City Council - Transportation, Energy and Utilities Committee

Monday, July 22, 2024, 5:30 PM, Kieslich Park, Stone Cottage, 311 North Ave, Burlington, VT 05401
Parking is limited, please use alternative transportation if available to you.

Join via Zoom: https://zoom.us/j/84603122855
To call into the meeting, including to speak during public comment:
Phone: 312-626-6799, Webinar ID: 846 0312 2855

1. Agenda

1.1. Motion to amend/approve

2. Adopt Minutes

2.1. Minutes of 7/11/24

3. Public Forum

4. Deliberative Agenda

4.1. Building Emissions Reduction Act

4.2. Rental Weatherization Ordinance

4.3. City Transportation Plan Update

4.4. UVM-City Land Swap at Pearl and Prospect Intersection

4.5. FY25 Fleet Replacement & Telematics Update

4.6. Riverside Avenue Slope Stability - 505 Riverside Ave Potential HMGP Application

4.7. Champlain Parkway Final Construction Contract Update

5. Director's Report

6. Councilor Items

7. Next Meeting

7.1. Discuss August dates

8. Adjournment

CITY OF BURLINGTON, VERMONT

CITY COUNCIL TRANSPORTATION, ENERGY & UTILITIES COMMITTEE

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Councilor Mark Barlow, **Chair,** *North District*
Councilor Gene Bergman, *Ward 2*
Councilor Evan Litwin, *Ward 7*
Councilor Marek Broderick, *Ward 8*

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Transportation, Energy and Utilities Committee of the City Council
Tuesday July 11, 2024 – 5:30PM
--DRAFT MINUTES--

Chair Barlow calls meeting to order at 5:37PM

1. Agenda
Councilor Bergman moves to approve the agenda. Councilor Litwin seconds. All in favor, passes unanimously.

2. Minutes of 6/25/24
Councilor Bergman moves to adopt as written. Councilor Litwin seconds. All in favor.

3. Public Forum
Jack Hanson (JH) spoke to address how City figures out to incorporate transportation & climate goals with walk/bike infrastructure. Align all street projects and plans more closely. Actions not matching plans on paper, though we all share these goals. JH references VTrans communication and thinks there is potential. Concerned that we are not seeing bike infrastructure, especially with parking garage right there. Glad to see TDM on agenda. Need to figure out parking and all subsidies, land devoted to it. Parking infrastructure limits bike infrastructure.

Shane Johnson – college student, living in Burlington, works on Pine. Need to move away from being car-centric city. Parking is low value use for land. We have opportunity to not put parking in on new construction projects. Would allow City to reduce taxes. Biking infrastructure needs to be supported; recognizing that local businesses often object. Factor this into Bank and Cherry.

Barbara Hedrich references GMT's financial constraints. 1st point - Suggests UVMMC and UVM provide shuttles, and increase cost of permits to park on campus. Don't allow greenwashing by letting campus have parkers park near campus, and then be bussed in. 3rd point - Encourage adoption of strategies and programs where everybody considers least polluting way to get from point A to point B. 4th point – UVM has busses that go from Redstone and is often empty. Reassign this to bring people from Essex into City. Campuses need strategies to encourage bike riding. Discourage allowing resident parking program to change to allow others to park on their street.

4. Deliberative Agenda
- **4.1 TDM Update**

Principal Planner Charles Dillard offers presentation on TDM study, emanates from 2021 Council direction. Chair Mark Barlow (MB) asks for brief overview followed by questions. CD says TEUC important to help prioritize different TDM strategies/give policy direction.

Presentation includes: Transportation Options Strategies; Regulation & Planning Strategies; Management and Funding Strategies; Neighborhood TDM Strategies; Next steps.

Councilor Evan Litwin (EL) asked what organizations and stakeholders in accessibility community to get feedback, including City Accessibility Committee. CD responded that Walk-Bike Council is on PAC; met with Cathedral Square residents & Leadership; Rhino food workers. EL clarifies that mobility and visual impairments is his focus. Also pointed out to check with Accessibility Committee Chair. CD confirms they did talk to Committee Chair.

Councilor Gene Bergman (GB) says the institutions are missing in this focus; and is intrigued by the relationship of TDM to the Institutional Parking Plan. Getting employees in different modes of transport into the City is important/missing from the consultant's TDM study. GB says that in terms of prioritization – a coordinator and funding for the position should be high. In terms of priorities, take care of lowest hanging fruit and identify that to build momentum/increase capacity.

CD says that in terms of TDM coordinator, meeting with other local municipalities to discuss TDM coordination. Also discussed with CATMA and CCRPC for more regional coordination. Agrees that this is priority.

CD offers to come back whenever TEUC needs.

- **4.2 Flixbus Property Use Agreement**

DPW Director Chapin Spencer (CS) joined by Assistant City Attorney Erik Ramakrishnan (ER). City approached by interstate bus carrier – Flixbus (Montreat to Boston routes). Downtown Transit Center can accomodate. Agreement w/ GMT allows this. Looking for your approval to send this to Council on 7/15. Flixbus wants to start shortly thereafter, Burlington to Boston and Montreal.

ER says that easement allows us ultimate control to allow or not allow. Our approach was to allow use with provisions that protect City's interests. Clarifies that FlixBus insurance doesn't meet City's requirements, but City feels that this is protected enough.

GB asks who our insurance advisor is. ER clarifies that it is Amy Merrit at Hickock Boardman who also advised to check with their reinsurer.

GB asks if Amy discussed what the risk is. ER says that City has no way of verifying if risk management group is capitalized enough, though they are listed with USDOT which means they meet certain insurance requirements. No way of knowing what their existing claimrs and payouts is, however.

GB asks how long notice for City to terminate. ER says we can terminate without cause at 6 months, but less for breach. ER also says that FlixBus has purchased Greyhound.

MB asks if existng Greyhound activity has similar agreement. CS unclear on status.

EL asks what the risk is to City. ER says that there is theoretically joint liability, established by Courts.

Discussion ensues about existing Greyhound pickup and drop off which is across from Post Office and is actually part of Transit Center, as clarified by CS.

EL thinks we may want to hold steadfast on insurance, given the number of pedestrians and existing number of bus accidents regionally; along with poor BBB reviews.

GB not comfortable about approval, given EL's points about risk and proximal risk.

MB asks if there is a path to move this, factoring in comments that allow City's insurer and Attorney to make final decision about risk.

MB asks if moving this to future TEUC to allow ER/CS to "push back" on insurance question with Flixbus. CS agrees that tabling is fine.

EL asks for further clarity on Greyhound relationship, agreement and insurance.

GB makes motion to postpone at next TEUC on 7/22. Second by EL. All approve.

- **4.3 Reconnecting Bank and Cherry (RBC) Concept**

CS, City Engineer Laura Wheelock (LW) and Transportation Engineer Julia Ursaki (JU) give overview on where we stand with RBC. CS previews the VTrans letter which clarifies funding obligations at risk for any significant changes. Future flexibility does exist. JU discusses other recent steps, including meeting DPW Commission, Walk Bike Council.

GB says that he was clear last time he wouldn't move forward if progress didn't put project on road to sufficient pedestrianization and bike infrastructure. Met w/ CS in the interim and appreciated the VTrans clarification. Conscious of the positive things that accepting grant does for the downtown, e.g., stormwater and Great Streets improvements. GB wants support and engagement, as well as studies, to move in the direction of pedestrianization, but also references that Departmental capacity is challenged and knows this is a challenge. GB supports moving it to Council and with good faith effort by Department to move project on glidepath to pedestrianization in future.

GB offers motion language, directing DPW to do as much work as possible in FY 25, engage with key stakeholders, conduct transportation plan, etc.

CS suggests moving this to next TEUC to discuss transportation plan, in agreement with GB.

Councilor Marek Broderick (MBr) asks how supplemental motion commits DPW to doing more in future.

LW clarifies that this is new item that commits Department to looking at holistic downtown plan, to begin taking this up at next TEUC meeting.

MBr asks what GB motion commits staff to look into upon approval of RBC motion. CS clarifies that it commits DPW to a host of actions in FY 25 to get ready for future Transportation Plan update. E.g., pilots, possible pedestrianization of Bank and Cherry (conduct traffic study), prioritization of transportation improvements, reporting to TEUC on progress.

EL asks who has been engaged on pedestrianization. CS clarifies that is the process going forward. EL then asks about the process for the public safety kiosk inclusion. LW says that DPW shared this request

With Vtrans, but is not eligible as public safety specific. Therefore a multi-use kiosk is possible and will work with CSM Commission, BPD and safety committees to vet the idea.

EL is asking for a confirmation that if we move RBC forward that there can be space for public safety, which is a current public priority.

MBr spoke in opposition.

GB makes motion. MB seconds. Motion passes 3-1 (MBr opposes).

5. Director's Report
NONE

6. Councilor Items
MB mentions 8/22 meeting at 5:30. Scheduling joint meeting with BED Commission to evaluate RFP's.

7. Next Meeting
Next regular TEUC 7/22 @ 5:30PM, Stone Cottage

8. Adjournment
Chair Barlow adjourns at 7:32 PM.

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Department of Public Works

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Memo

Date: July 22nd, 2024

To: Transportation, Energy, and Utilities Committee

From: Phillip Peterson P.E., Senior Transportation Planner

CC: Chapin Spencer, Director of Public Works
Laura Wheelock P.E., City Engineer/Division Director Technical Services

Subject: City Transportation Plan Update

Overview:
The City of Burlington is embarking on an update of the Transportation Plan to replace the existing plan adopted in 2011. This update is essential to address the city's evolving transportation needs and to position Burlington as a leader in innovative and sustainable transportation solutions.

DPW Staff are in the initial phases of securing funding for the development of a new Transportation Plan for the City of Burlington. We have discussed utilizing Unified Planning Work Program (UPWP) funds for this project with staff from the Chittenden County Regional Planning Commission (CCRPC). Given the ambitious goals of this Transportation Plan, we are exploring the possibility of seeking additional federal funds to ensure a robust and comprehensive plan. It is important to note that it is too late to obtain UPWP funding for this year, and we will apply for these funds in the coming year.

Among other tasks, the Transportaion Plan will include evaluating the feasibility of establishing additional blocks of downtown streets for pedestrian-only or pedestrian and bicycle-only traffic, including the blocks of Bank Street and Cherry Street east of Saint Paul Street. This evaluation will include:

- Completing a traffic study of the impacts of such regulatory changes on adjacent streets and intersections as well as the overall downtown street network.
- Conducting pilots where selected downtown street segments are closed to motor vehicle traffic but are open to pedestrian and bike traffic as well as other uses such as outdoor dining and events. The goal would be to host such pilots early in the development of the Transportation Plan update so that the public feedback and any recommendations could be reflected in the

plan. The City will aim for these pilots to occur during the summer or fall of 2025, or as much as possible that is within the capacity of DPW.
- Engaging a broad spectrum of residents, businesses, organizations and visitors to give input on the concepts and pilots described above.

Securing UPWP Funds:

The CCRPC's UPWP provides funding for transportation planning initiatives that enhance regional mobility, safety, and sustainability. The deadline for UPWP applications is typically in January each year. We will collaborate with CCRPC staff to prepare and apply for the upcoming funding cycle.

Proposal for Additional Federal Funds:

Recognizing the evolving needs and ambitions of Burlington, the City Council has expressed a desire to develop a more comprehensive Transportation Plan. To achieve this, we are considering the pursuit of additional federal funding sources. These funds would enable us to incorporate advanced planning techniques, broader community engagement, and innovative transportation solutions which go beyond the scope of typical UPWP-funded projects.

Benefits of a Comprehensive Transportation Plan:

1. **Enhanced Safety and Mobility:** A thorough plan will address critical safety issues, improve pedestrian and cyclist infrastructure, and enhance public transit systems.
2. **Sustainability:** Integrating sustainable practices and reducing the City's carbon footprint will be key components of the plan.
3. **Economic Growth:** Improved transportation infrastructure will support local businesses and attract new investments.
4. **Community Engagement:** A robust planning process will involve extensive community input, ensuring the plan reflects the needs and desires of Burlington residents.

Next Steps:

1. **Prepare for Next Year's (FY2026) UPWP Funding Cycle:** Finalize our preparations and ensure our application aligns with regional transportation priorities.
2. **Explore Federal Funding Opportunities:** Identify and apply for federal grants and other funding sources which support comprehensive transportation planning.

3. **Engage Stakeholders:** Conduct preliminary outreach to gather input from City Departments including the Mayor's Office, Business and Workforce Development, Community and Economic Development Office, Office of City Planning; Boards and Commissions including the Public Works Commission and Church Street Marketplace; and community stakeholders, including but not limited to Neighborhood Planning Assemblies (NPAs), the Burlington Walk/Bike Council (BWBC), the Burlington Business Association (BBA), the Chittenden Area Transportation Management Association (CATMA), Green Mountain Transit (GMT), Local Motion, and other climate and social justice organizations interested in transportation. To the extent possible within the capacity of DPW, given staffing and funding constraints and the multitude of important projects being undertaken, this preliminary outreach will occur in FY 2025.
4. **Prepare for and Conduct Preliminary Pilot Initiatives in the Downtown:** DPW will work with other departments and community stakeholders to implement pilot projects downtown that close streets to pedestrians only for events or specific time periods. To the extent possible within the capacity of DPW, given staffing and funding constraints and the multitude of important projects being undertaken, these pilot projects will occur in FY 2025.
5. **Develop a Detailed Project Plan:** Outline the scope, timeline, and budget for the Transportation Plan update, incorporating the potential additional funds.
6. **Periodically Report to the TEUC:** DPW will update the TEUC on progress on the Transportation Plan, outreach, and pilot projects periodically.

Conclusion:

We believe a more ambitious and well-funded Transportation Plan will significantly benefit the City of Burlington by creating a safer, more efficient, and sustainable transportation system. Your support and feedback on our strategy for the Transportation Plan and pursuing additional federal funds to complement the UPWP funding would be invaluable as we move forward with this initiative. Together, we can ensure that Burlington's transportation infrastructure is well-prepared to meet the future needs of our community.

Attachments:

1. 2011 Transportation Plan for the City of Burlington

MOVING FORWARD TOGETHER

Transportation Plan for the City of Burlington

Department of Public Works
Department of Planning and Zoning
Community and Economic Development Office (CEDO)

Adopted: 28 March 2011

...the Transportation element of the *Burlington Municipal Development Plan* pursuant to 24 V.S.A Ch 117.

This *Transportation Plan* reaffirms Burlington's long-term transportation vision, describes intermediate-term strategies for moving toward the vision, and specifies an initial Five Year Plan that will be updated annually. Once adopted, this *Transportation Plan* assumes the role of the required transportation element of the *Burlington Municipal Development Plan*.

1) Burlington's Transportation Vision

…transportation functions as part of an interconnected system which offers a range of choices that are safe, affordable, efficient, and convenient for residents, employees, and visitors alike. As a result, rail, air, ferries, transit, cycling, and walking are successfully competing with the automobile for the dominant mode of choice. Local and regional multimodal corridors and centers are maximizing our use of existing infrastructure, while eliminating congestion, preserving air quality, and conserving energy. Commuters, families, and employers are benefiting from a diverse array of transportation demand management strategies such as car- and van-pools, flexible work schedules, and telecommuting. Land use and transportation decisions are considered together, significantly reducing the need for individual automobiles and large parking facilities. Greater use of rail for freight has been embraced as an effective means of removing trucks from neighborhood streets. City streets are attractive public spaces, and function as part of a system of interconnecting streets. Circulation within the downtown, waterfront, neighborhood activity centers, and institutional campuses is predominantly oriented to the pedestrian. A series of trails and paths provide access between neighborhoods and areas of protected open space.

In recent years, the City of Burlington has continually recommitted itself to a transportation vision which stresses transportation choices and livability, including the Legacy Plan (2000) and the Climate Action Plan (2000). This *Transportation Plan* reaffirms this vision.

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2) Transportation in the Future

The *Transportation Plan* is directed at promoting three general themes:

A) Strong and Healthy City

B) Transportation Choices

C) Great Streets

2A) Strong and Healthy City

Transportation is a foundation of a vital Burlington. It serves residents, businesses, institutions, workers, shoppers, patrons, and visitors. Transportation infrastructure is a critical part of the urban form and a strong contributor to how the City is experienced in daily life.

Economic Health

The downtown/waterfront and Hill institutions areas are major jobs centers for the greater Burlington region. Other areas in the City may become more important jobs centers including the "enterprise zone" to the south of downtown along the Lakeshore and Pine Street, and the industrial area between Home and Flynn Avenues. These jobs centers depend on transportation for their workers, customers, and product delivery. As part of the *Transportation Plan* development, extensive interviews were conducted with business people in the downtown/waterfront area. Several concerns were frequently mentioned: parking availability, congestion, and wayfinding.

Physical Health

Studies have shown that regular physical activity improves health and quality of life. Adults can reduce the risk of chronic disease (i.e., heart disease, type II diabetes, obesity) with just 30 minutes of moderate exercise, such as brisk walking, five or more days per week. Many Americans report that they want to walk more but find barriers to walking. "Active living" for children can be promoted through "Safe Routes to School" and supporting children in walking and biking.

Choices for an Aging Population

The AARP recommends high quality walking and transit options for older residents. Its *Growing Older in a Livable City* process surveyed 800 local residents aged 45 and up about concerns and obstacles to walking and using transit. The highest ranked walking concerns were: 1) conflicts with bikes and skateboards, 2) adequate places to sit and rest, 3) crossing islands available where needed. The top transit concerns were: 1) adequate shelter, 2) limited weekend and evening service, 3) and benches.

Safety

Safety is of critical importance, particularly where walkers and bikers interact with cars and trucks.

Environmental Health

Tailpipe emissions represent the second greatest source of global warming gases in the United States. Encouraging alternative transportation modes is a key part of any effort to address global warming. The No Idling Campaign is another illustration of Burlington's commitment to public health and the environment.

2B) Transportation Choices

Cars

According to 2000 Census data, 62 percent of Burlington residents drove alone to work and another 12 percent carpooled. For commuters coming into Burlington, the car mode share today is even higher – 83 percent drive alone and 14 percent carpool. There is peak hour/peak direction congestion at the City's gateways including Main Street, Colchester Avenue, and Shelburne Road. While this congestion is frustrating to many, all successful cities must deal with traffic congestion. A partially offsetting benefit of this congestion is that it "meters" traffic coming into the core of the City, and helps to limit congestion there.

