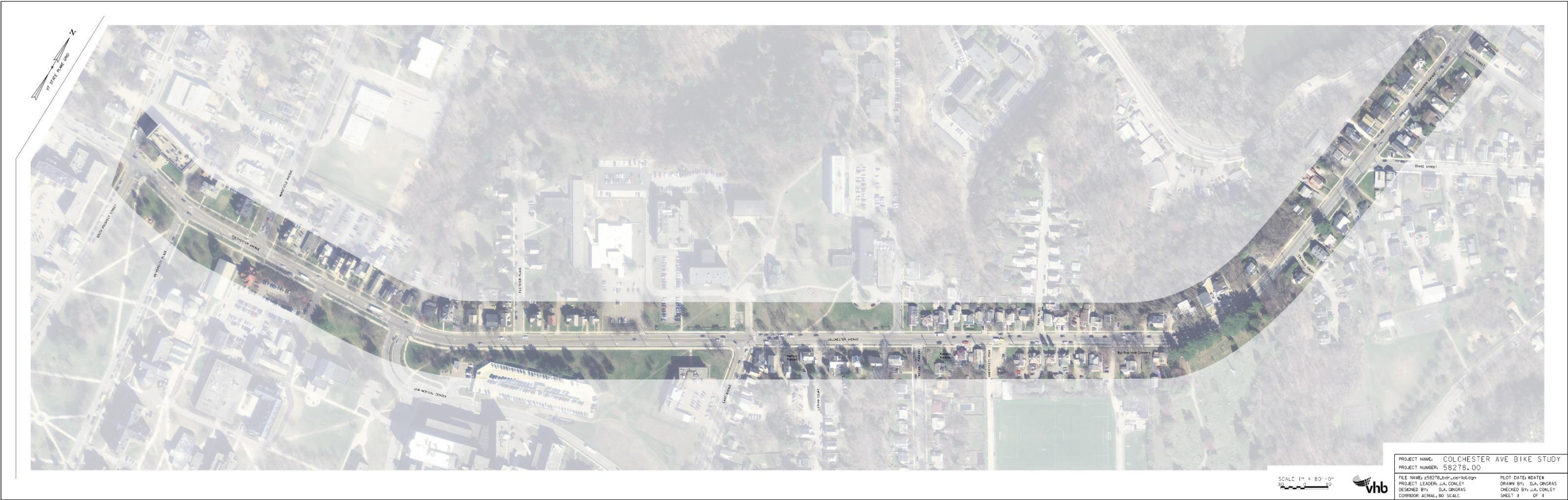


Figure 2: Project Area Zoning Map



2.3 Transportation System Characteristics

The following section summarizes the relevant transportation system characteristics of Colchester Avenue throughout the project area. Existing conditions identified as part of this study include daily traffic volumes, roadway geometry, multi-modal facilities, and other roadway elements.

Functional Classification: Minor Arterial

Right of Way (ROW): 5 rods (~80 feet)

2018 Annual Average 15,000 vehicles per day (west end of corridor)

Daily Traffic (AADT): 10,000 vehicles per day (east end of corridor)

Adjacent Land Uses: **South Prospect to East Avenue**

Primarily institutional with one section of medium density residential land use along Fletcher Place. The institutional land use areas include the University of Vermont, University of Vermont Medical Center, Burlington School District Offices, and several small medical practice offices (chiropractor, physical therapy, OB-GYN, dentist, etc.).

East Avenue to Greenmount Cemetery

Institutional and low density residential. The institutional land use areas include the University of Vermont's Trinity Campus and Centennial Field. The low-density residential areas are along Colchester Avenue as well as a number of no outlet side streets including Latham Court, Thibault Parkway, and Nash Place.

Greenmount Cemetery to Barrett Street

Recreation/greenspace and low density residential. The recreation/greenspace designation includes Greenmount Cemetery and Centennial Woods Natural Area. The low-density residential in the Old East End neighborhood flanks Colchester Avenue on both sides as well as along a few side streets including Calarco Court, Colchester Court, Chase Street, and Barrett Street.

Pedestrian Facilities:

- 5' sidewalks flank the full length of Colchester Avenue on both sides
- 10' Shared Use Path is available on the south side of Colchester Avenue between South Prospect Street and East Avenue
- Crosswalks are located at:
 - Barrett Street

- Chase Street (Rectangular Rapid Flashing Beacon (RRFB) to be installed)
- University Road at Centennial Field – RRFB
- East Avenue (east leg only)
- Fletcher Place – RRFB
- UVM Medical Center Entrance (east leg only)
- Mansfield Avenue
- South Prospect Street

Bicycle Facilities:

- Bike accommodations include:
 - South Prospect Street to Fletcher Place | bike lanes in both directions
 - Fletcher Place to East Avenue | westbound bike lane, eastbound sharrows with right turn lane
 - East Avenue to Calarco Court | westbound bike lane, eastbound sharrows with travel lane
 - Calarco Court to Barrett Street | buffered bike lanes in both directions
 - 10' Shared Use Path available on the south side of Colchester Avenue between South Prospect Street and East Avenue

Corridor Intersections:

Colchester Avenue intersects with:

North & South Prospect Street | scoping completed and preferred alternative identified

University Place | included in current planning study for University Place

Mansfield Avenue | signalized three-way intersection

UVM Medical Center Entrance | signalized intersection

Fletcher Place | minor approach stop controlled

East Avenue | signalized intersection and focus of this scoping effort

Latham Court | minor approach stop controlled

Thibault Parkway | minor approach stop controlled

Nash Place | minor approach stop controlled

Calarco Court | private road

Colchester Court | private road

Chase Street | minor approach stop controlled

Barrett Street / Riverside Avenue | scoping completed and preferred alternative identified

Study Intersection

Geometry and

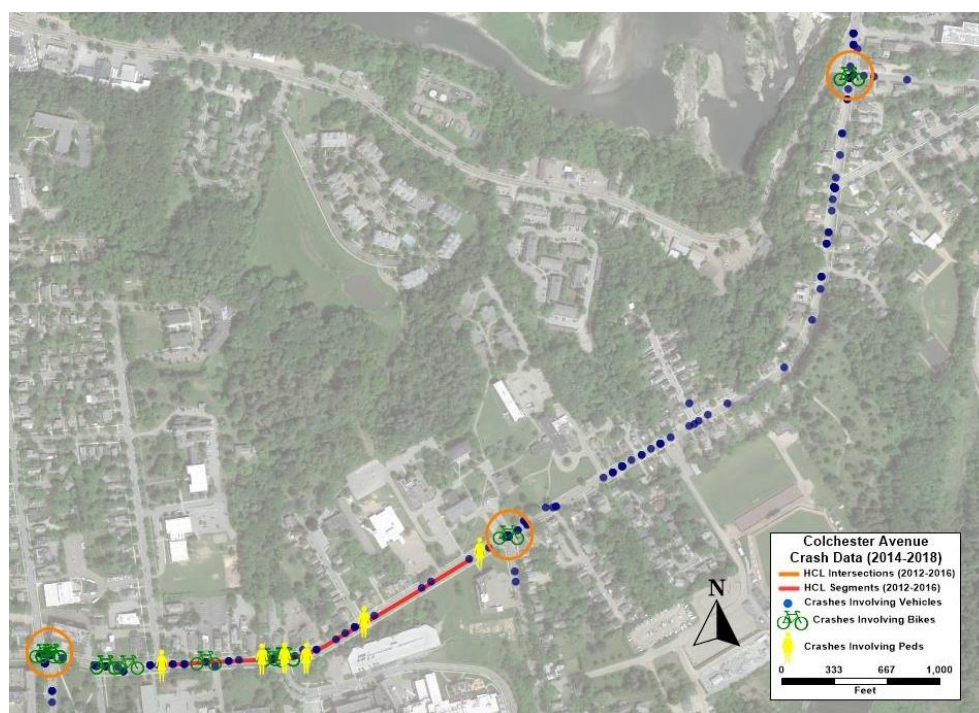
Operation:

Colchester Avenue and East Avenue

The East Avenue leg of the intersection meets the signalized intersection at about a 70° skew and the Trinity Campus driveway leg is offset to the east. The lane geometry consists of one through/left lane and one right turn lane on the eastbound Colchester Avenue approach, one through/right lane and one left turn lane on the westbound Colchester Avenue approach, one through/left lane and one right turn lane on the East Avenue approach, and one lane on the UVM Trinity Campus driveway approach. There are signalized pedestrian crossings on the north, south, and east legs. There are bicycle accommodations in the form of sharrows in the eastbound direction through the intersection and a bike lane in the westbound direction through the intersection. The current operation at the intersection is a split phase signal timing to serve each of the minor legs individually due in part to the offset between the two approaches.

2.4 Safety Assessment

A review of reported crashes along the study corridor was conducted for the most recent five-year time period that data was available (2014 – 2018). During this time period, there were 347 reported crashes, with 47 of these crashes resulting in injury. Of the reported crashes, 14 of the crashes were with bicycles and 9 of the crashes were with pedestrians. The distribution of reported crashes along the corridor is shown in **Figure 3** below. Complete crash data can be found in the Appendices.

Figure 3: Reported Crash Locations (2014-2018) and High Crash Locations (2012-2016)

The most recent VTrans High Crash Location (HCL) report (2012-2016) identified the following three HCL intersections along the corridor: 1) Colchester Avenue at North and South Prospect Street, 2) Colchester Avenue at East Ave, and 3) Colchester Avenue at Riverside Ave and Barrett Street. Each HCL intersection is circled in **Figure 3**. One segment of Colchester Ave from Mansfield Avenue to East Avenue, was also identified as an HCL and is also highlighted in **Figure 3**. Over the five-year period from 2012 to 2016, there were a total of 209 reported crashes within these HCLs, 55 of which resulted in an injury. Two crashes resulting in fatalities were reported during this period. A breakdown of crash data within the three HCL intersections and HCL segment is shown below in **Table 1**. High Crash Locations in Vermont are identified as those having a actual/critical ratio of greater than 1.0, where the actual rate of crashes at an intersection or on a roadway segment exceeds a threshold (i.e. critical) crash rate based on the average statewide crash rate for a given roadway functional class normalized by the exposure, or volume of traffic. The actual/critical ratio are used to rank High Crash Locations to help identify priorities for monitoring and mitigation.

Table 1: VTrans 2012-2016 High Crash Locations

Location	Statewide Rank	Crashes	Fatalities	Injuries	PDO* Crashes	Actual / Critical Ratio
Colchester Ave and Barrett St	5	34	1	7	27	2.460
Colchester Ave and East Ave	15	44	0	9	35	1.863
Colchester Ave and N./S. Prospect St	25	43	0	12	34	1.640
Colchester Ave Segment	119	88	1	27	67	2.088

* PDO: Property Damage Only

In addition to the review of the crash data and High Crash Location Report, the Highway Safety Improvement Program (HSIP) Location Review conducted at the Colchester Avenue and East Avenue intersection was reviewed. The evaluation by VTrans looked at the crash data from the same High Crash Location reporting period (2012 to 2016), identifying that rear end crashes were the predominant crash type. Issues such as signal heads misaligned with lanes, pedestal mounted signals, lack of signal head backplates, and inadequate turn lanes were identified. The report included recommendations to realign East Avenue and provide sufficient turn lane geometry, replace pedestal mounted signal heads with mast arm mounted signal heads, add backplates to signal heads, replace mast arms with sufficient length to align signal heads with lanes, and eliminate flash mode from time of day plan.

2.5 Natural and Cultural Resources

Natural and cultural resources surrounding the corridor were evaluated to identify areas of particular sensitivity and potential permitting requirements. A desktop review of various resources, including the Vermont Agency of Natural Resources Atlas, was conducted to assemble a natural and cultural resources map identifying resources proximate to the anticipated project limits. There are no specified natural resources within the project's extent, however adjacent to the project corridor there is a historic roadside marker for the burial place of General Ethan Allen, the former Fletcher Allen hospital (now UVMMC), the Robert Hull Fleming Museum, the former Trinity College and Ira Allen School (now UVM), and access to the historic Centennial Field.

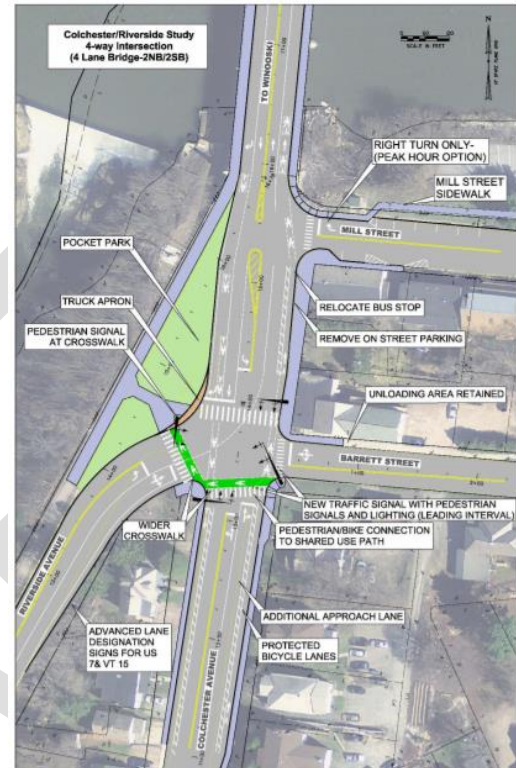
In addition, an Archaeological Resources Assessment was conducted to identify archaeologically sensitive areas that may be influenced by the project and identify the need for further investigation as the project proceeds, aligning with the Section 106 permitting process. Based on the assessment, it was recommended that if the project could be carried out entirely within the present roadway right-of-way, no further archaeological review would be necessary. However, if the project involves subsurface disturbances in areas outside of the present right-of-way, then additional review, including more focused desk review and/or hand soil cores, should be undertaken at those specific locations.

The natural and archaeological resources findings are detailed further in the Appendices.

2.6 Review of Previous Studies

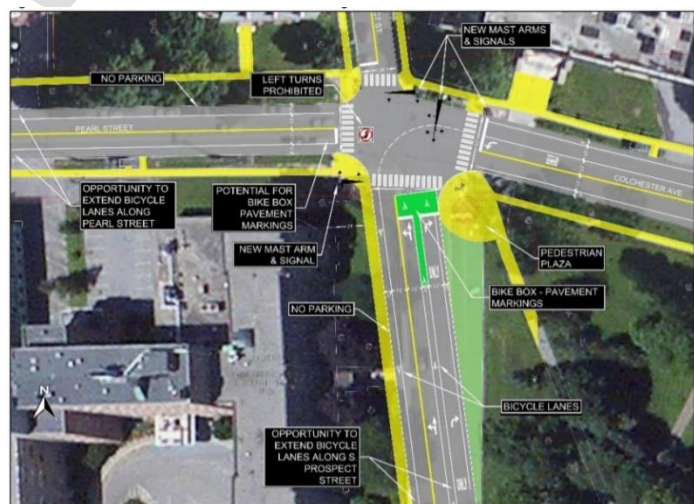
2.6.1 2019 Colchester Riverside Intersection Scoping Study

The Colchester Riverside Intersection Scoping Study identified both short-term improvements and a medium-term preferred alternative to address the needs of the intersection, including improving safety and mobility for users, simplifying the intersection, enhancing the gateway into the City, and managing traffic congestion. The preferred intersection treatment is to square up the Riverside Avenue leg of the intersection with Barrett Street to create a four-way, signalized intersection with a pocket park in place of the existing skewed alignment of the Riverside leg. Connections to this preferred alternative intersection were considered for the alternatives evaluated in this study.



2.6.2 2014 Pearl-Prospect-Colchester Intersection Scoping Study

The Pearl-Prospect-Colchester Intersection Scoping Study identified a preferred alternative for the intersection at the western end of the study area to address the needs to improve safety at this high crash location, enhance mobility for all users, and reduce traffic congestion. Connections to this preferred intersection alternative were considered for the segment of Colchester Avenue as it approaches this intersection.



2.6.3 2011 City of Burlington Transportation Plan (and Burlington Street Design Guidelines)

The City of Burlington Transportation Plan identified the need for scoping on the Colchester Avenue corridor and recognized that the Colchester Avenue Task Force recommended Colchester Avenue be reconstructed as a complete street that is a “fully integrated road designed as part of a multi-modal system accommodating transit, cycling, and walking.” The Plan and its appendices outlined preliminary analyses for the conversion from a four-lane to three-lane cross-section conversion.

2.6.4 2011 Colchester Avenue Corridor Plan

The Colchester Avenue Corridor Plan identified a number of short-term and long-term recommendations for the corridor. These recommendations included a reconfiguration of the western section from a four lane to three lane cross-section between South Prospect Street and East Avenue. The three-lane configuration was initially implemented as a pilot project and was made permanent based on observations and analyses from the pilot. For the eastern section of the corridor, between East Avenue and Barrett Street, it was recommended that designation of bike lanes be prioritized to provide continuity along the corridor, but the challenges requiring tradeoffs between bike infrastructure, greenbelt and streetscape opportunities, and parking were recognized. Also recommended in the plan was a realignment of the East Avenue and the Trinity Campus entrance at the intersection of Colchester Avenue and East Avenue.

2.6.5 2017 PlanBTV Walk Bike Plan

The Colchester Avenue and East Avenue intersection was identified in the PlanBTV Walk Bike Plan as one of the top 20 intersections requiring safety improvements in the City. In the short-term, it was recommended that the shared lane markings be carried from the eastbound bike lane through to the intersection along the right



turn lane, which has been implemented. Another short-term recommendation was made for a median treatment to be piloted to provide some pedestrian refuge for those crossing Colchester Avenue at the intersection. In the longer term, the plan recommended a midblock crossing west of the intersection to reduce pedestrian crossings at the intersection, which was installed with an RRFB just east of Fletcher Place. The plan also identified a roundabout as a possible treatment for the intersection as a method for speed management, with the recommendation of a scoping study for the intersection.

In addition to the recommendations for the intersection, other treatments along the corridor within the study area were identified in the Plan. This includes investment in the improved Colchester Avenue Sidepath in the short-term by reconstructing and widening the existing facility, which was completed in 2020. In the 2-5 year time frame, the Plan calls for provision of more high visibility crossings at the UVM Medical Center entrance, realignment with curb extensions and high visibility crossings at Pearl/Prospect/Colchester Avenue intersection, curb extensions and high visibility crossings at Riverside/Colchester Avenue intersection, striping bike lanes on Colchester Avenue east of East Avenue; and a “more robust treatment to come in the long-term.”

2.6.6 2017 UVM Active Transportation Plan

The UVM Active Transportation Plan identified a number of projects that were integral to the improvement of biking and walking circulation both on and near campus. Intersection improvement priorities included bike boxes and west leg pedestrian crossing and signals at Colchester Avenue and East Avenue, midblock crossing of Colchester Avenue near Fletcher Place, west leg pedestrian crossing of Colchester Avenue at the Medical Center entrance, facilitating left turning bicycles from Colchester Avenue onto Mansfield Avenue, and removing the left turn lane to replace with pedestrian refuge and Colchester Avenue crossing at University Place. Bicycle and pedestrian facility priorities included dedicated bicycle infrastructure on Colchester Avenue and East Avenue, widened and extended Colchester Avenue sidepath, new Trinity Campus access road sidepaths, and formalized UVM Medical Center paths.

2.6.7 2017 CCRPC Active Transportation Plan

The CCRPC Active Transportation Plan identifies Colchester Avenue as part of a high priority, high feasibility regional network connectivity project. The prioritized project intends to connect Burlington through Essex to Richmond via Colchester Avenue, VT-15, and VT-117. It is recommended that such high priority, high feasibility regional projects be prioritized more favorably in the Bicycle-Pedestrian Program to receive funding through VTrans. As such, the Colchester Avenue Sidepath was identified as part of this effort, prioritized through the [Transportation Improvement Program \(TIP\)](#), supported for reconstruction from South Prospect Street to East Avenue, and completed in 2020. The plan further recommends exploring the extension of bicycle facilities from East Avenue to Winooski along Colchester Avenue.

2.7 Previous Projects: Design and Construction

The corridor has been the subject of a lot of change over the last decade, with incremental safety improvements to the corridor creating a more multimodal gateway into the City of Burlington. The following projects have been implemented along or adjacent to the corridor with the exception of the University Place Streetscape Improvements and the Mansfield Avenue Sidepath Project, which are in the planning and design phases respectively.

- › **2021 University Place Streetscape Improvements (Planning)** | *Conceptual design of improvements to University Place including reconfiguration to one-way vehicle traffic and bicycle and pedestrian infrastructure.*
- › **2020 Mansfield Avenue Sidepath Project (Design)** | *Development of a sidepath along Mansfield Avenue to connect with existing or proposed bike and pedestrian infrastructure on Colchester Avenue.*
- › **2020 Colchester Avenue Sidepath Project** | *Extension and reconstruction of sidepath on the south side of Colchester Avenue between South Prospect Street and East Avenue.*
- › **2019 Colchester Avenue Repaving, Water Relining, Bike Lanes, and Crossings** | *Coordination of water utility work with repaving and restriping. Striping following construction installed new buffered bike lanes between Barrett Street and Greenmount Cemetery and a westbound bike lane between Greenmount Cemetery and East Avenue. This configuration retained on street residential and short-term parking on the south side of Colchester Avenue between Greenmount Cemetery and East Avenue and eliminated parking on the north side. This project also included the installation of a crosswalk and RRFB across Colchester Avenue at Chase Street.*
- › **2019 Green Mountain Walkway Extension** | *Improvements to the connection between Colchester Avenue Sidepath and the Green Mountain Walkway on the UVM and UVM Medical Center Campus. Formalized a steep slope goat path to make a more direct and accessible connection between heavily utilized pedestrian pathways.*
- › **2018 Colchester Avenue / Riverside Avenue Pedestrian Improvements** | *Installation of updated crossings with improved landings and new pedestrian signal heads. Implementation of expanded sidewalk to better connect Riverside Sidepath to Colchester Avenue bike and pedestrian infrastructure.*
- › **2016-2018 Colchester Avenue Crosswalks** | *Installation of midblock crossings of Colchester Avenue with Rectangular Rapid Flashing Beacons near University Road at Centennial Fields and at Fletcher Place.*
- › **2014 Colchester Avenue Sidewalk at Greenmount Cemetery** | *Addition of missing section of sidewalk between the entrance to Greenmount Cemetery and Calarco Court.*
- › **2011 Colchester Avenue Pilot Project** | *Conversion of the four-lane cross section from Pearl Street to East Avenue to three-lanes as a Pilot Project and then a permanent installation.*



3

Public Outreach

A robust public outreach process was conducted by engaging a diverse group of stakeholders on the project Advisory Committee and providing ample opportunities for public input over the course of the study's development. Two widely advertised public meetings were held for this project including an initial Local Concerns Meeting and a Draft Alternatives Presentation. Before and after bringing materials to the public, the Advisory Committee convened to weigh in on considerations, feedback, and concepts that led to compromise solutions for the corridor and intersection that fulfill the project Purpose and Needs. The Advisory Committee's recommendations were then presented to the Burlington Public Works Commission, Transportation, Energy, and Utilities Committee, and City Council.

3.1 Overview

The study falls in the Involve category on the spectrum of public participation¹ that the CCRPC and City of Burlington reference for projects, programs, and activities at varying levels of public participation. The CCRPC and City, along with the project team, worked directly with the public to “ensure that public concerns and aspirations are consistently understood and considered.”² The characteristics of the public engagement effort included two-way communication between the project team and the public facilitated by multiple interactions over a year and a half to advance of solutions to complex problems. The Equity Impact Worksheet required for this level of public participation and other documentation regarding the public involvement are included in the Appendices.

3.2 Project Advisory Committee

The project Advisory Committee consisted of a diverse group of stakeholders including representatives from the CCRPC, City of Burlington, VTrans, GMT, UVM, UVM Medical Center, Burlington Walk Bike Council, Burlington Wards 1 & 8 NPA, and Burlington City Council. The Advisory Committee convened on January 29, 2020 following the Local Concerns Meeting and again on March 19, 2020 to prepare for the Alternatives Presentation and Public Meeting. The project was paused due to the COVID-19 pandemic, so the Advisory Committee did not reconvene again until February 28, 2021 to advance a preferred alternative following the Alternatives Presentation.

The committee served an advisory role throughout the project and was responsible for representing various constituent, community, and institution perspectives in review of project process and study findings, vetting all materials and concepts, and providing guidance to the project team. The Advisory Committee provided input and ultimately finalized the Purpose and Need statement which was used as the basis for all alternative concepts and evaluation. The Advisory Committee also identified and recommended preferred alternatives along the corridor for consideration by the TEUC and City Council, as detailed later in this report.

The meetings agendas, presentations, and minutes can be found in the Appendices.

3.3 Local Concerns Meeting

A Local Concerns Meeting was held on December 4, 2019 to solicit public input at the onset of the project. The attendees were provided an overview of the project, background on existing conditions, and planning efforts and projects to date. Based on typical cross-sections and anticipated challenges, the corridor was segmented into four sections as follows: South Prospect Street to UVM Medical Center entrance (**Figure 4**), UVM Medical Center entrance to East Avenue (**Figure 5**), East Avenue to Greenmount Cemetery (**Figure 6**), and Greenmount Cemetery to Barrett Street (**Figure 7**). The participants were then asked to

¹ International Association of Public Participation, *Spectrum of Participation*, www.iap2.org.

² CCRPC, 2014. *Public Participation Plan*.

help identify any opportunities or concerns along the Colchester Avenue corridor, as highlighted in those figures respectively. Some common themes that emerged from the discussion included:

- › consistent and protected pedestrian and bicycle accommodations;
- › improved accommodations at intersections for pedestrians and bicyclists, with particular focus on left turning bicyclists, crossing pedestrians, and appropriate lighting;
- › curbside access to transit; and,
- › neighborhood based solutions to on-street parking while supporting the high turnover parking needs of businesses.

As the study progressed, the highlighted elements were evaluated by the project team and served as the foundation for identifying many different concepts to explore for the corridor. The meeting agenda, presentation, and minutes can be found in the Appendices.

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Figure 4: Opportunities and Constraints Map 1

Segment 1: South Prospect Street to UVM Medical Center

- 
Issue: Given it's current phasing, some pedestrians do not feel safe crossing Colchester Avenue at the intersection with Mansfield Avenue.
- 

Opportunity: Is there space to consider 10' wide Shared-Use Paths on both sides of the street?
- 
Issue: The corridor needs infrastructure that allows for bicyclists to make left-turns along the corridor.
- 

Opportunity: Improve bicyclist & pedestrian safety and operations at Colchester Avenue & S/N Prospect Street.
- 

Issue: The No-Right-Turn LED Signs at UVM Medical Center has not been effective to date. This movement is putting pedestrians and bicyclists at risk.
- 
Issue: There is some drainage infrastructure in this section that is dangerous to bicyclists.

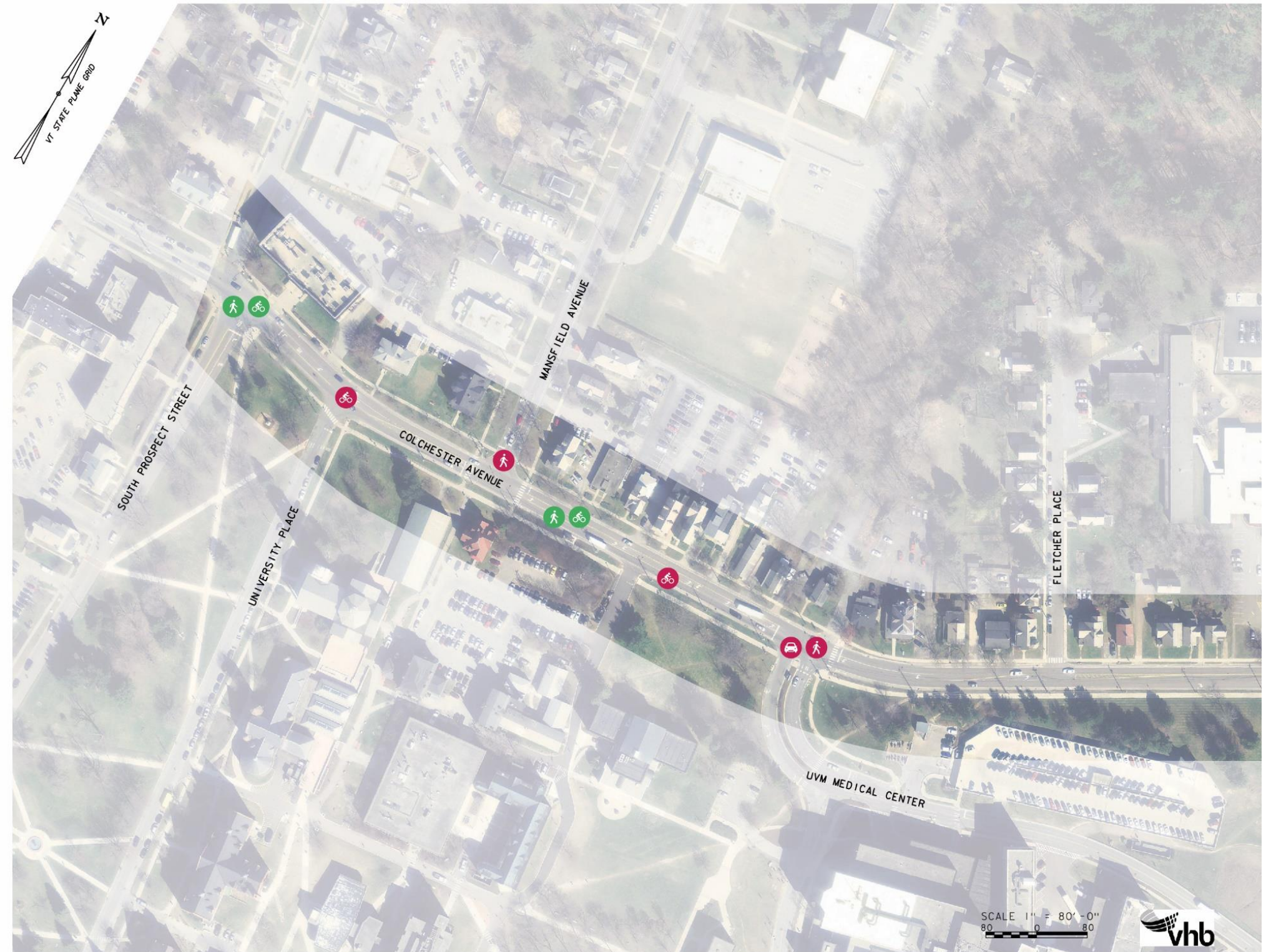


Figure 5: Opportunities and Constraints Map 2

Segment 2: UVM Medical Center to East Avenue

- 

Issue: The lighting along the existing path is insufficient.
- 
Issue: The existing path is hazardous for bicyclists who choose to ride along it rather than in the roadway.
- 
Issue: The inconsistency in treatments for bicyclists makes navigating the corridor safely challenging.
- 
Issue: The sidewalk network lacks continuity when it transitions to East Avenue.
- 


Opportunity: Could the intersection with East Avenue be evaluated as a roundabout? Or could the intersection be evaluated to better accommodate bicyclist and pedestrian desire lines?
- 
Note: The Colchester Avenue crosswalk at Fletcher Place has been a major improvement for pedestrian safety.