The planned Champlain Parkway (Southern Connector) will add limited additional roadway capacity. The traffic analyses indicate that the Pine Street section will continue to act as a metering point. For the peak hours/peak directions, overall roadway capacity into and out of the City is estimated to increase by only about 2-4 percent.

Lacking expansion opportunities, the City does not intend to add new capacity beyond the Champlain Parkway. The goal of the City is to accommodate growth in travel within the existing roadway network and through Transportation Systems Management (TSM), non-auto modes, and Transportation Demand Management (TDM).

Transportation Systems Management (TSM)

Transportation Systems Management (TSM) uses the roadway as efficiently as possible. Common TSM actions include installing new traffic signals and improving coordination between signals.

There is a national effort to apply new technology to traffic management under Intelligent Transportation Systems (ITS). Several ITS projects are under consideration at the Chittenden County Metropolitan Planning Organization (CCMPO) which could help traffic operations in the City. These include projects to coordinate and monitor traffic signals on congested streets, provide signal preemption for emergency vehicles, and provide real-time traveler information.

Transit

Transit availabity is critical, especially for the young, the old, those without cars, and those who otherwise are dependent on transit. It also is becoming increasingly important that transit be attractive to choice riders, some of whom will need to shift to transit if the City is to increase the number of travelers in and out of the core. Choice riders (those who do not rely solely on public transportation) have identified the current level of service as a deterrent to more transit use, citing lack of evening/weekend service, service frequency, and long travel times.

The near-to-medium term vision for public transportation service in Burlington is to provide a high level of service on primary trunk routes serving downtown from the north, northeast, east, and south, complemented by shuttle services and neighborhood feeder services. Trunk routes (see Fig. 2) include:

- North Avenue;
- Essex Junction (service to Colchester Avenue/Winooski/Essex);
- University Mall/Airport;
- Shelburne Road; and
- Pine Street.

These trunk routes would run frequently during the day, and service would be provided evenings and weekends, and serve both walk-access transit riders and those parking at remote lots.

Walking

Walking is the fundamental urban transportation mode and is an essential part of all trips, especially transit trips. Walking is healthy, good for the environment, and does not contribute to congestion. This *Transportation Plan* envisions a fully walkable city. Priorities for improving the City's walking infrastructure include improved maintenance and improved crossings.

Biking

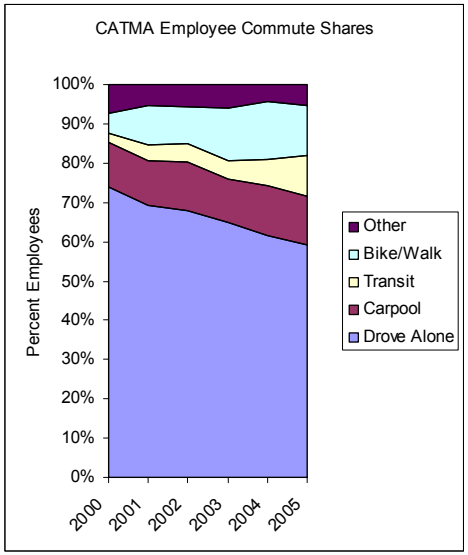
The *Transportation Plan* supports biking as a transportation choice that is non-polluting, energy efficient, and promotes good health. Burlington has some excellent off-road paths, but lacks the on-street facilities needed for biking to be a practical alternative to cars for day-to-day transportation. This *Transportation Plan* calls for a complete bike network.

Accessibility

It is critical that transportation be accessible as possible, especially for pedestrians, transit customers, and those using handicapped parking spaces

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) aims at reducing car travel and congestion. Work trips are especially important because they repeat on a regular basis, so changing even a single daily commute makes a big difference over time.



The Campus Area Transportation Management Association (CATMA) has been highly effective in reducing travel and parking demand for the City's major educational and health care institutions. A Downtown Transportation management Association (TMA) is under discussion as a means to expand this success to the downtown area.

Parking

Parking is a critical resource for any community, especially in the downtown/core area. It is the means by which a driver is converted to a shopper, client, visitor, or just plain citizen. Provision of appropriate parking in terms of location, quantity, and accessibility is essential to the survival and prosperity of any community's downtown core, including Burlington.

The Burlington core area relies heavily on its "character" and attractive environment to support its economic base. Parking however, even when attractively done, represents a "hole" in the

street-level activity that is an integral part of that attractiveness. Moreover, parking incurs substantial costs ranging from $12-$15,000 for above ground garage spaces and $25-30,000 for underground spaces. Additionally, parking requires significant annual maintenance costs including plowing, paving and striping, fee collection, and policing.

It is the policy and priority of the City to better utilize the existing parking inventory by implementing improved parking management strategies, and to add additional inventory in strategic locations necessary and as new development presents opportunities. Parking in the downtown core is currently inadequate and action should be taken to address this issue. Parking management strategies aimed at increasing the utilization of existing facilities are set out in this Plan, and include improved wayfinding enabling motorists to more readily find available spaces in under-utilized facilities, along with more market-oriented approaches to the pricing of parking designed to free-up more on-street spaces.

Figure 2: Street Types and Street Network (map continued on following page)

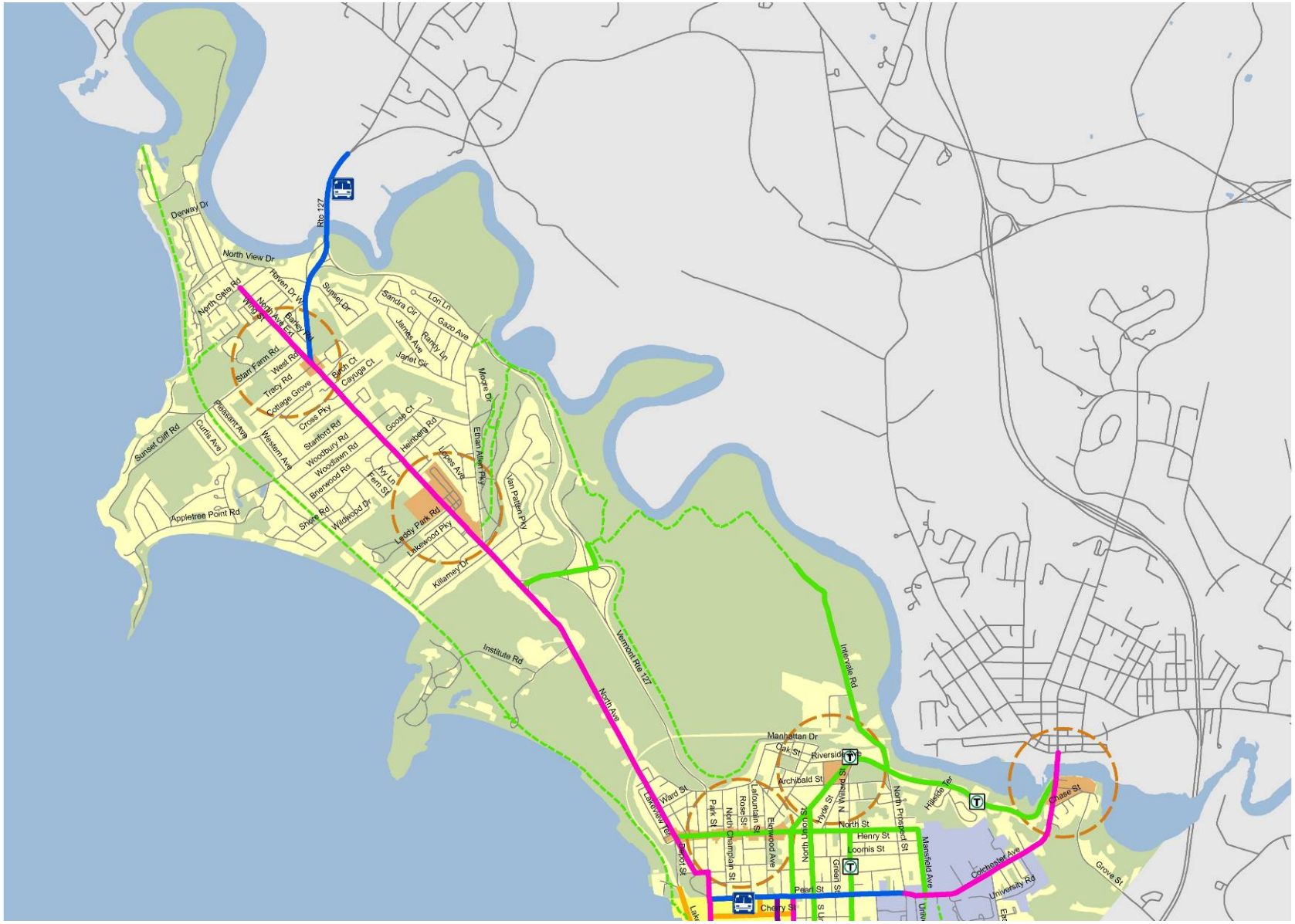
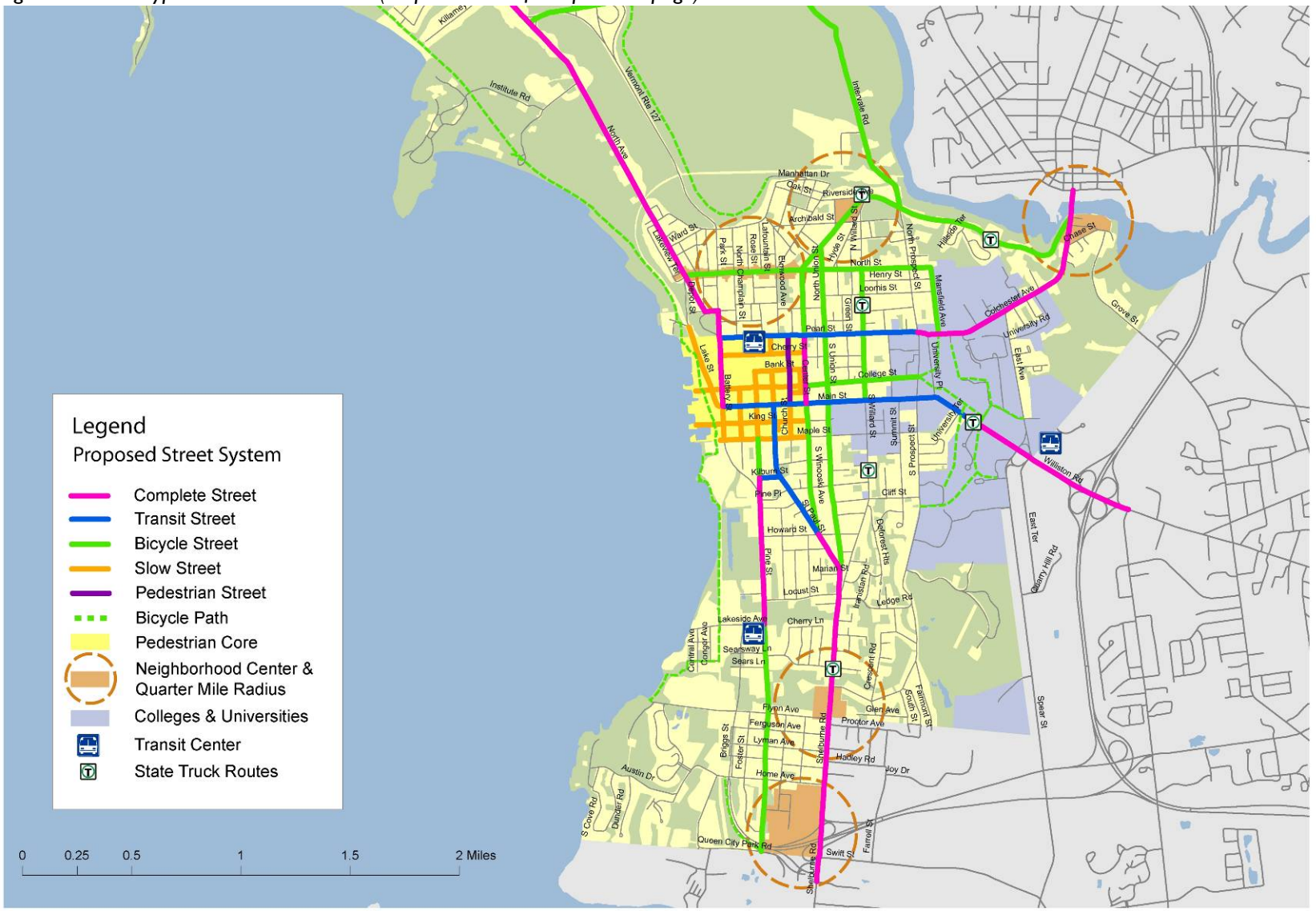


Figure 2: Street Types and Street Network (map continued from previous page)



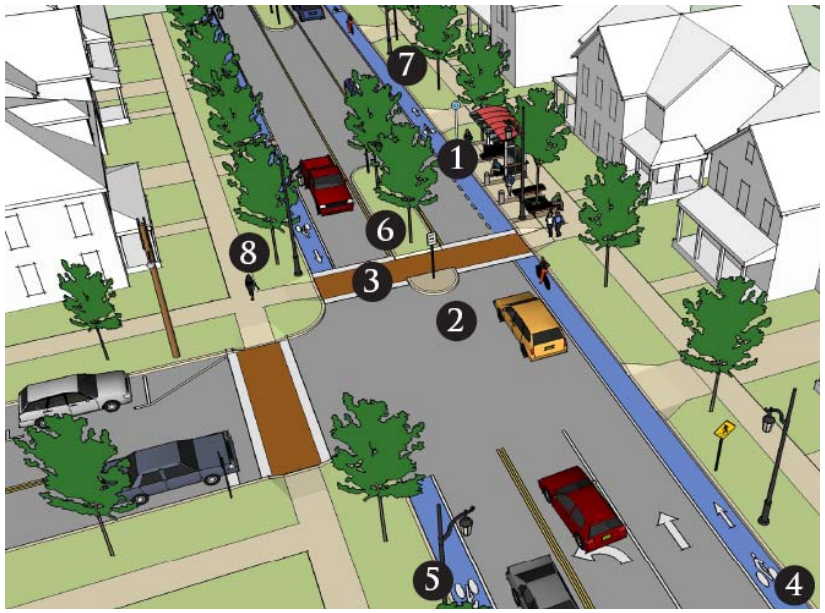
2C) Great Streets

A major component of this *Transportation Plan* is a shift to a "complete streets" strategy and the new *Street Design Guidelines*. Streets are classified (see Figure 2) as: 1. *Complete Street*; 2.*Transit Street and the Bicycle Street*; 3. *The Slow Street*; 4. *State Truck Routes*; and 5. *Neighborhood Streets*.

1. The Complete Street

In general, Burlington's gateway streets must carry all travel modes – cars and trucks, buses, bikes, and pedestrians - because no alternatives exist. Typically, these streets today include four travel lanes with no space for bikes and poor pedestrian crossings. There is a successful national movement to reallocate pavement in such cases to form *Complete Streets*.

Figure 3: The Complete Street



A *Complete Street* (Figure 3) could include:

1) enhanced transit stop;
2) traffic calming by removing a lane of through traffic;
3) short pedestrian crossings;
4) bike lanes;
5) updated utilities and lighting;
6) landscaped median island and turn lane;
7) stormwater planters; and
8) tree belts.

Some of the *Complete Street* conversions in Burlington will involve reducing the number of travel lanes from four to three. There will be concerns about whether a single through travel lane in each direction is sufficient to carry traffic. This issue will need to be addressed on a case-by-case basis in the scoping process, but preliminary analysis suggests that conversion is possible for the four-lane sections identified in Figure 2 except for Main Street through the UVM Campus where no changes are recommended. In addition, conversions elsewhere in the U.S. generally have resulted in reduced accident rates and less speeding.

In almost all cases, urban street capacity is limited at intersections rather than along street segments. Therefore, it is often possible to reduce width without increasing congestion. Furthermore, in a four-lane street, the left lanes operate inefficiently due to conflicts between left-turning vehicles and through vehicles. Moving the left turning vehicles out of through traffic removes these conflicts and also generally reduces accident rates.

Some features of the design shown in Figure 3, including the median treatment, could be modified during the scoping process. In many cases, a *Complete Street* can be tested with simple re-striping. The only essential element of a complete street is accommodating all travel modes safely and efficiently.

2. The Transit Street and the Bicycle Street

In Figure 2, *Complete Streets* in some locations transition to *Transit Streets* or *Bicycle Streets* where one of the modes is accommodated on a parallel route. For example, Main Street is shown as a *Transit Street* to the west of the central part of the UVM campus because bikes are accommodated on a combination of College Street and UVM paths. South Winooski Avenue is shown as a *Bicycle Street* because St. Paul Street is shown as the primary north-south transit street in that area. The *Street Design Guidelines* call for the remaining modes to be treated like they are in *Complete Streets*.

3. The Slow Street

The *Slow Streets* (Figure 4) are located within the pedestrian-oriented downtown core bounded by South Winooski Avenue, Maple Street, the waterfront, and Pearl Street.

Figure 4: The Slow Street

In the *Slow Streets*, cars, buses and bicycles all share the right of way. Pedestrians get priority, and crossings are frequent and short to help reduce intersection delays for both pedestrians and cars. Cars easily pull in and out of curbside spaces. It is proposed that a 20 mph speed limit be adopted for this area.

4. State Truck Routes

Routes 2 and 7 are designated Vermont truck routes. Some of this network is on *Complete Streets*. Residents on other sections, including Willard Street, frequently complain about truck traffic. There is no way to remove trucks from City streets. Instead, the *Street Design Guidelines* focus on calming traffic and supporting all modes. For example, South Willard Street is also a popular bicycle route. It has not been designated as a *Bicycle Street* because there is not enough space for separate bicycle lanes, but traffic speeds should be compatible with mixed traffic.

5. Neighborhood Streets

The streets not otherwise designated in the street plan will be *Neighborhood Streets*. This category ranges widely from low-volume residential streets to streets with moderate traffic volumes. Although there are no specific guidelines for these streets in the *Street Design Guidelines*, many of the general principles are applicable. Therefore, the *Street Design Guidelines* should be referenced prior to major reconstruction. In particular, the concepts for providing a quality pedestrian experience and accomplishing traffic calming through design are widely applicable to many situations.

The topic of appropriate speed limits was mentioned frequently in public meetings, as well as during the Pedestrian Summit. In order to create the safe pedestrian environment that is desirable for neighborhood streets, the City will adopt a blanket speed limit of 25 mph for all streets not otherwise posted.

3) Moving Forward

The City has made significant progress toward the transportation goals in the 2001 *Municipal Development Plan*. This *Transportation Plan* builds on this success.

Moving forward on the *Transportation Plan* requires:

- Steering toward that course (*Transportation Services*);
- Monitoring what is going on (*Progress Indicators*); and
- Charting a course (*Five Year Plan*).

Transportation Services

Current practice defers responsibility for implementation of transportation projects to the Department of Public Works (DPW) who oversees an ad-hoc working group known as the Transportation Technical Advisory Committee (TAC) comprised of staff from the Department of Public Works, the Planning and Zoning Department, the Community and Economic Development Office (CEDO), the Parks and Recreation Department, and City Arts.

The development of the street design guidelines and adoption of the "Great Streets" philosophy calls out for a "different" way of doing things. City staff must be committed to employing this new philosophy to implements segments of the plan. Commitment to the "Great Streets" philosophy will ensure a transparent process and an empowered decision making body.

Changes need to occur in the way the City delivers these programs and services. The changes are basic:

- treat the streets holistically as proscribed in the Great Streets philosophy,
- develop annual work plans dedicated to meeting the goals of this plan,
- establish mechanisms for the review of theses plans,
- develop a project prioritization methodology and
- develop methods to communicate these activities to the public.

The Department of Public Works will identify staff whose responsibility will be the preparation of work plans and the development of monitoring systems and communications methods designed to meet the goals set by the plan. Staff will continue to work with the city wide technical advisory committee and may create ad hoc advisory groups to carry out its responsibilities. This committee, an ad hoc working group known as the Transportation Technical Advisory Committee (TAC), is comprised of staff from DPW, the Planning and Zoning Department (PZ), the Community and Economic Development Office (CEDO), the Parks and Recreation Department (P&R), and Burlington City Arts (BCA). DPW will oversee the work of the TAC.

As a means of reviewing plans and communicating with the public prior to the implementation of major street redesign projects, DPW shall submit these projects' plans to and consult with the City Council's Transportation, Energy and Utilities Committee (TEUC).

The Public Works Commission (PWC), in its role of regulator of the operation of vehicular and pedestrian traffic on the streets and sidewalks, will continue its traditional oversight of the maintenance and development of infrastructure, parking and traffic systems. In this role, plans for major street redesign projects will be approved by the PWC after DPW has consulted

with and received input from the TEUC. The City Council Transportation, Energy and Utilities Committee (TEUC) will monitor the transportation indicators described below. This will set a course that will result in progress.

The Mayor and City Council may appoint advisory committees to oversee any phase of specific projects as they see fit.

Progress Indicators

> *If we could first know where we are, and whither we are tending, we could better judge what to do, and how to do it…* (Abraham Lincoln, speech to the Illinois Republican State Convention, June 16, 1858)

Fourteen progress indicators will be tracked and reviewed annually. The indicators have been chosen because they are important to the goals of the *Plan*, and because they can be tracked at little or no additional cost. Some of the indicators have specific goals. For example, there is a long-term goal for the first indicator of completing 100 percent of the *Complete Streets* network. Other indicators do not have specific targets but are important to monitor. For example, if the volume of traffic entering and exiting the City is increasing but road capacity is not, action will be needed.

The indicators are:

1) *Complete Streets* (percent completed);
2) *Priority Transit System* (percent of weekly service hours achieved);
3) *Transit Ridership* (annual);
4) *Traffic Volumes into and out of the City* (vehicles per weekday);
5) *Accumulation of Cars* (estimated for weekdays from traffic volumes – an indication of parking demand);
6) *Downtown/Waterfront Parking Spaces* (total public and private spaces);
7) *Downtown On-Street Parking Utilization* (peak times on weekdays – part of parking pilot program described below);
8) *Parking Revenues* (annual City parking revenues from garages, surface lots, and on-street spaces);
9) *Maintenance Expense* (annual City budget as percent of needed maintenance budget – current spending is not keeping up with maintenance needs)
10) *Number of Burlington Employees Covered by TMAs* (Total number in Transportation Management Associations including CATMA, a downtown TMA under discussion, and any other TMAs that might form);
11) *TMA Employee Mode Shares* (percent walking, biking, using transit, carpooling);
12) *Mode Shares for Students at Public Schools* (percent walking, biking, using transit, carpooling);
13) *Traffic Crashes* (reported crashes per year, segmented by injury vs. property damage only, and whether pedestrians and cyclists were involved); and
14) *Energy Use/Greenhouse Gas Emissions* (estimated fuel consumption in City and by City residents by cars, trucks and buses.

These indicators will track the City's progress towards achieving the long-term transportation vision with indicators addressing the three major themes of Strong and Healthy City, Transportation

Choices, and Great Streets. The indicators are described in more detail the Technical Appendix (Appendix 1).

4) Initial Five Year Plan

The Five Year Plan will be updated regularly.

The initial plan will focus on the following:

Maintenance

The City's first priority is maintenance. Current annual expenditures are insufficient to meet resurfacing needs. An additional challenge is that events, especially major snow storms, can place a major short-term burden on staff and equipment. Many comments have been received asking for better maintenance, particularly for pedestrian and bicycle facilities. Maintenance operations are largely paid for with funds from the street and sidewalk dedicated tax and excavation fees and supplemented by revenues from the traffic fund. The parking pilot programs (described below) may provide additional money for maintenance.

Funded Capital Projects

These projects are funded primarily with Federal and State funds. However, several of the projects require substantial local matching funds. This *Transportation Plan* calls for the completion of these projects.

Waterfront Improvements – This project includes improvements to lower College Street from Lake Street to the Circle, improvements to the Battery Park extension, bicycle and pedestrian improvements on the lakefront, wayfinding, and improved pedestrian crossings at College and Battery for which conceptual designs have been completed. Additional work is being done developing concepts for improving access to the waterfront north of College Street to include Depot Street and access to the Moran plant site, and to the waterfront south of Main Street to include access through the railyard. This

Transportation Plan calls for the Battery Street improvements to be done consistently with the *Complete Street* model, and that a waterfront parking pricing pilot project (described below) help provide matching funds.

Marketplace District Improvements – Funds are available for improvements to the side streets off of Church Street and to Church Street from Main to King. This *Transportation Plan* calls for street improvements to be done consistently with the *Street Design Guidelines* including the *Slow Street* model which emphasizes pedestrian crossings. Countdown timers and more public seating should be included in the scoping process. Another parking pricing pilot program would help provide matching funds and may provide a source of continued funding to maintain these improvements.

Downtown Transit Center – A Federally-funded study is underway to choose a location and design a new facility to replace the Cherry Street Transit Center.

South End Neighborhood Transit Center – CCTA currently operates two shuttle services from the PARC Shuttle Lot (a.k.a General Dynamics lot), located between Sears Lane and Lakeside Avenue, just west of Pine Street on land leased by the City. The owners intend to develop this parcel. Over the long term the City looks to replace this surface facility with a parking structure (increasing the number of parking spaces from 350 to 575) and a climate-controlled passenger waiting area.

Wayfinding – Elements of the 2003 Wayfinding Plan will be implemented utilizing funds from the several downtown waterfront improvements projects. Completion of this project will help direct visitors to the City to easily find available parking and important destinations.

Southern Connector/Champlain Parkway – This project is intended to connect the western end of I-189 with the Burlington downtown. A Final Supplemental Environmental Impact Statement (FSEIS) was completed in 2009 for an alternative which avoid the Barge Canal. These alternatives include about 0.7 miles of new roadway and using about 1 mile of existing streets (Lakeside Avenue and Pine Street). Pine Street would be reconstructed as a two-lane street with provision for bike traffic (either bike lanes or wider shared lanes). The Pine Street cross sections in the FSEIS are generally consistent with the *Complete Street* model in the *Street Design Guidelines*.

Flynn Avenue Sidewalk – The City has received funding through the MPO for the addition of sidewalk along the north side of Flynn Avenue connecting Shelburne Road to Pine Street and extending exiting sidewalk to Oakledge Park.

Capital Project Priorities Needing Scoping and/or Funding

Colchester Avenue – In 2006, the Colchester Avenue Task Force recommended that Colchester Avenue be reconstructed as a "fully integrated road designed as part of a multi-modal system accommodating transit, cycling and walking." This *Transportation Plan* recommends a scoping process for Colchester Avenue to become a *Complete Street*.

Shelburne Street Roundabout – The intersection of Shelburne Street with Willard, Ledge, and Locust Streets has been identified as a high accident location. Previous work by the City recommended a roundabout at this location. VTrans is starting a scoping process.

Route 127 Terminus – The end of Route 127 with local streets presents traffic concerns to local residents, especially concerning traffic speed. A scoping process resulted in City Council selection of a preferred alternative which has been identified in the CCMPO Transportation Improvement Plan for funding in 2010 and is awaiting state participation.

Queen City Park Bridge: Scoping has begun on this one lane bridge which connects Industrial Parkway with US Route 7. Bicycle/pedestrian capacity improvements are being explored as well as structural improvements.

Cliff Street Sidewalk: A neighborhood planning study examining the need for sidewalk along this Hill section street is wrapping up. Depending on the preferred alternative, capital funds may be needed.

Several possible capital projects were identified in the CCMPO Unified Planning Work Program: Improvements to Intervale Road, access planning for the Gosse Court Armory, and bicycle/pedestrian access to the Ethan Allen Homestead via North Avenue.

The desire for intersection improvements at the intersections of North Avenue and Plattsburgh Avenue, at North Winooski Avenue and Archibald Street and at Route 127 and Manhattan Drive have been registered through this and other neighborhood planning processes.

There are several possible capital bicycle projects, including implementation of the North South bicycle plan, repairs and upgrades to the waterfront bicycle path, and the development of a bicycle connection to Winooski are all projects in various stages of development.

This *Transportation Plan* calls for these projects to be prioritized and pursued in the order in which they are ranked.

Policy Initiatives

The City will pursue several policy initiatives including:

- Supporting creation of a downtown Transportation Management Association (TMA);
- Changing speed limits to 20 mph in the downtown Slow Streets zone and to 25 mph on neighborhood streets without posted speed limits;
- Supporting improvements to the western corridor rail infrastructure and expansion of passenger rail services to Burlington;
- Supporting alternative funding sources for public transit operations;
- Supporting car sharing service (discussed more in Technical Appendix); and,
- Changing zoning parking requirements to permit impact fee or payment-in-lieu options.

Transit

The transit vision (described above) for a set of trunk routes with high frequency and evening and weekend service will require significant new funding. CCTA's Transit Development Plan includes a comprehensive menu of service improvements including Interregional and Regional commuter services, trunk and local routes, shuttles and feeder services, and demand response service. Transit is a regional need and the reliance on local property taxes is a severe limiting factor on CCTA's ability to increase service. In Act 141 of 2001, the Legislature recognized that local property taxes are not a viable long-term source to support transit operations. The City will continue to push for a regional transit funding source.

However, successful transit is reliant on compact and efficient land use patterns. Proposed transit service improvements must be coordinated with established land use plans. Transit services should be provided where higher-density, mixed-use development is anticipated well in advance, rather than re-routed in response to new development proposals after-the-fact.

Parking Pricing Pilot Programs

It is the policy and priority of the City to better utilize the existing parking inventory by improving parking management strategies, and to add additional inventory in strategic locations only as necessary. Efforts to improve management of the existing parking systems include wayfinding and TMA's as noted above, combined with remote parking served by shuttles/transit, carsharing, capital improvements that make parking facilities more attractive and desirable, and market-based pricing.

This plan introduces the concept of market priced parking with the recommendation of taking incremental steps to test its validity locally under the assumption that market pricing will influence demand. Three parking pricing pilot programs are proposed. The purposes of the programs are:

- Increase availability of high demand parking spaces by encouraging shifts to spaces that are less utilized,
- Encourage alternatives to driving alone, and
- Increasing parking revenue (possible uses include matching Federal grants, improving maintenance and enforcement, building more parking, and supporting transit).

Downtown On-Street Parking – Parking availability downtown is a common complaint of visitors and the business community. This is partly due to the heavy utilization of on-street parking spaces which are the most apparent parking spaces. Experts recommend pricing so that 15 percent of on-street parking spaces are available so customers will be able to find parking spaces quickly and easily. Others, particularly employees, are encouraged to find lower-priced, less visible spaces, use transit routes, or remote parking shuttles. The first pilot program would replace existing downtown meters in historically high demand areas with

a new system that would allow payment by credit card or paper currency in addition to coins. Pricing would be extended into evening hours, and prices would be increased gradually until target utilization was achieved.

Waterfront Parking Lots – A second pilot would charge for parking in the waterfront lots throughout the year and not just during special events. As noted earlier, the revenues generated would offset local cost of improvements.

Neighborhood On-Street Parking – A third pilot program would build on the residential permit program and include selling a limited number of non-residential permits for daily parking in the neighborhood. This program would only be advanced if there were neighborhood support, and should be part of a more comprehensive re-evaluation of the residents-only parking program. In other parts of the U.S., there has been strong interest when revenues are spent in the neighborhoods where the fees are collected.

Downtown Parking Supply

Some parking in the downtown is likely to be lost due to redevelopment. The City has a policy of no net loss, so these spaces will need to be replaced. Additional parking spaces in strategic locations – particularly in the Main Street corridor - also may be needed.

Opportunities for increasing parking supply include expanding the Marketplace garage into the Handy air rights and adding on-street parking spaces with conversion to one-way streets. Both of these ideas require additional study.

The Marketplace garage study would include cost estimation, possible funding sources, and an estimated timeline. This opportunity, along with previously identified parking projects on the TD Bank site and the "super block" on the northeast corner of Main and South Winooski, deserve further study.

The relocation of the Cherry Street Transit Station will free additional on-street parking spaces. It may also be possible to convert Cherry Street or other downtown streets to one-way, which could provide additional parking spaces through conversion to diagonal parking. Scoping for these changes could be accomplished with the Marketplace District Improvements.

Finally, the City has had a longstanding preference not to develop parking on the waterfront. As a result, opportunities to develop additional parking supply in the Battery Street corridor – even underneath Battery Park Extension – need to be explored over the long term.

New and innovative motorized personal transportation devices, such as segways and electric scooters, will likely continue to gain interest as an alternative mode of transportation in Burlington. The City will need to evaluate the possible impacts the use of these devices may have on both vehicles on the street and pedestrians on the sidewalk and any infrastructure needs they may require.

Remote Parking

The City is committed to providing remote parking with transit/shuttle service. The PARC shuttle lot located between Sears Lane and Lakeside Avenue, just west of Pine Street is the location for the planned South End Neighborhood Transit Center. A Chittenden County Metropolitan Planning Organization (CCMPO) study from 2003 identified possible locations for additional "auto capture" facilities on Burlington's periphery including a facility at Exit 14 in I-89. This *Transportation Plan* supports linking the proposed transit trunk lines with other remote parking lots wherever possible.

5) For More Information:

The Transportation Plan has several appendices:

1) Technical Appendix
2) Street Design Guidelines
3) Market Study
4) Public Participation Report
5) Memo on alternative scenarios
6) Memo on preliminary Colchester Avenue analysis

The complete *Transportation Plan* can be accessed on the internet at:

www.ci.burlington.vt.us

The 2006 Legacy Town Meeting focused on transportation

Transportation Plan Steering Committee

Jesse Beck, Waterfront Marketplace Downtown Committee

Amy Bell and Polly McMurtry, VTrans

Mary Chaffee, Ward 4/7 NPA

Chris Cole, CCTA (Aaron Frank, alternate)

Peter Keating, CCMPO

Bill Keogh, Burlington City Council

Max Kuusela, Youth Representative

David Lustgarten, Burlington Bicycle Council

Roger Marshall, Ward 5 NPA

Jerry Manock, Ward 6 NPA

Dawn Moskowitz, DPW Commissioner

Bob Penniman, CATMA

Suki Rubin and Ariane Kissam, Ward 2/3 NPA

Wayne Senville, Ward 1 NPA

Marc Sherman, DPW Commissioner

Emily Stebbins and Livia DeMarchis, Planning Commissioners

Nancy Wood, Burlington Business Association.

City of Burlington Staff Management Team

Dan Bradley, Department of Public Works

David White, Department of Planning and Zoning

Kirsten Merriman Shapiro, Community and Economic Development Office (CEDO)

Consultant Team

Smart Mobility, Inc. (Norwich, VT)

Oman Analytics (Underhill Center, VT)

ORW Landscape Architects and Planners (White River Junction, VT)

Third Sector Associates (Burlington, VT)

TranSystems (Montpelier, VT)

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: July 22nd, 2024

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

From: Phillip Peterson P.E., Senior Transportation Planner

CC: Chapin Spencer, Director of Public Works
Laura Wheelock P.E., City Engineer/Division Director Technical Services

Subject: UVM-City Land Swap at Pearl and Prospect Intersection

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Approval Request:

DPW Staff are writing to formally request TEUC approval to present a proposed land swap agreement with the University of Vermont (UVM) to the Board of Finance (BOF) and City Council (CC) for their consideration and approval.

Background:

On June 7, 2021, the City of Burlington and UVM executed a Memorandum of Understanding (MOU) regarding boundary line adjustments adjacent to the Colchester Avenue and Prospect Street intersection. This MOU outlines the general intent of both parties to adjust property lines in conjunction with the reconstruction project at Pearl Street and Prospect Street intersections, including adjustments necessary for Dewey Hall's property boundary to align with adjacent roadways.

Summary of Proposed Agreement:

1. The City proposes to convey a 0.2-acre parcel to UVM, situated beneath a portion of UVM's Dewey Hall.
2. In exchange, UVM will transfer a 0.08-acre parcel to the City, crucial for necessary right-of-way improvements.
3. UVM will compensate the City with a parcel value differential (PVD) totaling $112,980.00.

4. UVM consents to the condemnation of its parcel by the City and waives any objections to this process.

Given the strategic alignment with our capital plans and the cooperative efforts outlined in the MOU, I request your approval to move forward with presenting this agreement to the BOF and CC. This presentation is essential to secure their review and final approval, ensuring alignment with both the City's interests and UVM's needs.

Next Steps:

Pending your approval, we will prepare the necessary documentation and schedule the presentation to the BOF and CC at the earliest convenience.