Figure 6: Opportunities and Constraints Map 3

Segment 3: East Avenue to Greenmount Cemetery

- Issue:** Westbound motorists will often pull into the bike lane at the intersection with East Avenue, endangering bicyclists.
- Opportunity:** There's an opportunity for improvements to the signal layout at East Avenue which would make conditions safer for all users.
- Issue:** Colchester Avenue to the east of East Avenue becomes extremely dangerous for bicyclists as it's a shared street condition, and motorists jockey for position at high speeds.
- Opportunity:** The perception is that congestion has improved since the removal of parking along the north side of Colchester Avenue.
- Issue:** Wide turning buses from Trinity campus make for unsafe conditions for bicyclists adjacent to "Kathy's Flowers" due to the presence of one parking space.
- Opportunity:** Is there space to consider continuing the new shared-use path along the south side of Colchester Avenue?
- Note:** The parking spaces for Kampus Kitchen are working well to date.
- Issue:** The bus stop just west of Greenmount Cemetery is challenging as the on-street parking restricts bus accessibility to the curb, making it difficult for passengers to board.



Figure 7: Opportunities and Constraints Map 4

Segment 4: Greenmount Cemetery to Barrett Street

- P **Opportunity:** The City should undertake a Parking Management Plan for this section and consider zoned parking rather than street-only parking.
- P **Note:** The City should investigate the number of permits currently distributed against the number of spots regularly utilized.
- 🚌 🚲 **Issue:** Bicyclists are concerned about safety around bus stops, and see a need to have channelized pull-offs for bus stops that maintain separation from bicyclists.
- 🚲 **Opportunity:** Can the curbs be widened to create space for separated bike lanes?
- 🚌 **Issue:** Buses generally speed through this section of the corridor.
- 🚗 **Note:** Chase Street generally gets blocked in the PM peak hour. Enhanced markings and signing should be considered.
- 🚗 **Opportunity:** Can the intersections with East Avenue and Riverside Avenue be evaluated in coordination to understand how one intersection affects the other?



3.4 Draft Alternatives Presentation

An Alternatives Presentation was scheduled prior to the COVID-19 pandemic shutting down in person activities. The pandemic put the project on pause in March of 2020. When the project was reinitiated in late fall 2020, materials for the Alternatives Presentation were prepared and posted prior to the meeting via video recording to encourage familiarity with the study and alternatives prior to the virtual Public Meeting. The project team then presented the draft alternatives on January 11, 2021. The corridor was broken down into three focal areas: corridor concepts west of East Avenue, corridor concepts east of East Avenue, and intersection alternatives for the Colchester Avenue and East Avenue intersection. The alternatives presented to the public are described in detail in Chapter 4.

Based on public input, there was clear preference for a consistent cross-section along the Colchester Avenue corridor. The concepts for the corridor that were supported by the community had raised bike facilities adjacent to sidewalks and separated from the vehicular travel lanes by a greenbelt. West of East Avenue, the preference for the features of a raised, separated bike facility supported a single concept. For the segment east of East Avenue, there were three variations that included the raised, separated bike facilities that all garnered support from the public.

For the intersection of Colchester Avenue and East Avenue, preference conveyed by the public was for either a realigned intersection with new traffic signal equipment and a bike signal or a roundabout above the other options. Between these two alternatives, the realigned and signalized intersection option was favored. More detailed information regarding the features of each of these alternatives was gathered to bring to the Advisory Committee for discussion and resolution.

The Advisory Committee convened to discuss the alternatives still under consideration after the public meeting and identify any adjustments that could be made to come to a compromise that could be supported by the community. The Advisory Committee affirmed the raised, separated bike facility concept for the section west of East Avenue. For the corridor segment east of East Avenue, discussion of a compromised solution that borrows features from each of the three alternatives was supported by the majority. The changes suggested by the Advisory Committee to the draft alternatives are reflected in the preferred alternative conceptual plans in Chapter 5. The adjustments include maintaining a consistent raised, separated bike facility adjacent to the sidewalk, high turnover, short-term parking in front of Kampus Kitchen, and maintaining curbside pull-outs for the purposes of high turnover, short-term parking, transit stops, and deliveries. For the intersection, following discussion of the features of a signalized realignment option and a roundabout, the preferred alternative of the signalized intersection with realignment and a bike signal emerged.

The meeting agendas, presentations, and minutes can be found in the Appendices.

3.5 Preferred Alternative Presentations

[Hold for Public Works Commission, TEUC, and City Council Outcomes. The meeting agenda, presentations, and minutes can be found in the Appendices.]

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4

Corridor Concept and Intersection Alternatives Analysis

An analysis conducted for each of three focus areas evaluated the validity of various options to arrive at a preferred conceptual plan for the Colchester Avenue corridor from South Prospect Street to Barrett Street. The following three focus areas were examined along the corridor: 1) the Colchester Avenue corridor west of East Avenue, 2) the Colchester Avenue corridor east of East Avenue, and 3) the intersection of Colchester Avenue and East Avenue. Metrics of evaluation fell into the categories of cost, safety outcomes, project impacts, and community character. Relative comparisons of these metrics across the options helped guide stakeholders to arrive at a package of preferred improvements for the corridor.

4.1 Corridor Concepts – West of East Avenue

The western end of the Colchester Avenue corridor stretches from where Colchester Avenue transitions to Pearl Street at the intersection with South Prospect Street to the East Avenue intersection, see **Figure 8**.

The concepts evaluated for the western end of the corridor included a No Build concept, on-street separated bike lanes, and raised, separated bike lanes.

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Figure 8: Corridor West of East Avenue



4.1.1 No Build (West)

The No Build scenario was examined as a baseline condition for the purposes of comparison.

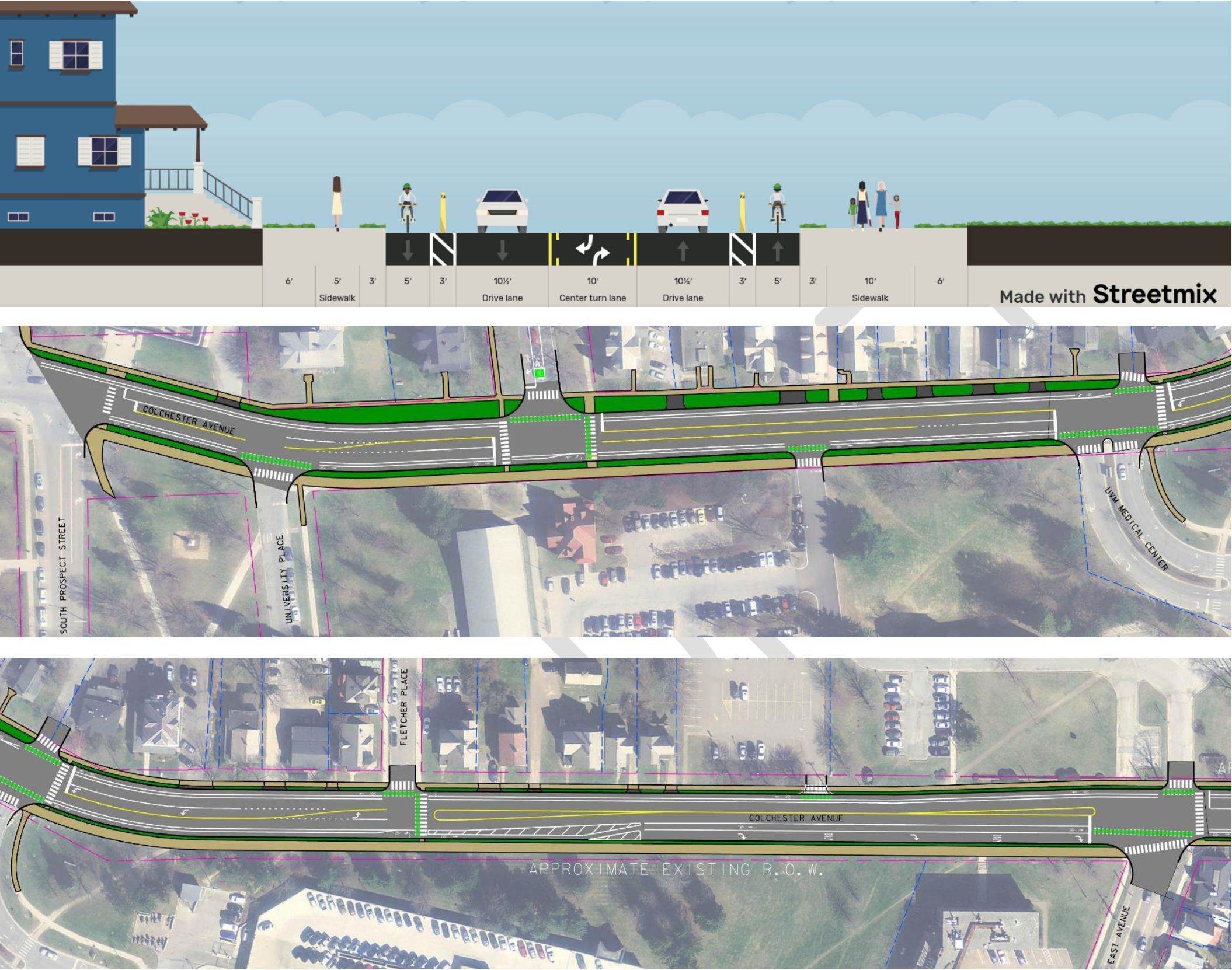
4.1.2 Concept 1 (West) – On-Street Separated Bike Lanes

Concept 1 would establish new curb lines located at a 47' width to provide for protected bike lanes at street level. A vertical element, bollards or other approved devices, would be introduced in the 3' buffer to further delineate the dedicated bicycle space in the cross-section. With few driveways along stretches of this segment, particularly on the south side of the corridor, the vertical element could be placed at consistent intervals without a lot of interruption. This alternative would require striping to establish the dedicated spaces within the curb. For instance, two-stage left turns for cyclists would be established with striping on the pavement at each of the side streets.

This cross-section would allow for at least 6' of greenbelt between the bike facility and sidewalk to the north or shared use path to the south for the segment west of Medical Center. At least 3' of greenbelt between the bike facility and sidewalk to the north or shared use path to the south would be accommodated east of Medical Center. Although shifting curb would require some disruption to the current greenbelt, there would be opportunity for tree plantings, lighting, and other greenbelt features in this scenario.

A graphic of the typical corridor cross-section and the plan view of Concept 1 both west and east of the Medical Center are included in **Figure 9**.

Figure 9: Colchester Ave Corridor Concept 1 (West): On-Street Separated Bike Lanes



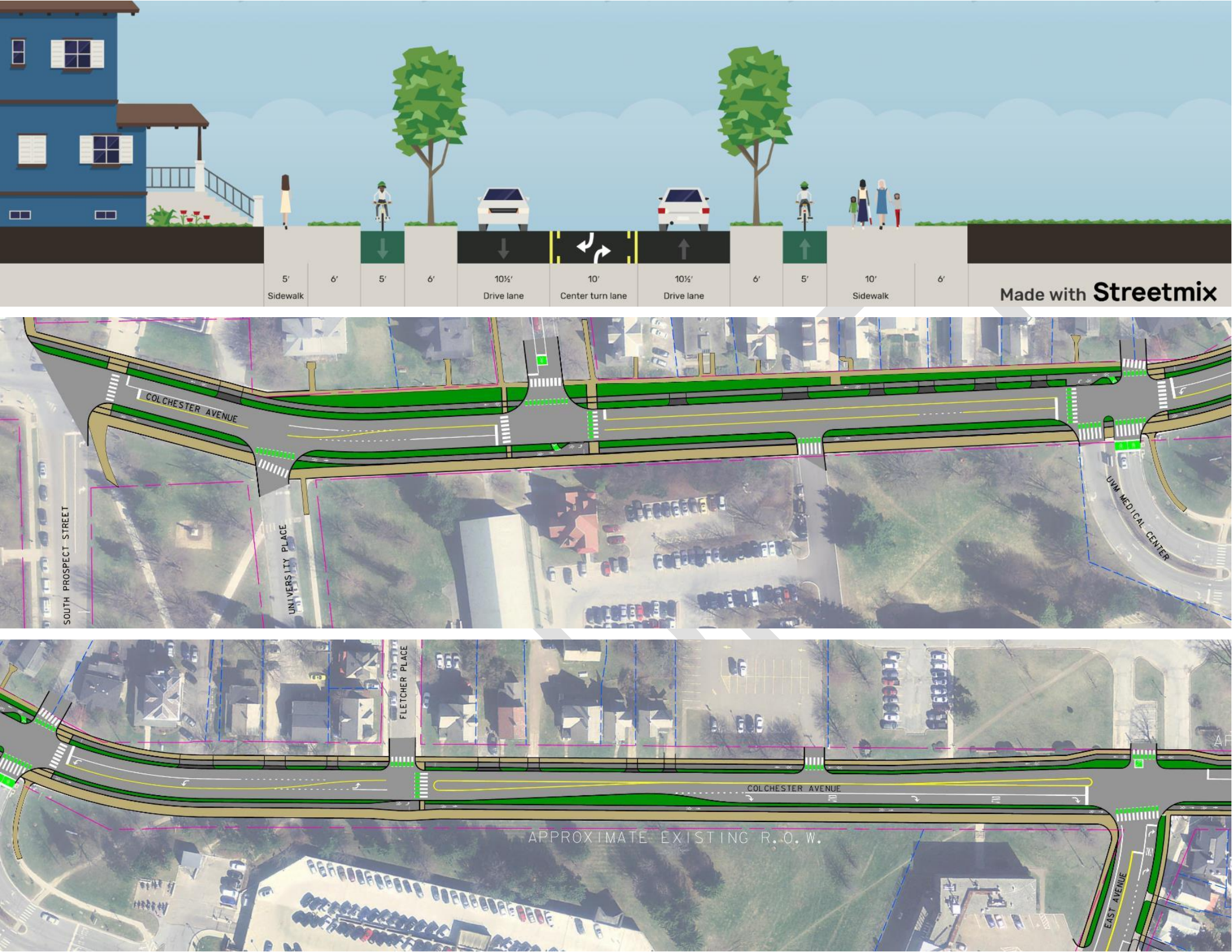
4.1.3 Concept 2 (West) – Raised, Separated Bike Lanes

Concept 2 envisions bike lanes along the corridor that are grade and greenbelt separated from the vehicle lanes. The concept draws in the curb lines to a 31' width to provide the travel lanes and shared left turn lanes for vehicle traffic. Outside of the curb line, a greenbelt of at least 6' west of the Medical Center and at least 3' east of the Medical Center would be established with the bike lane beyond it. In most sections, the raised bike lane would be adjacent to the sidewalk or shared use path. The bike and pedestrian facilities would be delineated with a short, beveled curb and have different surface treatments to clearly designate the two facilities.

A graphic depicting the typical corridor cross-section and the plan view of Concept 2 both west and east of the Medical Center are included in **Figure 10**.

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Figure 10: Colchester Ave Corridor Concept 2 (West): Raised, Separated Bike Lanes



4.1.4 Corridor Concepts West of East Avenue – Evaluation Matrix

An evaluation matrix of the corridor concepts presented in Section 4.1 is shown in **Table 2** below. This matrix compares the relative costs, safety, impacts to various resources, and community character implications for each concept.

Table 2: Colchester Avenue Corridor Concepts West of East Avenue - Evaluation Matrix

		Colchester Avenue Corridor Concepts (West)		
		Concept 0 No Build	Concept 1 (West) On-Street Separated Bike Lanes	Concept 2 (West) Raised and Separated Bike Lanes
Costs	Total Cost	\$0	\$\$	\$\$\$
	Bicycle Safety	-	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility</i>
	Pedestrian Safety	-	Improved <i>Pedestrians in separated facility</i>	Improved <i>Pedestrians in separated facility</i>
	Vehicle Safety	-	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>
Impacts	Utility Impacts	-	Major Impacts	Major Impacts
	ROW Impacts	-	No Impacts	No Impacts
	Constructability	-	Major Effort	Major Effort
	Parking	-	No Change	No Change
	Trees	-	Moderate Impacts to Existing; Some Tree Belt Opportunity	Moderate Impacts to Existing; Some Tree Belt Opportunity
	Historic	-	No Impacts	No Impacts
	Archaeological	-	No Impacts	No Impacts
Community Character	Aesthetics	No Change	No Change	Improved
	Satisfies Purpose & Need	No	Yes	Yes

* unmet on-street parking need requiring alternative locations to accommodate parking

4.2 Corridor Concepts – East of East Avenue

Although the right-of-way along the Colchester Avenue corridor is 5 rods, or about 80 feet, the segment east of East Avenue is a tighter cross section than the western end due to the limited setback of structures. The curb-to-curb width is approximately 35' in the existing condition as depicted in **Figure 11**.

The concepts evaluated for the eastern end of the corridor included a No Build concept, on-street separated bike lanes, raised and separated bike lanes, raised and separated bike lanes with enhancements, raised and separated bike lanes with enhancements and a mixing zone, and a shared use path.

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Figure 11: Corridor East of East Avenue



4.2.1 No Build (East)

In order to understand the impacts resulting from changes to this corridor cross-section, the existing conditions were first analyzed.

Because the updated striping in the No Build condition is relatively new for this segment of the corridor, the striping plans were included in the Appendices for reference.

4.2.2 Concept 1 (East) – On-Street Separated Bike Lanes

Concept 1 for the eastern end of the corridor is consistent with Concept 1 (West). Through this section, the bike facilities are proposed to be on street level within a newly located curb line with a 3' buffer between the vehicular through lanes in either direction. Again, it is proposed that the buffer will have a vertical element, but through this section the locations available for bollards or other vertical devices will be more limited due to the significant number of driveways. The concept envisions repurposing the existing curb-to-curb entirely to vehicular traffic and separated bike lanes, eliminating the remaining on-street parking on the south side of the road between East Avenue and Greenmount Cemetery.

A graphic depicting the typical corridor cross-section and the plan view of Concept 1 in two segments are included in **Figure 12**.

Figure 12: Colchester Ave Corridor Concept 1 (East): On-Street Separated Bike Lanes



4.2.3 Concept 2 (East) – Raised, Separated Bike Lanes

Concept 2 on the eastern end of the corridor is consistent with Concept 2 (West). Through this section, the bike facilities are proposed to be horizontally and vertically separated from the vehicular travel lanes with curb and a greenbelt. Through this section, it is again proposed that the raised, separated bike lanes would be adjacent to the sidewalk with a small, beveled curb between the two facilities and different surface treatments to distinguish the facilities. Through this section, the curb-to-curb width is adjusted to 26' to accommodate the 11' width travel lanes in each direction with 2' shoulders next to the curb and no on-street parking along corridor.

A graphic of the typical corridor cross-section and the plan view of Concept 2 in two segments are included in **Figure 13**.

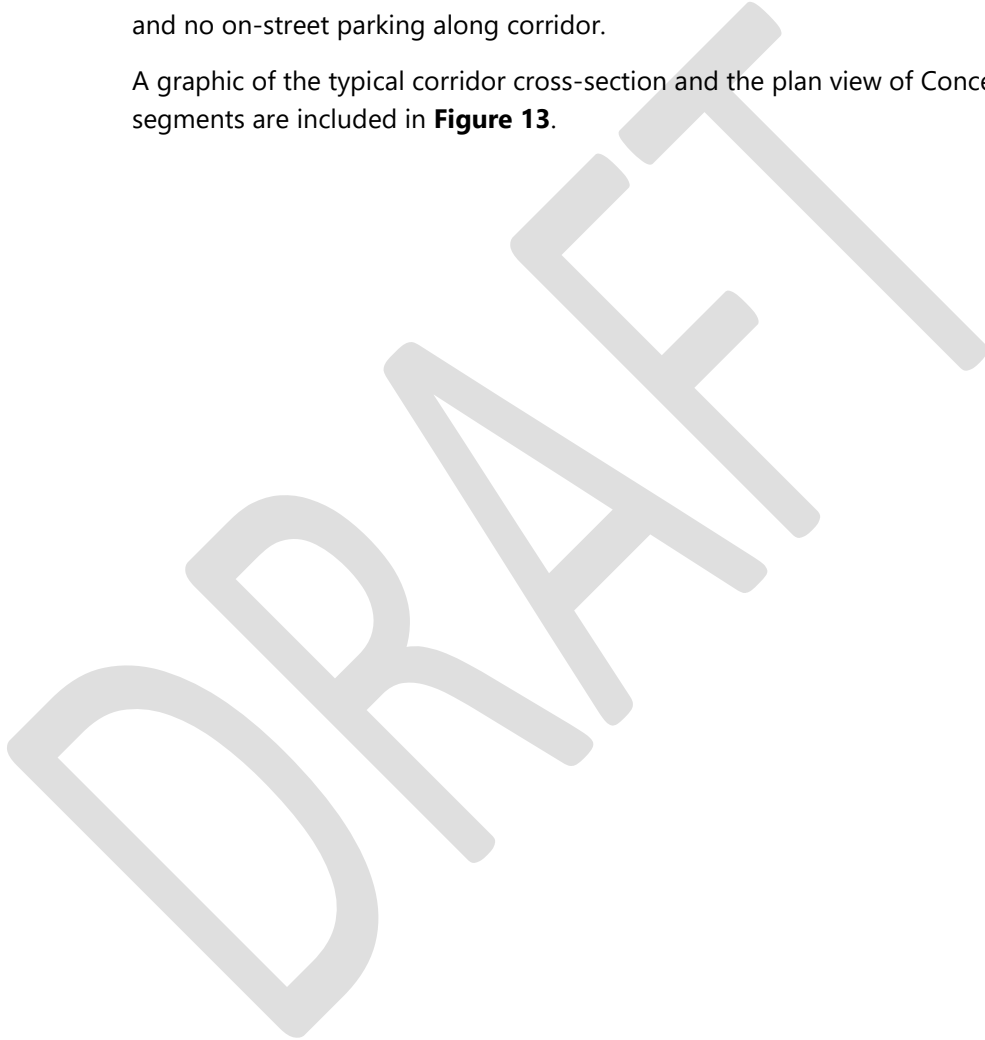


Figure 13: Colchester Ave Corridor Concept 2 (East): Raised, Separated Bike Lanes



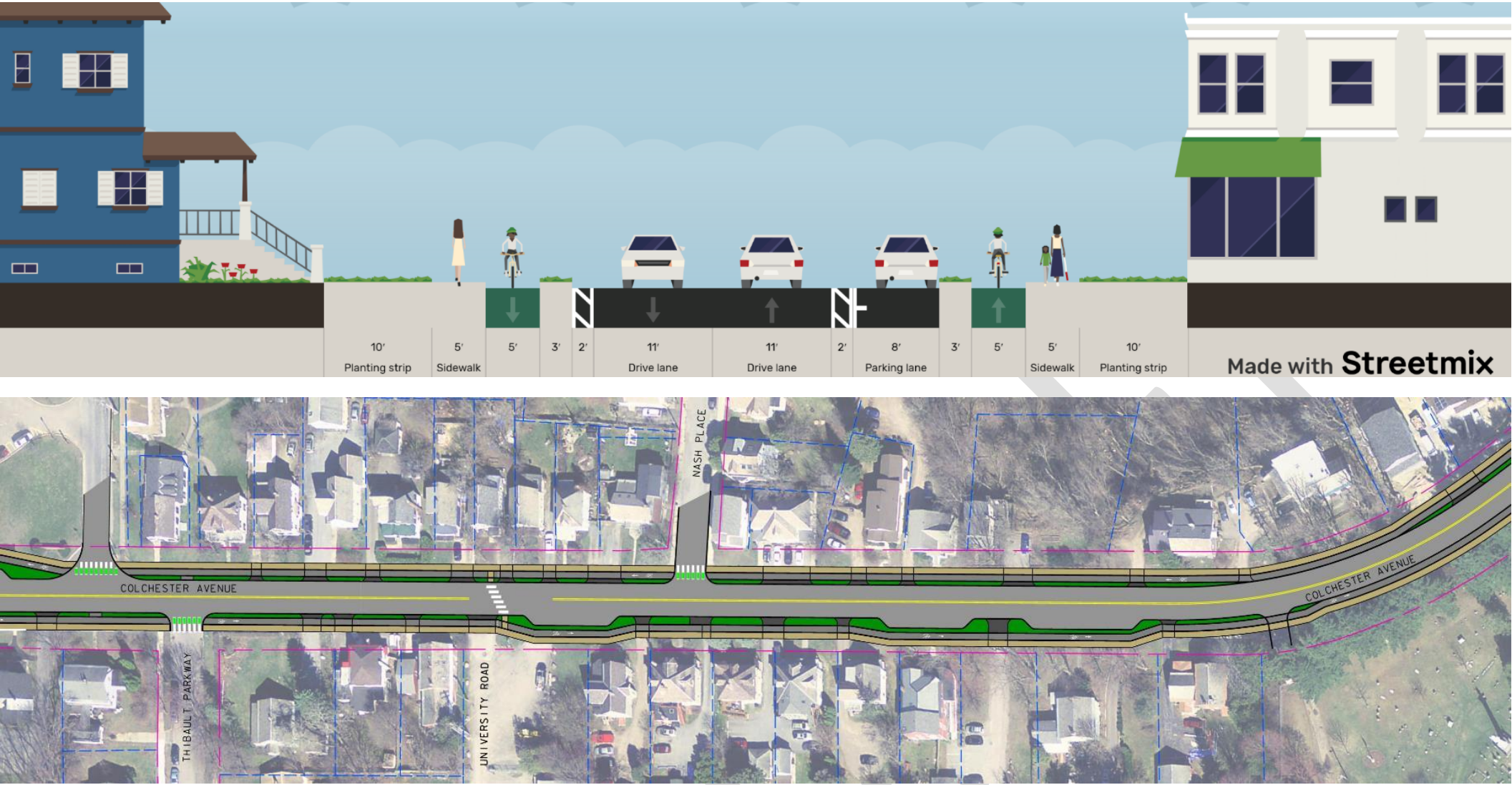
4.2.4 Concept 3 (East) – Raised, Separated Bike Lanes with Enhancements

Concept 3 for the eastern end of the corridor borrows from Concept 2, but adds in strategic curbside pull-outs along the segment for the purposes of either parking or bus transit stops. Locations for the pull-outs were identified based on minimizing impacts beyond the existing back of sidewalk and maximizing the length available for the pull-out where driveways or side streets were spaced appropriately. These pull-outs were added in places where there are existing bus transit route stops or where there may be a need for on-street parking, like in proximity to Kampus Kitchen.

A graphic depicting the typical corridor cross-section and the plan view of Concept 3 are included in **Figure 14**. Note that Concept 3 remains the same as Concept 2 between the Greenmount Cemetery and Barrett Street.

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Figure 14: Colchester Ave Corridor Concept 3 (East): Raised, Separated Bike Lanes with Enhancements



4.2.5 Concept 3A (East) – Raised, Separated Bike Lanes with Enhancements and Mixing Zones

A variation of Concept 3 (East), Concept 3A resulted from the outreach conducted to better understand the parking needs along the corridor. The demand for high-turnover parking, particularly in front of Kampus Kitchen, resulted in an exploration of tradeoffs through the tighter cross section along the eastern end of the corridor. In this concept, the block between Thibault Parkway and the Centennial Field entrance would have a mixing zone as opposed to separated bike lane and sidewalk, with the additional width reallocated to 2-3 high-turnover, 15-minute, on-street parking spaces. The mixing zone was envisioned to make bicyclists and other through users of the bike and pedestrian facilities more aware of the cross traffic through this section, particularly in anticipation of peak activity at Centennial Field or Kampus Kitchen.

A graphic depicting the typical corridor cross-section and the plan view of Concept 3A are included in **Figure 15**. Recall that Concept 3A remains the same as Concept 2 between Greenmount Cemetery and Barrett Street.

Figure 15: Colchester Ave Corridor Concept 3A (East): Raised, Separated Bike Lanes with Enhancements and Mixing Zone



4.2.6 Concept 4 (East) – Shared Use Path

Similar in character to the shared use path that already exists along the western end of the corridor, the Concept 4 (East) alternative incorporated a shared use path on the north/west side of the corridor between East Avenue and Barrett Street. The corresponding south/east side of the corridor were assumed to have a raised, separated bike lane adjacent to the sidewalk like in Concept 2. The justification for locating the shared use path on the north/west side of the corridor through this segment was to accommodate the slower moving, uphill cyclists on the shared use path and the faster, downhill bicyclists in a dedicated bike facility. The slower moving cyclists climbing the steepest section of Colchester Avenue would mix well with pedestrians, especially from a pedestrian safety standpoint when compared to the considerably faster speeds of a downhill bicyclist. However, the shared use path would be on the opposite side of Colchester Avenue from the existing side path on the western end, requiring users to cross two legs of the East Avenue intersection in order to stay on a shared use path facility along the entire length of the corridor.