Attachments:

1. **Memorandum of Understanding (MOU) dated June 7, 2021:** Attached for reference regarding the initial agreement and intent of property boundary adjustments.
2. **Plats showing the proposed land swap:** Attached are two plats prepared by a Vermont licensed land surveyor, illustrating the affected parcels and the proposed adjustments.
3. **Agreement signed by UVM:** Attached is the executed agreement outlining the terms and conditions of the proposed land swap between the City of Burlington and UVM.

NON-BINDING MEMORANDUM OF UNDERSTANDING BETWEEN THE UNIVERSITY OF VERMONT AND THE CITY OF BURLINGTON REGARDING BOUNDARY LINE ADJUSTMENTS ADJACENT TO THE COLCHESTER AVENUE AND PROSPECT STREET INTERSECTION

This non-binding Memorandum of Understanding ("MOU") is entered into between the City of Burlington, a Vermont municipal corporation ("City"), and the University of Vermont and State Agricultural College, an educational corporation and instrumentality of the State of Vermont ("UVM") (collectively, "the parties").

I. Purpose

The City and UVM are seeking to address the property line adjustments that are necessary to facilitate the reconstruction of Colchester Avenue and Prospect Street intersection with the collateral benefit for the City and UVM. The desire to address these boundaries starts with the City's selection of a preferred alternative for this intersection that would require additional right-of-way to complete the improvements. Additionally the University Place Project that commenced upon the Agreement entered into by the City and UVM with regards to UVM's contributions to the City's Sustainable Infrastructure Program has a cascading effect to the Colchester Avenue and Prospect Street Intersection in that the change in traffic operations on University Place to one way will have impacts on the Colchester Avenue and Prospect Street intersection. This property line adjustment will help facilitate both projects moving forward.

The purpose of this MOU is to express the general intent of the City with support of UVM concerning the desired adjustment to property lines adjacent to the Colchester Avenue and Prospect Street intersection; the property line adjustments are dependent on the reconstruction of Colchester Avenue and Prospect Street intersection with the collateral benefit for the City and UVM, (collectively "Project"). In parallel with the City's efforts, UVM has requested an adjustment of the property line in front of Dewey Hall, which would normalize the existing property boundary and Right of Way boundary at Dewey Hall such that the boundary is no longer within the footprint of the building and is relative to the adjacent roadways similar to how other City property lines are laid out. The general locations of the property line adjustments are depicted in Exhibit C to this MOU.

This MOU will further serve to clarify the potential responsibilities of the City and UVM regarding the desired property boundary line adjustments. The parties intend to, and have generally agreed in the Third Amendment to "The Agreement Between The University Of Vermont And The City Of Burlington Regarding Participation In The City's Ten Year Capital Plan" (Exhibit B) to cooperatively support both property line adjustments. However, as property line adjustments are subject to approval by Burlington Zoning, and further, adjustments concerning the City's Right of Way are subject to City Council, it is acknowledged that the Department of Public Works, City staff, or the Mayor of the City of Burlington **do not have the authority** to guarantee any outcome regarding the desired adjustment to property lines. In addition, the University of Vermont's Board of Trustees will need to approve the proposed property line adjustments. As such, this MOU is **non-binding** and serves to set forth a general understanding concerning the Project.

II. The Project Properties

The real properties subject to this MOU consist of the following parcels: Public Right-of-Way (City), Parcel 045-4-007-134 (UVM), Parcel 045-4-003-240 (UVM) as described in Exhibit C.

III. Responsibilities

a. In order to effectuate any property line adjustments, boundary survey work is necessary. The City will retain the services of a licensed professional to survey, provide plats, and assist with zoning applications. The costs of these services will be paid according to Sections 5.a. (University Place, Conceptual Design) and 5.b. (University Place, Final Design and Construction) of "The Agreement Between The University Of Vermont And The City Of Burlington Regarding Participation In The City's Ten Year Capital Plan" dated February 28, 2018, and as subsequently amended by the First Amendment dated February 28, 2020, Second Amendment dated August 19th, 2020, Third Amendment dated December 31, 2020, and Fourth Amendment dated April 2021.

b. All property line adjustments in the City require Burlington Zoning approval. The City will support UVM

will the responsible for the Planning & Zoning application for lot line adjustments. Zoning lot line adjustment applications include the following:

i. A completed application form, signed by the property owner;
ii. A filing fee of $15.00;
iii. An application fee of $140, in cash, check or credit card (credit cards incur a convenience fee). Checks are to be made out to the 'City of Burlington';
iv. Photographs of the subject property, showing the location of the project (and neighboring properties if applicable);
v. A letter requesting review and approval of a lot line adjustment, giving the names and address of property owners; and
vi. Two (2) copies of a lot line adjustment plat (with an additional copy at 11x17 size) will need to be submitted with the Zoning application for lot line adjustments. The plat shall be prepared by a Vermont licensed land surveyor and indicate all lots that are proposed to be modified as a result of the proposed lot line adjustment (the "Survey"). The Survey shall be sufficient to clearly indicate the area, metes, bounds, and ties of each of the affected lots. The Survey shall include all structures and site improvements and delineate all building/structure setbacks, lot coverage, parking spaces and any other details as may be specified by the Zoning Administrative Officer.

c. As mandated by the Burlington City Charter, the Burlington City Council must approve changes to property lines affecting the public Right-of-Way. Securing the approval of City Council for Right-of-Way property line adjustments will be the responsibility of City Staff, with support from UVM. The property line adjustments will also require approval of the University Board of Trustees

d. At the City's completion of final design of the Colchester Avenue and Prospect Street intersection realignment plan, both parties will work cooperatively and in good faith to make any additional boundary adjustments necessary to facilitate said intersection realignment.

IV. Exhibits

a. Exhibit C. Preliminary Proposed Land Transfers
b. Exhibit B. "The Agreement Between The University Of Vermont And The City Of Burlington Regarding Participation In The City's Ten Year Capital Plan" dated February 28, 20218, and as subsequently amended by the First Amendment dated February 28, 2020, Second Amendment dated August 19th, 2020, Third Amendment dated December 31, 2020, and Fourth Amendment dated April 2021.

This non-binding Memorandum of Understanding is dated this _____ day of April 2021.

CITY OF BURLINGTON, VERMONT

By: _____
Mayor Miro Weinberger
Duly Authorized Agent

UNIVERSITY OF VERMONT

By: Richard H Cate _____
Digitally signed by Richard H Cate
DN: cn=Richard H Cate, o=University of Vermont and State Agricultural College, ou, email=rcate@uvm.edu, c=US
Date: 2021.06.07 13:56:55 -04'00'

_____ (Print Name)
Duly Authorized Agent

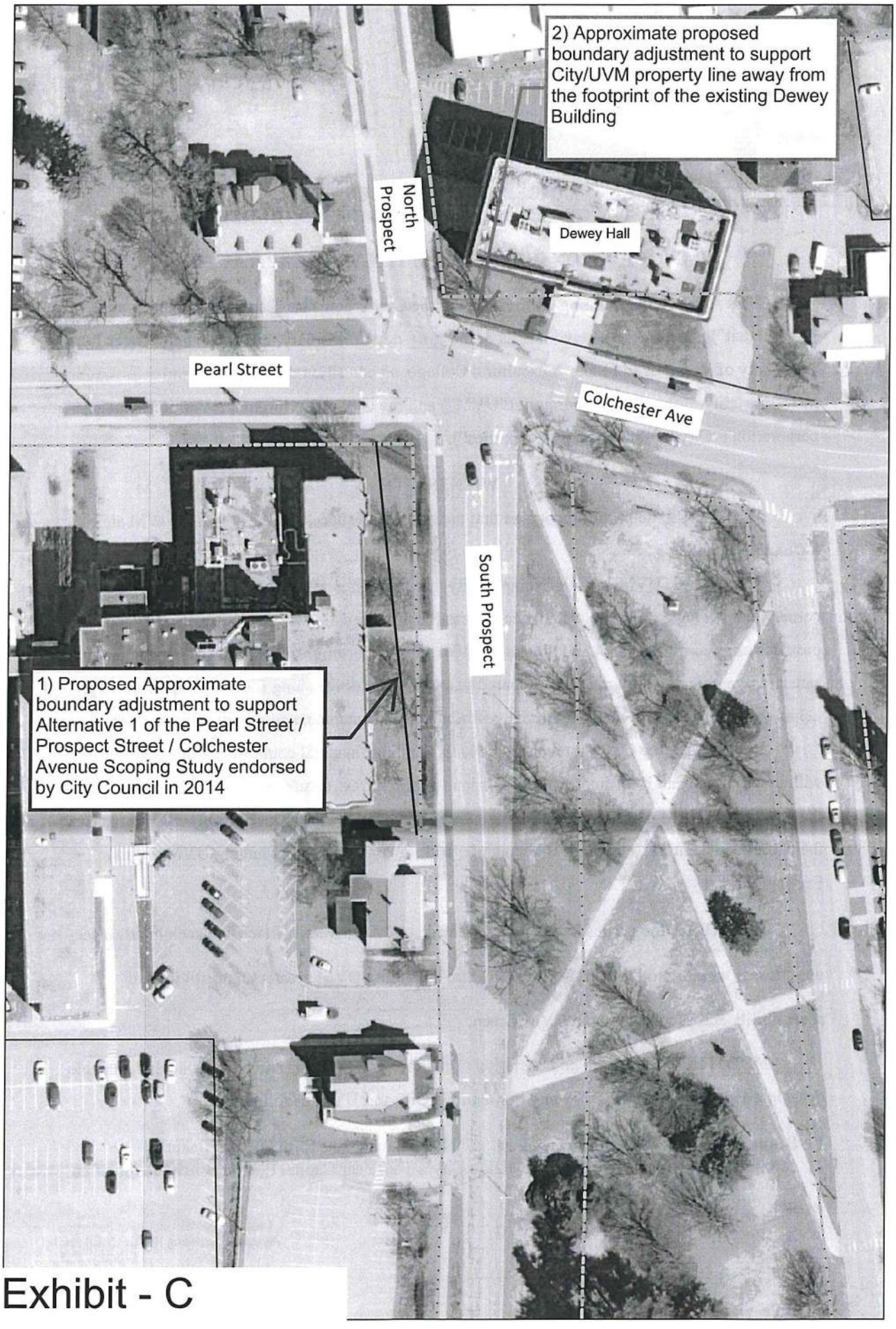

Exhibit - C

UVM_PROPERTY_BOUNDARY (APPROXIMATE)

2018 ORTHOS

Map Produced by UVM Planning, Design & Construction
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AGREEMENT BETWEEN THE
UNIVERSITY OF VERMONT AND THE CITY OF BURLINGTON
REGARDING
PARTICIPATION IN THE CITY'S TEN YEAR CAPITAL PLAN

This Agreement regarding participation in the City's Ten Year Capital Plan (the "Agreement") is made and entered into as of the 28th day of February, 2018, by and between the University of Vermont and State Agricultural College, an educational corporation and instrumentality of the State of Vermont ("UVM") and the City of Burlington, a Vermont municipal corporation ("City") (collectively, "the parties").

WITNESSETH:

WHEREAS, the parties recognize that the health and success of the City and UVM are inexorably linked;

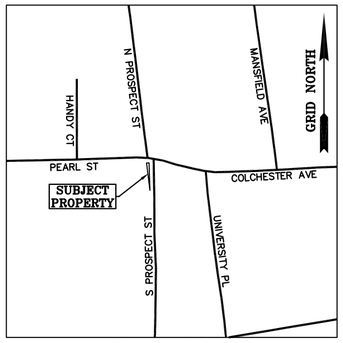
WHEREAS, UVM is a tax-exempt entity that prioritizes affordability for its students as a cornerstone strategic principle. UVM recognizes the exceptional value the City of Burlington provides as a recruitment tool and the potential learning opportunities that exist for its students in a safe and dynamic downtown, and is prepared to expand its decades long financial commitment to helping ensure the City remains a vibrant, affordable, and sustainable community for years to come;

WHEREAS, the City appreciates this long standing financial commitment and the willingness to expand it further to address serious public infrastructure needs while also recognizing the importance UVM places on maintaining affordability for its students. The City also recognizes the tremendous cultural, educational, economic, and research benefits of having UVM within Burlington; and

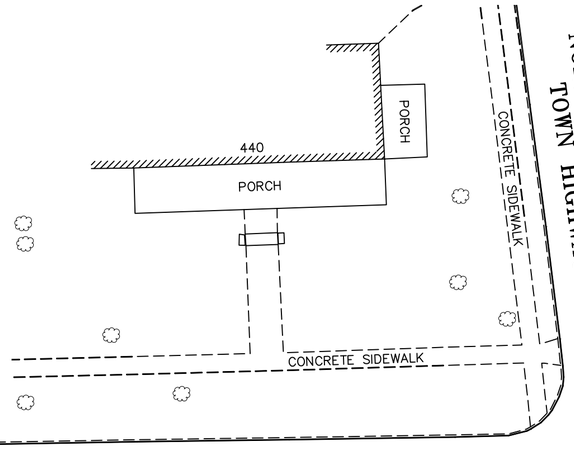
WHEREAS, the parties have discussed the status of University Place and seek to advance options that would limit or calm traffic while also providing UVM greater connectivity and accessibility across its campus to UVM Green.

NOW THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, IT IS AGREED, by and between the City and UVM as follows:

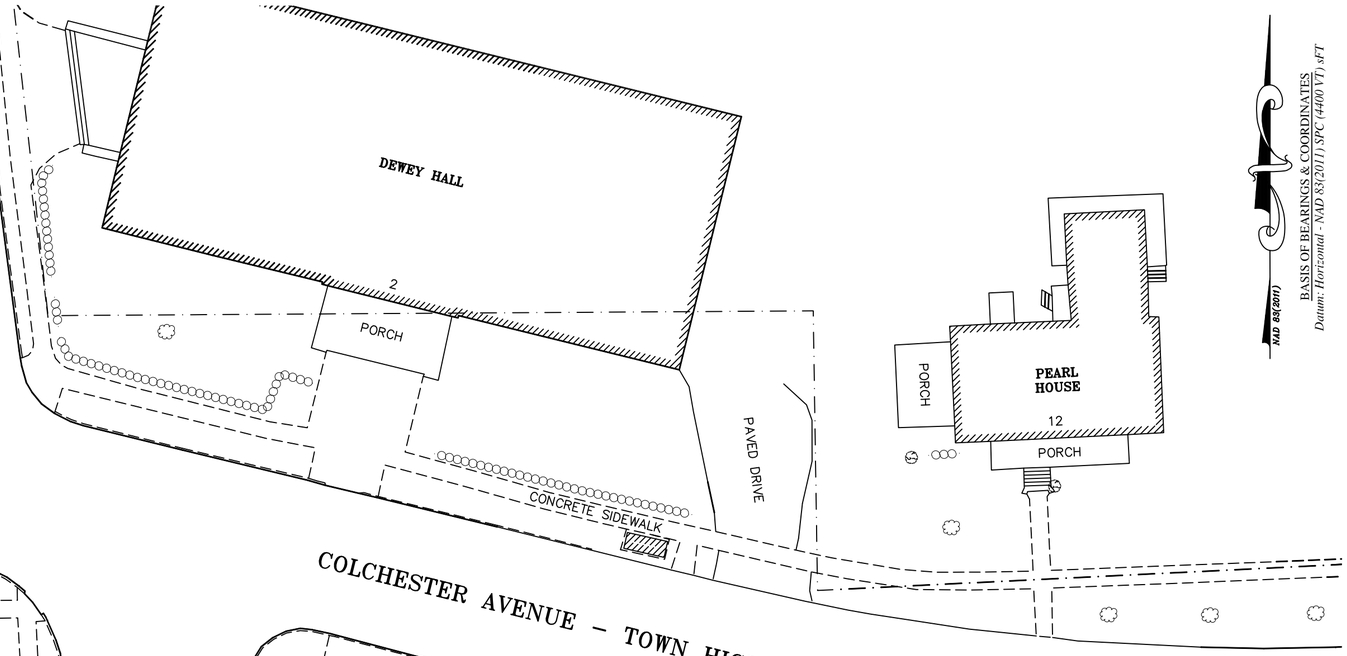
1. **Scope and Purpose of the Agreement.** This Agreement sets forth UVM's financial commitment to the City with respect to the City's Ten-Year Capital Plan in consideration of its



LOCUS MAP

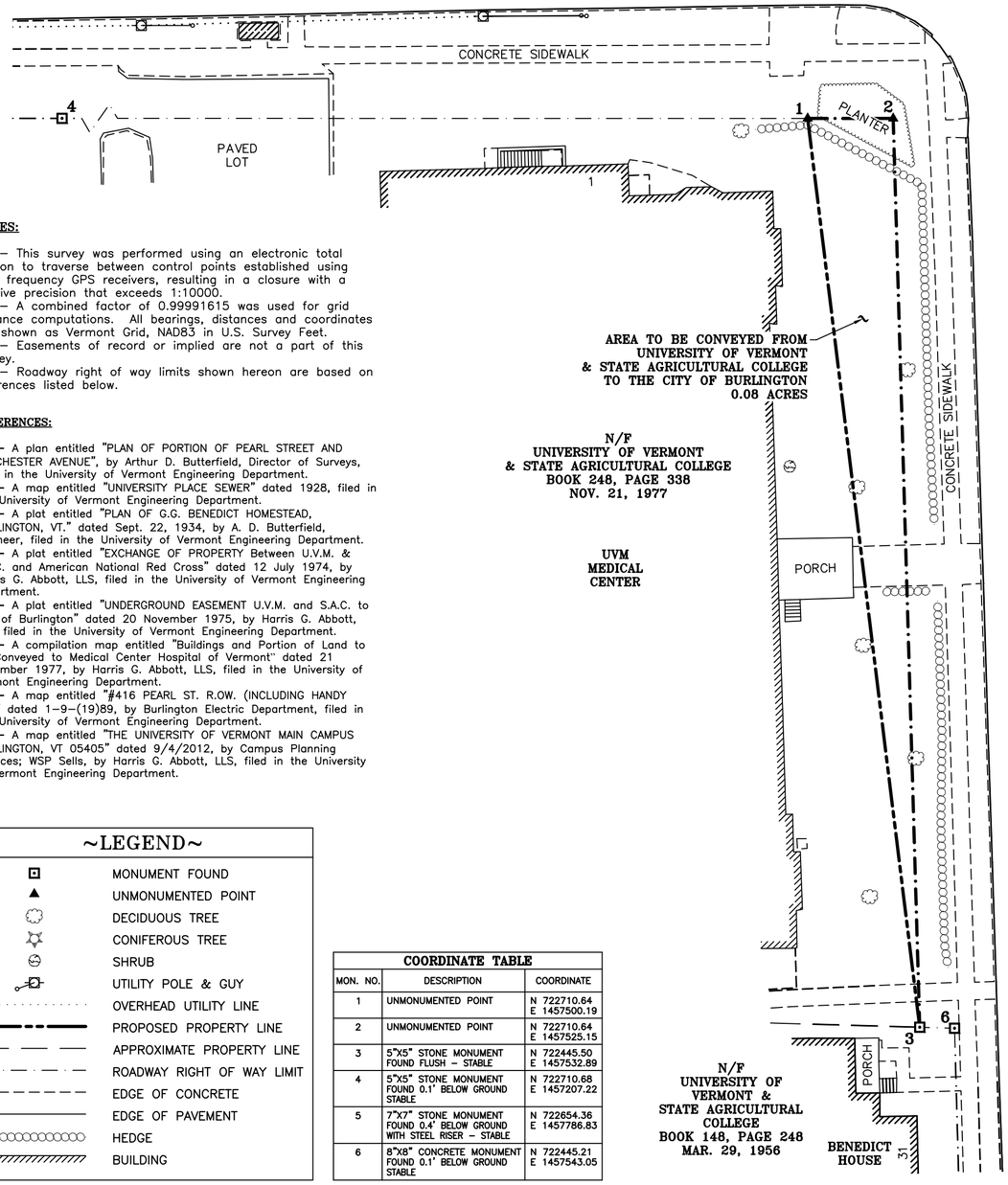


NORTH PROSPECT STREET
TOWN HIGHWAY 13

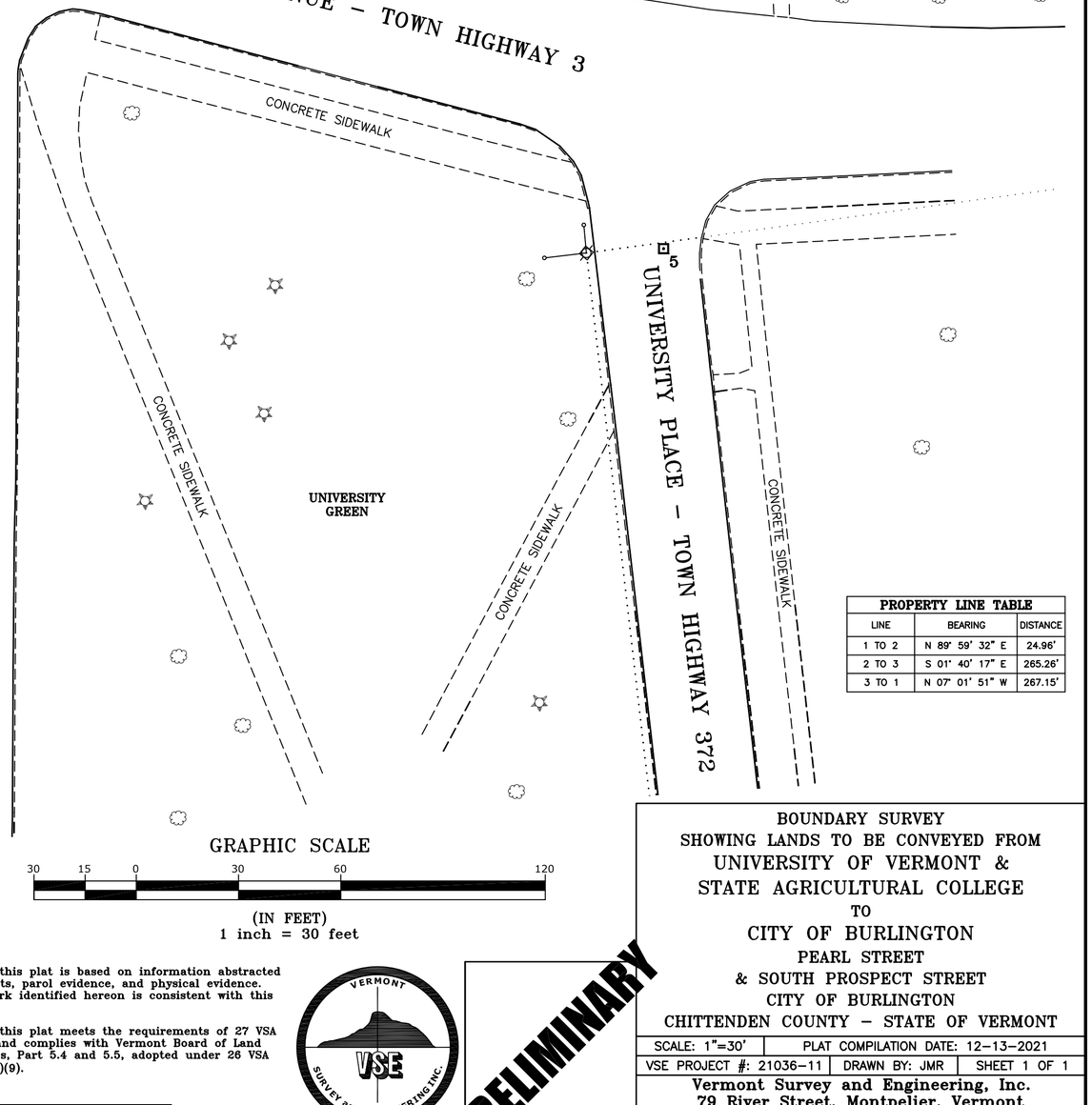


PEARL STREET – TOWN HIGHWAY 3

COLCHESTER AVENUE – TOWN HIGHWAY 3



SOUTH PROSPECT STREET – TOWN HIGHWAY 13



NOTES:

N1 – This survey was performed using an electronic total station to traverse between control points established using dual frequency GPS receivers, resulting in a closure with a relative precision that exceeds 1:10000.
N2 – A combined factor of 0.99991615 was used for grid distance computations. All bearings, distances and coordinates are shown as Vermont Grid, NAD83 in U.S. Survey Feet.
N3 – Easements of record or implied are not a part of this survey.
N4 – Roadway right of way limits shown hereon are based on references listed below.

REFEERENCES:

R1 – A plan entitled "PLAN OF PORTION OF PEARL STREET AND COLCHESTER AVENUE", by Arthur D. Butterfield, Director of Surveys, filed in the University of Vermont Engineering Department.
R2 – A map entitled "UNIVERSITY PLACE SEWER" dated 1928, filed in the University of Vermont Engineering Department.
R3 – A plat entitled "PLAN OF G.G. BENEDICT HOMESTEAD, BURLINGTON, VT." dated Sept. 22, 1934, by A. D. Butterfield, Engineer, filed in the University of Vermont Engineering Department.
R4 – A plat entitled "EXCHANGE OF PROPERTY Between U.V.M. & S.A.C. and American National Red Cross" dated 12 July 1974, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R5 – A plat entitled "UNDERGROUND EASEMENT U.V.M. and S.A.C. to City of Burlington" dated 20 November 1975, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R6 – A compilation map entitled "Buildings and Portion of Land to be Conveyed to Medical Center Hospital of Vermont" dated 21 November 1977, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R7 – A map entitled "#416 PEARL ST. R.O.W. (INCLUDING HANDY CT.)" dated 1–9–(19)89, by Burlington Electric Department, filed in the University of Vermont Engineering Department.
R8 – A map entitled "THE UNIVERSITY OF VERMONT MAIN CAMPUS BURLINGTON, VT 05405" dated 9/4/2012, by Campus Planning Services; WSP Sells, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.

~LEGEND~

- MONUMENT FOUND
- UNMONUMENTED POINT
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- UTILITY POLE & GUY
- OVERHEAD UTILITY LINE
- PROPOSED PROPERTY LINE
- APPROXIMATE PROPERTY LINE
- ROADWAY RIGHT OF WAY LIMIT
- EDGE OF CONCRETE
- EDGE OF PAVEMENT
- HEDGE
- BUILDING

COORDINATE TABLE

MON. NO.	DESCRIPTION	COORDINATE
1	UNMONUMENTED POINT	N 722710.64 E 1457500.19
2	UNMONUMENTED POINT	N 722710.64 E 1457525.15
3	5"X5" STONE MONUMENT FOUND FLUSH – STABLE	N 722445.50 E 1457532.89
4	5"X5" STONE MONUMENT FOUND 0.1' BELOW GROUND STABLE	N 722710.68 E 1457207.22
5	7"X7" STONE MONUMENT FOUND 0.4' BELOW GROUND WITH STEEL RISER – STABLE	N 722654.36 E 1457786.83
6	8"X8" CONCRETE MONUMENT FOUND 0.1' BELOW GROUND STABLE	N 722445.21 E 1457543.05

PROPERTY LINE TABLE

LINE	BEARING	DISTANCE
1 TO 2	N 89° 59' 32" E	24.96'
2 TO 3	S 01° 40' 17" E	265.26'
3 TO 1	N 07° 01' 51" W	267.15'

BASIS OF BEARINGS & COORDINATES
Datum: Horizontal - NAD 83(2011) SPC (4400 VT) sFT
NAD 83(2011)

GRAPHIC SCALE
30 15 0 30 60 120
(IN FEET)
1 inch = 30 feet

I certify that this plat is based on information abstracted from documents, parol evidence, and physical evidence. The survey work identified hereon is consistent with this information.

I certify that this plat meets the requirements of 27 VSA Section 1403 and complies with Vermont Board of Land Surveyors Rules, Part 5.4 and 5.5, adopted under 26 VSA Section 2544(a)(9).

Signed: _____
Stephen C. Fraser, L.L.S. #527

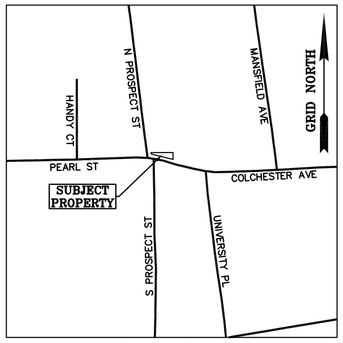
PRELIMINARY

BOUNDARY SURVEY
SHOWING LANDS TO BE CONVEYED FROM
UNIVERSITY OF VERMONT &
STATE AGRICULTURAL COLLEGE
TO
CITY OF BURLINGTON
PEARL STREET
& SOUTH PROSPECT STREET
CITY OF BURLINGTON
CHITTENDEN COUNTY – STATE OF VERMONT

SCALE: 1"=30'	PLAT COMPILATION DATE: 12–13–2021	
VSE PROJECT #: 21036–11	DRAWN BY: JMR	SHEET 1 OF 1

Vermont Survey and Engineering, Inc.
79 River Street, Montpelier, Vermont
(802) 229–9138 ~ info@vermontsurvey.com

ORIGINAL DRAWING–INK ON POLYESTER FILM MEETING THE REQUIREMENTS OF 27 VSA 1403(b)(8)(B)



LOCUS MAP

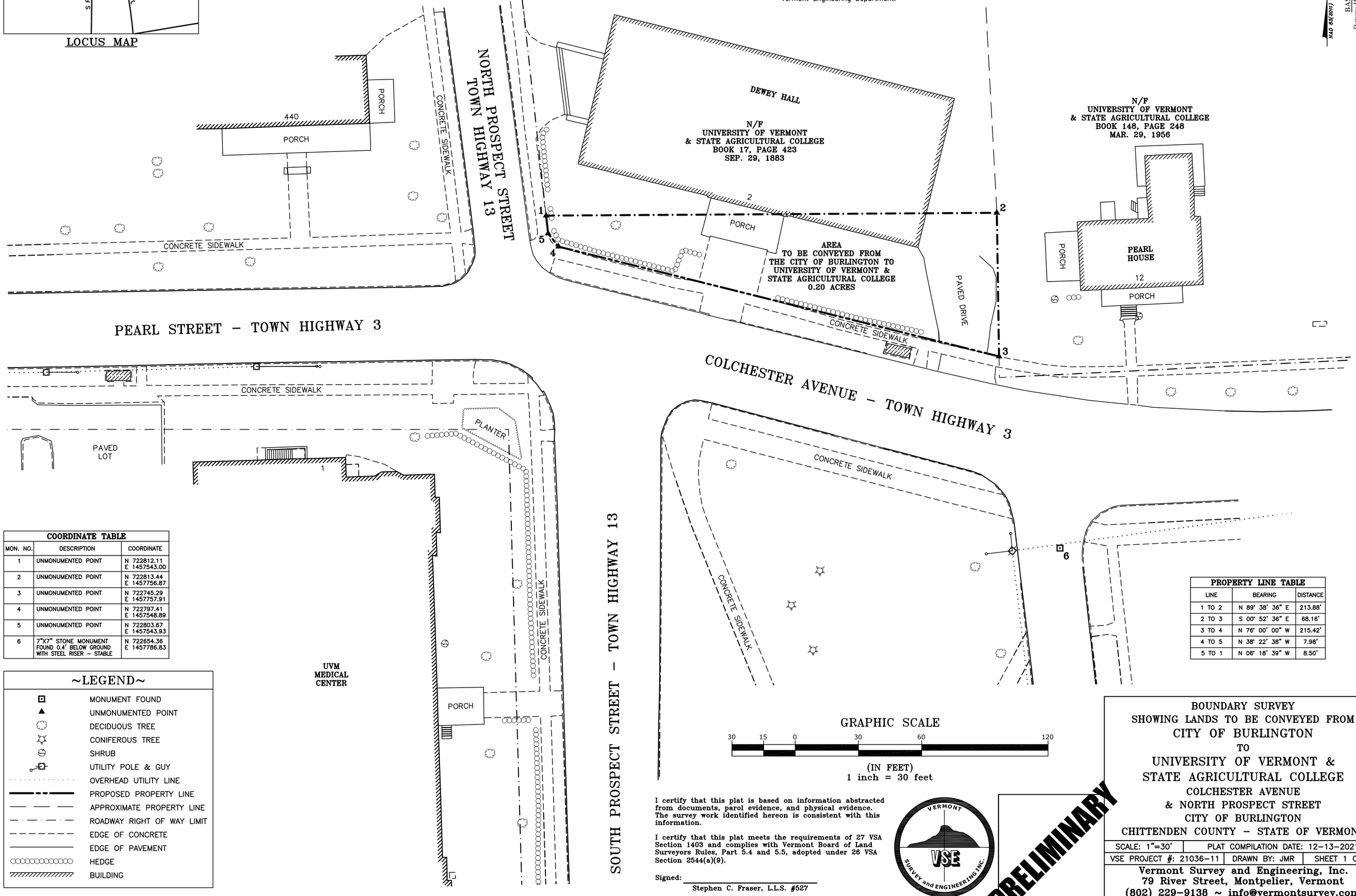
NOTES:

N1 – This survey was performed using an electronic total station to traverse between control points established using dual frequency GPS receivers, resulting in a closure with a relative precision that exceeds 1:10000.
N2 – A combined factor of 0.99991615 was used for grid distance computations. All bearings, distances and coordinates are shown as Vermont Grid, NAD83 in U.S. Survey Feet.
N3 – Easements of record or implied are not a part of this survey.
N4 – Roadway right of way limits shown hereon are based on references listed below.

REFERENCES:

R1 – A plan entitled "PLAN OF PORTION OF PEARL STREET AND COLCHESTER AVENUE", by Arthur D. Butterfield, Director of Surveys, filed in the University of Vermont Engineering Department.
R2 – A map entitled "UNIVERSITY PLACE SEWER" dated 1928, filed in the University of Vermont Engineering Department.
R3 – A plat entitled "PLAN OF G.G. BENEDICT HOMESTEAD, BURLINGTON, VT." dated Sept. 22, 1934, by A. D. Butterfield, Engineer, filed in the University of Vermont Engineering Department.
R4 – A plat entitled "EXCHANGE OF PROPERTY Between U.V.M. & S.A.C. and American National Red Cross" dated 12 July 1974, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R5 – A plat entitled "UNDERGROUND EASEMENT U.V.M. and S.A.C. to City of Burlington" dated 20 November 1975, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R6 – A compilation map entitled "Buildings and Portion of Land to be Conveyed to Medical Center Hospital of Vermont" dated 21 November 1977, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.
R7 – A map entitled "#416 PEARL ST. R.OW. (INCLUDING HANDY CT.)" dated 1–9–(19)89, by Burlington Electric Department, filed in the University of Vermont Engineering Department.
R8 – A map entitled "THE UNIVERSITY OF VERMONT MAIN CAMPUS BURLINGTON, VT 05405" dated 9/4/2012, by Campus Planning Services; WSP Sells, by Harris G. Abbott, LLS, filed in the University of Vermont Engineering Department.

NAD 83(2011)
BASIS OF BEARINGS & COORDINATES
Datum: Horizontal - NAD 83(2011) SPC (4400 VT) sFT



ORIGINAL DRAWING–INK ON POLYESTER FILM MEETING THE REQUIREMENTS OF 27 VSA 1403(b)(8)(B)

COORDINATE TABLE		
MON. NO.	DESCRIPTION	COORDINATE
1	UNMONUMENTED POINT	N 722812.11 E 1457543.00
2	UNMONUMENTED POINT	N 722813.44 E 1457756.87
3	UNMONUMENTED POINT	N 722745.29 E 1457757.91
4	UNMONUMENTED POINT	N 722797.41 E 1457548.89
5	UNMONUMENTED POINT	N 722803.67 E 1457543.93
6	7"X7" STONE MONUMENT FOUND 0.4' BELOW GROUND WITH STEEL RISER – STABLE	N 722654.36 E 1457786.83

~LEGEND~

- MONUMENT FOUND
- UNMONUMENTED POINT
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB
- UTILITY POLE & GUY
- OVERHEAD UTILITY LINE
- PROPOSED PROPERTY LINE
- APPROXIMATE PROPERTY LINE
- ROADWAY RIGHT OF WAY LIMIT
- EDGE OF CONCRETE
- EDGE OF PAVEMENT
- HEDGE
- BUILDING

PROPERTY LINE TABLE		
LINE	BEARING	DISTANCE
1 TO 2	N 89° 38' 36" E	213.88'
2 TO 3	S 00° 52' 36" E	68.16'
3 TO 4	N 76° 00' 00" W	215.42'
4 TO 5	N 38° 22' 38" W	7.98'
5 TO 1	N 06° 18' 39" W	8.50'

GRAPHIC SCALE
30 15 0 30 60 120
(IN FEET)
1 inch = 30 feet

I certify that this plat is based on information abstracted from documents, parol evidence, and physical evidence. The survey work identified hereon is consistent with this information.