A graphic depicting the typical corridor cross-section and the plan view of Concept 4 in two segments are included in **Figure 16**.

Figure 16: Colchester Ave Corridor Concept 4 (East): Shared Use Path



4.2.7 Corridor Concepts East of East Avenue – Evaluation Matrix

An evaluation matrix of the alternatives presented in Section 4.2 is shown in **Table 3** below. This matrix compares the relative costs, safety, resource impacts, and community character implications for each alternative.

Table 3: Colchester Avenue Corridor Concepts East of East Avenue – Evaluation Matrix

		Colchester Avenue Corridor Concepts (East)				
		Concept 1 (East) On-Street Separated Bike Lanes	Concept 2 (East) Raised and Separated Bike Lanes	Concept 3 (East) Raised and Separated Bike Lanes with Enhancements	Concept 3A (East) Raised and Separated Bike Lanes with Enhancements and Mixing Zone	Concept 4 (East) Shared Use Path and Separated Bike Lanes
Costs	Total Cost	\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$
Impacts	Bicycle Safety	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility</i>	Improved <i>Cyclists in separated facility or shared use path</i>	Improved <i>Cyclists in separated facility or shared use path</i>
	Pedestrian Safety	No Change / Slightly Improved <i>Fewer cyclists using sidewalk</i>	No Change / Slightly Improved <i>Fewer cyclists using sidewalk</i>	No Change / Slightly Improved <i>Fewer cyclists using sidewalk</i>	No Change/Slightly Worse <i>Pedestrians in separated facility except for mixing zone area</i>	No Change/Slightly Worse <i>Cyclists and Pedestrians in shared path on North side at east end of project.</i>
	Vehicle Safety	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>	Slightly Improved <i>Reduce conflicts with cyclists by defining and separating spaces</i>
Impacts	Utility Impacts	Major Impacts	Major Impacts	Major Impacts	Major Impacts	Major Impacts
	ROW Impacts	No Impacts	No Impacts	Minor Impacts	Minor Impacts	No Impacts
	Constructability	Major Effort	Major Effort	Major Effort	Major Effort	Major Effort
	Parking	Elimination of On-Street Parking (Colchester Ave)	Elimination of On-Street Parking (Colchester Ave)	Maintains Some On-Street Parking (Colchester Ave)	Maintains Some On-Street Parking (Colchester Ave)	Elimination of On-Street Parking (Colchester Ave)
	Trees	Moderate Impacts to Existing; Some Tree Belt Opportunity	Moderate Impacts to Existing; Some Tree Belt Opportunity	Major Impacts to Existing; Increased Tree Belt Opportunity	Major Impacts to Existing; Increased Tree Belt Opportunity	Moderate Impacts to Existing; Some Tree Belt Opportunity
	Historic	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
	Archaeological	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts
Community Character	Aesthetics	No Change	Improved	Improved	Improved	Improved
	Satisfies Purpose & Need	No*	No*	Yes	Yes	No*

* unmet on-street parking need requiring alternative locations to accommodate parking

4.3 Intersection Alternatives – Colchester Avenue & East Avenue

The third focus area for evaluation was the intersection of Colchester Avenue and East Avenue, shown in **Figure 17**. Alternatives evaluated for the intersection included: new signal equipment and striping upgrades at existing intersection, new signal equipment and striping upgrades with realignment of the intersection and a new bike signal, new signal equipment and striping upgrades with realignment of the intersection, and a roundabout.

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Figure 17: Intersection of Colchester Avenue & East Avenue



4.3.1 No Build Intersection Alternative

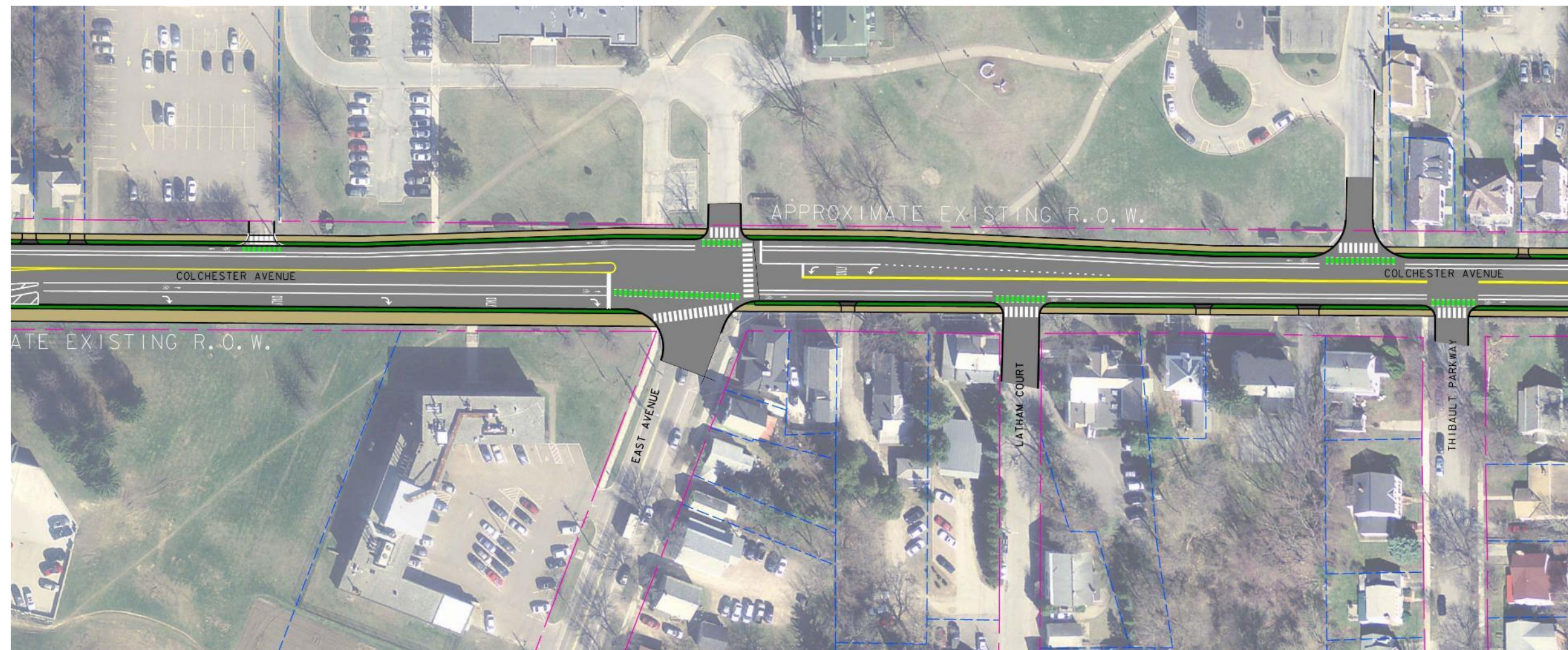
The no build alternative at this intersection would facilitate the preferred alternatives for the west and east corridor, which may involve the shifting of curbs and updated striping on either Colchester Avenue approach to the intersection. Beyond that, the no build alternative would maintain operation consistent with the current condition.

4.3.2 Intersection Alternative 1 – Equipment and Striping Upgrades at Existing Signalized Intersection

The first build alternative would not shift the curblines, but rather address many of the other first tier safety recommendations from the HSIP location review, including installation of new signal equipment mounted on new mast arms and mast arm poles with improved alignment with the lane each signal face serves. The signal head upgrades would include backplates, per the HSIP recommendations. Signal timing at the intersection may be adjusted to improve pedestrian accommodation by providing a leading pedestrian crossing phase. This means that although the pedestrians would cross the intersection concurrently with vehicle traffic, the pedestrians would get a head start in their crossing movement to make them more visible to traffic once vehicles are permitted to move. This would result in a LOS E for the future 2040 traffic condition. Otherwise the intersection will largely remain the same as the No Build in this alternative.

A graphic depicting Alternative 1 is included in **Figure 18**.

Figure 18: Colchester Ave & East Ave Intersection Alternative 1: Equipment and Striping



4.3.3 Intersection Alternative 2 – Equipment and Striping Upgrades with Realignment of Intersection and New Bike Signal

The second build option for the intersection of Colchester Avenue and East Avenue would take advantage of the signal upgrades outlined in Alternative 1, but will also implement the second tier recommendations from the HSIP location review to realign the intersection. The realignment will shift the East Avenue and Trinity Campus approaches to the intersection, squaring the former to be closer to a 90-degree connection to Colchester Avenue and shifting the latter to directly align with the new East Avenue approach. The realignment will allow for an extension of the dedicated right turn lane to accommodate the traffic approaching from the south more appropriately. In addition, the realignment of the offset and skewed approaches will permit concurrent phasing for the minor legs of the intersection.

In addition to the realignment and updated signal phasing at this location, a new bike signal is proposed to facilitate the eastbound through bike movement with its own phase. Having new signal equipment and a new cabinet allows for the installation of a bike signal with a dedicated phase of the cycle. Furthermore, the bike signal would allow for cyclists to remain to the right of the vehicular right turn lane when approaching the intersection, affording significantly more protection to the bicyclists than in the current condition. Although not shown, crossing on the west leg of the intersection was discussed as an option with this alternative and evaluated in the traffic analysis. The concurrent phasing coupled with the bike signal phase and exclusive pedestrian phase would result in a LOS C for the future 2040 traffic condition.

A graphic depicting the Alternative 2 intersection is included in **Figure 19**.

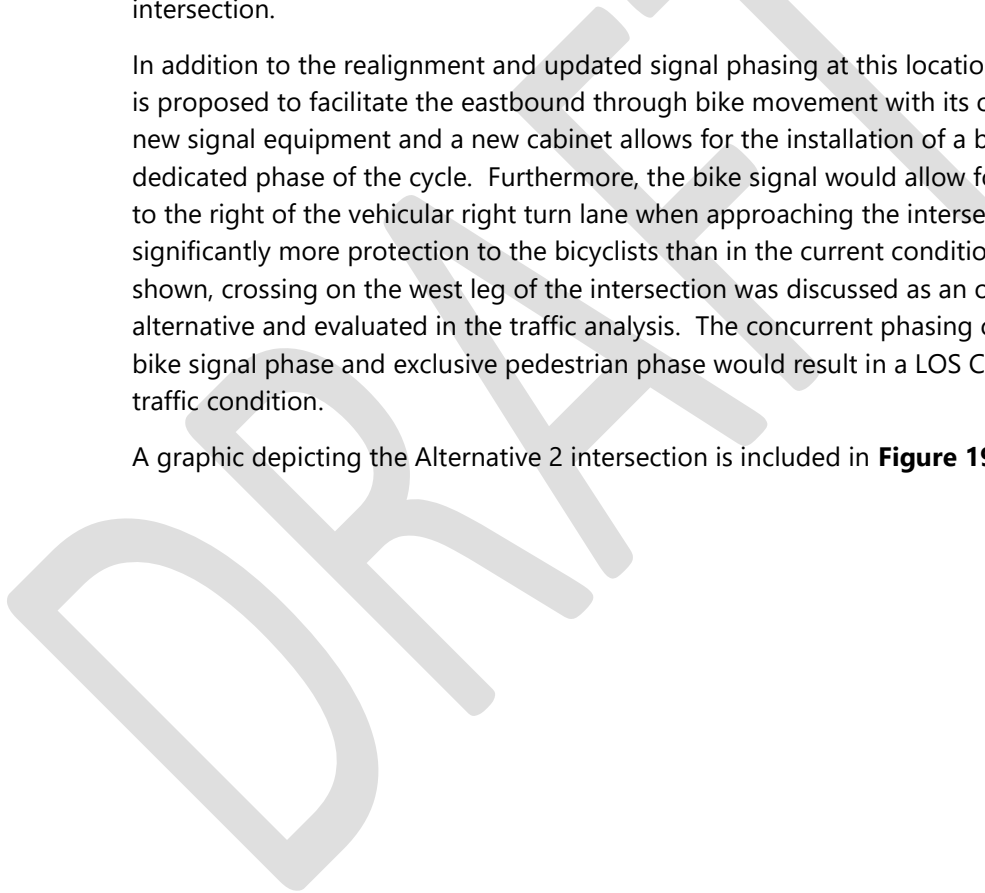
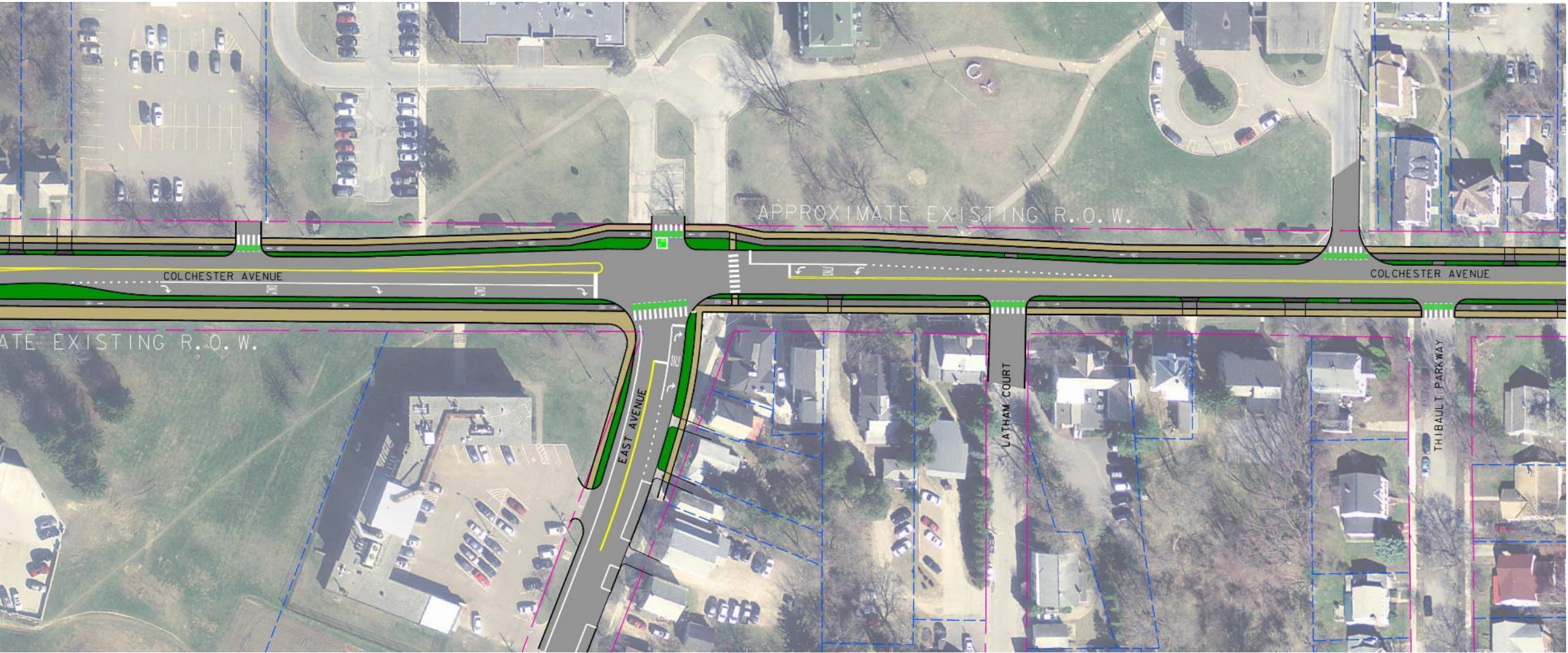


Figure 19: Colchester Ave & East Ave Intersection Alternative 2: Equipment and Striping Upgrades with Realignment of Intersection & New Bike Signal



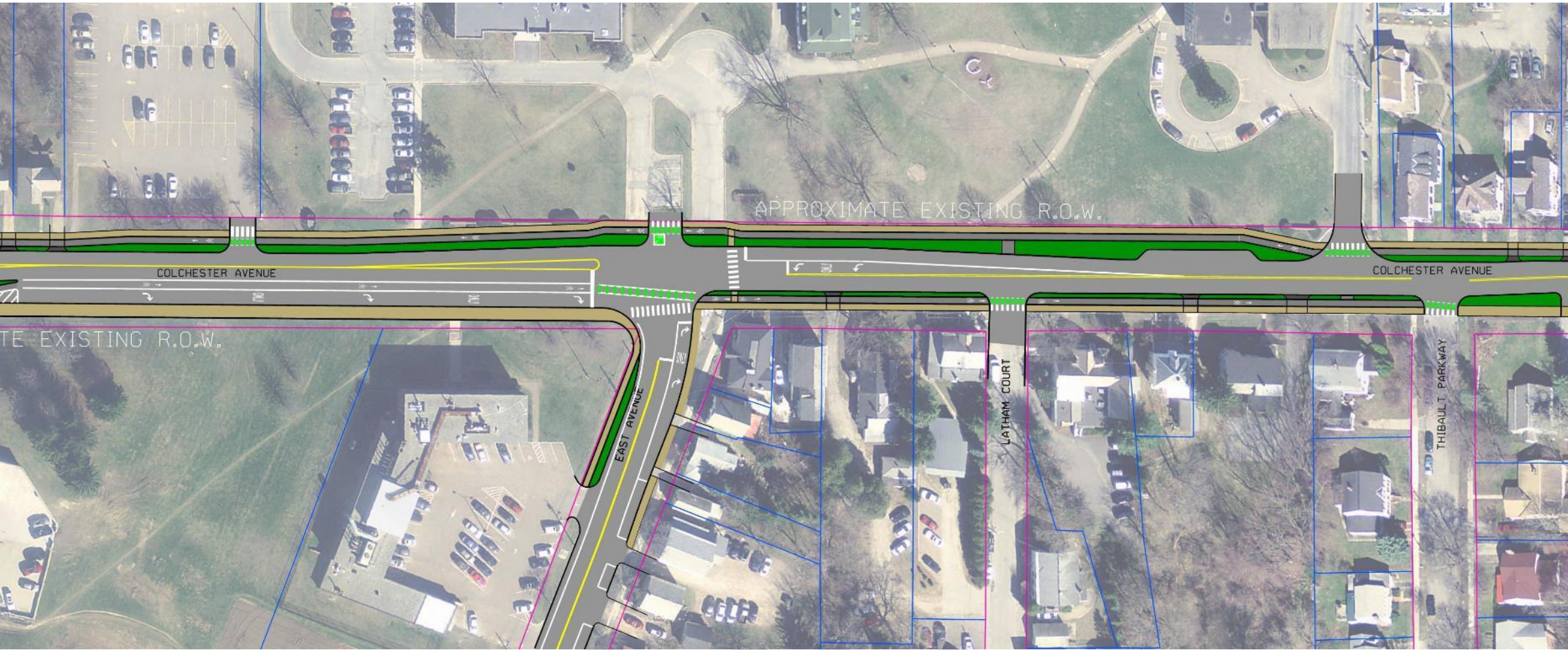
4.3.4 Intersection Alternative 3 – Equipment and Striping Upgrades with Realignment of Intersection

The third build alternative at the intersection would borrow the signal upgrades outlined for Alternative 1 and the realignment outlined for Alternative 2. In addition to these upgrades addressing the recommendations from the HSIP, this approach would bring cyclists up to the intersection on the eastbound approach with dedicated bike lane between the through and right turn vehicular lanes. The cyclists would then be served by the through movement vehicle signal at the intersection. The shifting of curbs would afford the additional width necessary to accommodate this facility. In addition, a pedestrian crossing on the west leg of the intersection was discussed as a possibility with this alternative and evaluated in the traffic analysis. The realignment would allow for concurrent signal phasing to serve the two minor legs, providing an anticipated overall LOS C in the 2040 future traffic condition.

A graphic depicting the Alternative 3 intersection is included in **Figure 20**.

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Figure 20: Colchester Ave & East Ave Intersection Alternative 3: Equipment and Striping Upgrades with Realignment of Intersection



4.3.5 Intersection Alternative 4 – Roundabout

The fourth build alternative for this intersection is a modern, 120-foot inscribed diameter, single lane roundabout. A roundabout at this location would serve to realign the legs of the intersection converging at the center of the new facility. A mini-roundabout was not considered at this location based on the volumes along Colchester Avenue (approximately 15,000 vehicle per day) and high percentage of left hand turns at the intersection.

Each approach would have a pedestrian crossing, rounding out the pedestrian access at the intersection by providing crossings on all four legs. The pedestrian crossings on the Colchester Avenue and East avenue approaches would include protected pedestrian refuge mid-crossing with a curbed splitter island, allowing for pedestrians to cross a single lane with one direction of traffic at a time. Bike crossings at each approach are similarly proposed.

With yield conditions on each approach and appropriate deflection, the roundabout would likely work to slow traffic through the intersection, but maintain steady flow of traffic without the queueing from cycle loss time that is experienced in the current signalized condition. Overall, the roundabout is anticipated to operate at a LOS C in the future 2040 traffic condition.

A graphic depicting the Alternative 4 intersection is included in **Figure 21**.

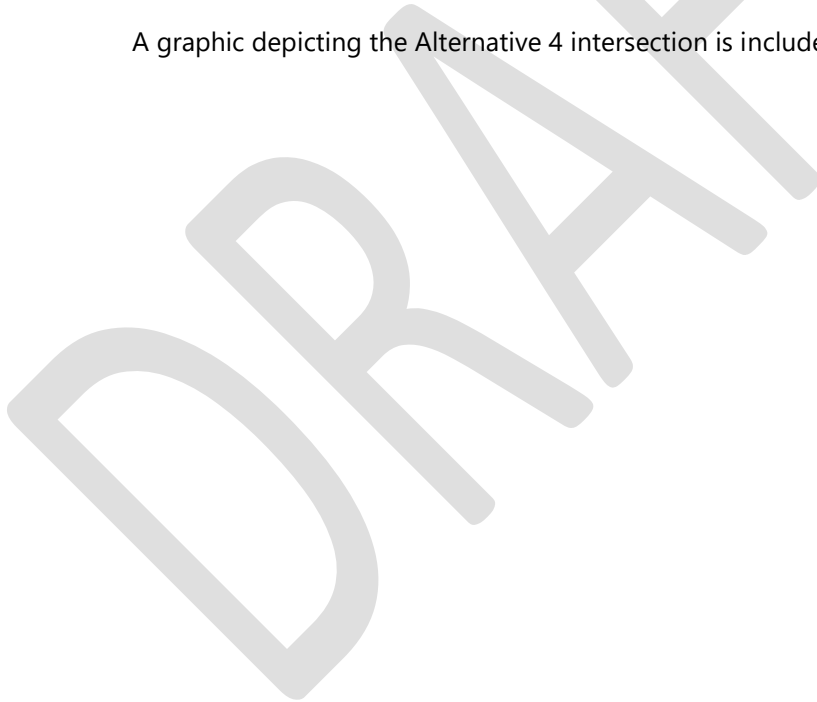
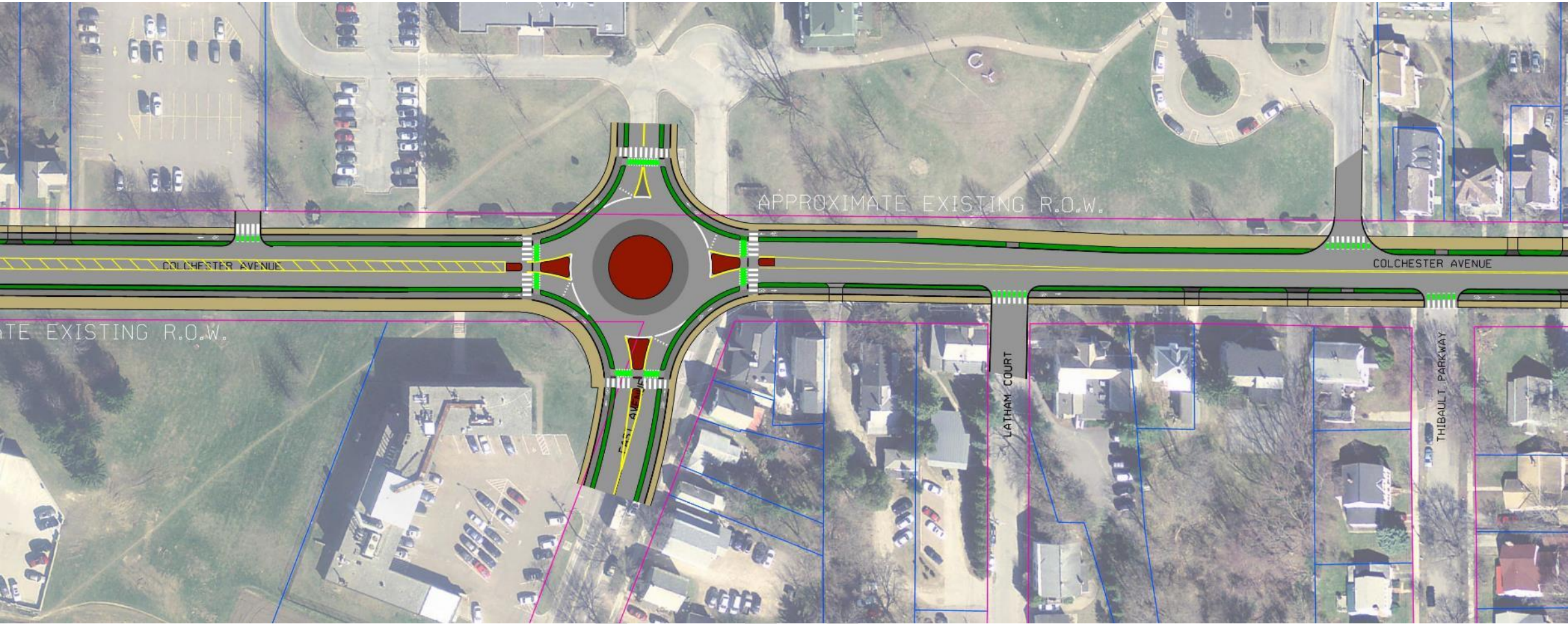


Figure 21: Colchester Ave & East Ave Intersection Alternative 4: Roundabout



4.3.6 Intersection Evaluation Matrix

An evaluation matrix of the alternatives presented in Section 4.3 above is shown in the table below. This matrix compares the relative costs, safety, resource impacts, and community character implications for each alternative.

Table 4: Colchester Avenue & East Avenue Intersection Alternatives Evaluation Matrix

		Colchester Avenue / East Avenue Intersection Alternatives					
		Concept 0 No Build	Alternative 0 No Build	Alternative 1 Equipment and Striping Upgrade	Alternative 2 Equipment and Striping Upgrades with Realignment of Intersection & New Bike Signal	Alternative 3 Bike Lane Through Intersection	Alternative 4 Roundabout
Costs	Total Cost	\$0	\$0	\$350,000	\$980,000	\$950,000	\$3,500,000
Safety	Benefit Cost Analysis (B/C ratio)			3.03	1.12	1.16	0.40
	Bicycle Safety	-	-	Slightly Improved <i>Bike Lanes provided westbound through signal</i>	Improved <i>Bikes provided protected lane and phase - no turn conflicts</i>	Slightly Improved <i>Cyclists have to travel between thru and right turn lanes, but protected</i>	Slightly Improved <i>Bikes only conflict with single movement at time, but not fully protected; fewer conflict points</i>
	Pedestrian Safety	-	-	Improved <i>Protected Crossings with less delay with vehicular phasing</i>	Improved <i>Protected Crossings with less delay with vehicular phasing</i>	Improved <i>Protected Crossings with less delay with vehicular phasing</i>	Slightly Improved <i>Allow additional cross locations, but unsignalized; shorter crossings with lower speed vehicles; fewer conflict points</i>
	Vehicle Safety	-	-	Slightly Improved <i>by separating users, proper equipment</i>	Improved <i>by fully separating users, proper equipment</i>	Slightly Improved <i>by separating users, proper equipment</i>	Significantly Improved <i>Lower vehicle speeds and fewer conflict points</i>
Operations	Overall Level of Service (2040)	-	-	LOS D	LOS C	LOS C	LOS C
	Utility Impacts	-	-	Major Impacts	Major Impacts	Major Impacts	Major Impacts
	ROW Impacts	-	-	Minor Impacts	Minor Impacts	Minor Impacts	Moderate Impacts
	Constructability	-	-	Minor Effort	Major Effort	Major Effort	Major Effort
Impacts	Parking	-	-	Existing Parking Maintained (East Ave)	Slight Reduction (East Ave)	Slight Reduction (East Ave)	Slight Reduction (East Ave)
	Trees			No Impacts	Minor Impacts To Existing	Minor Impacts to Existing	Minor Impacts to Existing
	Historic	-	-	No Impacts	No Impacts	No Impacts	No Impacts
	Archaeological	-	-	No Impacts	Additional Review Recommended	Additional Review Recommended	Additional Review Recommended
Community Character	Aesthetics	No Change	No Change	No Change	Improved	No Change	Significantly Improved
	Satisfies Purpose & Need	No	No	Yes	Yes	Yes	Yes



5

Preferred Corridor Concept & Intersection Alternative Plan

Based on findings from technical analyses and input from the public and project Advisory Committee, conceptual plans were developed to reflect the preferred corridor concepts and intersection alternative. This consisted of a combination of Corridor Concept 2 (West) with raised and separated bike lanes; a modified Corridor Concept 3A (East) with raised and separated bike lanes with targeted on-street short-term parking and pull-outs for transit stops, delivery vehicles, or other short-term uses; and Intersection Alternative 2 with new equipment, striping, a crossing on the western leg of the intersection, and a dedicated bike signal for the intersection with East Avenue.

5.1 Overview

The preferred corridor concepts and intersection alternative selected through the public process and stakeholder decision making include:

- › a consistent cross section for the length of Colchester Avenue that provides raised, separated bike facilities in addition to updated, curbed travel lanes and sidewalk improvements;
- › enhancements between East Avenue and Greenmount Cemetery to provide targeted, short-term, high turnover parking in support of businesses and pull-outs for transit stops, loading or delivery, and other short-term uses; and,
- › improvements to the intersection with East Avenue that provides new signal equipment with a dedicated bike signal and updated lane geometries with realignment of East Avenue and the UVM Trinity Campus entrance.

This chapter enumerates the design features of these improvements and recommendations for the corridor.

5.1.1 Colchester Avenue Preferred Corridor Concepts

For the segments of the Colchester Avenue west and east of the intersection with East Avenue, the preferred corridor concepts and intersection alternatives will provide a consistent cross section that includes raised and separated bike lanes in both directions. Through most of the corridor, the bike lanes will be separated from vehicular travel lanes by curb and a planting strip or greenbelt. Greenbelt separation is advantageous in recovering the grade differential between the road and bike lane, providing adequate snow storage, and accommodating signage, lighting, and other curbside features. Where width is available, this planting strip will be greater than 5' in width to accommodate street tree plantings, bus shelters, utilities, lighting, and other curbside amenities where appropriate. Along approximately 60% of the corridor, where the bike lane is separated from vehicular traffic by less than 5' of greenbelt, primarily to limit impact beyond the back of sidewalk, the width will not support tree plantings but will still benefit from other curbside features.

The raised bike lanes will be adjacent to existing or relocated sidewalks through much of the corridor. Where the pedestrian facilities are adjacent to the updated bike lanes, the two facilities will be delineated by a beveled curb and different surface treatments, making clear distinctions of where pedestrians and bicyclists are expected to walk and bike. It is noted that where sidewalks are not relocated, and therefore not necessarily rebuilt, assessment of the existing sidewalk should be conducted and sidewalks not meeting current standards or in disrepair should be reconstructed through much of the corridor.

The preferred corridor concept on the east end of the corridor, particularly between East Avenue and Greenmount Cemetery, incorporated some modifications to enhancements presented in the corridor concepts along this segment. Those enhancements include 2-3 high turnover, on-street parking spaces in front of Kampus Kitchen and strategically located curbside pull-outs to accommodate either transit bus stops or short-term uses like delivery vehicles or short-term, high turnover parking.

At the Draft Alternatives Presentation, the public weighed in on the various corridor concepts with clear support for Concept 2 (West) and the desire for a consistent treatment on the segment east of East Avenue, narrowing the choices to Concept 2, 3, or 3A. Hearing this, the Advisory Committee similarly supported the raised, separated bike lanes in Concept 2 (West) and, through much deliberation, generally supported Concept 3A (East) with modifications, falling just one vote shy of consensus. Through the discussion, it was clear that the Advisory Committee and the entities that they represent support consistent bike infrastructure separated from vehicular traffic, improved curbside access for transit, support of local businesses through provision of some high turnover parking spots, and support of other short-term, curbside neighborhood activities like deliveries.

The figures below depict the improvements for the corridor along the length from west () to east ().

5.1.2 Colchester Avenue and East Avenue Preferred Intersection Alternative

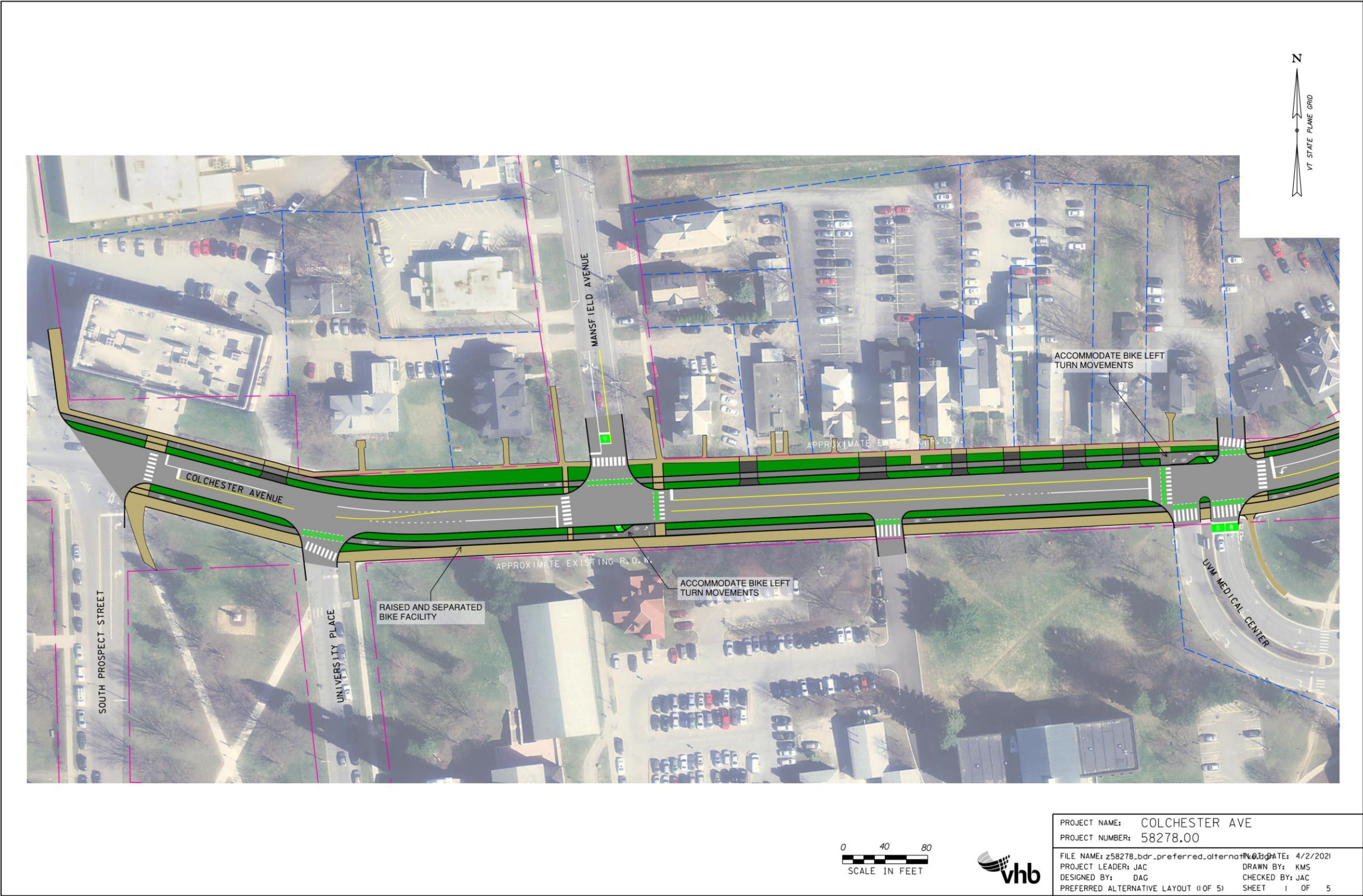
The Colchester Avenue and East Avenue preferred intersection alternative will include major upgrades to the signal equipment at the existing intersection, realignment of the minor legs of the intersection, and an additional pedestrian crossing on the west leg of the intersection.

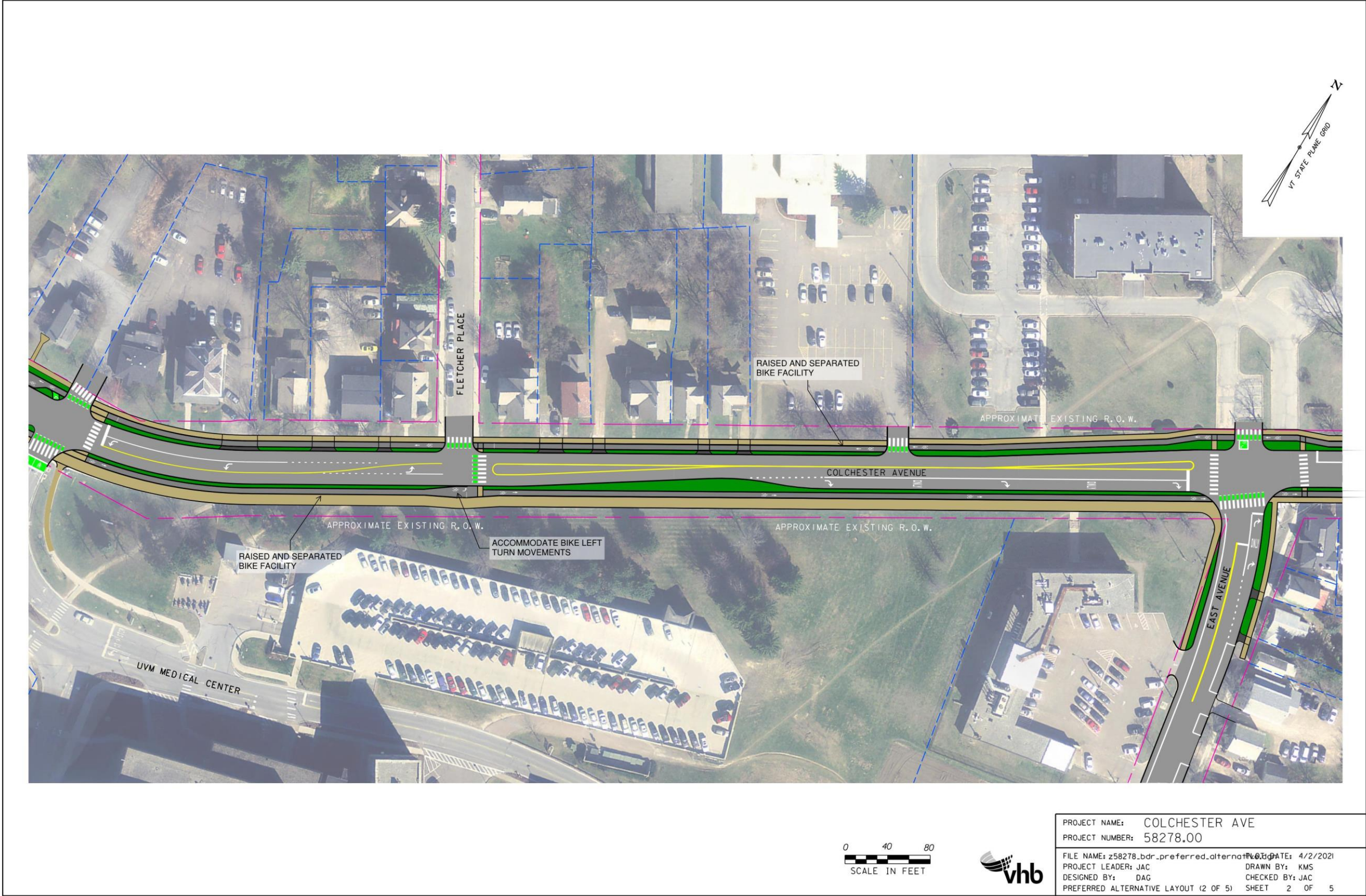
The intersection realignment will consist of shifting the UVM Trinity Campus driveway to the west approximately 35' to bring it into alignment with the new horizontal alignment of the East Avenue intersection leg. The East Avenue approach to the intersection will be reconstructed to intersect Colchester Avenue at close to perpendicular, effectively shifting the intersection leg west by approximately 20' feet. This will entail full depth construction of new roadway areas, particularly on the southwest corner of the intersection, and reclamation of the areas decommissioned, particularly on the southeast corner of the intersection.

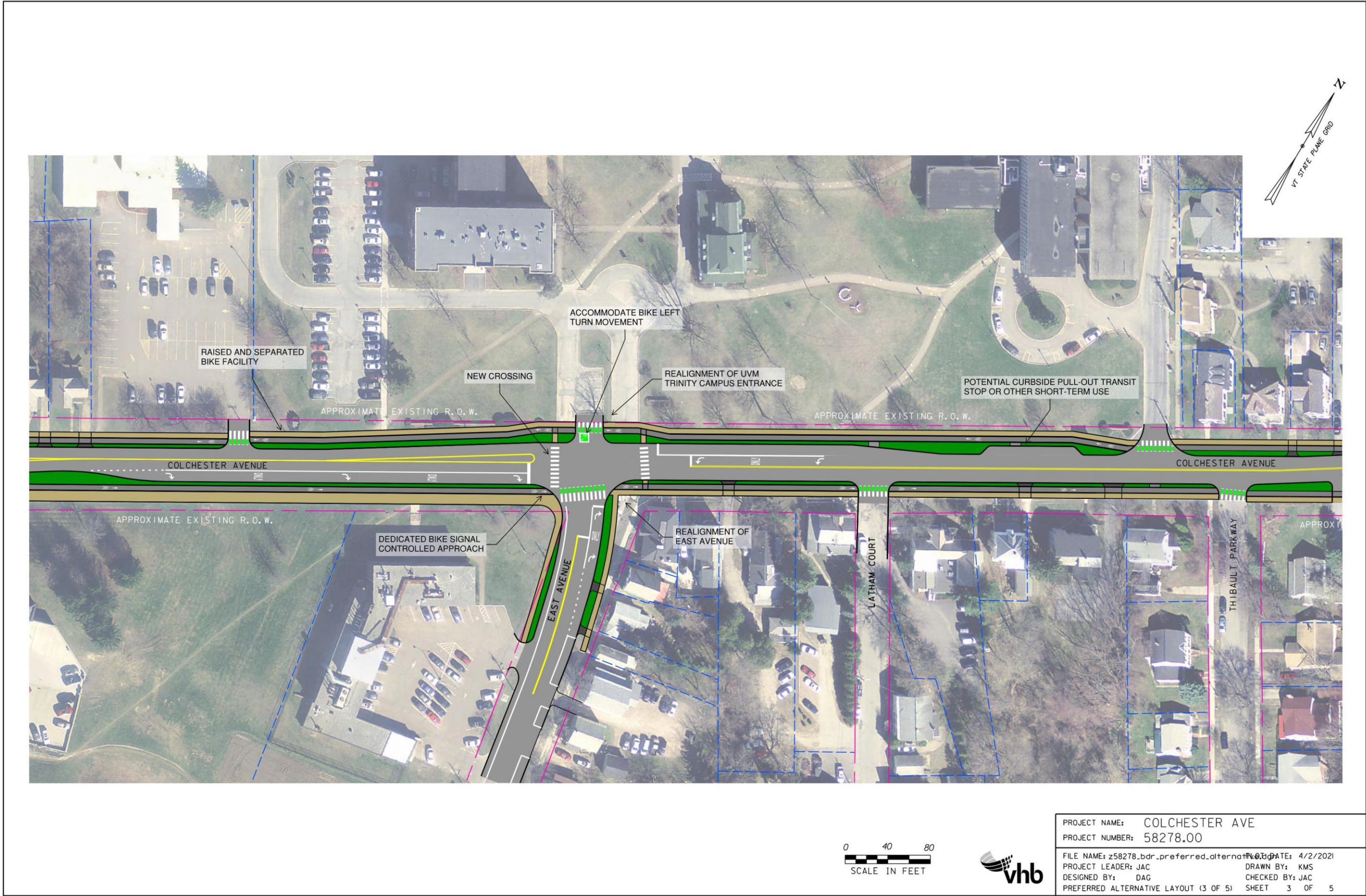
The signal upgrades will entail removal of existing mast arm poles, mast arms, pedestals, signal heads, and signal cabinet. This equipment will be replaced with new mast arm poles, mast arm mounted signal heads with backplates, and signal cabinet. In addition to the updated signal equipment a dedicated bike signal face will be installed for the eastbound cyclists. The dedicated bike signal allows for the bike infrastructure to remain outside of the vehicular right turn lane and serves the through movement cyclist once they approach the intersection.

The realignment will allow for updated timing and phasing. Aligning the East Avenue leg and the UVM Trinity Campus driveway will allow for concurrent phasing, providing a portion of the cycle for dedicated bike and pedestrian phases. The crossing on the western leg of the intersection will be added. The heavy conflicting northbound left and eastbound right movements at the intersection make concurrent pedestrian phasing challenging, and therefore an exclusive pedestrian phase to serve all of the crosswalks should be considered.

The figure below, , depicts the preferred improvements being proposed for the Colchester Avenue and East Avenue intersection.











5.1.3 Recommendations and Other Considerations

As indicated in the preferred corridor concepts and intersection alternatives for Colchester Avenue, changes to the existing curb line are a significant undertaking, but also provide an opportunity to adopt and implement the desired character of the corridor. Not only does Colchester Avenue provide critical access from a transportation standpoint, but it also serves as a corridor for many utilities. Careful coordination in planning and design with utility providers on any necessary relocation and new utilities will be necessary. This also presents an opportunity to consider pedestrian scale lighting as well as transit shelters and street furniture as appropriate.

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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Lee Perry
*ASSISTANT DIRECTOR
DPW MAINTENANCE DIVISION*

MEMORANDUM

To: Public Works Commission

From: Chapin Spencer, Director
Lee Perry, Division Director DPW Maintenance

Date: June 16, 2021

Re: Consolidated Collection -- Staff Recommendation and Next Steps

Executive Summary:

Current collection of residential trash, recycling and compost in the City of Burlington is fragmented, inefficient and costly. A fully consolidated collection system will improve convenience, reduce environmental and community impacts, and save residents money. We suggest the Public Works Commission move to recommend the City Council approve a resolution that:

1. Advances implementation of a fully consolidated collection system for at least 1 to 4 unit residential properties in Burlington; and
2. Proposes implementation of a hybrid consolidated collection model where the City continues to collect recycling and franchised private haulers collect trash and organics; and
3. Requests City staff initiate a resident engagement process to determine the specific service levels and options that will be initially offered, and return to the City Council by March 2022 with the service level recommendations and an updated timeline.

Background:

There are many ways communities coordinate the collection of trash, recyclables and food scraps. In Burlington, the system is fragmented. For trash, individual residential property owners subscribe with a private hauler for solid waste services or they choose to bring their trash to one of the County's Drop-Off Centers (DOCs). For organics, residents choose one of three options – subscribing with a private hauler to pick up organics, bringing organics to the County's DOCs or composting in their backyards. Recycling services are consolidated through a municipally operated system that was established in the 1990's.

Problems with the current system include:

- Confusing pick-up schedules with households managing pick-ups of the various waste streams two or three different days of the week.

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- More truck traffic, emissions and road damage from multiple haulers servicing the same streets. There are currently four main trash haulers and several additional compost haulers servicing City residential properties.
- More costly service due to multiple trash and compost haulers servicing the same streets.
- Current City Recycling Program is under resourced which has put burden on existing Recycling staff and the overall Street Maintenance team.

A large majority of communities nationwide have fully consolidated collection systems. According to the City's consolidated collection consultant GBB, their survey of 461 communities nationwide indicated that this subscription arrangement occurs only in approximately 11% of communities. Consolidated collection, on the other hand, is the much more common approach with 83% of communities having the municipality either collecting waste streams itself or contracting with private haulers. Of those communities with consolidated collection, our consultant reports that approximately 58% contract with private haulers, 40% have a municipal operation and 2% have some hybrid approach.

Consolidated collection has been explored in our region for decades.

- 2000-2001: The City Council in October 2000 passed a resolution directing Public Works explore consolidated collection for trash (see Appendix). DPW reported back to the Council in 2001 and no additional action was taken.
- 2009-2015: The Chittenden Solid Waste District in 2009 launched a countywide analysis of consolidated collection that ran until 2015. That effort petered out due to strong opposition from local haulers and the heavy lift to get all Chittenden County communities behind the proposal. The report is available here: <https://cswd.net/forms-publications/>
- 2018-2021: In April of 2018, the City Council passed another resolution requesting the Department of Public Works to undertake a citywide consolidated collection feasibility study – this time with the City of South Burlington and Chittenden Solid Waste District. The report evaluated a franchised model with private haulers and the findings were presented to the Council's Transportation Energy & Utilities Committee (TEUC) in June and July 2020. At the August 2020 TEUC meeting, the Committee requested DPW staff do an in-house financial analysis of a municipally run consolidated collection system. The findings were presented to the TEUC at their March 23, 2021 meeting. The report is available here: <https://www.burlingtonvt.gov/CityCouncil/TEUC>

Multiple studies have identified significant consolidated collection benefits. The City's 2000 study, the CSWD evaluation in the 2010's and the recent City's study have all identified expected benefits of consolidated collection including:

- Reduced costs to residents and haulers through more efficient collection routes – the 2020 GBB study estimated a projected savings to Burlington customers of \$1.6M - \$3.6M per year for a weekly consolidated collection system
- Reduced environmental costs of excess truck traffic – the 2020 GBB study estimated a two-thirds reduction in vehicle miles traveled and emissions with a full consolidated collection system
- Reduced infrastructure impacts of excess truck traffic
- Reduced litter using wheeled carts by all residents
- Reduced noise in neighborhoods
- Better compliance with State and local mandates

Based on our review of the data, the TEUC's motion at its March 23, 2021 meeting supporting consolidated collection, and our conversations with other municipalities (see appendix), DPW

staff strongly recommends implementing a fully consolidated collection system for Burlington residents. Which consolidated collection model should be utilized is then the next question to address.

There are four major consolidated collection options for consideration:

1. **Franchise Model** – Franchised consolidated collection is where a municipality contracts with one or more private haulers to collect curbside trash, recycling, and compost. This model was studied by consultant GBB for Burlington and South Burlington in 2019 and 2020. The Vermont communities that have consolidated collection (Westford, Brattleboro, etc.) utilize this model. See the GBB study for a more detailed analysis of this model.
2. **Franchise Model with City Bid** – This model is similar to the franchised model, except the municipality retains the right to bid on districts against private haulers to collect trash, recycling and compost. After contracting with a private hauler to collect recycling during the early days of Burlington's recycling program, the City put the contract out to bid again and the City this time submitted a bid. The City bid was selected and the City has been operating the recycling program ever since. This model is not as common as the other two Options 1 and 3 but has been done more in Western states. The City of Phoenix operated this way for many years before moving to municipal operation.
3. **Municipal Operation Model** – This model is where the municipality itself, provides all aspects of trash, recycling, and compost collection, including oversight, customer service, scheduling, and billing. This operation would look similar to the City's current recycling program, but larger and more complex. See the staff memo provided to the Council's TEUC on March 23, 2021 for a more detailed analysis of this model.
4. **Hybrid Municipal / Franchise Model** – Under this scenario, the collection of different waste streams would be consolidated separately. For Burlington, this option would have recycling remain a municipally-collected service and trash and compost services would be franchised to private haulers. This model was fleshed out after discussing options with Cambridge, MA where the City collects trash, and food scraps and franchised haulers collect recycling.

More information on our consolidated collection evaluation can be found on the City's website: <https://www.burlingtonvt.gov/dpw/Maintenance/CC>. Under any of the scenarios above, private haulers would still serve large residential and commercial customers in the City.

Consolidated Collection Achieves Better Economy of Scale:

In their 2019/2020 study, GBB reported haulers were charging at that time between \$28 and \$49 per month for weekly collection of two streams (trash and recycling). Based on a City review of weekly organics collection by separate organics collection companies, prices appear to be around \$15 per month. With the efficiencies gained by consolidated collection, GBB and the City project that residents could receive weekly collection of three streams (trash, recycling and organics for between \$34 and \$41 per month depending on the model and the number of residents opting out of service. GBB reported that Burlington residents could save somewhere between \$1.6M and \$3.6M by implementing a weekly consolidated collection model compared to a residents having a weekly subscription model.

Municipal and Franchising Models Similar in Cost, Depends on What is Included in Model:

Understanding the Council's and Commission's interest in comparing the franchised and municipal models, we worked with GBB and other City departments to develop financial estimates for both models under 0%, 15% and 25% opt out scenarios. "Opting out" is a term for allowing residents to decline some or all of the curbside trash, recycling and compost pick up services. As part of the proposed community engagement period, DPW would be seeking resident input on whether they'd prefer a consolidated collection system with opt outs (higher cost per household but more choice)

or without opt outs (lowest cost per household but less choice) and other options. Here is a summary of the total costs for both municipal and franchise models for weekly collection at different opt out levels.

Options	Municipal Model Flynn Ave 0% Opt Out	Municipal Model 339 Pine St 15% Opt Out	Municipal Model 339 Pine St 25% Opt Out	Franchise Model 0% Opt Out	Franchise Model 15% Opt Out	Franchise Model 25% Opt Out
Households Served Weekly	13,005	11,054	9,754	13,005	11,054	9,754
Resident Annual Cost	\$413.63	\$456.46	\$494.01	\$410.03	\$422.98	\$465.55
Resident Monthly Cost	\$34.47	\$38.04	\$41.17	\$34.17	\$35.25	\$38.80

These are estimated costs. Staff and the consultant have worked diligently to provide the best numbers we can at this time and they have been updated to reflect current tip fees. Both models include debt service for initial capital costs. The municipal model includes costs related to operating the program as an Enterprise Fund (direct and indirect contributions to City overhead, payment in lieu of taxes).

The cost differences between City projections and GBB's projections under a franchise model might be due to certain additional costs incurred by the City that a private contractor may not have to incur or may have already incurred:

- **New Facility:** The City would have to build a new facility to house staff, vehicles, and equipment for the enterprise because we do not have existing space to accommodate the operations at 645 Pine St. Private haulers may be able to accommodate this operation within their existing facilities.
- **Billing:** Unlike private haulers who already have billing systems tailored to curbside collection, the City will be incurring billing costs due to the added staff and software.
- **Labor:** The City took a conservative approach when projecting labor needs so that we are able to operate an efficient program with reasonable back-up support that minimizes the need to pull from other work groups.

Additionally, GBB's Franchise model estimate does not include additional City costs for overseeing the performance of the private haulers or replacing the overhead currently contributed by the Recycling Program's Solid Waste Generation Tax for the pro-rata share of the General Fund's administrative expenses. The City estimates that these costs, if recouped from the franchised haulers through the Solid Waste Generation Tax or other some financial mechanism, would add an estimated \$0.66 to \$4.24/month to the franchise model per residential dwelling unit depending on the assumed costs to be recouped. Factoring in these costs, the financial differential between the two models narrows.