I certify that this plat meets the requirements of 27 VSA Section 1403 and complies with Vermont Board of Land Surveyors Rules, Part 5.4 and 5.5, adopted under 26 VSA Section 2544(a)(9).

Signed: _____
Stephen C. Fraser, L.L.S. #527

PRELIMINARY

BOUNDARY SURVEY
SHOWING LANDS TO BE CONVEYED FROM
CITY OF BURLINGTON
TO
UNIVERSITY OF VERMONT &
STATE AGRICULTURAL COLLEGE
COLCHESTER AVENUE
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CITY OF BURLINGTON
CHITTENDEN COUNTY – STATE OF VERMONT

SCALE: 1"=30'	PLAT COMPILATION DATE: 12–13–2021	
VSE PROJECT #: 21036–11	DRAWN BY: JMR	SHEET 1 OF 1

Vermont Survey and Engineering, Inc.
79 River Street, Montpelier, Vermont
(802) 229–9138 ~ info@vermontsurvey.com

PROPERTY ACQUISITION AGREEMENT

This Property Acquisition Agreement (this "Agreement") is entered as of _____ ___, 2024 (the "Effective Date"), between the University of Vermont and State Agricultural College, a public land-grant research university with a principal address of 85 S. Prospect Street, Burlington, VT 05405 ("UVM") and the City of Burlington, a Vermont municipal corporation with a principal address of 149 Church Street, Burlington, VT 05401 (the "City"), with respect to the following facts:

A. The City owns that certain parcel of real property generally triangular in shape and 0.2 acres in size, more or less, located in the City of Burlington, County of Chittenden, State of Vermont, labelled "Area to Be Conveyed from the City of Burlington to University of Vermont & State Agricultural College", as depicted in that certain plat prepared by Vermont Survey & Engineering, Inc., entitled "Boundary Survey Showing Lands to Be Conveyed from City of Burlington to University of Vermont & State Agricultural College, Colchester Avenue & No. Prospect Street", dated December 13, 2021, and recorded in the City's Land Records as Map Slide __ (the "City Parcel").

B. The City Parcel underlies a portion of UVM's Dewey Hall and associated property. UVM desires to acquire the parcel and the City desires to transfer it to UVM. The parties estimate that the City Parcel has a value of One Hundred Eighty-two Thousand Four Hundred Sixty-nine Dollars and No Cents ($182,469.00) (the "City Parcel Value"), based upon an estimated value of Twenty-one Dollars and No Cents ($21.00) per square foot.

C. UVM owns that certain parcel of real property generally triangular in shape and 0.08 acres in size, more or less, located in the City of Burlington, County of Chittenden, State of Vermont, labelled "Area to Be Conveyed from University of Vermont & State Agricultural College to the City of Burlington", as depicted in that certain plat prepared by Vermont Survey & Engineering, Inc., entitled "Boundary Survey Showing Lands to Be Conveyed from University of Vermont & State Agricultural College to City of Burlington, Pearl Street & So. Prospect Street", dated December 13, 2021, and recorded in the City's Land Records as Map Slide __ (the "UVM Parcel").

D. The City needs to acquire the UVM Parcel for right-of-way improvements to the intersection where the two parcels are located, as expressed in that certain Memorandum of Understanding between the parties relating to said intersection dated April 2021, and executed on behalf of UVM on June 7, 2021. UVM is unwilling to sell the UVM Parcel voluntarily because doing so would constitute a zoning violation due to an existing lot coverage nonconformity.

UVM does not object, however, to the condemnation of the UVM Parcel, as further set forth in this Agreement.

E. The parties estimate that the UVM Parcel has a value of Sixty-nine Thousand Four Hundred Eighty-nine Dollars and No Cents ($69,489.00) (the "UVM Parcel Value"), based upon an estimated value of Twenty-one Dollars and No Cents ($21.00) per square foot. The difference between the City Parcel Value and the UVM Parcel Value is One Hundred Twelve Thousand Nine Hundred Eighty Dollars and No Cents ($112,980.00) (the parcel value differential, or "PVD").

F. By this Agreement, the parties intend (this Agreement's "Objects & Purposes") that: (1) the City will convey the City Parcel to UVM, (2) the City will condemn the UVM Parcel without objection from UVM, (3) UVM will pay the PVD to the City in consideration of the City Parcel, (4) UVM will accept the transfer of the City Parcel for the PVD in lieu of its full cash value as full and just compensation for the taking of the UVM Parcel, and (5) both parties will accept the physical and legal condition of their respectively acquired parcels as-is, with all faults, except warranties of title.

G. The parties contemplate that the condemnation described in the prior Recital may occur at the same meeting that this Agreement is approved by the City Council, but subsequent to the Agreement's execution on behalf of the City. It is the intent of the parties that upon approval, this Agreement shall be immediately binding upon the City.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Recitals. The foregoing recitals are true and correct and are incorporated herein by this reference.

2. Condemnation of the UVM Parcel. Once this Agreement has been approved and executed by UVM and approved by the City Council, the City Council shall hold a public hearing to condemn the UVM Parcel. UVM shall not object to the condemnation, and the parties mutually agree that:

    a. The condemnation procedures set forth in 24 V.S.A. ch. 77, may be used to condemn the UVM Parcel, and to the extent any other procedures may be deemed to apply, UVM waives the application of those procedures to the fullest extent allowed by law.

b. Compliance with the provisions of this Agreement fully satisfies the requirements of 24 V.S.A., ch. 77.

c. UVM is in receipt of the Federal Highway Administration's manual entitled: "Relocation: Your Rights and Benefits as a Displaced Person under the Federal Relocation Assistance Program". It is agreed and understood that UVM is not entitled to relocation assistance of any kind under federal or state law, and to the extent any right to such assistance may exist, UVM expressly waives such right.

d. The City needs the UVM Parcel for public use, as set forth in the Recitals.

e. UVM has received ten (10) days' notice of the condemnation proceedings pursuant to 24 V.S.A. § 2805(b), or otherwise waives any right to this or any other notice.

f. The UVM Parcel Value is an adequate measure of all the damages of every kind and nature to be sustained as a result of the condemnation, and UVM shall be fully compensated for such damages upon occurrence of the transactions contemplated in Section 4, below.

g. To the extent necessary pursuant to 24 V.S.A. § 2805(d) or any other law, by authorizing this Agreement, UVM has given its written consent to the condemnation, subject to the City's transference of the City Parcel as described herein.

h. UVM shall not challenge the condemnation pursuant to 24 V.S.A. § 2809 and 2810 or any other law.

i. A proposed form of resolution for condemning the UVM Parcel is attached hereto as **Exhibit A** (signature page and attachments thereto omitted). Title in the UVM Parcel shall vest in the City as soon as the City's resolution is recorded in the Land Records and damages have been paid to UVM as described paragraph (e), above.

3. Conditions Precedent. For greater clarity, it is agreed and understood that:

a. The approval of this Agreement by the City Council is a condition precedent to UVM's obligations under the prior section such that if the condemnation is ordered without the approval of this Agreement by the City Council, then UVM shall not be deemed to have consented to the condemnation.

b. UVM's right to acquire the City parcel for the PVD is conditioned upon the City Council's condemnation of UVM Parcel, so that the duties of the City as described in the following section, shall not arise unless the condemnation is approved by the City Council.

4. Transfer of the City Parcel. Concurrently with (or as soon as reasonably practicable following), the recordation of a resolution evidencing the condemnation proceedings, UVM shall pay the City the PVD, and the City shall deliver to UVM a validly executed quitclaim deed for the City Parcel to be recorded in the Land Records, substantially in the form attached as **Exhibit B**.

5. Disclaimer of Warranties. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, THE PARTIES DISCLAIM WARRANTIES OF EVERY KIND AND NATURE RELATING TO THEIR RESPECTIVE PARCELS. WHETHER ANY PHYSICAL OR LEGAL DEFECT WAS CAPABLE OF BEING KNOWN AS OF THE EFFECTIVE DATE, THE CITY AGREES AND UNDERSTANDS THAT IT IS ACQUIRING THE UVM PARCEL AS-IS, WITH ALL FAULTS, AND UVM AGREES AND UNDERSTANDS THAT IT IS ACQUIRING THE CITY PARCEL AS-IS, WITH ALL FAULTS.

6. Term. This Agreement shall continue in force until both parties have completed their obligations hereunder or are excused at law or in equity from doing so.

7. Independent Contractors. The parties are independent contractors of one another, and neither party is the agent or principal of the other. By entering this Agreement, neither party intends to form a partnership, joint venture, or similar enterprise.

8. Interpretation. There are no third-party intended beneficiaries of this Agreement. This Agreement shall not be construed against either party but instead shall be construed in such manner as best effectuates its Objects & Purposes.

9. Entire Agreement. This Agreement contains the entire understanding of the parties with respect to the subject matter hereof and supersedes all prior agreements or understandings relating to the same, whether written, oral, or implied.

10. Severability. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall continue in force to the extent necessary to effectuate its Objects & Purposes and the original intent of the parties as closely as possible.

11. Assignment; Amendment; Waiver. Neither party shall assign this Agreement without the written consent of the other party. No waiver of this Agreement shall be valid unless in writing, notwithstanding the passage of time, and no waiver shall constitute a continuing waiver of the same or another provision. This Agreement may not be amended except in a writing signed by both parties.

12. Choice of Law & Venue. This Agreement shall be construed according to Vermont law, notwithstanding conflicts of law principles. Venue for this Agreement shall be proper in Chittenden County, Vermont, notwithstanding any law to the contrary.

13. Dispute Resolution. Neither party shall file any litigation arising from this Agreement without first attempting in good faith to resolve the parties' dispute through negotiated settlement or mediation; provided, however, that any applicable statute of limitations shall toll during any period in which the parties are actively and mutually engaged in dispute resolution; and provided further that nothing herein shall prevent either party from seeking emergency relief in appropriate circumstances from a court of competent jurisdiction. In case of any litigation arising from this Agreement, the prevailing party shall be entitled to recover reasonable attorneys' fees and costs.

14. Notice. Any notice required under this Agreement shall be given to the receiving party at the address referenced in the opening paragraph, unless another address is given by notice. In case of personal delivery, notice shall be deemed given upon receipt. In case of notice by U.S. mail, notice shall be deemed given three (3) days after deposit in the mail. In case of notice by overnight courier, notice shall be deemed given the day after deposit with a reputable courier. In case of notice by electronic means, notice shall be deemed given upon written acknowledgment of receipt.

15. Execution. This Agreement may be executed in counterparts, each of which shall be deemed an original. This Agreement may be executed electronically, and an electronic copy or other facsimile shall be deemed an original. The signatories of this Agreement represent and warrant their authority to bind their respective parties hereto.

[***Signatures on Following Page***]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE

By: _____
Richard H. Cate,
Vice President for Finance & Administration

CITY OF BURLINGTON

By: _____

Emma Mulvaney-Stanak, Mayor

EXHIBIT A
CONDEMNATION RESOLUTION

Resolution Relating to

Condemnation of Property at 1 So. Prospect Road owned by the University of Vermont and State Agricultural College

RESOLUTION_____
Sponsor(s):
Introduced: _____
Referred to: _____
_____
Action: _____
Date: _____
Signed by Mayor: _____

CITY OF BURLINGTON

In the year Two Thousand Twenty-Four……

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

That WHEREAS, the University of Vermont and State Agricultural College ("UVM") owns that certain parcel 0.08 acres in size, more or less, located at 1 So. Prospect Road and depicted in that certain plat prepared by Vermont Survey & Engineering, Inc., entitled "Boundary Survey Showing Lands to Be Conveyed from University of Vermont & State Agricultural College to City of Burlington, Pearl Street & So. Prospect Street", dated December 13, 2021, and recorded in the City's Land Records as Map Slide __ (the "Property"); and

WHEREAS, the City needs the Property for public use for reasons explained the memorandum attached to this resolution as **Attachment A**; and

WHEREAS, UVM is unwilling to sell the Property to the City but does not object to condemnation thereof, as set forth in that certain Property Acquisition Agreement of even date herewith attached to this resolution as **Attachment B**; and

WHEREAS, just compensation for the Property is Sixty-nine Thousand Four Hundred Eighty-nine Dollars and No Cents ($69,489.00); and

WHEREAS, all notice and procedures required to take the Property by eminent domain have been complied with or waived;

NOW THEREFORE, be it resolved that:

1. The Property is ordered condemned pursuant to 24 V.S.A., ch. 77.

2. This resolution, including its attachments, which are incorporated herein by this reference, shall be recorded in the Land Records as evidence of these proceedings.

3. The full amount of damages as determined hereinabove shall be paid to UVM in the manner outlined in the Property Acquisition Agreement.

4. From the date that both this resolution is recorded and damages have been paid, the Property shall be held by the City in fee.

5. The Mayor or designee is authorized to execute such documents and take such further actions as may be reasonably necessary or convenient to accomplish the purposes of this resolution.

EXHIBIT B
QUITCLAIM DEED TO CITY PARCEL

QUITCLAIM DEED

KNOW ALL PERSONS BY THESE PRESENTS that the City of Burlington, a Vermont municipal corporation ("Grantor"), in consideration of ten or more dollars and other good and valuable consideration paid by the University of Vermont and State Agricultural College, a public land-grant research university ("Grantee"), the receipt and sufficiency of which is hereby acknowledged, does hereby remise, release, and quitclaim unto Grantee and its successors and assigns forever,

THAT CERTAIN PARCEL OF REAL PROPERTY located in the City of Burlington, County of Chittenden, State of Vermont, depicted as "Area to Be Conveyed from the City of Burlington to University of Vermont & State Agricultural College" in that certain plat prepared by Vermont Survey & Engineering, Inc., entitled "Boundary Survey Showing Lands to Be Conveyed from City of Burlington to University of Vermont & State Agricultural College, Colchester Avenue & No. Prospect Street", dated December 13, 2021, and recorded in the City's Land Records as Map Slide __,

TO HAVE AND TO HOLD said granted premises, with all the privileges and appurtenances thereof, and Grantee, its successors and assigns, to its own use and behoof forever;

AND FURTHERMORE, Grantor, for itself and its heirs, executors and administrators, does covenant with Grantee, its successors and assigns, that until the ensealing of these presents Grantor shall have and claim no right in or to the said quiclaimed premises;

IN WITNESS WHEROF, the undersigned hereunto sets her hand and seal on behalf of the City of Burlington this __ day of ___, 2024.

_____
Emma Mulvaney-Stanak, Mayor

State of Vermont, County of Chittenden. This record was acknowledged before me on _____ (date) by Emma Mulvaney-Stanak as the Mayor of the City of Burlington, Vermont.

Signature of Notary Public: _____
Stamp or certificate number: _____
Title of office: _____
My commission expires: _____

City of Burlington
Department of Public Works
645 Pine Street
Burlington, VT 05402
802.863.9094 P
802.863.0466

Date:	July 22, 2024
To:	Transportation, Energy, and Utilities Committee
From:	Fleet Committee Chapin Spencer, Director Public Works Katherine Schad, Chief Administrative Officer Cindi Wight, Director of Parks, Recreation, & Waterfront Michael Lachance, Fire Chief Deryk Roach, Parks Maintenance & Operations Supervisor Lee Perry, Division Director – Maintenance Division Ashley Parker, Capital Program Director Shannon Trammell, Police Wade Labrecque, Police
Subject:	FY25 Vehicle Purchase Recommendation

REQUEST:

The Fleet Committee requests the Transportation, Energy, and Utilities Committee, (TEUC) approval, and recommendation to Board of Finance, and City Council, for the proposed FY'25 vehicle purchase recommendations and approval to sell at auction the vehicles being replaced.

BACKGROUND:

Annually, the City's interdepartmental Fleet committee, staffed by the Department of Public Works (DPW) Fleet Manager Dave Hammond, coordinates fleet purchases for the General Fund (GF) and several enterprise/special revenue funds in order to realize cost savings and provide management oversight. Per the City of Burlington Fleet Policy, the Fleet Manager and the Maintenance Division Director meet with each Department head, or their designee, to review their annual recommended Fleet replacements and receive input on upcoming vehicle/equipment needs. With that information, the Fleet Manager researches electric and hybrid options for each item, calculates the carbon pricing on fossil fuel options, and make his recommendations to the Fleet Committee. The Committee reviewed the Fleet Manager's list of needs via email, prior to the Fleet Committees quarterly meeting on July 18, 2024, where the list was discussed and reviewed further. The Committee then recommended the following purchase list for review and approval by the TEUC, Board of Finance, and City Council.

The Fleet Committee has identified and is recommending (4) vehicles/equipment to be replaced in FY25. The vehicles/equipment to be replaced and purchased are for enterprise/special revenue departments only. This is due to the lack of funding for GF Fleet vehicle/equipment purchases. GF Departments that are able to acquire grants or have other identified funding sources outside of the GF, will be allowed to make requests to purchase vehicles/equipment with Chief Administrative Officer (CAO) approval in FY25. The FY25 GF Fleet budget is focused on supporting all FY25 GF lease payments for vehicles that have already been purchased. (See Attachment A for Fleet Funding History).

The recommended purchase list has been reviewed by Burlington Electric Department (BED), who provided additional recommendations and shared available incentives which further refined the purchase list through the lens of the City's 2030 NetZero goals. The Fleet Committee has worked hard to balance two key policy goals – the City's 2030 Net Zero energy goal and the City's operations and safety goal to replace as much of the fleet that is at end of life as possible – while also managing the identified financial constraints. We are now seeking the TEUC to recommend this FY25 fleet purchase list to the Board of Finance and City Council (see Attachment B for Fleet replacement list).

General Fund Fleet Funding:

Over the last two fiscal years, General Fund Fleet has not had sufficient revenues to purchase new vehicles or cover existing lease payments for vehicles/equipment. This has led to a freeze on purchasing new vehicles/equipment for General Fund Departments, while keeping the focus on supporting existing leases.

In FY24, the lease payments were the focus for funding, and revenues were pulled from multiple places to support the ~$1M need in FY24. This strategy included using all remaining FY23 Gains, one time funding of $400,000 from Unassigned Fund Balance, some insurance reimbursement, and Police and Fire impact fee revenue. The CT Office is currently working to finalize revenue transfers for this fiscal year.

FY25 Lease Payment Funding:

At this time, the Fleet Team and CT Office, are working on identifying the available funding sources to support FY25 Master Lease payments in the amount of $943,425 (not including Recycling). Bond proceeds cannot be used to cover lease payments, and there is no more one-time funding available to offset needed revenues for leases. Depending on the available funding, there is still a lot of work that needs to be done to identify available revenues to support the purchase of General Fund Fleet.

During the FY25 budget process, the CT Office proposed increasing a General Fund supported lease payment line in the DPW Equipment Maintenance budget to support FY25 General Fund lease payments. This includes utilizing leftover funds from DPW's salt budget in FY24 ($100,000) and additional General Fund monies ($802,425). The Fleet Manager is also expecting to bring in $41,000 in Gains that will be put towards the FY25 lease payments. In addition, the CT Office is working to determine how best to take advantage of available tax credits for the previous purchase of EVs. Any credits received would go towards creating a sustainable Fleet reserve to support lease payments or the purchase of new Fleet. See initial revenue breakdown in the table below.

Proposed FY25 GF Lease Payment Revenue	
FY25 Gains	$41,000.00
General Fund – Equipment Maintenance	$902,425.00
Total:	**$943,425.00**

Deferred Fleet Vehicles:

When it became apparent that funding for Fleet vehicle/equipment replacement had run out, and there was no immediate funding strategies to support future Fleet purchases, replacement of GF Fleet vehicles and equipment was deferred. The deferred list currently has (76) vehicles/equipment from various GF departments totaling about $5.4M. Of the 76 deferred vehicles, seven (7) of these are vehicles in urgent need of replacement. This list is including vehicles/equipment that had to be deferred for FY25. There are a few items on the overall deferred list that have, and can be deferred for a number of years, because they are limited use, have limited wear, and are not expensive to maintain.
In addition to developing a strategy to fund General Fund Fleet replacement, there is also a need to fund DPW's fleet maintenance operations to ensure that there are enough resources to adequately maintain and repair existing fleet, especially considering the age and number of deferred vehicles. Supporting this effort would likely involve a combination of increased funding for DPW Equipment Maintenance personnel and parts expenses.

As the overall size of the City's Fleet has grown over these past few years, Fleet Maintenance staff numbers has stayed stagnant. National standards show that based on the size of our fleet, and the amount of Fleet Technicians (7), the ratio of Fleet Technicians to assets are skewed. A Fleet Utilization Assessment Report completed in 2018 by Management Partners, suggested the addition of a service writer, and two extra help positions that would be responsible for obtaining parts, shuttling vehicles/equipment and other shop-oriented tasks, that currently take up valuable staff time (i.e.: the Fleet Technician, Inventory Control Specialist, and Fleet Manager). Based on recent data from our Fleet Management Software (RTA), Fleet Maintenance performed an exercise in March of 2023, comparing staff size to the amount of assets per General Fund Departments, and Revenue/Special Revenue Departments. Using national standards Vehicle Equivalent Units (VEU), the exercise showed that staff numbers should be ~9.5 Fleet Technicians for General Fund Departments, and ~3 Fleet Technicians for Special Revenue Departments, or 12.5 Fleet Technicians overall.

Our current staff of 7 Fleet Technicians are trying to keep up with preventative maintenance and repairs. The Department has also outsourced larger repairs using our Contractual Vehicle repair budget. As our Fleet continues to age, with no sustainable replacement funding, costs for these repairs, will only continue to increase.

(See Attachment C urgent need deferred list)

City's NetZero by 2030 Goal – Fleet Update:

DPW Fleet has worked to advance the electrification of the City fleet where possible. This is based on the needs of the Department, whether the EV technology can support those needs, as well as the consideration of whether the EV can provide safe and efficient service to the City's residents. All new proposed fleet purchases will be reviewed for potential EV replacements. The progression of the electrification of our fleet can be seen in Attachment D.

It is important to note again, that there are no funds allotted for GF vehicle replacement in FY25, and the coming fiscal years. Until a strategy for funding these purchases is implemented, the City's priority is funding the existing GF fleet leases.

The Fleet Committee, with direction from the previous Administration, has been working with Move EV, a consultant that specializes in assisting municipalities in Fleet electrification. They have been working on the following items:

- An overview of the City's current Fleet situation, including an options report focused on insights into current operations, costs, and emissions.
- Identification of strategic improvement opportunities, service providers, vehicles, fueling, and financing strategies.
- Recommendations for changes to the City's current Fleet Policy.
- Development of a new fleet electrification plan and timeline.
- A review of the City's current driving reimbursement policy and process.
- A review of fleet vendors, assessments and savings opportunities.
- Help with identifying and responding to grant and incentive opportunities.

The Fleet Team hopes that their final report will provide the City with a Fleet electrification road map that can be incorporated in an efficient and cost effective way. Staff expects this report to be wrapped up this August or September.

Telematics Update:

In early 2020, the City of Burlington Fleet Maintenance Team and the City's Capital Program Manager started to look into the use of telematics as a way to bolster our management of the City's Fleet. The City suffers from costly and complex fleet management due to a lack of information concerning real-time condition, usage, and location of its equipment. Recently, Fleet Maintenance was directed by the CAO to meet with vendors, create an RFQ, and move forward with implementing telematics into all City fleet vehicles and equipment. This process has begun and we have selected a vendor through Sourcewell's cooperative purchasing program that will suit our needs. We expect to bring a request for contract approval to a Board of Finance meeting this fall. It is also worth noting that the use of telematics was mentioned, and encouraged, in the Fleet electrification study by MoveEV.

If implemented, telematics will offer multiple benefits:

<u>Financial</u>

Reduction of fleet capital life cycle costs.

- Fuel- Idle mitigation, efficient routing (snow plows, sidewalk tractors, dispatching), cost of carbon avoidance
- Maintenance- Predictive maintenance via real-time diagnostics and GPS. Real-time alerts sent via email to Fleet Manager will prevent future costly repairs if gone undetected.
- Accident/Insurance- Defensibility for employees regarding public complaints/accidents.
- Labor- Accurate fuel data means less time correcting erroneous fuel entries, catching repairs before they develop into larger more costly repairs that consume a large portion of our Fleet Technicians time, and outside vendor repair budget.
- Fleet replacement frequency and right sizing- Reports can show what vehicles are underutilized, and may be able to be sold or shared, to right size the fleet.

<u>Environmental</u>

Reduction of fuel use

- Idle monitoring and mitigation
- Correcting driving habits (harsh acceleration, speeding)
- Air Quality benefits (reducing our carbon footprint)
- Usage data to inform future applicability of electric vehicles, hybrids, or removal for future capital replacement based on use.

<u>Safety</u>

Telematics aids in

- Promoting safer driver habits through driver reporting and coaching.
- Protecting City employees who are working alone throughout the City.

The City has identified funding in the Asset Management Capital Budget to implement telematics fleet-wide for the first year of a three year contract in the annual amount of $59,358.72. The

remaining two years of the contract will need to be built into the City's Asset Management budget. Potential funding sources for years two and three include cost savings from implementing telematics and cost sharing with enterprise and special revenue departments. City staff is working to finalize the procurement process and plans to bring a recommendation for the Board of Finance's and City Council's approval in the next month or two.

SUGGESTED MOTION:

To approve and recommend the Board of Finance and City Council approve the proposed FY'25 Fleet Purchasing List and authorize DPW Fleet Maintenance to auction the FY'25 replaced vehicles/equipment through various online public auctions, or trade in to vendor where vehicle/equipment is being purchased. If there is no public interest, or the vehicle is of no value to the vendor, Fleet Maintenance will have the vehicle/equipment, hauled away for scrap at the current market price.

ATTACHMENT A:

Fleet Funding History:

Below is a brief timeline of how funding was supported for the City's fleet, and how it has changed over time. It provides the framework for understanding how the past has shaped the present and may provide guidance for helping us determine a new strategy focused on long-term sustainability.

- FY12-FY15: There was a moratorium on the purchase of new vehicles due to the City's financial challenges.

- FY16: The City began to purchase new vehicles again – this time utilizing FY17 a master lease. At this time, an informal fleet team started creating a list of vehicles needed each year to help the City forecast needs over time.

- FY17: A sustainable infrastructure bond replaced 3 fire trucks for $3.3 million.

- FY17-FY18: The fleet team began creating a spreadsheet to track sustainable investment in fleet. The strategy of using master leases was working, but projections were showing financial challenges for fleet funding in out years due to increased debt payments.

- FY18: The City contracted with a fleet consultant to review how fleet was structured and recommend improvements. This resulted in a new Fleet Policy, the Fleet Committee, and a spreadsheet of needs from the consultant.

- October 24, 2019: The Fleet Policy was approved by the City Council.

- FY20: The Fleet team estimated that the sustainable fleet replacement need was approximately $2,700,000/year. Up to this point, fleet funding had been by department. As part of the Fleet Committee and Fleet Policy development, all fleet related resources were pooled across departments into one location in order to create efficiencies in purchasing and revenues.

- FY20-FY22: It appears due to staff transitions and focus on the pandemic that during this time staff lost track of the strategic focus on need for General Fund money for lease payments.

- FY23: The Fleet Team requested the use of $715,000 of General Fund monies to support lease payments in FY23, as we were reaching the end of the Fleet reserve funds. At that time, the Fleet Team communicated that lease payments in FY24 & FY25 were going to require the same significant General Fund support.

- FY24: Freeze on the purchase of new vehicles for General Fund Departments and a focus on the funding of FY24 General Fund lease payments. The City approved, and funded an electrification and revenue generating study to be done by Move EV, a consultant that helps organizations and municipalities transition fleets and employees to electric vehicles faster, and funnel federal and state money to municipal employees and residents.

- FY25: Freeze on the purchase of new vehicles for General Fund Departments and a focus on the funding of FY25 General Fund lease payments.

Over the last several fiscal years, through effective coordination and purchasing vehicles through master leases, the City was able to make significant reinvestments in its municipal fleet. Now the City is entering a very challenging multi-year fiscal year period for multiple reasons:

- As discussed above, vehicle replacement funding was pooled from Police, Public Works and Parks starting in FY20. However, not all revenues from pooling vehicle replacement funding from Police, Fire, Public Works and Parks were able to be kept each fiscal year for fleet needs due to shorfalls in General Fund operating budgets.

- Several recent revenue ballot items were not successful at the ballot box (Fall 2021 $40M capital bond proposal and FY23 proposed municipal tax increase).

- After multiple years of financing to purchase new vehicles, the City is now carrying significant debt service payments for vehicles previously received.

- The Fleet Team is also continuing to manage constraints within the vehicle industry related to ordering and purchasing of vehicles and equipment. This includes delays in vehicle manufacture and delivery for both internal combustion and electric vehicles.

- With existing fleet funding limited to gains (revenue from selling older vehicles), remaining fleet reserve funds, and some impact fees; alternative sources of funding will need to be identified to support that ~$1M/year in lease payments through FY25. There will continue to be a ~$2M/year need to replace the City's fleet, though this number will likely be higher as the deferred list has increased over the last two years. As noted in the memo, the current deferred vehicle replacement list is valued at $5.4M.

ATTACHMENT B:

Fleet Replacement List:

Department	Equip. #	Year	Make	Model	Purchase Cost	Replacement Interval	Replacement Date
Parking Enforcement	PE 1709	2017	Ford	Focus	$35,000	7	2024
Police	P47	2001	Pace	Cargo Sport	$2,398	15	2016
Water	Z05	2013	John Deere	75G Excavator	$108,000	10	2023
Water	Z314	2015	Ford	F550	$49,800	10	2025

ATTACHMENT C:

Urgent Need Deferred List:

General Fund Fleet - FY25 Urgent Replacements						
Dept	**Equip #**	**Year**	**Make**	**Model**	**Description**	**Replacement Cost**
Fire	FA5	2014	Ford	F-450	Rescue	$450,000.00
Police	P06	2016	Ford	Explorer	Supervisor	$88,735.00
Police	P09	2015	Ford	Explorer	Supervisor	$88,735.00
Police	P10	2016	Ford	Explorer	Line Cruiser	$88,735.00
Police	P11	2017	Ford	Explorer	Line Cruiser	$88,735.00
Police	P34	2015	Ford	Taurus	Detective	$50,000.00
Parks	PR47	2016	Jacobsen	HR9016T	Mower	$130,000.00
Total:						**$984,940.00**

ATTACHMENT D:

Progression of Fleet Electrification:

	FY19	**FY20**	**FY21**	**FY22**	**FY23**	**FY24**	**FY25**	**AVG**	**TOTAL**
ELECTRIC	0	1	6	7	4	3	1	3.14	22
HYBRID	5	3	4	6	1	2	0	3.14	21
TOTAL FLEET PURCHASE	13	16	28	24	18	7	5	15.86	111
% OF EV	**0%**	**6%**	**21%**	**29%**	**22%**	**43%**	**2%**	**20%**	**20%**

***Does not include trailers, bicycles, other non-powered equipment, or Burlington Electric Department vehicles.**
***Includes Water Resources and Traffic/Parking Services vehicles/equipment.**

Department	Division	Vehicle ID	Vehicle	Recommendation	Replacement Interval	Lease Duration Years	Funds From Parking Services	Funds From Impact Fees	Funds From Water Resources	Vehicle Units	Cost of Carbon		Total Cost				
											Fossil Fuel	Hybrid/CNG	Fossil Fuel Purchase Cost	Hybrid/CNG(after rebates)	Total Vehicle Purchase Price w/ Cost of Carbon	Electric	Rebate
Parking Enforcement	Parking	PE1709	Ford Focus	Electric	7		1			1	$1,800	$1,200	$24,000	$37,000	$38,200	$40,000.00	$2,300.00
Police	Police	P47	Range Trailer		15			1		1	N/A	N/A	$7,500	N/A	N/A	N/A	N/A
Water Resources	Water Distribution	Z05	John Deere Excavator	Fossil Fuel	10	7			1	1	N/A	N/A	$165,000	N/A	N/A	N/A	N/A
Water Resources	Water Distribution	Z314	Ford F550	Fossil Fuel	10	7			1	1	$8,600	N/A	$120,000	N/A	128600	N/A	N/A
Total								1	2	4	$10,400	$1,200.00	$316,500	$37,000.00	$166,800	$37,700.00	0

FY25 Vehicles Leased Annually @ ~4.5%		**Lease Term**		**Value**	**Number of Leases**
Water Resources		7 year		$285,000	2
Total Including Interest				**$298,000**	**2**

CITY OF BURLINGTON
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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

MEMORANDUM

To: Transportation, Energy & Utilities Committee

From: Chapin Spencer, Director

CC: Laura Wheelock, P.E., Division Director – Technical Services / City Engineer
Megan Moir, Division Director – Water Resources
Phillip Peterson, Senior Transportation Planner
Bill Ward, Director – Department of Permitting & Inspections
Scott Gustin, Principal Planner & Zoning Division Mgr. – Dept. of Permitting & Inspections

RE: **Riverside Avenue Slope Stability & 505 Riverside Avenue**

Date: July 22, 2024

The Department of Public Works (DPW) is providing this briefing on 505 Riverside Avenue to the Transportation, Energy & Utilities Committee (TEUC) to update the Committee and get your feedback on our deliberations on whether or not to pursue Hazard Mitigation Grant Program (HMGP) funding to buyout the current owners, remove the building and reduce the risk associated with future potential slope failure.

Background:

Burlington is a hilly community with steep slopes adjacent to the Winooski River, Lake Champlain and other areas of the city. Soil characteristics, loading, stormwater drainage and other factors all contribute to the stability or instability of area slopes. The slope between the Winooski River and Riverside Avenue has experienced failures and erosion in different locations and at different times over the past century. Much of the property between the river and the avenue is private and the City has fewer tools to address slope stability concerns on these parcels.

The City has evaluated the stability of certain slopes along this north side of Riverside Avenue through the following reports:

- 2018 GeoDesign Technical Engineering Report
- 2020 HTA Slope Inspections
- 2024 State of Vermont Inspection / Report (underway)

The reports prior 2024 have previously been shared with the City Council and Public Works Commission.

Vermont has a Hazard Mitigation Grant Program (HMGP) that utilizes Federal Emergency Management Agency (FEMA) funding to buyout private properties that have structures at imminent risk of destruction due to slope failure, flood damage, etc. $60M is available statewide and the pre-application is due by August 16, 2024. Grants typically require a 25% local match, but VEM currently has a State General Fund allocation that will be used to cover the match for property buyouts. More information on the grant opportunity can be found at: https://vem.vermont.gov/funding/mitigation.

The City applied for this funding a couple years ago to advance acquisition of 389 Riverside Avenue that has a residential structure immediately adjacent to a steep slope. That section of slope has showed signs of movement. Permitting and Inspections' grant application was successful and efforts to purchase the property, remove the structure, and leave the property undeveloped are advancing.

Now the City must decide whether or not to pursue Hazard Mitigation Grant Program (HMGP) funding in this upcoming grant round for 505 Riverside Avenue. The property owners have expressed to the City in writing that they want the City to pursue this option. Couple key questions are 1) whether this property "demonstrates risk of imminent failure" and 2) how the City can limit its liability from the contaminated soils on site.

1. To get more information on this first item, the City brought the State Geologist to the site on July 2 to assess the situation and provide a report that will hopefully provide an answer to the question of whether the slope is at risk of imminent failure. We have not yet received the report. While previous City-commissioned reports have stated that the steep slope behind the 505 Riverside Avenue structure is experiencing risks that could affect the stability of the slope, there hasn't been definitive documentation that the slope is moving. Slope stability risk factors include the City's stormwater outfall that is causing erosion, the building's roof drainage, parking adjacent to the slope, etc.
2. To get more information on the second item, the City has reached out to the State's Brownfields Reuse and Environmental Liability Limitation Program (BRELLA) to see if the parcel would be eligible. The property was previously used as a gas station and the current property owner in coordination with VT DEC has completed an Initial Site Investigation Report earlier this year.

On a related front, DPW Water Resources has contracted with VHB to explore alternatives for relocating / repairing / reinforcing the stormwater outfall on 505 Riverside Avenue – and then developing a conceptual design for the preferred alternative. We expect to have a preferred alternative, a conceptual design and preliminary cost estimate in the first half of 2025.

More slope stability information is at: https://www.burlingtonvt.gov/dpw/slopestability.

Please feel free to reach out with any questions or feedback. Thank you for the opportunity to provide this slope stability update to the Transportation, Energy & Utilities Committee.