Comparison Matrix:

To summarize the difference between the different models, and to score the various attributes, we put together the following matrix. The criterion in this comparison are not weighted and we did not try to score the 'Franchise with City Bid' model as the scoring for many categories would depend on whether a private hauler or municipal bid was selected for each district. The points were assigned as follows:

- 3 points – provides high benefit or lower risk to City and/or residents [DARK GREEN]
- 2 points – provides some benefit or moderate risk to City and/or residents [LT. GREEN]
- 1 point – provides low benefit or higher risk to City and/or residents [YELLOW]

Criterion	OPTION 1: Franchise (City runs bidding process and selects one hauler for each district)	OPTION 2: Franchise with City Bid (City runs bidding process, submits own bid, and selects one hauler for each district)	OPTION 3: Municipal Operation (City operates its own collection service for trash, recycling and organics citywide)	OPTION 4: Hybrid Operation (City operates recycling collection and franchises trash and organics collection)
Customer Choice	City-selected haulers or CSWD DOC. Some choice but less than subscription service. (2)	City-selected haulers or CSWD DOC. Some choice but less than subscription service. (2)	City service or CSWD DOC. Some choice but less than subscription service. (2)	City/haulers service or CSWD DOC. Some choice but less than subscription service. (2)
Customer Cost	Prices set through bidding process. Haulers gain efficiency through consolidation. Service projected to be cheaper than subscription service. (3)	Prices set through bidding process including the City as a bidder. Service projected to be cheaper than subscription service. (3)	City gains economy of scale through consolidation. Service projected to be cheaper than subscription service. (3)	Prices set through bidding process and City recycling budget. Service projected to be cheaper than subscription service. (3)
Customer Convenience	High. Residential customers would have one hauler efficiently picking up all waste streams on same day. (3)	High. Residential customers would have one hauler efficiently picking up all waste streams on same day. (3)	High. Residential customers would have one hauler efficiently picking up all waste streams on same day. (3)	High. Residential customers would have one hauler efficiently picking up trash and compost, while the City continues picking up recycling. Pickups can be coordinated to be on same day. (3)
Environmental Benefits	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)
Truck Traffic / Road Impact Benefits	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets. (3)	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets. (3)	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets. (3)	High. Reduction of trucks from 3 or 4 haulers to one hauler and City on many residential streets. (3)
Ability for City to Control Service and Quality	More City control than current subscription. Contract language with private haulers would include performance criteria. Any substantive changes mid-contract would need to be negotiated. Additional City staffer needed for oversight of contractor. (1)	Depends on which option wins the bid. (not scored)	Most City control. City could choose to adjust service levels and product offerings when it deemed such changes were warranted. Offers more direct operational oversight as employees and services are managed directly by City. (3)	More City control than current subscription. City maintains direct oversight of recycling program. Contract language with private haulers would include performance criteria. Any substantive changes mid-contract would need to be negotiated. Additional City staffer needed for

				oversight of contractor. (2)
Union Labor & Pay/Benefits	No change in Union positions. City would plan to redeploy 3 current Recycling positions as Street Maintenance Workers though at additional cost to City. Franchisee contract would require livable wages and could require more. (1)	Depends whether private haulers or the City wins the bid. (not scored)	Projected increase in Unionized City positions by an estimated 9-12 staffers. (3)	Projected increase in Unionized City positions by an estimated 3 staffers. Solid Waste Generation Tax would be increased to fund these positions. Franchisee contract would require livable wages and could require more. (2)
Overall City Effort to Launch	Medium. Carefully structuring bid requirements and bid processes essential to ensuring desired level of service and performance thresholds. (2)	High. Have to develop bid process, have City develop its own bid, and if City bid successful, go through all the steps listed under municipal operation.	High. Need to stand up a new enterprise, get voter approval for Charter Change and for borrowing, construct building, hire up to 14 staffers. Significant utilization of DPW innovation capacity over the next 2-3 years. (1)	Medium. Carefully structuring bid requirements and bid processes essential to ensuring desired level of service and performance thresholds. Recycling program already exists though would require hiring of 3-4 additional staffers. (2)
Upfront Capital Costs	Low. Bid requirements would require haulers to supply trucks and any backend facilities. City could decide to provide carts - up to \$1.2M. (3)	Depends whether private haulers or the City wins the bid. (not scored)	High. City would need to construct new building, buy additional vehicles and acquire carts - up to \$6.7M. (1)	Low. City has recycling vehicles. Would only have to provide carts to recycling customers who don't yet have them. City could decide to provide carts for other streams - up to \$1.2M. (3)
Require VT Legislative approval?	No. (3)	Depends. Yes, if City wins bid and City seeks Charter Change to establish enterprise fund.	Yes for Charter Change to establish enterprise fund. (1)	No. (3)
Risk to City Government	Medium. Non-performance of private haulers. Potential legal challenges from haulers. (2)	Largely depends on which option wins the bid. Additional risk if City only won some of the districts and therefore had to set up the collection infrastructure for significantly fewer customers.	High. Additional complexity to manage \$5M/year enterprise fund. Managing costs to design, permit, construct new building. Voters could not support Charter Change or revenue bond. Potential legal challenges from haulers. (1)	Medium. Non-performance of private haulers. Potential legal challenges from haulers. (2)
Timeline to Launch	Estimated 2-3 years. (3)	Estimated 2-5 years. Depends on which bids (private haulers or City) are selected.	Estimated 3-5 years. (2)	Estimated 2-3 years. (3)

Future Flexibility	Can rebid near end of each contract term or bring in-house. (3)	Depends on which bids (private haulers or City) are selected. If haulers, can rebid near end of each contract term or bring in-house.	Once initiated, municipal operation can be tweaked, but it will be politically challenging to fundamentally revisit. (2)	Can rebid near end of each contract term or bring in-house. (3)
Impact to City Billing & Customer Service Staff	Haulers or City bills. City recommends haulers bill and provide customer service under this scenario as it is the simplest to have one entity coordinating service options and associated billing costs. (not scored)	Hauler bills if private haulers selected. City bills if City selected. (not scored)	City bills. If no opt outs, billing could be included in property taxes for every residential property with 4 or fewer units. If opt outs, DPW or other department would bill properties. (not scored)	Haulers bill. Limited City customer service impacts above what already exists with recycling. Additional role for requests, and complaints for follow up on franchised portion of model. (not scored)
Dependent on voter approval?	No. City Attorney indicates franchise operation could be established with only revisions to Ordinance. (not scored)	Potentially. City Attorney indicates if City wins the bid it would need two votes: 1) to approve a Charter Change to establish an enterprise fund and 2) to secure a revenue bond. (not scored)	Yes. City Attorney indicates it would need two votes: 1) to approve a Charter Change to establish an enterprise fund and 2) to secure a revenue bond. (not scored)	No. City Attorney indicates hybrid operation could be established with only revisions to Ordinance. (not scored)
Total	32	N/A	28	34

Overall Model Analysis:

Based on our comparison of the different models and our conversations with other municipalities, DPW staff recommends implementing Option 4 (a hybrid consolidated collection model) for the following reasons that it:

- Achieves the goals of a fully consolidated collection system with a more limited upfront resource investment (both financial and human capital).
- Builds off the structure and capacity the City has already built for the Recycling Program.
- Doesn't expand City's heavy commercial vehicle fleet and only increases staff modestly so the operation can be accommodated at 645 Pine St and avoids constructing and then maintaining another municipal facility.
- Creates additional Union positions that can support other City maintenance needs such as additional snow fighting support for the Maintenance Division.
- Funds the addition Recycling Program positions through an adjustment to the City's Solid Waste Generation Tax rate – our projections are that this would be approximately \$2.00/month increase per residential dwelling unit.
- Does not appear to require Charter Changes or voter approvals and can therefore be launched more quickly and with less risk.
- Does not require our customer service teams to establish and manage a billing system for collection services.
- Provides future flexibility to expand municipal operation of collection system should there be interest in an entirely municipally-operated model.
- Maintains a role for the private haulers while improving the efficiency and cost effectiveness of the collection system for residents.

- Gives clarity on the consolidated collection direction in the short term that may help resolve long-standing issues with Chittenden Solid Waste District regarding the Burlington Drop-Off Center at 339 Pine Street and the future of 195-201 Flynn Avenue where CSWD and the City have considered a future Drop-Off Center.

Requirement for Success:

To have the implementation of this recommendation be successful, the following items are needed:

- Public engagement on key components of consolidated collection during the coming year that will drive the development of the program including:
 - Service levels (weekly or biweekly collection for each collection stream)
 - Opt out option (ability for individual residential properties opt out of some or all of the service)
 - Eligible residential properties (initial recommendation was for 1-4 unit properties but to further expand environmental benefits in mixed use neighborhoods we would like to explore serving residential properties with a greater number of units)
 - Other service options (container sizes, back door service, seasonal service, etc.)
- Council support to utilize consulting project manager to drive program development activities during the initiation phase so staff can continue to focus on day to day operations (\$50K is budgeted in the FY'22 Recycling Program budget currently)
- Council understanding of the estimated 2-3 year development period to allow for an orderly development and transition
- Council understanding of the need to set Solid Waste Generation Tax rates sufficient to safely and efficiently operate the municipally-run Recycling Program and the oversight of the private hauler franchisees into the future.

Conceptual Timeline: We estimate needing 2 to 3 years to properly launch this hybrid consolidated system.

- 6/16/21 – DPW Commission meeting – requested recommendation
- 6/22/21 – Transportation, Energy & Utilities Committee – requested recommendation
- 7/12/21 – City Council presentation and additional requested information
- 8/9/21 – City Council vote on preferred consolidated collection model
- January 2022 – Complete public engagement on service levels, residential unit cap, opt out options, district sizes, etc. and finalize model framework
- March 2022 – Complete negotiations with CSWD for recycling and organics tip fees and Casella for trash tip fee
- June 2022 – Complete bid documents for trash and organics services and issue invitations to bid
- Fall 2022 – Select vendors
- Winter 2022/2023 - Execute contracts
- January 1, 2024 – Initiate hybrid consolidated collection service

Conclusion:

The City and region have evaluated consolidated collection for decades as it has been recognized as a standard practice nationally to deliver integrated, environmentally beneficial and cost-effective collection services to residents. The studies have indicated substantial benefits switching from the existing subscription service to consolidated collection. Due to City's declaration of a climate emergency, the City commitment to waste reduction, and cost containment for residents, we recommend the City move in the direction of creating a hybrid consolidated collection operation to collect trash, recycling, and food scraps from Burlington residents in at least 1-4 unit dwellings. The recommended motion is at the top of this memo for your consideration.

Thank you for your time. Feel free to reach out to either of us directly as we know this is a major policy decision for the City. We are happy to make ourselves available. Division Director Lee Perry can be reached at lperry@burlingtonvt.gov or 802-316-7568 and Director Chapin Spencer can be reached at cspencer@burlingtonvt.gov or 802-863-9094.

Appendices:

- Appendix A: Council 2000 Resolution
- Appendix B: Public Outreach and Feedback
- Appendix C: Consolidated Collection Interviews

APPENDIX A

City Council 2000 Resolution on Consolidated Collection

[Council Resolution on Consolidated Collection 10-16-00.pdf](#)

Resolution Relating to

TRASH COLLECTION

RESOLUTION 2000-1016,
Sponsor(s) Councilors Backus,
Spencer
Introduced: 10-16-00
Referred to: _____
Action: Adopted As Amended
Date: 10-16-00
Signed by Mayor: _____

CITY OF BURLINGTON

In the year Two Thousand

Resolved by the City Council of the City of Burlington, as follows:

That WHEREAS, Burlington has trash haulers from different companies picking up on the same streets and this redundancy creates unnecessary noise, pollution, and wear and tear on the streets; and

WHEREAS, the current arrangement is uneconomical and is no longer favored by most other cities around the country; and

WHEREAS, the Department of Public Works, in a study about the economics and practical implications of municipalization or franchising, found that there would be benefits to the community if a new system were adopted;

NOW, THEREFORE, BE IT RESOLVED that the City Council hereby requests that the Public Works Commission and Department re-examine the benefits and costs of instituting a municipal or franchised trash collection system; and ^{with the understanding that the level of service} be maintained or improved

BE IT FURTHER RESOLVED that the City Council requests that the Public Works Commission invite local haulers and the manager of the Solid Waste District to participate in this investigation; and

BE IT FURTHER RESOLVED that the City Council requests that the Public Works Commission report its findings to the City Council by the first meeting in February, 2001.

* * * * *

DISTRIBUTION:

I hereby certify that this resolution
has been sent to the following
department(s) on December 8, 2000

DPW

ORIGINAL

RESOLUTION RELATING TO

Trash Collection

Adopted by the City Council

October 16, 2000

William J. ...
City Clerk

Approved....., 20.....

Attest:

Gwenn Robinson

Gwenn Robinson
Administrative Secretary

..... Mayor

Vol. Page

* * * * *

APPENDIX B

Public Engagement and Feedback

Public Engagement:

- 6/3-24/2020 - DPW distributed consolidated collection information regarding the study, and upcoming meetings via email, social media, press releases, and media advisories.
- 6/17/2020 - DPW provided the Public Works Commission with an update on the status of the consolidated collection feasibility study.
- 6/25/2020 - DPW held its first public meeting with our consultant presenting their findings on the franchised consolidated collection feasibility study. (Prior to this meeting local haulers were contacted via email informing them of the meeting, and chance for comment).
- 7/28/2020 - DPW held its second public meeting as part of the agenda for the Councils Transportation, Energy, and Utilities Committee. DPW's consultant presented their findings on the study at this meeting as well. (Prior to this meeting local haulers were contacted via email informing them of the meeting, and chance for comment).
- 8/25/2020 - DPW presented initial scope of work, outlining a municipally operated consolidated collection division, and what impacts it would have on the department as a whole. (Requested by the Committee at their July 28, 2020 meeting).
- 3/23/2021 - DPW presented its municipally operated consolidated collection conceptual budget to the Transportation, Energy and Utilities Committee as requested by the Committee, at their 8/25/2020 meeting.
- 4/27/2021 - DPW presented a second version of their municipally operated consolidated collection conceptual budget to the Transportation, Energy, and Utilities Committee, outlining additional cost scenarios.
- 4/21/2021 - DPW presented both franchised, municipally operated, and municipal hybrid options of consolidated collection to the Public Works Commission.

Feedback:

- GBB conducted a phone survey in 2019 and reached 261 residents. Respondents were asked their support for a franchised consolidated collection system:
 - 39% expressed support
 - 23% expressed opposition
 - 20% said they didn't have enough information
 - 18% didn't know
- Of those who responded in writing and spoke at meetings, more residents expressed support for consolidated collection (in either a franchised or municipally operated model), over the current subscription model. Proponents cite environmental, safety, noise impacts, and confidence in a municipal option.
- Residents who oppose consolidated collection cite needing flexibility in their trash pick-up schedules, and the opportunity to choose their hauler.
- Written comments are attached.

Public Comments Consolidated Collection

Once again, the city has to find solutions to problems that don't exist. Would anybody proposing this idiot idea like to be told to only shop at Hannaford because going to other stores farther away will add to traffic and pollution? I don't think so.

The reason I choose to deal with Gauthier Trucking is for the simple reason that they offer on-call pick-up, which many of the haulers do not. I generate very little trash, and literally only call them once every three to four MONTHS when my trash container gets filled. If you think I am going to have some company come here every week to pick up almost nothing, you have another think coming.

Why don't you consolidate the insane number of construction vehicles that run rampant all over this city?

Do something constructive with your time.

Dave Parker
Burlingtonl

Dear DPW,
How might the expanded bottle bill being considered in the legislature impact your plan. The bill is here and would expand bottles/can to be collected and proposes to increase from 5 to 10 cents the deposit on the containers. <https://legislature.vermont.gov/bill/status/2022/H.175>

[Bill Status H.175](#)

Wednesday, February 17, 2021 Committee(s): House Committee on Natural Resources, Fish, and Wildlife 9:00 AM. H.175 - An act relating to the beverage container redemption system
legislature.vermont.gov

Thanks,
Carol Ode

Brilliant

Sent from my iPhone

Public Comments Consolidated Collection

Dear DPW,

I am writing in support of the consolidation of waste services. I have never understood why any neighborhoods need more than one trash company picking up each week on different days plus recycling plus compost. Thank you for working on this!

Clean Green, Duffys, Gauthier's, Myers, Casella all come through our neighborhood. And each only pick up a few houses on our street. It's ridiculous!

Sincerely

Christine White

NNE, Burlington

Enough with the big government involvement!!!! The City does not have to manage everything. This is a free economic market. Competition is a great thing. Let it remain that way. Between rent control and electric heat etc.. it is too much!!! Take a break from trying to control our lives.

Jim Turnbaugh

Are you making provisions for disposing of yard waste also? Thank you, Peter Bouyea BOU9@comcast.net

Dear DPW

I would like to make a couple of comments on the idea of consolidated trash pickup:

1. In general, I would welcome the idea. Currently, I see at least four different trucks coming on 2 or 3 separate days to pick up trash on my street. To consolidate that into a single weekly pass by a single truck would be great.

2. That said, I am completely opposed to making participation in a new pickup program mandatory, either outright through a required sign-up or indirectly through a tax increase. We (family of 3) have lived in Burlington for nearly 30 years and have NEVER had contracted trash pickup.

Between recycling and good household practices, we would never be able to fill even a small commercial trash container on a weekly or even bi-weekly basis. Currently, I take our trash to the CSWD drop-off center approximately monthly or at most every 3 weeks and even so I only bring a single medium barrel. I admit it was easier when the Pine St. site was in operation, but even going to South Burlington ~monthly is not a big deal.

This is not only a matter of expense (although I would certainly not favor a major increase in my costs) but also a matter of efficiency. Why should my family have to pay for trash removal capacity that we would never use? Or be encouraged to generate more trash to fill a container?

So please, if you do manage to set up a consolidated system, DO NOT require all residents to sign up or pay for it, as long as they can handle the material themselves.

Don Meals

84 Caroline St.

Burlington

Public Comments Consolidated Collection

There is nothing wrong with the current system whereby residents have an option for their trash pick up. Multiple companies providing services is healthy competition and not only assures good service (it's easy to switch to a different provider if service is lacking) but also assures competitive rates. Consolidating to one service that will probably be run by the city is just another example of socialism at its worst! Sadly, this is what Burlington is becoming - no thank you!! Let's not put our small businesses (Myers and Gauthiers) out of business or take away business from Cassella for the sake of more BIG government. What's wrong with free enterprise?

Laura Turnbaugh

Dear Sir or Ms,

I believe that consolidated curbside collection would be a big improvement over the mishmash of services we now have, with multiple trucks covering every block in the city.

I would be perfectly happy to have the DPW take over the whole operation and pay for it with property tax or (better yet) combined with my water bill, even though I am fairly sure I would be paying more - it takes me several months to fill my 45 gallon garbage can, and several weeks to fill my blue recycling box. I have a compost heap, so my most immediate need is usually chicken bones and skin that I can't put in it.

The problem is taking away business from the haulers that have that business now. We need them for other services like commercial dumpsters and the big haul-aways like those used at construction sites. I have no love for them, but in the United States, we haven't just "nationalized" businesses.

Therefore, I'm hoping we can find a way to have them continue to do the job, maybe by assigning each one an area of a size based on their current business. They wouldn't be able to get customers in other areas, but they could increase their business by providing better service or lowering prices. And come to think of it, this would benefit me, because I have been taking my dump down to Pine Street, which saves a huge amount.

Thanks,
Tom Hyde
Deforest Road

It would be spectacular if one of the results of this was less days of garbage/recycling trucks. We have them most days near our house, including one that happens before 6am.

Public Comments Consolidated Collection

I have lived with consolidated waste collection and know that it works well.

In Eugene, Oregon, our consolidated waste collection had weekly household trash pickup available in 3 sizes (determined by small, med and large trash cans).

Recycling and yard waste were collected on alternate weeks in plastic containers the size of lidded recycling containers now in use in Burlington. Not having yard waste collection in Burlington has caused many hassles and much expense for us especially when the amounts are small. Residents without pickup trucks or carts have no way of moving smaller fallen tree limbs and prunings.

We had 3 lidded containers - a small one for household trash, one large for biweekly recycling, and one large for biweekly yard waste.

Food waste was not collected separately during the time I lived in Eugene. Even so, the consolidated waste collection was so successful that methane production in the area landfill was significantly below the amount expected.

In Burlington, large trash collection trucks from three different companies arrive on our street weekly in addition to the city recycling truck. I believe that consolidated waste collection would benefit the environment, the city, and the citizens of Burlington.

Kiva Ryan

Lee,

I won't be able to attend the in-person meeting, so I wanted to submit a comment.

Consolidating collection of trash, recycling, etc. sounds like an excellent idea! I grew up in Milwaukee, WI using consolidated city collection which worked great. And it seems like a no-brainer, since it would help reduce wear and tear on the roads, help pedestrians and cyclists avoid dodging a larger number of big trucks on sometimes narrow neighborhood streets, and help substantially reduce vehicle emissions. Reducing vehicle emissions is needed for all of us with climate change, but also particularly helps those with asthma like my husband and an increasing number of children, as well as those with reduced lung capacity like my mother and other older adults.

I am all in favor of it. I hope it happens!!!

Jenny Lauer
Burlington Ward 1

Hello,

I am writing in strong support for the idea of Consolidated Collection of garbage, recycling, and compost.

I think reducing the carbon footprint of many garbage collectors on many days (not to mention reducing the noise) justifies a more organized approach.

Public Comments Consolidated Collection

Thanks for working on this,
Rebecca Schwarz

Lakeside Ave
Burlington

Hi,

I was told that you are spearheading a push for collection of garbage, recycling and compost. I am strongly in favor of this and would be interested in helping you as needed. (I just saw an article that featured South Korea's recycling and composting program— there are many models that are already working.)

Thank you!

Sincerely,

Adam Grundt
79 Lakeside Ave
Burlington, VT 05401

So here we go with another ridiculous, "progressive" concept that pretends to take into account every customer's needs and supposedly save everybody money.

I live alone. I recycle a lot. I generate very little trash. I contract with Gauthier's because they are one of the few haulers in the area who provide on-call pickups. I literally have them stop once every three months, while most of the haulers require a weekly pickup. I would then be forced to take my own trash to the landfill.

Is this scenario going to be addressed with this proposal? Knowing the whacked-out idiots on the city council now, I doubt it.

Dave Parker
19 Arlington Court

As a Burlington homeowner and longtime resident, I write to offer comment on the study draft and state that I do not support creating a municipal monopoly provider for residential waste collection. We are pleased to have a choice, do not believe this is a problem that needs solving, and do not want our options limited - at present we believe service concerns and pricing levels are addressed more promptly because of the competitive environment.

Let residents make their own choices for their own reasons without dictating outcomes or insisting on a one-size-fits-all solution.

Public Comments Consolidated Collection

-Peter Young

Hi Lee,

I think it's an extraordinary opportunity to consolidate waste/recycling/compost in a citywide contract. The reduced environmental and noise impacts will be considerate, and it will make all of our lives easier. We can still have private haulers bid for the contract, if needed. And I'd be willing to even stomach a small price increase for the above benefits. Thanks for taking this proactive step to study (and hopefully implement!!) this great idea.

Sincerely,

Ali Kenney

Scarff Ave

APPENDIX C

Division Director Lee Perry conducted interviews with consolidated collection communities. His summary of his communications follows:

- **Brattleboro VT** – The City of Brattleboro has had consolidated collection of trash, and recycling since the early 90's, and compost collection since 2013. As recently as 2016 they have gone from weekly trash to EOW trash pickup, as the addition of compost collection has reduced the amount of waste put in the trash, and weekly recycling pick up. Currently they offer EOW trash, and weekly recycling and organics pick up for their 4,443 residential dwelling units. This service is being offered by use of a private hauler contracted through the municipality to pick up 1-4 unit residential dwellings. The system is set up as a pay as you throw model, where residents buy either a 15-gallon \$2.00 EA, or 32-gallon \$3.00 EA. yellow or purple trash bag. These are the only bags that are allowed to be used. They are purchased at local area supermarkets, hardware stores, and convenient stores. Recycling is placed in a bin that can be purchased at cost through the town, or residents are allowed to use small wastebaskets as well. Compost is put in a 13 gallon container provided by the town at a cost of \$20.00, but allow residents to use a rigid container with a tight fitting lid that can be easily removed by the driver, and has to be clearly labeled compost. Funding for this \$838,000/year budget is made up of revenue through the sales of refuse bags (39%), and the remaining (61%), is paid for through property taxes, and container sales. Contributions to the program vary by household, as it is based on the assessed value of the property. Contractors are chosen through a bidding process via an RFP. The RFP has performance standards built in to guarantee that the residents and city's expectations are met. Although there are performance standards, the town still fields a majority of the concerns from residents. This accounts for an average of 1-1.5 hrs. of their time daily.
- **Westford VT** – For more that 25 years, the town of Westford has offered consolidated collection to their residents via a private hauler contracted by the town. They offer weekly trash and recycling to their 868 residence's, commercial establishments, and municipal buildings. They do not collect food scraps at this time. Residents either backyard compost, or self-haul to a facility. Trash and recycling are picked up in 64 gallon containers supplied by the contractor. Any amount over the 64 gallons, is billed directly by the hauler to the resident for an additional fee of \$1.50/32 gallons. There is no bulky item pick up. One dumpster is provided for commercial establishments, if requested, and vary in size. If they require more than once a week pick up, or more than one dumpster, the contractor will bill the establishment accordingly. The contractor provides a 30 yd dumpster free of charge for Green Up Day. They also provide a 30 yd. dumpster twice a year at the town garage on an agreed upon date for residents to dispose of bulky items. The costs associated with this program are paid for through the residents property taxes. Contracts with a private hauler are 2 year contracts that specify collection standards as described above, as well as other instances such as inclement weather provisions, as some locations are on rural roads, and travel may be limited. The cost to the 868 residents for this service is \$23.25/month, which is paid through their property taxes. In 2009 the Town of Westford Select Board formed a Committee of four Town residents, to investigate the feasibility of the Town creating its own waste hauling company to reduce the cost to the residents. The goal was to research the feasibility of the town creating its own hauling company using current and/or new hire Roads Department personnel with a purchased or leased trash hauling truck. It was hoped that the current cost to the towns residents could be reduced. In conclusion the Committee did not recommend the town create its own refuse and

recycling hauling company. Their research showed that even with the elimination of any truck purchase, the cost to the town would be above what the current contract that was negotiated with the private hauler.

- **Phoenix AZ** – The City of Phoenix Sanitation Department has been collecting solid waste for their residents since 1979. It was initially a “managed competition” system, where the City of Phoenix would bid on districts against private haulers for contracts to collect solid waste. The City’s procurement department would send out an RFP outlining services, and performance standards, and have contractors, and the City submit bids on districts. This process continued until 2013, and with the City’s new “Reimagine Phoenix” initiative, (which is to increase waste diversion rates from landfills 40% by the year 2020, and zero waste by 2050), this practice was ended. The City took over collection of trash, and recycling for the 405,000 single family living units located within the boundaries of the City, utilizing 204 fully automated side-loader trucks to service the 169 total routes. From 2009-2019 the City was able to provide services without a rate increase. Currently the fee to residents is \$32.25/month. This service includes weekly 96 gallon trash, and 96 gallon recycling collection for all residents. There is currently no food scrap services offered. There are ~8500 residents that subscribe to the curbside collection of yard debris, but that is limited as most residents have landscape companies that provide that service. Also included in this service is a quarterly curbside bulky waste pick up where each resident is allowed to dispose of ~20 cubic yards each quarter, and residents can also take up to 1,000 lbs. of material to the City owned transfer station each month. Residents receive their monthly billing via a utility bill that also has their monthly water bill. Although the bills come together, they are not combined and verified by their respective departments. In addition to collection services, the City of Phoenix also owns their own landfills, transfer stations, and material recovery facilities, which enables them to keep cost to residents affordable, by not having to pay tipping fees.
- **Nashua New Hampshire** – The City of Nashua NH, Department of Public works, have always been collecting trash, recycling, and seasonal soft yard waste, for their residents. There are approximately 23,000 residents living in 1-6 unit residential dwellings that benefit from this service. Trash is collected weekly, while recycling is every other week. They do not currently collect food scraps, as there are no local composting companies, or solid waste districts in the area that collect the material for compost. Nashua operates it’s own landfill, and the Nashua Recycling Center. Bulky waste collection is completed by appointment only. Residents call the landfill to schedule a pick-up of their large items. Trash collection is completed using 5 fully automated refuse trucks, as well as 3 semi-automated trucks to service parts of the city that automated trucks cannot. Every other week recycling is completed with 3 recycling trucks. Half of the city’s recycling is picked up one week, while the other half is picked up the following week. The cost for this service is included in residents annual property tax payments. Residents can choose to self haul, but they will still contribute to the solid waste program through their property taxes, even though they do not use the service. The \$13M Solid Waste budget, that includes the collection service, and landfill operations is paid for the City’s General Fund. I was not provided a cost break down for collection, or disposal costs incurred by the city.
- **Cambridge Massachusetts** – The City of Cambridge Ma, Department of Public works, have always been collecting trash, recycling, compost, and yard waste for their residents. The city operates on a hybrid model in which the city collects trash and food scraps, and they contract with a private hauler to collect recycling, and yard waste. The

city services ~32,000 households for trash, and food scraps, and the contractor services ~45,000 households for recycling and yard waste on a weekly basis. Other services provided to residents are electronics' pick-up, as well as mattress recycling which is also through a private contractor. The city utilizes 8 rear load semi-automated refuse trucks for trash collection, and 3 refuse trucks for food scrap collection. Recycling is accomplished utilizing 5- 25 yard rear load trucks, and 1-10 yard load truck for smaller streets. Residents are allowed to purchase 50 gallon refuse containers from stores for trash collection, but soon will need to purchase carts from the city for use with the semi-automated trucks. Food scraps are collected in 12 gallon carts supplied by the city, and recycling containers are offered in 35 and 65 gallon options. The \$15.6M budget is paid for through residents' annual property tax payment. This includes all operational costs. Contracts for recycling and yard waste collection are re-bid every 5 years to keep the costs to residents competitive. The city of Cambridge provides contractor oversight, and fields all complaints, and requests for services through their department. The contractor is paid on a monthly basis, and includes driver performance bonus incentives to do well. Residents are allowed to opt out, but would be disadvantageous as they are already paying the cost in their property tax payment. The city is exploring electrification of their refuse fleet, but does not see this happening for a couple years. When it does happen, they will replace one vehicle at a time until the whole fleet is electric. For now they are replacing 3 refuse diesel powered trucks with 3 new hybrid diesel powered refuse trucks.

- **Watertown New York** – The City of Watertown NY, has been providing curbside trash collection for their residents for ~50+ years. They currently offer weekly trash removal services. Residents can either rent a 32 gallon, 64 gallon, or 96 gallon cart for trash from the City, which is paid for on a quarterly basis, or purchase blue “City of Watertown” trash stickers at \$3.25 each. The sticker must be placed on the trash bag, and the size of the bag can be no larger than 50 gallons. For each additional bag of trash that cannot fit in the cart, or each bag placed at the curb, there has to be a blue sticker attached, or it will not be picked up. The City collects ~3000 tons of trash annually from the 3500 residential units, and City buildings. Trash collection is completed utilizing two side load semi-automated refuse trucks, and one employee per truck. The fee without cart rental charged to residents is ~\$169.00 annually at one bag per week. This fee includes recycling. The cost of the program is funded by revenue generated from cart rental fees, and trash sticker sales, totaling ~\$900K annually. The City of Watertown will not pick up residents recycling unless the resident subscribes to the trash collection services, otherwise the resident may contract with a private hauler for trash and recycling collection. The City collects recycling utilizing 1 side load recycling truck with one employee. The recycling system is not single stream, so the drivers physically sort the recycling as they load it in the truck. The city generates ~550 tons of recycling annually. Residents are billed on a quarterly basis through a utility bill, similar to a water bill. Other services provided include curbside yard waste and brush collection. Yard waste must be placed curbside, in a paper bag, and brush bundled. This will be collected the same day as trash and recycling. City will often work with department's code enforcement on clean up complaints of properties on average 40+ times a year.

- **New London Connecticut** – The City of New London CT, has been collecting trash for their residents for ~ 50 years. They collect trash, and recycling 5 days a week from 1-4 residential unit properties, for ~ 10,000 residential units. They also collect from small commercial businesses in their downtown district, twice a week, as well as area schools. Trash is collected utilizing three side load semi-automated refuse trucks, with 2 employees per truck. Residents use 96-gallon carts supplied by the City. Recycling is collected utilizing 2-side load recycling trucks, with one employee per truck. Residents use blue bins for recycling supplied by the City. The City does not currently offer food scrap pick-up. The City belongs to the Southeastern Connecticut Regional Resource Recovery Authority (SCRARRA), along with 11 other cities and towns in the region. The City has negotiated fees, and annual tonnage quantities hauled to SCRARRA's "Waste-to-Energy Facility". All of New London's trash picked up by the municipality is hauled to their 700+ ton per day, mass burn facility that combines stringent environmental safeguards to produce 18 megawatts of electrical power while safely disposing of the regions trash. The City of New London, can also tap into other resources provided by SCRARRA, such as household hazardous waste collections, electronics recycling, and brush grinding. All costs associated with collection, hauling, and disposal are paid through property taxes, and a portion is allocated through their General Fund budget. Current cost to resident figures were not provided to me at this time.



**CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS**

645 Pine Street, Suite A
Post Office Box 849
Burlington, VT 05402-0849
802.863.9094 VOICE
802.863.0466 FAX
802.863.0450 TTY
www.burlingtonvt.gov/dpw

Chapin Spencer
DIRECTOR OF PUBLIC WORKS

AGENDA - June 2021 DPW Commission

June 16, 6:30PM

To attend the meeting in person: 645 Pine St, Burlington, VT 05482*

*To join or watch the meeting remotely, including to submit public comment: Join via Zoom,
<https://us02web.zoom.us/j/83495330508>*

*To call into the meeting, including to submit public comment: 301-715-8592 Webinar ID: 834 9533
0508*

Channel 17 also often livestreams this on their YouTube channel and airs it over the air at a later date

- 1. Call to order – Welcome – Chair Comments**
- 2. Agenda – 5 Min**
- 3. Public Forum (3 minute time limit per person) – 10 Min**
- 4. Consent Agenda – 5 Min**
 - a. Remove ADA Space at 54 Pitkin St
 - b. Proposed ADA Parking at 181 South Union St.
- 5. Colchester Ave/East Ave Scoping – 30 Min**
 - a. Communication, N. Losch (DPW) & J. Charest (CCRPC)
 - b. Commissioner Discussion
 - c. Public Comment
 - d. Action Requested – Vote
- 6. Consolidated Collection Study Update – 60 Min**
 - a. Communication, L. Perry & C Spencer (DPW)
 - b. Commissioner Discussion
 - c. Public Comment
 - d. Action Requested – Vote
- 7. Youth on Boards – 10 Min**
 - a. Communication, C. Spencer (DPW)
 - b. Commissioner Discussion

- c. Public Comment
 - d. Action Requested – None
-
- 8. **Approval of Draft Minutes from May 2021 Commission Meeting** – 5 Min
 - 9. **Director's Report** – 10 Min
 - 10. **Commissioner Communications** – 10 Min
 - 11. **Adjournment & Next Meeting Date** – July 21, 2021

*During the Governor's emergency order, in-person meetings had been suspended. This order has recently been lifted so we will offer an in person location to view and participate in this meeting. Most of this meeting will still function remotely via Zoom, however. Please check <https://www.burlingtonvt.gov/DPW/Commission/Agendas> for future meetings.



**CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS**

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- 5. Colchester Ave/East Ave Scoping - 30 Min**
 - a. Communication, N. Losch (DPW) & J. Charest (CCRPC)
 - b. Commissioner Discussion
 - c. Public Comment
 - d. Action Requested - Vote
- 6. Consolidated Collection Study Update - 60 Min**
 - a. Communication, L. Perry & C Spencer (DPW)
 - b. Commissioner Discussion
 - c. Public Comment
 - d. Action Requested - Vote
- 7. Youth on Boards - 10 Min**
 - a. Communication, C. Spencer (DPW)
 - b. Commissioner Discussion
 - c. Public Comment
 - d. Action Requested - None
- 8. Approval of Draft Minutes from May 2021 Commission Meeting - 5 Min**
- 9. Director's Report - 10 Min**

10. Commissioner Communications - 10 Min

11. Adjournment & Next Meeting Date - July 21, 2021

*During the Governor's emergency order, in-person meetings had been suspended. This order has recently been lifted so we will offer an in person location to view and participate in this meeting. Most of this meeting will still function remotely via Zoom, however. Please check <https://www.burlingtonvt.gov/DPW/Commission/Agendas> for future meetings.

Non-Discrimination

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



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: June 9, 2021

To: Public Works Commission

From: Phillip Peterson E.I., Associate Public Works Engineer **PCP**

CC: Norm Baldwin P.E., City Engineer

Subject: Reallocate an Accessible (ADA) Parking Space at 54 Pitkin Street to a Unrestricted Parking Space

Recommendations:

Staff recommend the DPW Commission remove:

7A Accessible spaces designated.

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

(125) On the east side of Pitkin Street, in the space immediately north of the entrance to 54 Pitkin Street.

Purpose & Need:

The purpose of this request is to allow public parking at a no longer needed accessibility (ADA) space. This change will meet the needs of local Pitkin Street Residents who no longer use this ADA space.

Project Checklist:

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

Summary and Conclusion:

Staff received a request in May 2021 from a local resident of Pitkin Street, to reallocate an on-street accessible parking (ADA) space on the east side of Pitkin Street in the first space north of the driveway for 54 Pitkin Street to an unrestricted parking space. The resident states the space was needed for another resident of 54 Pitkin Street, however there is no longer a resident with accessibility needs in the area. Consequently, Staff recommend the reallocation of the ADA parking space at 54 Pitkin Street to an unrestricted public parking space.

Public Engagement:

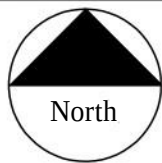
In preparation for the 6/16/21 DPW Commission Meeting, Staff placed flyers at each property along the block adjacent to the ADA parking space at 54 Pitkin Street. Staff did not receive any communication from local residents in regards to this matter.

Attachments:

1. **Site map.**
-



SCALE: 1" = 30'



54PITKIN STREET
REALLOCATION OF
ACCESSIBLE (ADA)
PARKING SPACE



**BURLINGTON
PUBLIC WORKS
ENGINEERING DIV.**

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

DESIGNED PMP	
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CHECKED NB	DRAWING NO.
DATE 6/12/2021	SHEET 1 OF 1



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Department of Public Works

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www.burlingtonvt.gov/DPW

Memo

Date: June 9, 2021

To: Public Works Commission

From: Phillip Peterson E.I., Associate Public Works Engineer **PCP**

CC: Norm Baldwin P.E., City Engineer

Subject: Proposed Accessible (ADA) Parking Space adjacent to 181 South Union Street

Staff recommends that the Commission adopt:

7A Accessible spaces designated.

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

- **On the west side of South Union Street in the first parking space north of King Street.**

Purpose & Need:

The purpose is to provide accessible parking on street as recommended by the Public Rights-of-Way Accessibility Guidelines (PROWAG). The proposed accessible (ADA) parking space at 181 South Union Street will be close to several businesses and residents, which provide an ADA parking need for the disabled community in this area.

Project Checklist:

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

Summary and Conclusion:

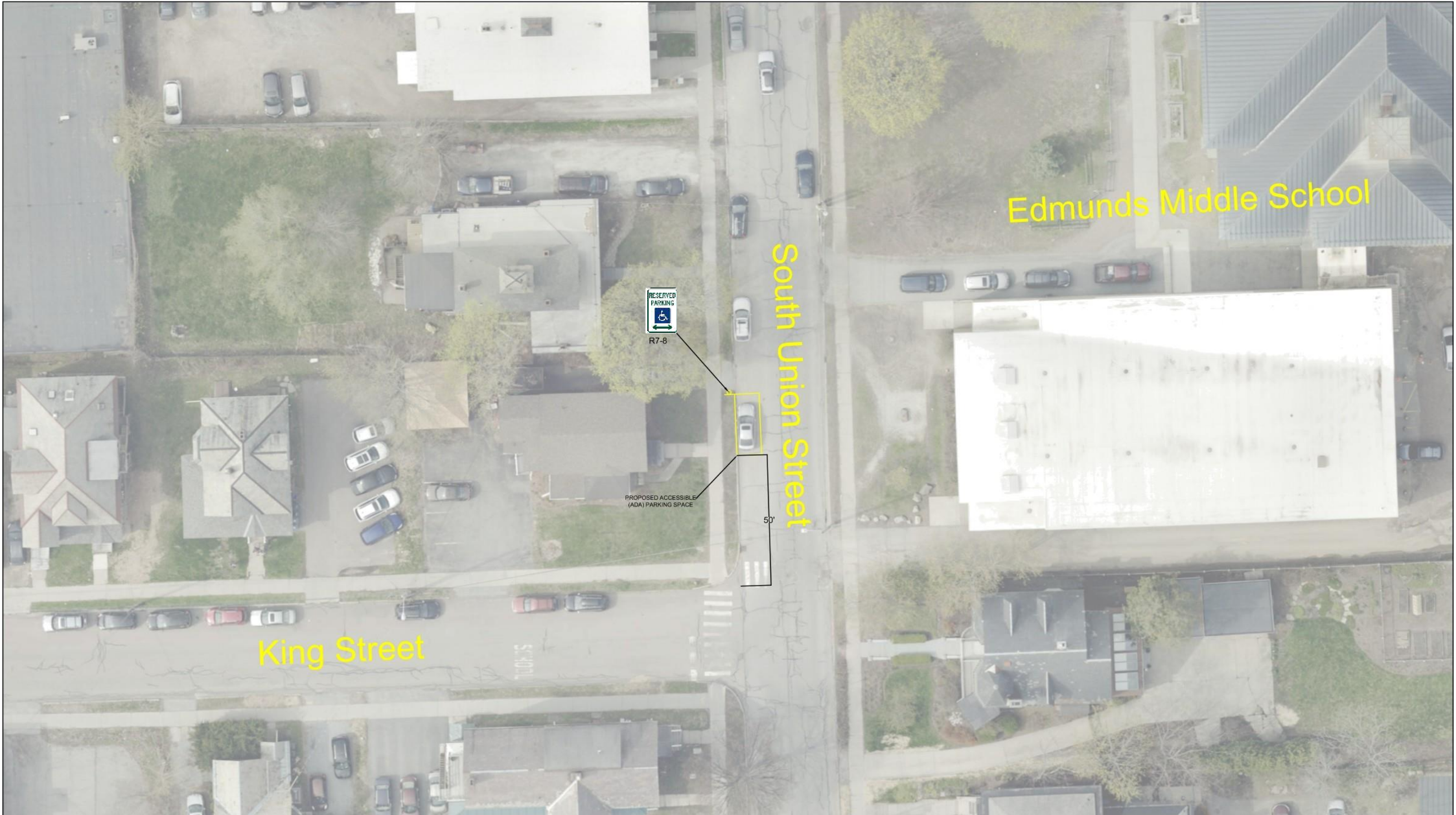
Staff received a request in May 2021 from a local business at 181 South Union Street, to install an on-street accessible parking space close to their business (see Attachemnt-1). The owner states the space is necessary to give their disabled patients reasonable access to their office. Additionally other residents and businesses in the area may need to utilize the ADA space; it is important to note, this proposed ADA space will be the only ADA space on this segment of South Union Street.

Public Engagement:

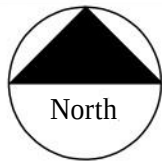
In preparation for the 06/16/21 DPW Commission Meeting, Staff distributed flyers to the homes and businesses on South Union Street and King Street adjacent to 181 South Union Street. Staff have not received any feedback in regards to this project.

Attachments:

- 1. Site map.**
-



SCALE: 1" = 30'



181 SOUTH UNION STREET
ACCESSIBLE (ADA)
PARKING SPACE



**BURLINGTON
PUBLIC WORKS
ENGINEERING DIV.**

645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
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DESIGNED PMP	
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Memo

Date: June 10, 2021

To: Public Works Commission

From: Nicole Losch, PTP, Sr.

Planner

Subject: Colchester Avenue: Bikeways, Parking, and East Ave Intersection Safety Scoping Study

Recommendation

No action is required.

At their discretion, the Public Works Commission may vote to support the recommendations outlined in the Scoping Study:

Raised and separated bike lanes on Colchester Avenue west of East Avenue; raised and separated bike lanes with short-term parking in targeted locations east of East Avenue; and an upgraded, realigned signalized intersection at East Avenue.

Introduction

This Scoping Study continues the incremental changes to Colchester Avenue outlined in previous planning studies and recent design efforts. The City requested assistance from the CCRPC to complete a scoping process that will assist the City in selecting a preferred alternative for improvements to the Colchester Avenue corridor and East Avenue intersection.

The Executive Summary provides an abridged review of the purpose and need, existing conditions, public outreach, concepts, and preferred alternatives. The full Scoping Study and Appendices are also available for additional detail.

The Advisory Committee considered public input and technical analysis to vet the concepts and vote for the alternatives they recommend the City select: raised and separated bike lanes along Colchester Avenue, pockets of on-street parking for short-term uses, and an upgraded signalized intersection at East Avenue.

Executive Summary and Scoping Study – Available online:

<https://www.ccrpcvt.org/our-work/transportation/current-projects/scoping/colchester-ave-bikeways-parking-and-intersection-safety/>



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DEPARTMENT OF PUBLIC WORKS**

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To: DPW Commissioners
Fr: Chapin Spencer, Director
Re: **Youth Representative on the DPW Commission**

Date: June 10, 2021

On May 24, 2021, the City Council approved the attached resolution calling for more youth representation on City boards including the DPW Commission. Having a youth member at the Public Works Commission should provide a richer discussion and offer more diverse perspectives to be shared prior to the Commission taking any action.

I followed up with the Clerk/Treasurer and the City Attorney to get guidance on how this will be rolled out. The Clerk/Treasurer's Office is still working on the application process, but there is initial guidance that I wanted to share:

- It is very likely that a youth member on the DPW Commission would not have voting rights. Charter Article 19. Powers Of City Council § 48(63)(B) states that "[t]he board of public works commissioners shall consist of seven legal voters of the City of Burlington, who shall be appointed by the city council to serve for the term of three years, and until their successors are appointed and qualified, except as herein otherwise provided." (Emphasis added). This means that only 18-year olds who are validly registered to vote may be Commissioners. Therefore, any youth under 18 years of age appointed by the City Council to serve as a youth member of the DPW Commission would be more of an honorary member.
- As an honorary member, the youth can be invited to speak by the Chair at any time a member of the public could be. The DPW Commission has a history of allowing public comment for each deliberative item, so that should allow the youth member to fully participate in discussions. Similarly, a youth member may present or submit communications.
- Such a role would prohibit the youth member from making motions, voting, sponsoring items, entering into executive session, or act on the Board of Appeals (including engaging in quasi-judicial deliberative sessions), etc.

It is important to note that the Council resolution requires the Commission to "appoint an existing member to serve as a mentor to each new youth member."

The resolution language is vague in a few ways. There isn't direction on how to recruit the youth member, or who should do so (i.e. departmental staff, Commissioners, etc.) prior to the City Council appointing them. Further, the resolution arguably allows for more than one youth member to be appointed to each Commission, but certainly at least one to the Public Works Commission. We are seeking clarification on these items from the City Administration.

I hope this is helpful. At our upcoming meeting we can discuss how best to structure this opportunity for the youth member and the Commission overall.

Resolution Relating to

EXPANDING YOUTH REPRESENTATION ON CITY
BOARDS - [Revised](#)

RESOLUTION _____

Sponsor(s): Councilors Pine, Tracy,
[Hanson, Hightower, Paul](#)
Introduced: _____
Referred to: _____

Action: _____
Date: _____
Signed by Mayor: _____

CITY OF BURLINGTON

In the year Two Thousand Twenty-One
Resolved by the City Council of the City of Burlington, as follows:

That WHEREAS, the City Council passed Resolution 11.0 “Expansion of Pilot Project – Youth on Commissions” on September 22, 2003 that expanded a year-long pilot project of creating positions for youth on boards to include Police Commission, Conservation Board, and Planning Commission; and

WHEREAS, since that expansion, seats for youth have been created on the Library Commission, Parks, Recreation and Waterfront Commission, Neighborhood Planning Assembly Steering Committee, and the Board for the Registration of Voters; and

WHEREAS, the youth who have served on boards have brought valuable knowledge and perspective to these boards and commission; and

WHEREAS, there are over 1000 students in grades 9 through 12 in Burlington who are impacted by the decisions that City of Burlington boards, commissions, and committees make along with the rest of the community; and

WHEREAS, mentorship is a vital piece of helping new members of all ages participate fully in boards, commissions, and committees and provides a first-hand opportunity to learn about democratic governance;

NOW, THEREFORE, BE IT RESOLVED that additional seats for youth members will be created, and appointed by the City Council with Mayor Presiding, on the Community Development Block Grant Advisory Board, Advisory Committee on Accessibility, Church Street Marketplace Commission, Board of Health, Electric Light Commission, and the Public Works Commission, ~~and the Racial Equity, Inclusion, and Belonging Committee~~; and

BE IT FURTHER RESOLVED that for the boards whose requirements would not allow a youth member to vote, these youth members shall not have the full voting rights of all other members of these boards, commissions, and committees and shall not be counted in determination of quorum requirements, but if the board or committee does not have such a limitation, the Council may determine at formation of the committee or appointment of the youth member that the youth member will have voting rights and be counted toward a quorum; and

BE IT FURTHER RESOLVED that the chairperson of each board, commission, and committee with a youth member will appoint an existing member to serve as a mentor to each new youth member.

BP/EMBlackwood/Resolutions 2021/ EXPANDING YOUTH REPRESENTATION ON CITY BOARDS
5/19/2021

**DEPARTMENT OF PUBLIC
WORKS 645 PINE STREET
BURLINGTON, VERMONT
05401
COMMISSION MEETING May 19,
2021**

Commissioners Present: Commissioner Archambeau, Commissioner Barr, Commissioner Bose, Commissioner Hogan (Chair), Commissioner O'Neill-Vivanco (Vice-Chair), Commissioner Overby.

ITEM 1 – CALL TO ORDER

Commissioner Hogan called meeting to order at 6:34 p.m.

ITEM 2 – AGENDA

Chair Hogan stated that the Trades Appeal would no longer be on the agenda.
Commissioner Barr accepted
Vice Chair O'Neill Vivanco seconded
Unanimous approval

ITEM 3 – PUBLIC FORUM –

Jason Van Driesche stated during public comment that he wanted to follow up on the letter he sent out to the Commission. He is asking to not recommend reappointing City Engineer Norm Baldwin to his current position. He understands that last year was difficult for all City Department but the city needs to reprioritize what we set as ambitious goals but we want to because the best small city to walk and bike in. We need a modern approach to street design, we need to shift gears and think about streets in different ways. He asked the Commission include in their assessment that they received this feedback from a Burlington resident.

Kelly Devine of the Burlington Business Association spoke about the Commission's upcoming decision on the removal of 24 parking spaces on Battery Street for the bike path detour. She stated that the BBA did not hear any significant concerns from taking away the parking except for retail owners in that two block area. We were enthused by the reception that we got from Assistant Director Jeff Padgett and Director Spencer to provide private parking at the Pease Lot as an alternative during the construction period. Kelly asked for clarity from DPW and Parks/Rec on how supplemental parking would work to accommodate local, downtown businesses.

Jason Stifle spoke in support of the the waterfront detour but asked why it was an afterthought to the whole construction process.

ITEM 4 – CONSENT AGENDA

- A – Reallocation of Adams Ct 2-hr Parking Zone
- B – North Avenue & Berry Street “No Parking Zone”
- C – Design Vehicle Manual Update

Commissioner Barr made a motion to accept the Consent Agenda
Commissioner O’Neill-Vivanco seconded

Commissioner Overby stated the design vehicle manual update was the same as we got in the last meeting. She did contact DPW Engineer Darisse who added language to make clear that this was dealing specifically for intersections with stop signs or stop lights and was informed that other design guidance would be forthcoming, including on roundabouts.

Unanimous approval

ITEM 5 – BIKE PATH DETOUR

City Engineer Baldwin gave an overview on Waterfront construction, its impact on the bike path and the proposal to provide a more comprehensive bike path detour. He then introduced Planner Sophie Sauvé from the Parks Department and Director Cindi Wight to further explain the sign package for the detour.

Planner Sauvé described the proposal, which included:

DPW Staff is recommending the DPW Commission to approve 7 no parking spaces on the west side of Battery Street beginning at Maple Street and extending north to Main Street.

Accessible spaces designated on the east side of King Street in the first parking space east of Battery Street. On the east side of King Street in the second parking space east of Battery Street.

The proposal will temporarily remove 14 parking spaces between Main Street and King Street; ten parking spaces between King Street and Maple Street. This includes the relocation of two accessible parking spaces on King Street just east of Battery Street. When the greenway project is complete, DPW staff will seek approval from the Commission to remove the temporary no parking restrictions and temporary relocation of the two ADA spaces; this will revert the traffic regulations on the west side of Battery Street to existing conditions.

The purpose of the temporary no parking zone is to provide all road users space to travel, which includes motor vehicles, bicyclists and pedestrians. The need is to create a safer street for all road users, while bicycle and pedestrian traffic is temporarily

detoured. The purpose of the ADA parking relocation is to provide accessible parking on street as recommended by the Public rights of way Accessibility Guidelines.

Due to the displacement of the greenway in this section during construction is to safely accommodate thousands of greenway users during what is expected to be a significant rebound year for 2021 tourist/outdoor recreation season in Burlington.

Commissioner Bose asked how many businesses would be affected on Battery and if there is an estimate of number of customers impacted by parking.

Parks Planner Sauvé answered that CEDO has done direct outreach with the businesses and the City has worked to determine how best to accommodate businesses, including hours needed.

Commissioner Bose is happy that this is moving forward.

Commissioner Overby stated this was the best plan to get people biking safely through this area.

Commissioner O'Neill-Vivanco stated this is great and needed. She points out that if there are 75,000 greenway users, they are also potential patrons of those businesses. Suggests to point this out to the businesses. This is a big area and parking is generally underutilized. Asks for clarity on what kind of negotiations the City can have with private lots?

Parks' Planner Sauv   stated that through the BBA we are working to reach out to options. Parks also runs Pease Lot and Perkins Pier which may be able to provide 10 spaces for accommodations.

Commissioner Archambeau is glad to see this plan come forward. Notes it feels reactive and thanks staff for the work.

Commissioner Barr stated that this is great for pedestrians, great improvement for access. Does hope we can follow through on parking access and provide wayfinding.

Commissioner Hogan is excited to see this moving forward, notes it is later than idea and asks what the expected duration of detour.

Sophie Sauv   stated that Phase I is starting ASAP – within the next two weeks; Phase 2 working toward the end of June/beginning of July, lasting to December.

During public comment, Jonathan Weber from Local Motion spoke and is glad to see things moving forward to make it safe. Need to address construction impacts during the planning phase. Brought forward concerns months ago, but no progress until recently as

far as we can tell. We will be glad to assist in maintaining the path, but City should not need to rely on advocates to speak up and then to also maintain a detour. Works against City's stated visions and goals for walkability/bikability. The looper will work because of volunteers who go out and fix the cones daily but a permanent barrier would be better.

Jason Stuffle said that he echoes all of Jonathan's comments. Provide biking infrastructures people will use, connectivity is the key. If there are breaks in connectivity, people won't use it.

Director Wight thanked DPW staff for their support of the project.

Commissioner Barr made a motion to accept staff's recommendation.
Commissioner Archambeau seconded.
Unanimous approval.

ITEM 6 – TRADE'S APPEAL 441 SHELBURNE STREET

Removed from agenda, resolved prior to meeting.

ITEM 7 – APPROVAL OF DRAFT MINUTES OF 4/21/21 & MARCH 2021

March 17, 2021 Minutes

Commissioner Barr made the motion to accept the March minutes with the edits as stated.

Commissioner Archambeau seconded.

Unanimous approval

April 21, 2021 Minutes

Commissioner Archambeau made a motion to approve
Commissioner Barr seconded

Commissioner Bose had abstained from vote due to being absent at meeting.
Unanimous approval

ITEM 8 – DIRECTOR'S REPORT

Director Spencer commented on the City Engineer's performance. He has provided a memo to all commissioners highlighting what an excellent staff member the City Engineer is, he goes beyond for the projects going on throughout the city. He urges the Commission to reappoint the City Engineer.

At the June Commission meeting, Director Spencer notes that DPW will have a report on the Colchester Avenue scoping project as well as the consolidated collection information.

He notes that Water Resources is going to the City Council and Finance Board on May 24th for their rate increase.

He mentions that he has attached a report for review of Departmental goals and objectives.

ITEM 9 - COMMISSIONER COMMUNICATIONS

Commissioner Barr stated he is happy with the city's work in street sweeping which makes his ride even better. Appreciates everyone's efforts.

Commissioner Bose stated he brought to DPW leadership and staff some concerns about crosswalks and crossings at Champlain Elementary. In speaking to constituents, they have appreciated the attention that was brought to the issue.

Commissioner Overby stated the short run sidewalk repair is making a big difference and is a welcome change from just doing long run repairs.

Commissioner Overy asked some questions about the mid-year review. On #7 Improving Capital Project Accounting, is DPW now able to provide life to date balance?

City Engineer Baldwin stated that we have a new system will be more timely and fulfill a higher degree of accounting. He is confident his team is improving and we can have great confidence in the financials that we have. Have always been able to provide real time information to auditors, but there have been challenges for projects not directly managed by Tech Services. The goal is to have more real time information in New World. Confident that systems are improving.

Commissioner Overby had a question about #8 provide effective coordination with private projects and was wondering if there were project managers that contractors reported to.

City Engineer Baldwin stated that while it depends on the project, a senior manager on his team is ultimately responsible.

Commissioner Overby had a question about #9 expanding preventive maintenance program. Is there something that we can look at to see where the work was done?

Director Spencer spoke about the future ability of asset management to store and display this data. Asset management is being launched later this year.

Commissioner Overby had a question about #15 – Integrating Parkmobile. Is the 194 St. Paul Street parking garage at Champlain College using the same payment kiosk system as Main Street surface lot?

Director Spencer stated yes they are 'Cale' pay stations, which are part of the City's payment infrastructure.

Vice Chair O'Neill-Vivanco referred to the letter about bike lanes to downtown and wants to know where Downtown BHS fits into the plans. When will we have information on connecting Pine Street and what will that look like? We need to look at the infrastructure to match users needs. How do we follow what is coming up through PlanBTV? Prefers CCRPC and the City not collect data on how students are getting to Institute Road – the facility will be offline for years.

Hopes for a clear process moving forward on the minutes. And expressed gratitude for what DPW has done through a challenging year.

Director Spencer stated that last year we did South Winooski Avenue bike lanes, Pearl Street before that. There are upcoming projects this year: 2 way protected bike lane coming to North Champlain Street and a shared use path on Mansfield Avenue. There are other improvements that we can explore.

Chair Hogan expressed gratitude for everything DPW is doing.

Commissioner Barr exited the meeting at 7:35 p.m.

Commissioner Bose exited the meeting at 9:10 p.m.

ITEM 10 – EXECUTIVE SESSION – DIRECTOR & CITY ENGINEER ANNUAL REVIEWS

Vice Chair O'Neill-Vivanco made a motion to exit Executive Session

Commissioner Archambeau seconded

Unanimous approval

ITEM 11 – ADJOURNMENT 7 NEXT MEETING JUNE 16, 2021

Commissioner Archambeau made a motion to adjourn

Vice Chair O'Neill-Vivanco seconded

Meeting adjourned at 9:21 p.m.



**CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS**

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Burlington, VT 05401
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www.burlingtonvt.gov/dpw

To: DPW Commissioners
Fr: Chapin Spencer, Director
Re: **DPW Director's Report**
Date: June 10, 2021

The June 2021 Public Works Commission meeting will be held online via Zoom. As the Mayor expects to lift the City's Emergency Order on June 15, the City is working on a policy and technology for future hybrid meetings that would offer in person and remote opportunities to participate. We will have more information for you in the coming month.

COVID-19 Recovery: With the Mayor's expected lifting of the Emergency Order on June 15 and the State nearing the 80% vaccination rate among eligible residents, the department is evaluating what additional steps are needed to assist with our community's recovery. The good news is that due to good planning on the part of the Commission, City Attorney and DPW staff, there does not appear to be imminent action needed from the Commission.

- **Expanded Sidewalks** - This COVID-19 initiative allowed businesses and organizations to get quick, low-cost approval to utilize adjacent City ROW for outdoor retail and dining opportunities during the pandemic. The ordinance was written to allow this initiative to continue six months after the City's Emergency Order is lifted, which would run through December 15. This is fully after the warm season ends and we expect the Expanded Sidewalk program to end at that time and transition back into our regular Parklet/Street Seats program at that time prior to the 2022 season.
- **Grab and Go Parking** - This COVID-19 initiative allowed businesses to request unmetered short term parking adjacent to their businesses to facilitate take-out and pre-ordered transactions. The Commission's most recent approval granted the DPW Director the authority to continue this initiative through July 31. I am working with staff to communicate to businesses that we will be phasing this effort out as the Emergency Order is lifted - and if they want to see any long term adjustment to on-street parking regulations that a traffic request can be submitted and we will work to address their need.
- **Water Resources Arrearage Assistance** - DPW is working with State and City leaders to advance financial assistance for ratepayers who were unable to keep current with their utility bills during the pandemic. The State has recently approved \$15M in arrearage assistance statewide. We expect to know more regarding the State program's details soon and what additional support we may need to offer at the City level using local ARPA funds. We will keep you updated. On a related matter, we are continuing the disconnection moratorium until we have a firm arrearage program in place.

Consolidated Collection: We are finalizing materials for the Consolidated Collection item coming to the Commission's June 16 meeting. We expect to have it to you mid-day Monday. The materials will be sent to you directly and posted to the Commission's webpage at that time. Thank you for your understanding as getting a complete and thorough packet on this key topic is important to us. After the Commission meeting, the recommendation will be brought to the June 22 meeting of the City Council Transportation, Energy and Utilities Committee meeting.

FY'22 Budget: The department has submitted our various budgets to the City Administration and they will be posted in the coming days on Board Docs for the upcoming June 14 Board of Finance and

City Council meetings. Thank you to the Commission's review and approval of Water Resources restructured rates and affordability program that are projected to start July 1.

Special Garage Rate for July 3 Fireworks: We are excited to see the return of the July 3 Fireworks this year. With the authority Ordinance provides me to set special rates, I am notifying the Commission that the Lakeview and College Street garages will be having \$5 flat rates starting at 5pm on July 3. This will allow us to take money upon entrance and allow easier, quicker, safer exits at the end of the fireworks. Feel free to contact Division Director Jeff Padgett with any questions (jpadgett@burlingtonvt.gov).

Final Context: Lastly, I can't thank our awesome staff enough for their hard work throughout the pandemic to keep all of the City's critical infrastructure running. It has been a trying 15 months and many staff members worked long shifts and took minimal time off - so now the Division Directors and I are urging staff to take time and recharge. As we are hopefully emerging from the pandemic, there are many stakeholders who want us to quickly tackle issues that have been delayed due to the pandemic. We will get to these items, but will need a little breather after all that we've been through. Thank you for your understanding.

Please reach out with any questions prior to Wednesday's Commission meeting.

Robert Goulding

From: Gene Bergman <genebergman26@gmail.com>
Sent: Wednesday, June 16, 2021 11:30 AM
To: Robert Goulding
Subject: Re: Consolidated Collection

[WARNING]: This email was sent from someone outside of the City of Burlington.

Thank you Robert. I'm helping care for my 94 year old father in law this week and cannot be present at tonight's meeting. I have a few comments that I'd like you to share with the commission.

1. I thank the department for its additional analysis in the memo. I am pleased it looked at a point I have made in support of the municipal option, that the franchise model underestimates the cost to the public by \$0.66 to \$4.24/month. This makes a municipal model the most cost effective for the public as well the most democratic and most environmentally and socially responsible option. I'm sorry, however, that the memo does not address the problem of monopolization which I've raised and which is inherent in a franchise model; indeed, monopolization is likely in the medium run to decrease consumer cost, choice and convenience, thereby making the rating of the franchise model inaccurate due to the rating's short term framework. I believe the ratings for the franchise model should be reduced from high to medium in each of these 3 areas to account for the monopolization that will occur should we adopt a franchise model.

2. I believe the matrix undervalues the public model in the 4 areas rated as high risk/low benefit; the ratings should be upgraded to at least medium.

A. The risk to launch the municipal option is at best medium because if the voters reject it, there is no harm and another option can be explored and the time frame for staff utilization is short, all this contrasted with the benefit to having a municipal program will be very high after the initial 2--3 year period.

B. It makes little sense to me that the upfront capital costs are rated a high risk and are looked at separately from the start up; it seems like a way to give an extra set of low points to the public option.

C. The need for a charter change is also wrong since it is framed as a vote to create "an enterprise fund". An enterprise fund department is not needed to create a municipal option and the charter in section 48(6) already gives us the authority to collect this solid waste and charge for it. This too is a way to underrate the municipal option.

D. The risk to the city is also overblown. Again, it raises the specter of a vote on a charter change which is unneeded. It makes little sense to rate the development and management of the facility and the program as a low benefit/high risk; running an efficient and ecologically responsible solid waste program under democratic control is of high value and we have proven through the water department and BED that it can be done right. The legal challenge threat is a red herring as the numbers on municipal programs demonstrate. The risk of voter rejection is no risk at all.

3. The hybrid model overstates the environmental benefit, equating it with a single collector, because it requires 2 haulers to do the same pick up.

4. I ask that the commission support the municipal model.

On Tue, Jun 15, 2021 at 4:30 PM Robert Goulding <rgoulding@burlingtonvt.gov> wrote:

Hello Gene,

We'll have a big update in today's FPF on management's recommendations for consolidated collection, an invitation to share your views at two upcoming meetings, and some next steps. I'm sharing this directly with those who have reached out to us and expressed interest and please feel free to forward along.

A Major Proposed Overhaul for Trash & Organics Collection

Per the direction set by a 2018 City Council resolution, the Department of Public Works (DPW) has been evaluating whether to consolidate collection of trash, recycling and food scraps for small residential customers. Currently, the City picks up recycling while residents are responsible for contracting for their individual trash pickup and managing their compost. This results in multiple trash and compost haulers serving the same streets.

During our review, we learned that a more coordinated collection of waste streams can reduce truck traffic and emissions, lower costs to residents and increase customer convenience. After conducting a community survey, interviews with other communities and multiple public meetings (including a current tour of NPAs), we are now sharing our recommendation with the Public Works Commission on June 16th at 6:30PM and with the Transportation, Energy and Utility Committee (TEUC) on June 22nd at 5:30PM.

DPW is recommending a hybrid consolidated collection system where the City continues to collect recycling and the City selects a private hauler through a competitive bidding process to collect trash and organics in each established district (think large neighborhood) for at least 1 to 4 unit residential properties in Burlington.

This approach is expected to:

- Save residents money as it is more efficient to have one company collect all trash and organics on a street, instead of 3 to 4 different companies
- Reduce garbage truck traffic and emissions on most residential streets by two-thirds according to our consultant
- Increase convenience by having all trash, recycling and organics collected in each neighborhood on the same day of the week

The Commission and TEUC may choose to support this recommendation or make alternate recommendations to the full City Council. Later this summer, we anticipate the full City Council deliberating on next steps for this process. Your feedback has been and will be important to this process. We encourage you to join us at these meetings and share your views with these bodies. If you cannot make this meeting, you can always submit feedback at DPWCommunications@burlingtonvt.gov or call us at 802-863-9094.

After the City Council decides which collection model to advance, DPW is recommending another resident engagement process to determine specific service levels and options that would be initially offered. Do note that implementing a consolidated collection system takes time – and that any model selected by the Council would take 2 to 5 years to launch.

To learn more about consolidated collection, please visit burlingtonvt.gov/dpw/maintenance/cc.

To see the agenda for the DPW Commission meeting, please visit burlingtonvt.gov/dpw/commission/agendas.

To see future agendas for the TEUC (next week's has not been posted yet), please visit burlingtonvt.gov/CityCouncil/TEUC.

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Robert Goulding

Public Information Manager

Department of Public Works

645 Pine St., Burlington, VT 05401



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

Public Works Commission Meeting of 6/16/2021

Questions and comments for DPW re: PWC's Consolidated Collection agenda item 6:

From Solveig Overby

My comments and questions are provided here to be posted as part of the meeting documents. The Commissioners asked me to stop asking questions since it was taking too long.

I support item number 1 of the proposed resolution before the PWC tonight, to advance implementation of a fully consolidated collection system for residential properties of 1 to 4 units. Clearly, having fewer trash trucks driving around Burlington streets because they are following efficient routes, will save fuel, reduce truck miles traveled, and reduce the pollution and noise generated by those trucks. These are good things.

Item 3 of the current proposal, should be done first: this is the resident engagement process to determine specific service levels and options to be initially offered. The proposals presented in the Feb. 3, 2020 GBB report and subsequent 2021 efforts to expand information to cover the municipal options, have not realistically assessed what Burlington residents want. Its savings presume what is confusingly labeled "EOW" trash service, meaning "every other week." It glaringly avoids planning for replacement of the Pine St. drop off center so Burlington can capture revenue from the 15 to 25% of residents who choose to drop off their trash.

I do not support item 2, which proposes what's being called a "hybrid" consolidated collection model where the City continues to collect recycling and franchised private haulers collect the trash and organics in geographic zones for which they will bid to provide service. I have read through as many of the materials as I can and reviewed the presentations made at public meetings. The information available makes clear to me that the municipal option is the best long-term option for Burlington. But the information presented is not sufficiently coherent to support a data-driven evaluation of the City's choice between investing in a municipal system and implementing the proposed "hybrid" plan.

Despite the fact that more effort will be required by the City to get it started, the finances of the municipal model make sense. The municipal system is the best way to control costs, keep service affordable, effectively maintain control over quality of service and facilitate the reduction of refuse generated in Burlington. Under a municipal model, private haulers will still serve the larger residential buildings and commercial properties. Small haulers will continue to contract to serve to these buildings as well.

Municipalities are legally responsible for managing the solid waste of their residents, whether it's trash, recycling or organics. According to the data in our materials 40% of municipalities in the US have municipally controlled consolidated collections systems. We are successful at operating BED and our water, wastewater and stormwater systems so I'm confident we can be successful at this necessary municipal service too.

Despite the work put in by DPW staff, the materials we have before us so tonight do not provide a complete representation of the advantages of a municipal system. I appreciate the effort made and recognize the intent to be objective by providing the included “benefits and risks” analysis chart. But combining two factors with different meanings into one rating value (eg. “high benefit”/”low risk”) obfuscates the meaning of the rating value. How would one rate something that’s high benefit but also high risk?

The memo we have states: “GBB reported that Burlington residents could save somewhere between \$1.6M and \$3.6M by implementing a weekly consolidated collection model compared to a residents having a weekly subscription model. “

Q. Can you explain how those savings would be realized by Burlington residents?

In the June 28, 2020 memo from DPW to the City Council’s Transportation, Energy and Utilities Committee (TEUC), concern was expressed by DPW that these savings were based on “EOW” pickup for trash and recycling. I discovered that “EOW” means “every other week.”

Q. Are the rates in the cost estimates comparison chart costs for service every other week for pickup of trash, or weekly or something else?

The 2020 GBB study, collected much useful data but it is unfortunately inadequate for failing to evaluate the municipal option at the same time as it evaluated the franchise option.

Q. Why was the municipal option not part of the 2020 GBB study?

Because no distinction was made in the 2020 GBB study between municipal vs franchise models in the surveys commingled questions about consolidated collection with questions about franchising in a way that would lead residents to think consolidated collection IS franchised trash collection. The term “city-wide collection system” was used which is also ambiguous and could be misunderstood to mean municipal system.

Page 4 of the memo for tonight’s 6/16/2021 PWC meeting has a chart representing the monthly and annual costs under different models:

Options	Municipal Model	Municipal Model	Municipal Model	Franchise Model	Franchise Model	Franchise Model
	Flynn Ave	339 Pine	339 Pine	0%	15%	25%
	0%	St 15%	St 25%	Opt Out	Opt Out	Opt Out
	Opt Out	Opt Out	Opt Out			
Households Served Weekly	13,005	11,054	9,754	13,005	11,054	9,754

Resident Annual Cost	\$413.63	\$456.46	\$494.01	\$410.03	\$422.98	\$465.55
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Resident Monthly Cost	\$34.47	\$38.04	\$41.17	\$34.17	\$35.25	\$38.80
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Below the chart of comparable costs on Page 4 of the memo for PWC 6/16/2021 meeting:

“Additionally, GBB’s Franchise model estimate does not include additional City costs for overseeing the performance of the private haulers or replacing the overhead currently contributed by the Recycling Program’s Solid Waste Generation Tax for the pro-rata share of the General Fund’s administrative expenses. The City estimates that these costs, if recouped from the franchised haulers through the Solid Waste Generation Tax or other some financial mechanism, would add an estimated \$0.66 to \$4.24/month to the franchise model per residential dwelling unit depending on the assumed costs to be recouped. Factoring in these costs, the financial differential between the two models narrows.”

On page 3 of the memo, it says:

Regarding the solid waste generation tax rate your projections are that this would be approximately \$2.00/month increase per residential dwelling.”

Q. Is the \$2/month increase included in the extra \$.66 to \$4.24 per month cost for the franchise model or in addition? Why are these extra costs not added in on the chart of comparable monthly and annual costs between the municipal and franchise models?

Q. Can you clarify how these these additional monthly costs impact the costs for residents under the proposed hybrid franchise model?

I understand 0% “opt-out” on the chart means the consolidated collection would be mandatory for all Burlington residences of 1-4 units spreading the cost among 13,000 some residences. DPW has noted 25% opt-out is closer to current practice. 15 to 25% of residents now opt to bring their trash to a drop off center like the currently closed CSWD-managed Pine St. location or CSWD-managed South Burlington Patchen Road location.

Q. Can you explain how the “opt-out” percentage limit might work?

[For example, under the 15% opt-out, if more than 15% of residents want to do self-hauling and use a drop off center, I think Director Spencer said at the April PWC meeting that there would need to be some sort of lottery to decide who would be allowed to do self-drop off and avoid participating in the consolidated collection system. A municipal system would allow Burlington to flexibly manage how it handle self-drop off of trash, recycling and organics.]

Q. Would it make sense for Burlington to include in the consolidated collection plan a way to maximize capturing the “opt-out” pay-as-you-drop revenue for Burlington?

Q. Why has a Burlington-owned and managed drop off center at the optioned Flynn Ave property, with Burlington collecting the fees not been included in this analysis as a way to retain the revenue from the “opt-out” folks who prefer to use drop off centers?

The 2020 GBB study said 55.7% would still want to use the drop off center “if this city-wide collection system were available.” Why is nothing in the proposal before the PWC that addresses the demand for the drop off center? Why is the option for a municipally managed drop off center at the Flynn Ave. property which the city has an option to purchase not addressed? Residents who choose to reduce their trash amounts likely don’t want to pay for regular trash pickup that they don’t need.

Q. Why is the 339 Pine St. Municipal option the only one listed for the 15% and 25% “opt outs” and not the Flynn Ave. drop off center option?

Q. Does the City have a contractual obligation with CSDW preventing it from operating its own drop off center?

Q. Will the use of separately franchised and served geographical areas in Burlington lead to inequity between rates paid for the same service in different neighborhoods due to differences in the bids between different haulers?

Q. Can you explain what is meant by this statement in the memo under “Overall Model Analysis”?

“Gives clarity on the consolidated collection direction in the short term that may help resolve long-standing issues with Chittenden Solid Waste District regarding the Burlington Drop-Off Center at 339 Pine Street and the future of 195-201 Flynn Avenue where CSWD and the City have considered a future Drop-Off Center. “

Q. Can you explain the details about the City’s option to purchase the 195-201 Flynn property for use as the site of the municipal consolidated collection offices and a new drop off center to replace the currently closed Pine St. Center? When does the option expire?

Q. Doesn’t the proposed “hybrid” model (with the City just continuing to do Recycling and transferring the rest of the responsibilities to private haulers) defeat one of the purposes of consolidated collection since there will be City Recycling trucks and private hauler’s trucks both on the streets?

Q. How does the DPW support its assertion that the hybrid model is a “fully consolidated system” that best furthers the City’s efforts to reduce climate change impacts, reduce waste and insure cost containment into the future for residents?

Q. If a goal of consolidated collection is to reduce wasted resources by minimizing Burlington’s trash generation, how would the franchise model encourage and drive reductions in city trash and recycling volumes since private haulers would not be motivated to make that happen?

Q. Do you have data on the truck traffic that might be generated at the Flynn Ave. facility and vehicle traffic generated by the drop off center? This probably would be similar to the traffic that's been historically seen at the Pine St. drop off location.

Following up question to an emailed response from Lee Perry on Monday, 6/14.

I had asked:

Can you tell me the solid waste revenue that Burlington received annually from trash that Burlington residents dropped at the CSWD Pine St. drop off location before it stopped allowing trash drop off?

The answer Lee provided was: “*From FY17 to current the total revenue generated from the Burlington DOC collected through solid waste generation tax fees were \$3,977, or an avg. of \$944.00/year. Some years were better than others as FY20, and FY21 were affected by the pandemic. FY17-19 were considered "normal" years, but CSWD did indicate that VT was in an economic slump during this period.”

Q. My follow up question, sent to Lee by EMAIL but not yet responded to:

Does this mean Burlington only received \$3,977 from CSWD between 2017 and 2019, or an avg. of \$944/year, from the payments made by folks who dropped trash off by the pound at the Pine St. drop off center?

Q. Do you know how many tons of trash was dropped off at the Pine St. drop off center over those same years? Were the payments to Burlington for dropped off trash based on the tons dropped off? Perhaps there was some other calculation used? (this was also asked to Lee via EMAIL on Monday 6/14 but I had expected to get answered at the PWC meeting.)

FW: Question about Flynn Ave. facility - revenue from Flynn Ave.waste drop off site with 25% opt-out



Wed 6/16/2021 9:36 AM

From: Solveig Overby

To: "soverby@sover.net"

Forwarded for printing.

From: Solveig Overby

Sent: Monday, June 14, 2021 4:52 PM

To: Lee Perry; Chapin Spencer

Cc: Robert Goulding

Subject: RE: Question about Flynn Ave. facility - revenue from Flynn Ave. waste drop off site with 25% opt-out

Lee,

This information is all very helpful, thank you! I see that the packet info has arrived so I'll look at that.

Do I understand that if Burlington wants to include a new trash drop-off at the Flynn Ave. location, Burlington would contract with CSWD to manage it, similarly to the way they managed the Pine St. drop off?

Do you have data on the truck traffic that might be generated at the Flynn Ave. facility and vehicle traffic generated by the drop off site? This probably would be similar to the traffic that's been historically seen at the Pine St. drop off.

And do I understand that it's still in discussions whether CSWD might restart the Pine St. drop off ,perhaps expanded for better traffic flow?

Finally, are you saying that Burlington only received \$3,977 from CSWD between 2017 and 2019, or an avg. of \$944.00/year, from the payments made by folks who dropped trash off by the pound at the Pine St. drop off?

Do you know how many tons of trash was dropped off at Pine St. over those three years? Were the payments to Burlington for dropped off trash based on the tons dropped off there? Perhaps there was some other calculation used?

Solveig

From: Lee Perry

Sent: Monday, June 14, 2021 3:27 PM

To: Solveig Overby; Chapin Spencer

Cc: Robert Goulding

Subject: RE: Question about Flynn Ave. facility - revenue from Flynn Ave. waste drop off site with 25% opt-out

Hello Commissioner Overby,

Hopefully I have addressed all your concerns.

I'm still confused. So, the \$4.0M cost is for purchase of the Flynn Ave site and construction of the business operations facility but not a drop off center to replace the one that closed on Pine St.?

*That is correct. Flynn Avenue, is a 3 acre parcel. DPW would use the 1 acre parcel located in the front of the property, and the remaining 2 acre parcel, could potentially be the location of the new CSWD drop off center. We have been in talks with CSWD about a possible expansion at 339 Pine St. that would allow for safer traffic flow, and would allow them to open up to accepting more waste streams.

If potentially 25% of Burlington residents might want to opt-out of the consolidated collection monthly plan and would do drop-off, wouldn't it make sense to include a revenue generating drop off site at Flynn Ave.? That way, Burlington could retain the opt-out residents' revenue rather than having those folks send it to South Burlington.

*CSWD is still looking at the option of locating a DOC at the Flynn Ave. site, but there is a criteria that needs to be met concerning traffic patterns in the South End. South End councilors do not want to see increased truck traffic going through South End neighborhoods, and do not support a DOC located there, until the Parkway is constructed, or a portion of the Parkway is constructed that would alleviate the additional truck traffic through those areas.

We should not walk away from handling that 25% and its revenue potential. Owning the drop off site, Burlington would also have the opportunity to initiate strategies for waste reduction through policies deployed at the drop off site.

*This is not a concept we have looked into, as CSWD operated the DOC's in their member communities.

I'm still waiting for the Consolidated Collection agenda item materials for Wednesdays meeting so perhaps the revenue opportunity and costs for a Burlington drop off location at the Flynn St. location has been included in the latest proposal.

*The materials are being sent out momentarily. There is no cost for a Burlington operated DOC figured in the conceptual budget for a municipal option. CSWD would be operating any potential DOC located in Burlington.

Can you tell me the solid waste revenue that Burlington received annually from trash dropped at the CSWD Pine St, drop off location before it stopped allowing trash drop off? I assume we have lost that revenue stream now since the CSDW Pine St. site is not taking Burlington drop-off trash.

*From FY17 to current the total revenue generated from the Burlington DOC collected through solid waste generation tax fees were \$3,977, or an avg. of \$944.00/year. Some years were better than others as FY20, and FY21 were affected by the pandemic. FY17-19 were considered "normal" years, but CSWD did indicate that VT was in an economic slump during this period. If you would like to get some further information on this, I can reach out to CSWD for more.

Also, I reviewed the video of the April 21 PWC meeting and you noted that the chart of projected resident monthly costs for the 25% drop off scenario was inaccurate because tipping fees had changed in the interim from when the franchise study was completed. I am assuming the material we will be getting today contains the corrected projected monthly comparable costs for the municipal vs franchise method under the various opt-out scenarios, including the anticipated 25% scenario.

*Yes the chart has been updated to reflect the correct 25% opt-out figures.

What are the current per ton tipping fees for solid waste and recycled materials? Is there a "tipping" fee now for compost material as well, and if so, what is that per ton?

*Tip fee for solid waste at Casella, is currently \$144.40/ton.

Tip fee at the CSWD's Materials Recovery Facility is currently \$80.00/ton.

Tip fee at CSWD's Green Mountain Compost is currently \$60.00/ton, but will increase July 1 to \$65.00/ton, for clean organics, and \$85/ton, for contaminated organics.

Thank you for your patience,

Lee Perry

-----Original Message-----

From: Solveig Overby <soverby@burlingtonvt.gov>

Sent: Monday, June 14, 2021 10:29 AM

To: Lee Perry <lperry@burlingtonvt.gov>; Chapin Spencer <cspencer@burlingtonvt.gov>

Subject: RE: Question about Flynn Ave. facility - revenue from Flynn Ave. waste drop off site with 25% opt-out

Lee,

I'm still confused. So, the \$4.0M cost is for purchase of the Flynn Ave site and construction of the business operations facility but not a drop off center to replace the one that closed on Pine St.?

If potentially 25% of Burlington residents might want to opt-out of the consolidated collection monthly plan and would do drop-off, wouldn't it make sense to include a revenue generating drop off site at Flynn Ave.? That way, Burlington could retain the opt-out residents' revenue rather than having those folks send it to South Burlington.

We should not walk away from handling that 25% and its revenue potential. Owning the drop off site, Burlington would also have the opportunity to initiate strategies for waste reduction through policies deployed at the drop off site.

I'm still waiting for the Consolidated Collection agenda item materials for Wednesdays meeting so perhaps the revenue opportunity and costs for a Burlington drop off location at the Flynn St. location has been included in the latest proposal.

Can you tell me the solid waste revenue that Burlington received annually from trash dropped at the CSWD Pine St, drop off location before it stopped allowing trash drop off? I assume we have lost that revenue stream now since the CSDW Pine St. site is not taking Burlington drop-off trash.

Also, I reviewed the video of the April 21 PWC meeting and you noted that the chart of projected resident monthly costs for the 25% drop off scenario was inaccurate because tipping fees had changed in the interim from when the franchise study was completed. I am assuming the material we will be getting today contains the corrected projected monthly comparable costs for the municipal vs franchise method under the various opt-out scenarios, including the anticipated 25% scenario.

What are the current per ton tipping fees for solid waste and recycled materials? Is there a "tipping" fee now for compost material as well, and if so, what is that per ton?

Solveig

From: Lee Perry

Sent: Monday, June 14, 2021 8:15 AM

To: Solveig Overby; Chapin Spencer

Subject: RE: Question about Flynn Ave. facility cost estimate for municipal consolidated collection option

Hello Rob,

The \$3.6M Would be locating new facility at 339 Pine St. \$4.0M cost estimate, is the total for purchase of

the CSWD property located on Flynn Ave \$~520,000, construction of the 11,000Sq. ft. Building ~\$2.2M, and ~\$1.2M in associated construction fees. (Building demolition, architect, consultants, possible soil remediation, permitting, etc.)

None of our proposed costs involve a CSWD drop off center. 339 Pine St. would be difficult given the contamination of soils in that area. Let me know if this is enough information?

Best,

Lee

-----Original Message-----

From: Solveig Overby <soverby@burlingtonvt.gov>

Sent: Saturday, June 12, 2021 11:49 AM

To: Lee Perry <lperry@burlingtonvt.gov>; Chapin Spencer <cspencer@burlingtonvt.gov>

Subject: Question about Flynn Ave. facility cost estimate for municipal consolidated collection option

Chapin and Lee,

In your presentation to the TEUC on March 22, 2021 about the municipal consolidated collection option, and in prior presentations to the PWC, you have provided the info below about the new facility costs to support expanding Burlington's recycling collection service into a complete solid waste/recycling/organics municipal consolidated collection enterprise.

Where did the "Facility \$3.6M - \$4.0M" cost estimate come from? Is there another document that I'm missing that explains how that cost estimate was generated? How was that number arrived?

What is the "facility" to be purchased for that estimated cost? Is it the estimated cost to create the replacement drop-off location like the one that closed on Pine St.?

Solveig

Extract from "TEUC Memo Consolidated Collection 3-22-21 Final (1).pdf"

Capital Resources

We estimate needing to invest approximately \$5.9M to \$6.7M in capital funds to stand up this operation.

[§] Facility \$3.6M - \$4.0M: Unfortunately, our 645 Pine St. location is unable to accommodate a new operation of this size. The 645 Pine site is limited in vehicle storage, employee parking, and office/meeting space. The site is at its maximum lot coverage for zoning and covered under the Pine Street Barge Canal Institutional Controls so any effort to eke out additional space would be very expensive and have impacts on other municipal operations.

Although the main functions of the program would occur off site, all repair and maintenance to the fleet would be conducted at Fleet Services located at 645 Pine St. Two possible locations to establish space to house the consolidated collection operations are:

1. 195-201 Flynn Avenue - The City has an option to purchase this site from Chittenden Solid Waste District for ~\$500,000 to establish a drop off center. The 3- acre parcel would have approximately 1 acre beyond the estimated 2 acres needed for CSWD's new drop off center. The remaining acre would likely be sufficient to accommodate the consolidated collection operations.
2. 339 Pine Street - The former location of the Public Works Department. The site may involve historic renovation restrictions, Pine Street Barge Canal Institutional Controls, and soil remediation efforts - all factors that carry risk and would likely increase costs.

This large facility investment makes a municipally operated system more challenging to establish.

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



CONSOLIDATED COLLECTION EVALUATION & RECOMMENDATION

Public Works Commission
June 16, 2021

Study of Franchise Model: Conducted by our consultant Gershman, Brickner, and Bratton Inc. (GBB) on behalf of the City of Burlington, and South Burlington.

Study of Municipal Model: Conducted by DPW staff evaluating the creation of a municipally-operated consolidated collection program.

BACKGROUND



- ▶ There are many ways communities coordinate the collection of trash, recyclables and food scraps
- ▶ In Burlington, individual residential property owners subscribe with a local hauler for solid waste services or bring their trash to one of the Chittenden Solid Waste District (CSWD) Drop-Off Centers
- ▶ According to a survey of 461 communities nationwide, this subscription arrangement occurs only in approximately 11% of communities (Source GBB)
- ▶ Consolidated collection (CC), on the other hand, is the much more common approach with 83% of the communities having the municipality either collecting waste streams itself or contracting with private haulers (Source GBB)



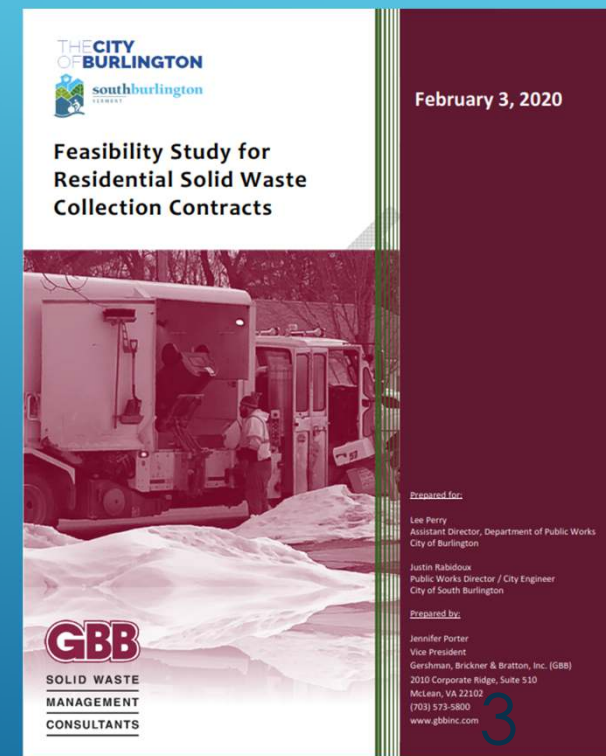
BACKGROUND



Consolidated collection has been explored in our region for decades including:

- ▶ 2000-2001: DPW evaluation initiated by an October 2000 City Council resolution
- ▶ 2009-2015: Chittenden Solid Waste District (CSWD) county-wide evaluation
- ▶ 2018-2020: DPW franchise model evaluation in collaboration with CSWD and South Burlington initiated by an April 2018 City Council resolution
- ▶ 2021: DPW municipal model evaluation initiated by a August 2020 City Council Transportation, Energy & Utilities Committee request

www.burlingtonvt.gov/dpw/Maintenance/Consolidated



PROBLEM STATEMENT



Burlington residents are experiencing:

- ▶ More costly collection service due to multiple trash and compost haulers servicing the same streets. There are currently four main trash haulers and additional compost haulers servicing City residential properties.
- ▶ More truck traffic, emissions and impact to City infrastructure from multiple haulers servicing the same streets.
- ▶ Confusing pick-up schedules with households managing pick-ups of the various waste streams two or three different days of the week.
- ▶ Occasional late or missed recycling pick-ups as current City Recycling Program is under-resourced which has put burden on existing Recycling staff and the overall Street Maintenance team.



CONSOLIDATED COLLECTION BENEFITS



The various consolidated collection studies have indicated a wide range of benefits:

- ▶ Reduced costs to residents through more efficient collection routes
- ▶ Reduced environmental impacts due to consolidation of routes (projected two thirds reduction in greenhouse gasses from residential collection)
- ▶ Increased safety, reduced impacts on City infrastructure and reduced noise in neighborhoods by reducing excess truck traffic.
- ▶ Increased diversion by using consolidated collection as the most cost-effective mechanism to broadly add collection of food scraps.
- ▶ If desired, program could allow residents to “opt out” and self-haul to a drop off center. The “opt out” allowance could be capped.

For these reasons, staff is recommending a fully consolidated collection system

PUBLIC OUTREACH & FEEDBACK



We've engaged the public through surveys, meetings and various outreach

- ▶ GBB conducted a phone survey in 2019 and reached 261 Burlington residents. Respondents were asked their support for a franchised consolidated collection system:
 - ▶ 39% expressed support
 - ▶ 23% expressed opposition
 - ▶ 20% said they didn't have enough information
 - ▶ 18% didn't know
- ▶ Of those who responded in writing and spoke at meetings, more residents expressed support for consolidated collection (in either a franchised or municipally operated model), over the current subscription model. Proponents cite environmental, safety, cost, noise impacts, and interest in a municipal option.
- ▶ Residents who oppose consolidated collection cite needing flexibility in their trash pick-up schedules and the opportunity to choose their hauler.
- ▶ Written comments are attached to the DPW memo and are posted on the DPW website.

FOUR OPERATING MODELS EXPLORED

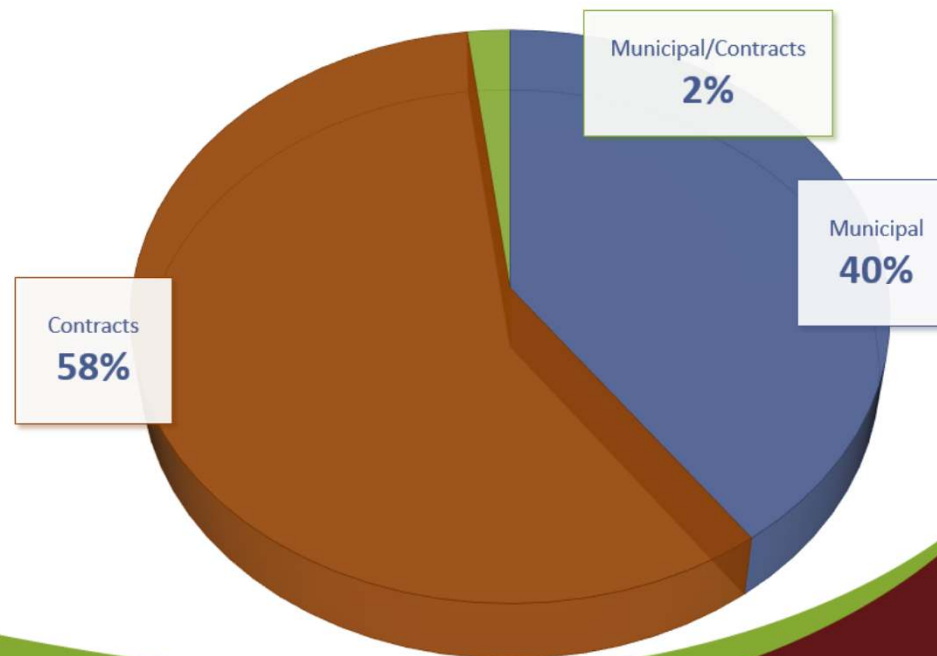


1. Franchise Model – Franchised consolidated collection is where a municipality contracts with one or more private haulers to collect curbside trash, recycling, and compost. This model was studied by consultant GBB for Burlington and South Burlington in 2019 and 2020.
2. Franchise Model with City Bid – This model is similar to the franchised model, except the municipality retains the right to bid on districts against private haulers to collect trash, recycling and compost.
3. Municipal Operation Model – This model is where the municipality itself, provides all aspects of trash, recycling, and compost collection, including oversight, customer service, scheduling, and billing.
4. Hybrid Municipal / Franchise Model – Under this scenario, the collection of different waste streams would be consolidated separately. For Burlington, this option would have recycling remain a municipally-collected service and trash and compost services would be franchised to private haulers.

PREVALENCE OF EACH MODEL



Breakdown of the 83%: Cities through municipality / private haulers under contract



Source: GBB

PROJECTED COSTS FOR ALL 3 STREAMS



Municipal and Franchising models similar in cost, depends on what is included in model

Options (weekly service scenario)	Municipal Model Flynn Ave 0% Opt Out	Municipal Model 339 Pine St 15% Opt Out	Municipal Model 339 Pine St 25% Opt Out	Franchise Model 0% Opt Out	Franchise Model 15% Opt Out	Franchise Model 25% Opt Out
Households Served	13,005	11,054	9,754	13,005	11,054	9,754
Resident Annual Cost	\$413.63	\$456.46	\$494.01	\$410.03	\$422.98	\$465.55
Resident Monthly Cost	\$34.47	\$38.04	\$41.17	\$34.17	\$35.25	\$38.80

GBB's Franchise model estimate does not include additional City costs for overseeing the performance of the private haulers. Franchise model costs have been updated with current tip fees. Municipal estimate includes debt service projections for new building, fleet vehicles, carts. Municipal option scenarios projected to be more expensive at Flynn Avenue site due to land acquisition costs.

Criterion	OPTION 1: Franchise	OPTION 2: Franchise with City Bid	OPTION 3: Municipal Operation	OPTION 4: Hybrid Operation
Customer Choice	City-selected haulers or CSWD DOC. Some choice but less than subscription service. (2)	City-selected haulers or CSWD DOC. Some choice but less than subscription service.	City service or CSWD DOC. Some choice but less than subscription service. (2)	City/haulers service or CSWD DOC. Some choice but less than subscription service. (2)
Customer Cost	Prices set through bidding process. Haulers gain efficiency through consolidation. Service projected to be cheaper than subscription service. (3)	Prices set through bidding process including the City as a bidder. Service projected to be cheaper than subscription service.	City gains economy of scale through consolidation. Service projected to be cheaper than subscription service. (3)	Prices set through bidding process and City recycling budget. Service projected to be cheaper than subscription service. (3)
Customer Convenience	High. Residential customers would have one hauler efficiently picking up all waste streams on same day. (3)	High. Residential customers would have one hauler efficiently picking up all waste streams on same day.	High. Residential customers would have one hauler efficiently picking up all waste streams on same day. (3)	High. Residential customers would have one hauler efficiently picking up trash and compost, while the City picks up recycling. Pickups coordinated for same day. (3)
Environmental Benefits	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)	High. Consolidated collection would reduce miles traveled by an estimated two-thirds.	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)	High. Consolidated collection would reduce miles traveled by an estimated two-thirds. (3)
Truck Traffic / Road Impact Benefits	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets. (3)	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets.	High. Reduction of trucks from 3 or 4 haulers to 1 hauler on many residential streets. (3)	High. Reduction of trucks from 3 or 4 haulers to one hauler and City on many residential streets. (3)

Criterion	OPTION 1: Franchise	OPTION 2: Franchise with City Bid	OPTION 3: Municipal Operation	OPTION 4: Hybrid Operation
Ability for City to Control Service and Quality	Contract language with private haulers would include performance criteria. Any mid-contract changes would need to be negotiated. (1)	Depends on which option wins the bid. (not scored)	Most City control. City could choose to adjust service levels and offerings when desired. Offers more direct operational oversight as employees and services are managed directly by City. (3)	City maintains direct oversight of recycling. Contract language with private haulers would include performance criteria. Any mid-contract changes would need to be negotiated. (2)
Union Labor & Pay/Benefits	No change in Union positions. City would plan to redeploy 3 current Recycling positions. Franchisee contract would require livable wages and could require more. (1)	Depends whether private haulers or the City wins the bid. (not scored)	Projected increase in Unionized City positions by an estimated 9-12 staffers. (3)	Projected increase in Unionized City positions by an estimated 3 staffers. Franchisee contract would require livable wages and could require more. (2)
Overall City Effort to Launch	Medium. Carefully structuring bid requirements and bid processes essential to ensuring level of service and performance thresholds. (2)	High. Have to develop bid process, have City develop its own bid, and if City bid successful, go through all the steps listed under municipal operation. (not scored)	High. Need to stand up a new enterprise, get voter approval for Charter Change and for borrowing, construct building, hire up to 14 staffers. Significant use of DPW innovation capacity. (1)	Medium. Carefully structuring bid requirements and bid processes essential to ensuring level of service and performance thresholds. Recycling program would add 3-4 staffers. (2)
Upfront Capital Costs	Low. Bid requirements would require haulers to supply trucks and any backend facilities. City could provide carts - up to \$1.2M. (3)	Depends whether private haulers or the City wins the bid. (not scored)	High. City would need to construct new building, buy additional vehicles and acquire carts - up to \$6.7M. (1)	Low. City has recycling vehicles. City could decide to provide carts - up to \$1.2M. (3)

Criterion	OPTION 1: Franchise	OPTION 2: Franchise with City Bid	OPTION 3: Municipal Operation	OPTION 4: Hybrid Operation
Require VT Legislative approval?	No. (3)	Depends. Yes, if City wins bid and City seeks Charter Change to establish enterprise fund. (not scored)	Yes for Charter Change to establish enterprise fund. (1)	No. (3)
Risk to City Government	Medium. Non-performance of private haulers. Potential legal challenges from haulers. (2)	Largely depends on whether haulers or City wins the bid. Additional risk if City won only some of the districts and therefore had to set up the collection infrastructure for significantly fewer customers. (not scored)	High. Additional complexity to manage \$5M/year enterprise fund. Managing costs to design, permit, construct new building. Voters could decide not support Charter Change or revenue bond. Potential legal challenges from haulers. (1)	Medium. Non-performance of private haulers. Potential legal challenges from haulers. (2)
Timeline to Launch	Estimated 2-3 years. (3)	Estimated 2-5 years. Depends on whether private haulers or City won bid. (not scored)	Estimated 3-5 years. (2)	Estimated 2-3 years. (3)
Future Flexibility	Can rebid near end of each contract term or bring in-house. (3)	Depends on whether private haulers or City won bid. If haulers, can rebid near end of each contract term or bring in-house. (not scored)	Once initiated, municipal operation can be tweaked, but it will be politically challenging to fundamentally revisit. (2)	Can rebid near end of each contract term or bring in-house. (3)
Total	32	N/A	28	34

DPW RECOMMENDATION – HYBRID OPTION



- ✓ Achieves the goals of a fully consolidated collection system with a significantly smaller upfront resource investment (both financial and human capital).
- ✓ Builds off the structure and capacity the City has already built for the Recycling Program.
- ✓ Can be accommodated at 645 Pine Street because it doesn't expand City's heavy commercial vehicle fleet and only increases staff modestly – avoids constructing and then maintaining another municipal facility.
- ✓ Creates 3 additional Union positions that can support other City maintenance needs such as additional snow fighting support for the Maintenance Division.
- ✓ Can fund the additional Recycling Program positions through a straightforward adjustment to the City's Solid Waste Generation Tax rate -- approximately \$2.00/month increase per residential dwelling unit.

DPW RECOMMENDATION – HYBRID OPTION



- ✓ Can be launched more quickly and with less risk without Charter Change, voter approvals, a new enterprise fund.
- ✓ Does not require our customer service teams to establish and manage a billing system for collection services.
- ✓ Provides future flexibility to expand municipal operation of collection system should there be interest in an entirely municipally-operated model.
- ✓ Maintains a role for the private haulers while improving the efficiency and cost effectiveness of the collection system for residents.
- ✓ Gives clarity on the consolidated collection direction in the short term that may help resolve long-standing issues with Chittenden Solid Waste District regarding the Burlington Drop-Off Center at 339 Pine Street and the future of 195-201 Flynn Avenue where CSWD and the City have considered a future Drop-Off Center.

REQUIREMENTS FOR SUCCESS



- Public engagement on key components of consolidated collection during the coming year that will drive the development of the program including:
 - Service levels (weekly or biweekly collection for each collection stream)
 - Opt out option (ability for residential properties opt out of some or all of the service)
 - Participating residential properties (1-4 unit properties or possibly more)
 - Other service options (container sizes, back door service, seasonal service, etc.)
- Council support to utilize consulting project manager to drive program development during the initiation phase so staff can continue to focus on day to day operations (\$50K is budgeted in the FY'22 Recycling Program budget)
- Council understanding of the estimated 2-3 year development period to allow for an orderly development and transition
- Council understanding of the need to set Solid Waste Generation Tax rates sufficient to safely and efficiently operate the municipally-run Recycling Program and the oversight of the private hauler franchisees into the future

CONCEPTUAL TIMELINE



- ❑ 6/16/21 – DPW Commission meeting – requested recommendation
- ❑ 6/22/21 – Transportation, Energy & Utilities Committee – requested recommendation
- ❑ 7/12/21 – City Council presentation with GBB
- ❑ 8/9/21 – City Council vote on preferred consolidated collection model
- ❑ January – March 2022 – Complete public engagement on service levels, residential unit limit, opt out options, district sizes, etc. and finalize model framework
- ❑ March 2022 – Complete negotiations with CSWD for recycling and organics tip fees and Casella for trash tip fee
- ❑ June 2022 – Complete bid documents for trash and organics services and issue invitation to bid
- ❑ Fall 2022 – Select vendors
- ❑ Winter 2022/2023 – Execute contracts
- ❑ January 1, 2024 – Initiate hybrid consolidated collection service

RECOMMENDED MOTION



We suggest the Public Works Commission move to recommend the City Council approve a resolution that:

1. Advances implementation of a fully consolidated collection system for at least 1 to 4 unit residential properties in Burlington; and
2. Proposes implementation of a hybrid consolidated collection model where the City continues to collect recycling and franchised private haulers collect trash and organics; and
3. Requests City staff initiate a resident engagement process to determine the specific service levels and options that will be initially offered, and return to the City Council by March 2022 with the service level recommendations and an updated timeline.

THANK YOU & INPUT WELCOMED



Comments:

DPWcommunications@burlingtonvt.gov

Questions:

DPW Division Director Lee Perry

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Phone: 802-316-7568

More information:

www.burlingtonvt.gov/dpw/Maintenance/Consolidated

**DEPARTMENT OF PUBLIC WORKS
645 PINE STREET
BURLINGTON, VERMONT 05401
COMMISSION MEETING JUNE 16, 2021
FINAL MINUTES**

Commissioners Present: Commissioner Archambeau, Commissioner Barr, Commissioner Bose, Commissioner Hogan (Chair), Commissioner O'Neill-Vivanco (Vice-Chair), Commissioner Overby.

Commissioner Absent: Commissioner Gillman

ITEM 1 – CALL TO ORDER

Commissioner Hogan called meeting to order at 6:32 p.m.

ITEM 2 – AGENDA

Commissioner Barr made a motion to approve agenda
Commissioner Bose seconded
Unanimous approval

ITEM 3 – PUBLIC FORUM

Zoe Kennedy: Ms. Kennedy stated that she is a new commissioner and will be starting at the July meeting. She spoke in support of protected bike lanes that were presented as part of the Colchester Avenue study, and circulated a petition for support of the redesign.

Isabella Dekluyver spoke in support of the separated bike lane especially in the narrow spaces where it is not safe to travel in road. A separated and raised bike lane is needed.

Tony Redington stated that we need to improve pedestrian and bicycle travel and spoke in support of roundabouts, including the option presented in the Colchester Ave study.

Monica of Ward 2 is an advocate for the raised bike lanes. She is happy to see more bike lanes but cars still park in the bike lanes. She spoke for the need to change our culture for more biking and make it more accessible. She urged the City to invest in raised bike lanes.

Martin Wolf lives on Colchester Avenue and is in support of the bike lanes. With a raised bike lane going over the edge creates a hazard. Would like to see the bike lanes with pylons like what is on North Union Street.

Jason Stuffle is an advocate for bike transportation and would like to see a dedicated bike lane separated from the road. Burlington can be a real showcase for what can be done. And as far as youths on board is in full support feeling that a younger member's viewpoint would be good for the Commission.

David Sidel is in full support for Colchester Avenue changes. The transportation sector is trapped in single occupancy cars. He feels that a raised and separated bike lane is a good option.

Gail Rose is pleased with all the bike lane lanes and uses her bike more. She rides on the sidewalks on Colchester Avenue as she feels it is not safe for bicyclists to be on the roadway. People will use the bike lanes when they are in place.

ITEM 4 – CONSENT AGENDA

- A – Remove ADA space at 54 Pitkin Street
- B – Proposed ADA space at 181 South Union Street

Commissioner Barr made a motion to accept the Consent Agenda
Commissioner Bose seconded
Unanimous approval

ITEM 5 – COLCHESTER AVENUE/EAST AVENUE SCOPING

DPW Senior Planner Losch presented along with Jason Charest from the Chittenden County Regional Planning Commission. The goal of this study was to identify transformational, long-term improvements along the Colchester Avenue corridor and at the intersection of Colchester Avenue and East Avenue that re-envision the multimodal gateway corridor following years of incremental change outlined in previous planning and design efforts. The study focused on consistent, multimodal improvements for the one-mile long corridor from the connection with Pearl Street at the intersection of North and South Prospect Streets, east to the Greenmount Cemetery, then north to Barrett Street and the Winooski River crossing. In addition, the study pursued safety improvements for the intersection of Colchester Avenue and East Avenue.

The purpose of the study was to identify and prioritize improvements along the corridor, which will enhance bicycle mobility and improve parking management while supporting local businesses and at the intersection of East Avenue, which will improve safety for all modes of transportation.

The corridor is a major corridor for transit in the city. VTrans has identified this corridor as a priority for safety improvement with three high crash locations and one HCL segment. A highway safety improvement program (HSIP) location review conducted

at Colchester Avenue and East Avenue intersection included the recommendation to realign East Avenue and update signal equipment to improve safety.

Public outreach revealed the desire for consistent and protected pedestrian and bicycle accommodations, improved accommodations at intersections for pedestrians and bicyclists, curbside access to transit and neighborhood based solutions to on street parking while supporting the high turnover parking needs of businesses.

There were plans developed to reflect the preferred corridor concepts and intersection alternative which consisted of a combination of raised and separated bike lanes along the corridor segments with targeted on street short term parking and pull outs for transit stops, delivery vehicles or other short term uses as well as new equipment, striping, a crossing on a western leg of the intersection and a dedicated bike signal for the intersection with East Avenue.

Commissioner Archambeau stated that in summery the sentiment of the community is that they are in support of the raised bike lanes on Colchester Avenue.

Jason Charest stated that we need to find the path of least resistance or design. When looking at the cost analysis there is the safety benefits with the roundabout. Roundabouts do cost more than a signalized intersection. There is less maintenance with the roundabout and there is traffic calming 24/7 as vehicles cannot fly through roundabouts.

Senior Planner Losch stated that this is the better design, there was a community process to take into consideration, the cost and safety factors. Both concepts are sound and viable at this location.

Commissioner Archambeau stated that this is on us as a community and you have done a thorough work as possible. Asked if we have data around crashes in this whole corridor.

Nicole Losch stated that VTrans has all the information on crashes and we can get this information for you.

Commissioner Barr stated he believes roundabouts are safe but that it may not be right in this intersection for cyclists. Referenced that Jeff Speck, renowned urban planner, recently spoke in Burlington, believes that modern roundabouts are not right for areas where pedestrian/cyclist vitality is desired.

Commissioner Bose stated he is in favor of the raised bike lanes. Wants broader sense of what the local residents think about this. Need more surveys from the local residents and get more data on what people think about roundabouts.

Vice Chair O'Neill-Vivanco stated that finding ways to increase engagement is always a challenge. Why are emergency vehicles, ambulances not in favor of a roundabout?

Jason Charest stated the concern received from the ambulance drivers is the amount of jostling through the roundabout as opposed to going straight through the signalized intersection.

Commissioner Overby is also in support of the raised bike lanes. She is a proponent of roundabouts. She feels people are not well educated on roundabouts and that people will learn to want different things. Not a well educated public on roundabouts and safety. Does not feel Advisory Committee had all the right information to make informed decision. Feels like financial figures are not accurate and that we don't have enough information to make the roundabout option clear enough as a better option. The information presented needs to be accurate and complete, rather than dealing with generalities. Commissioner Overby stated that a roundabout should be considered for this location; also supports separated bike lane.

Commissioner Bose asked for an answer to the cost benefit question. Senior Planner Losch stated that this was developed by VTrans as they have projects that they compare with. The annual cost and benefits are developed by VTrans. Senior Planner Losch also stated that the signalized cost estimate is by our staff, \$6,000 in capital costs per year which includes replacing the equipment down the road.

Jason Charest confirmed the preliminary costs are annualized construction costs.

Commissioner Overby stated it would helpful to more specifically label the data it would be clarifying.

Commissioner Hogan asked about the left turn procedure of a person on a bike pull over or push pedestrian signal, if this was installed whether or not the bike would have to push the button to get across. Commissioner Hogan also asked about consideration for protection at the East Avenue intersection. Senior Planner Losch stated there is not enough space for a protected/dedicated bike signal. Commissioner Hogan asked about implementation of a time frame. Losch stated they were not sure yet it has to be added onto the Capital Plan, general community priorities, funding is still a challenge. Commissioner Hogan stated that if we could get more input from operators of emergency vehicles would be more helpful.

Tony Redington stated that Jason promised for second of delay during driving travel times; that data was not available online. Spoke about queues at roundabouts are far less. Recommends using stop-delay to measure fuel consumption. Conducted before/after survey for Montpelier residents who live near roundabout and 85% were favorable/neutral.

Sharon Bushor stated that she does not favor roundabouts but hear people saying they want to keep exploring this. One area to focus on is ambulance driver concerns, impacts to patient and to the hospital. On East Ave – off of University - BED has a substation with massive trucks that turn on. Not sure how roundabouts handle oversized vehicles and if anyone spoke with BED about this. Next point is that even though there were public meetings, the bike community is very well organized and out in force. Drivers are losing parking, it is very congested and not enough room for parking. Rental properties will be forced to park in backyards, taking up grass area and which creates more storm water runoff problem. Not an inclusive city for older people, renters or those with cars.

Councilor Jack Hanson stated he thinks this is a big step forward. This can be a game changer. As for the roundabout, it disrupts the level of comfort and security for cyclists to need.

Zoe Kennedy conducted public outreach about this project and there was public support from people on this corridor and they were aware of this. We have promoted petitions in the area and they are in support of the project. We want bike lanes and improvements to the intersection. Does not agree with roundabout in that intersection.

Dave Cawley stated he sent a memo out for parking management. Cemetery and East Avenue, Thibault Parkway there is room on the street for parking, I have only seen 14-16 cars on Colchester Avenue, solutions parking in neighborhoods but there is also a corner from the neighbors about parking on the streets in their neighborhood.

Jason Stuffle stated that the conversation comes down to money versus safety. Can't put a price on safety, which should be main focus. Studies show that roundabouts are safer, slow traffic down, change people's perception of the road. Also supports raised bike lanes study around the intersection. Does not agree with intersection being signalized.

Commissioner Barr made a motion to accept staff's recommendation with more discussion of the East Avenue and Colchester Avenue intersection.

Commissioner Bose seconded. Shared that this is a model for something we want to see across the City, but most of tonight's comments were focused narrowly on the roundabout.

Commissioner Archambeau is concerned with the language in the motion as it leaves an impression that things will be paused to focus on the intersection.

Commissioner Barr rephrased his motion to make a favorable recommendation to move the project forward. Recognizes debate will continue at TEUC, Council, etc.

Commissioner Bose seconded amended motion

Commissioner Overby stated she would like to have a separate motion on raised bike lanes from the intersection. Supports protected bike lanes, but not motion as worded. Wants Commission to be clear whether to move forward with a signalized intersection or roundabout.

Commissioner Archambeau – Yeah

Commissioner Barr – Yeah

Commissioner Bose – Yeah

Vice Chair O'Neill Vivanco – Yeah

Commissioner Overby stated no for reasons specified.

Commissioner Hogan – Yeah

Motion passes 5 to 1.

ITEM 6 – CONSOLIDATED COLLECTION STUDY UPDATE

Current collection of residential trash, recycling and compost in the City of Burlington is fragmented, inefficient and costly. A fully consolidated collection system will improve convenience, reduce environmental and community impacts, and save residents money. We suggest the Public Works Commission move to recommend the City Council approve a resolution that:

- Advances implementation of a fully consolidated collection system for at least 1 to 4 unit residential properties in Burlington;

- Proposes implementation of a hybrid consolidated collection model where the City continues to collect recycling and franchised private haulers collect trash and organics;

- Requests City staff initiate a resident engagement process to determine the specific service levels and options that will be initially offered and return to the City Council by March 2022 with the service level recommendations and an updated timeline.

Problems with the current system include:

- Confusing pick up schedules with households managing pick-ups of the various waste two or three different days a week;

- More truck traffic, emissions and road damage from multiple haulers servicing the same streets.

- More costly service due to multiple trash and compost haulers servicing the same streets

- Current city recycling program is under resourced which has put burden on existing recycling staff and the overall street maintenance team.

Studies have identified significant consolidated collection benefits.

- Reduce costs to residents and haulers through more efficient collection routes

- Reduced environmental costs of excess truck traffic
- Reduced infrastructure impacts and excess truck traffic
- Reduced litter using wheeled carts by all residents
- Reduced noise in neighborhoods
- Better compliance with State and local mandates

There are four major consolidated collection options for consideration

- Franchise Model
- Franchise model with city bid
- Municipal Operation Model
- Hybrid Municipal/franchise model

Overall analysis:

- Achieves goals of a fully consolidated collection system
- Builds off the structure and capacity the City has already built for recycling
- Does not expand city's heavy commercial vehicle fleet, only increases staff
- Creates additional union positions that can support city maintenance needs
- Funds the addition recycling program positions
- Does not appear to require Charter Changes or voter approval
- Does not require customer service teams to establish and manage billing

Provides future flexibility to expand municipal operations of collections

Maintains role for the private haulers while improving the efficiency and cost effectiveness of collection system for residents.

Director Spencer stated that the city supports the hybrid option.

Commissioner Barr supports the recommendation of DPW.

Commissioner Bose supports recommendation and appreciates the options.

Vice Chair O'Neill-Vivanco supports the hybrid option. She has a note from a resident of Burlington who doesn't want to lose her trash hauler and that people want a choice. We need to communicate to the haulers what our needs are as a city – safety, choice, trash bin placement.

Commissioner Archambeau is a fan of the municipal option, but sold on the hybrid after hearing the explanation. He is a fan of consolidated collection. Had a question about livable wage being paid in Burlington to the franchised haulers and Director Spencer stated that yes it would be required by the city.

Commissioner Overby stated she fully supports consolidated collection but does not support the hybrid model. She supports #3 and would like a resident engagement process up front. She stated the start up cost not as comprehensive as franchise 1-4

unit residents. Hauler will still be doing trash for commercial businesses and larger apartment buildings. Asks for clarity how savings are achieved for the resident.

Director Spencer stated we will be aligning routes and hauler will allocate to districts there will be efficiency, speed, less time and the savings will be passed onto the resident. City has operated recycling for decades and it costs about \$1.30 each week and that represents the power of consolidated collection.

Commissioner Overby said the chart showing costs to resident doesn't really show savings to the public. It is also not clear what the schedule for pickups would be – weekly, every other week, all streams or not, etc. Also curious why the municipal option was not part of the original study.

Director Spencer referenced the prior CSWD study, which looked at municipal options. That study did not lead to implementation due to public views, hauler opposition. 2018 resolution did not specify which model(s) to study.

A discussion further ensued about the collection of the solid waste generation tax and how City costs add onto the report and numbers that GBB put together.

Commissioner Overby stated there was no discussion or mention of drop off at Flynn Avenue in the material?

Director Spencer stated that we would have to purchase the Flynn Avenue site and right now we own 339 Pine Street and it is under city control.

Commissioner Overby asked if the Railyard Enterprise Project would have impacts on the Pine St drop off center.

Director Spencer discussed old Champlain Parkway alignment, but that the preferred alternative for the REP has not been developed. Actual impact is not yet fully understood.

Commissioner Bose stated he appreciates the detail that Commissioner Overby has with her questions but we have people from the public who would like to speak. Asks if we can move forward due to level of detail which is drowning out other kind of discussion.

Commissioner Archambeau seconded that.

Commissioner Overby stated she had a document from Gene Bergman in which she would like to read as he was unable to come to the meeting tonight. Public Information Manager Goulding stated that he received it as well and was posted on the website.

Mr. Goulding read Mr. Bergman's comments.

Michael Casella of Casella Waste stated there will be an increase in taxes – less fee at drop off and there is an emissions standpoint study on a lot of the same roads. You have to consider capital cost, we are not testing electric vehicles in some of our areas.

Jason Stuffle stated the city should have the motivation to reduce waste stream and to have the city take over control. Volume is where private haulers make their money.

Commissioner Archambeau made a motion to accept staff's recommendation.

Commissioner Barr seconded

Commissioner Overby stated she wanted to separate the motion and stated Item #3 should go first, conducting the survey of what public wants.

Commissioner Hogan asked if there was any other discussion. There is a motion to accept staff's recommendations.

Archambeau – Yeah

Barr – Yeah

Bose – Yeah

O'Neill-Vivanco – Yeah

Overby – No

Hogan – Yeah

ITEM 7 – YOUTH ON BOARDS

Director Spencer stated we will discuss this at next month's commission meeting, given the hour. Please read the memo that is in the packet for an explanation.

ITEM 8 – APPROVAL OF DRAFT MINUTES 5-19-2021

Commissioner Overby submitted changes ahead of the meeting for consideration.

Commissioner Archambeau made a motion to accept minutes with changes

Commissioner Barr seconded

Unanimous approval

ITEM 9 - DIRECTOR'S REPORT

COVID 19 recovery and transition out of state of emergency is ongoing.

This is the last commissioner meeting for Commissioner Archambeau and Gillman. We want to thank them for their service, Commissioner Archambeau for 9 years of service and Commissioner Gillman for 6 years of service.

ITEM 10 - COMMISSIONER'S COMMUNICATIONS

Vice Chair O'Neill-Vivanco wanted to thank the Public Works staff for all the preparation on tonight's topic as well as their attention to the details in the packet.

Commissioner Overby thanked Commissioner Archambeau for his time as a Commissioner.

Commissioner Barr would like to echo the thoughts of both Commissioner O'Neill-Vivanco and Commissioner Overby.

Commissioner Hogan was asked by a resident about water ponding on Park Street where the street was just paved. He also asked about the Battery Street detour. Director Spencer stated that was a Parks project in which we are helping. They are working on getting a company to do the line striping. I will check into this and let you know the status.

Commissioner Archambeau thanked everyone for their kind words and expressed his gratitude for being on the Commission and helping the citizens of Burlington.

ITEM 11 – ADJOURNMENT 7 NEXT MEETING JULY 21, 2021

Commissioner Archambeau made a motion to adjourn
Commissioner Barr seconded
Unanimous approval
Meeting adjourned at 10:00 p.m.