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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

MEMORANDUM

To: Transportation, Energy & Utilities Committee

From: Chapin Spencer, Director
Laura Wheelock, P.E., Division Director – Technical Services / City Engineer
Corey Mims, P.E., Senior Public Works Engineer

RE: **Champlain Parkway Project Update**

Date: July 22, 2024

The Department of Public Works (DPW) is sharing this update on the Champlain Parkway project to provide recent news on the project since the comprehensive memo provided to the City Council on June 10, 2024 (memo attached).

Initial Construction Contract:
The project contractor SDK expects to substantially complete the initial construction contract ahead of schedule – in late August or early September. We are in the midst of a 6-week 24/7 one-way northbound traffic pattern on Pine Street in order to install the concrete ramps for the three raised intersections. This is the most disruptive activity for the remainder of this initial construction contract and we very much appreciate everyone's patience. We expect to open the new section of the Champlain Parkway between Lakeside Avenue and Home Avenue in the next 2-4 weeks. More detail on the opening will be coming soon.

Bid Process for Final Construction Contract:
The request for bids for the final construction contract was issued on June 11, 2024 – the day following the project briefing at the June 10 City Council meeting. We received four bids by the deadline of July 12 – and all were under the engineer's estimate. We are currently conducting the bid review and, once completed, a recommended contract award is expected to advance to the August 5 Board of Finance and the August 12 City Council.

Public Engagement:
The Administration is committed to robust ongoing communication with the King and Maple neighborhood and with stakeholders within the entire project area. DPW is hosting an open house on July 31 from 5-7pm at the King Street Center to provide updates on the project, hear feedback, and offer ways for people to stay engaged throughout the final construction contract. The open house event will be broadly noticed, is planned to have interpretation services and have food.

We have also directly communicated project updates on this project and other area capital projects to several key stakeholders in the neighborhood including:

- Champlain Housing Trust
- King Street Center
- The City's Racial Equity, Inclusion & Belonging Department
- Vermont Racial Justice Alliance

We have met or are meeting directly with three of these four stakeholders. Additionally, the project will continue to have a communications consultant focused on disseminating regular construction updates and respond to individual inquiries. They make sure the project website (www.champlainparkway.com) is current and provides timely construction news.

Responses to City Council Questions:

DPW received many good questions from Councilors when we provided the last briefing at the June 10, 2024 City Council meeting. Staff are currently preparing written responses and expect to have them to Councilors next week (July 22-26). We are happy to have follow-up conversations or provide any additional information in advance of the August Board of Finance and City Council meetings.

Final Construction Contract Timeline:

- August 5 – Board of Finance Contract Award
- August 12 – City Council Contract Award
- September – Start of Construction of the Final Contract
- Summer / Fall 2026 – Completion of the Final Contract

Please feel free to reach out to either of us (cspencer@burlingtonvt.gov, cmims@burlingtonvt.gov) with any questions or feedback.

Thank you for the opportunity to provide this additional Champlain Parkway update to the Transportation, Energy & Utilities Committee.

City of Burlington
Department of Public Works

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Memorandum

Date: June 10, 2024

To: City Council

From: Corey Mims, P.E., Senior Public Works Engineer
Chapin Spencer, Director

CC: Laura Wheelock P.E. Division Director/ City Engineer

Subject: Champlain Parkway Project – Update and Final Construction Contract

Background

The Champlain Parkway, formerly the "Southern Connector" originated in the 1960's as a four-lane limited access highway to improve vehicular access between downtown Burlington and I-89. Today's two-lane version, with a multi-modal design that includes significant stormwater, bike/pedestrian, and traffic calming components, represents a fundamental departure from the project's distant origins and will complement and foster the growing vitality of the South End well into the future.

On July 29, 2020, the City held a public hearing for the Limited scope Draft Supplemental Environmental Impact Statement (LS-DSEIS) with a focus on addressing whether the Champlain Parkway raised "environmental justice" concerns. During the 45-day public comment period further comments were collected for review and response.

August 19, 2021 the Federal Highway Administration (FHWA) released the Limited Scope Final Supplemental Environmental Impact Statement (LS FSEIS) for the Champlain Parkway. The LS FSEIS is limited in the scope of environmental analysis as it looks at the project impacts on low-income and minority populations along Pine Street section of the Selected Alternative between Maple St and Main Street. http://champlainparkway.com/media/vz0dist4/e-champlain-parkway-august-2021-ls-fseis.pdf

On July 13, 2021 DPW staff presented to the Board of Finance and City Council the South End Construction Coordination Plan which introduced the idea of a two-phase construction of the Champlain Parkway project – as part of an overall sequencing plan for South End capital projects to minimize community impacts. With Council support, the Champlain Parkway project team split the project's construction into two separate construction phases, the "Initial" and "Final" phases.

January 20, 2022, FHWA released the Record of Decision (ROD) that concluded the supplemental NEPA review and signaled the completion of the National Environmental Policy Act (NEPA) process for environmental clearance. http://champlainparkway.com/media/lg0ltxfg/champlain-parkway-signed-rod-january-20-2022.pdf

On April 25, 2022 City Council voted and approved DPW to execute the Initial Construction contract for the Champlain Parkway. The Initial Construction contract started in June 2022 and is ahead of the October 2024 contract completion date with substantial completion scheduled for August 2024.

By splitting the Parkway project into two separate contracts, the City is able to open the initial contract section once completed (between Home Avenue and Kilburn Street) and begin receiving the benefits of:

- **A new 25-mph grid street** between Home Avenue and Lakeside Avenue that will enhance connectivity and resiliency of the South End street network
- **A new stormwater pond and new stormwater sand filter** that will take 11.5 acres off the combined sewer system and reduce 6,344 pounds (over 3 tons) of sediment from being discharged into Lake Champlain annually
- **New shared use paths** providing a continuous ~2 mile off-road bike/pedestrian path from the Pine Street & Locust Street intersection to Queen City Park Road in South Burlington
- **Improved raised intersections** at Pine St & Kilburn St, Pine St & Marble Ave, and Pine St & Howard St
- **A new midblock crosswalk** Pine St & Arts Riot
- **An enhanced Pine Street** with new granite curbs, reconstructed sidewalk with ADA-compliant access ramps on the eastern side, and new top pavement layer with improved surface drainage
- **Undergrounded utilities on Lakeside Avenue** between Pine St and the new portion of the Champlain Parkway
- **Renewed water and sewer lines throughout the South End** – approximately 4,000 feet of waterlines and 3,000 feet of sewer lines will be replaced
- **Reconstructed rail crossings** with new active warning system including new gates in all quadrants, improved bicycle and pedestrian accommodation and improvements to drainage and stormwater features

The Champlain Parkway design has become – through years of persistent and thoughtful effort – a greatly improved project. More background on the project including maps, renderings and past memos that describe design refinements can be found at www.champlainparkway.com.

Project Engagement

There have been several stages of public engagement during various development phases of the project including:

- 2009-2010: Final Supplemental Environmental Impact Statement
- 2010-2011: Act 250
- 2019-2021: Limited Scope Final Supplemental Environmental Impact Statement

The 2019-2021 limited scope review of the Final Supplemental Environmental Impact Statement (LS-FSEIS) focused on whether the proposed project would have a disproportionate impact on residents in the King and Maple neighborhood. As part of that review process, there were multiple

public meetings, flyers/mailers, translated materials and an advertised public comment period. Public meetings included:

- September 26, 2019, Burlington City Hall
- October 7, 2019, King Street Center
- July 29, 2020, 645 Pine Street

Based on the feedback received and a review of project data, FHWA affirmed the conclusion that the project would not create a disproportionate impact on the King and Maple neighborhood. While traffic projections indicated an approximate 9% increase in vehicular traffic in the area post construction, the traffic would be safer and better managed with a broad range of improvements including traffic signals with exclusive pedestrian phases, bump outs to shorten crosswalks, ADA-accessible curb ramps, buried utilities, etc.

The Administration is committed to robust ongoing communication with the King and Maple neighborhood and with stakeholders within the entire project area. DPW will host a project open house in the King and Maple neighborhood within the next month that will be broadly noticed. DPW will also offer to meet with key organizations and stakeholders in the neighborhood including the King Street Center, Champlain Housing Trust, Vermont Racial Justice Alliance prior to bringing the request to award the final contract to the City Council. Additionally, the project will continue to have a communications consultant whose focused job it is to disseminate regular construction updates and respond to individual inquiries.

Traffic Modeling and Forecast – South End Coordinated Redevelopment (SECORD)

At a previous City Council briefing, Councilors asked us to evaluate whether the South End Innovation District (SEID) rezoning and the proposed SECORD development changed any of the Champlain Parkway traffic assumptions. SECORD is a proposed mixed-use development in the SEID located between Lakeside Ave and Sears Lane extending between Pine St west to the existing railroad tracks. It includes three parcels owned by Ride Your Bike LLC, Champlain College and the City of Burlington. This development is in an early planning phase and is currently estimated for a Phase 1 build at 125 Lakeside Ave with a planned 35,000 square feet of gross floor area (GFA) and 492 estimated residential units. Full buildout is estimated to have 121,800 GFA of mixed non-residential uses and 1,437 residential units. Phase 1 full occupancy anticipated by 2028 and Full Buildout full occupancy in approximately 2044.

Under contract with Ride Your Bike LLC, and in coordination with Champlain College and the City of Burlington, Stantec consultants conducted a review and analysis of trip generations for the Phase 1 and full buildout of the SECORD project and compared it the northerly generated traffic volumes against the estimated capacity of Pine St in the Champlain Parkway completed build condition (as stated in the FSEIS).

Stantec's review and modeling indicated that the daily trips generated by Phase 1 of the SECORD project does not introduce volumes to Pine Street north of the development to a degree great enough to exceed designed capacity as modeled by the Champlain Parkway Project. The full build out of the project, estimated to be complete in 2044, is projected to generate additional traffic on Pine Street that cumulatively, with other traffic, would exceed Champlain Parkway project projections. This exceedance, however, is estimated to be approximately 20 years in the future which provides significant time to complete other area transportation improvements such as the Railyard Enterprise Project (www.railyardenterprise.com).

Overall Project Construction Financing:

- Total projected Champlain Parkway Construction cost from the initiation of the project's construction phase in June 2022 through completion of the final construction phase anticipated in 2026: ~$90M
- The City's two major financial commitments from cooperative agreement with the State of Vermont:
    - 2% of "participating costs" (~$1.7M, 1.9% of the total construction cost) – the City has agreed to pay 2% of costs that our Federal and State partners deem eligible expenses. These costs are being covered by the City's Street Capital dedicated tax revenues. It is important to note that this project is delivering far more paving and sidewalk work than the $1.7M street capital contribution would be able to cover on its own.
    - 100% of "non-participating costs" (~$6.8M, 7.5% of total cost) – the City has agreed to pay all of the costs for contaminated soil management and City requested items that our Federal and State partners see as ineligible (landscaping, additional utility upgrades, special elements/finishes). These costs are being supported by a combination of the City's capital bonding and ~$1.3M reimbursement by the utilities associated with the related infrastructure relocation and petroleum cleanup funding.
- Total projected City match among all General Fund Capital sources: ~$7.2M or 8.0% of total cost (inclusive of both the 2% local match and the non-participating costs). For a project this size, the match:grant funding ratio is a great deal for the City. Most Federal and State-funded projects require a 10-20% local match plus 100% of non-participating costs. That said, it's worth noting that the total local match and non-participating expenses are significant proportional to the size of the City's overall available capital funding (i.e.: Street Capital brings in ~$3M/year; FY25 Capital Bond Proceeds = $8.5M for all General Fund Capital projects with $10.3M of capital need across the City; current projections for Capital Bond Revenues starting in FY26 = $2M/year).Of the projected $7.2M overall General Fund Capital contribution, the City will need to budget approximately $2.4M in FY'25 and FY'26 to complete both the initial and the final construction contract (~$705,000 from Street Capital and ~$1.69M from General Fund Capital bond proceeds). The FY25 need has been recommended as part of the proposed FY25 Capital Budget submitted by the Interdepartmental Capital Committee to the Board of Finance on May 22, 2024.
- Our Federal and State partners have authorized the construction funds for this coming fiscal year to enable the City to get underway with the Parkway's final construction contract. They have let us know that the City needs to have the final construction contract bid by early June 2024 which we will advertise on June 11th 2024.
- Additionally, the relationship with our Federal and State partners is especially important these days as their financial participation will be critical to funding large upcoming projects including the Burlington-Winooski Bridge (~$60-80M), Great Streets Bank and Cherry Streets (~$55M) and the Railyard Enterprise Project (~$37M).

Project Timeline

Initial Construction Contract:

- August 2024 – Substantial Completion
- August 2024 – Champlain Parkway between Home Ave and Kilburn St opened to traffic

Final Construction Contract:

- June 10th – City Council Presentation
- June 11th – Bid Advertisement for Final Construction Phase (3 weeks)
- Late June – Project Open House in King and Maple Neighborhood
- July 2nd – Bid Opening (Start of Bid Review 2 weeks)
- July 17th – Bid Review approval VTrans & FHWA
- August 12th – City Council Contract Award
- August/September – Start of Construction Final Contract
- Summer / Fall 2026 – Completion of the Final Contract

Post-Construction Project Monitoring

DPW will monitor the operations and performance of the project once it is completed and open. Act 250 permit requirements ensure monitoring of specific intersections. Staff will be collecting and evaluating data and sharing the results with the City Council and general public. If data indicate a need for additional investments and/or interventions in the King and Maple Street neighborhood, or anywhere along the corridor, DPW staff will advance such investments or policy changes for City Council and/or DPW Commission consideration.

Please don't hesitate to reach out with any questions. Thank you for your time and we are available to answer any questions councilors may have following this City Council meeting update.

Attachments:

A: Stantec Presentation – Urban Trip Generation and Distribution – SECORD
B: Stantec Memo – Draft SECORD Project Northerly Trip Generation and Distribution

South End Coordinated Redevelopment (SECORD)

Urban Trip Generation and Distribution

For Burlington's South End

Prepared by Stantec

On behalf of the MOU partners (Ride Your Bike LLC, City of Burlington & Champlain College)

May 2024

SECORD Land Use Inputs

South End Coordinated Redevelopment (SECORD) of the 3 MOU parcels

Phase 1 SECORD (~2028):

+ 492 Units (incl. 100 student units)

+ 35,000 sq. ft. non-res.

Estimated future phases add:

~900 units of residential

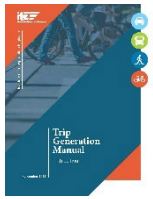
~85,000 sq. ft. non-res.

Full-Build SECORD (~2044):

- 1,400 Units (incl. 220 student units)
- 120,000 sq. ft. non-res.

Trip Generation: Vehicle Trip Estimates

1) Initial Trip Generation
- ITE rates



2) Convert to person trips
- Average vehicle occupancy (AVO) is 1.67

NHTS National Household Travel Survey Our Nation's Travel

3) Apply Internal Capture
- NCHRP reductions (full-build):
  - AM: 20%
  - PM: 36%

4) Apply Mode Share
- Auto share: 70%

5) Back to vehicle trips (Dist., Assign, Etc.)
- Re-apply AVO

Phase 1 SECORD (2028):

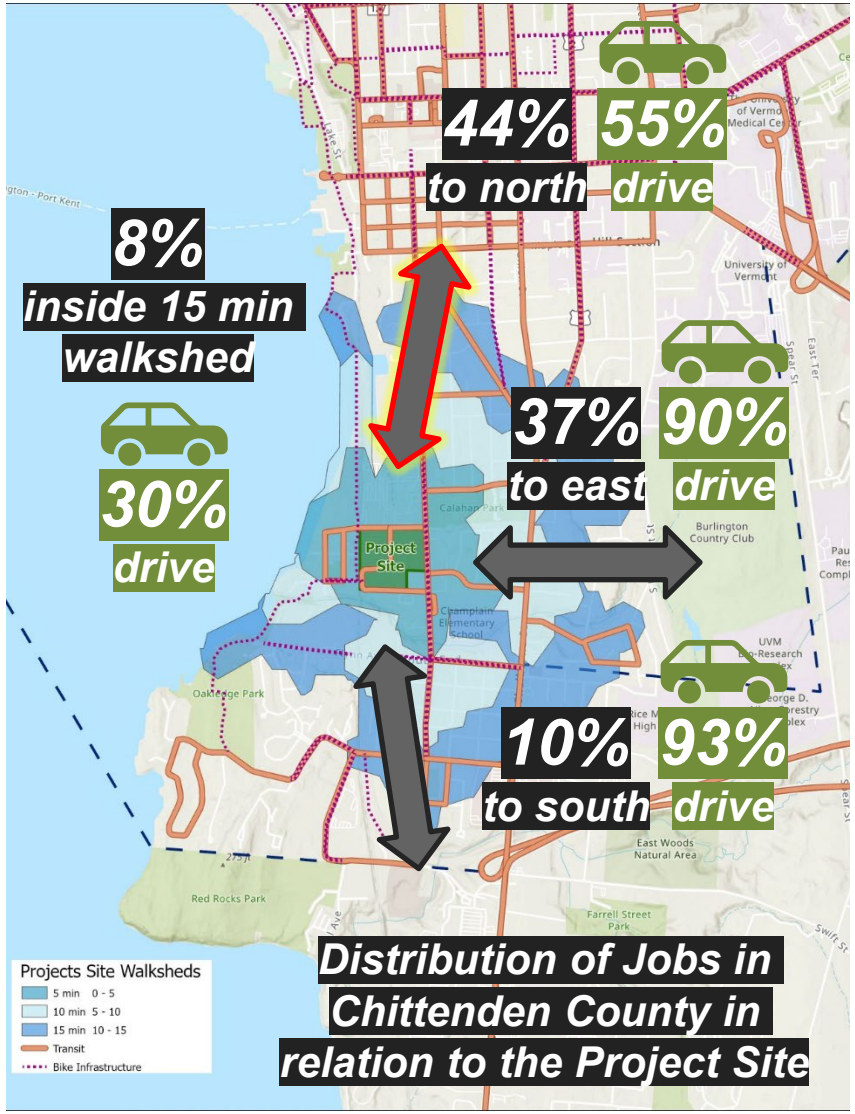
Daily Vehicle Trips		
	AM	176
	PM	177
	DAILY*	1,967

Full-Build SECORD (2044):

Daily Vehicle Trips		
	AM	568
	PM	526
	DAILY*	6,311

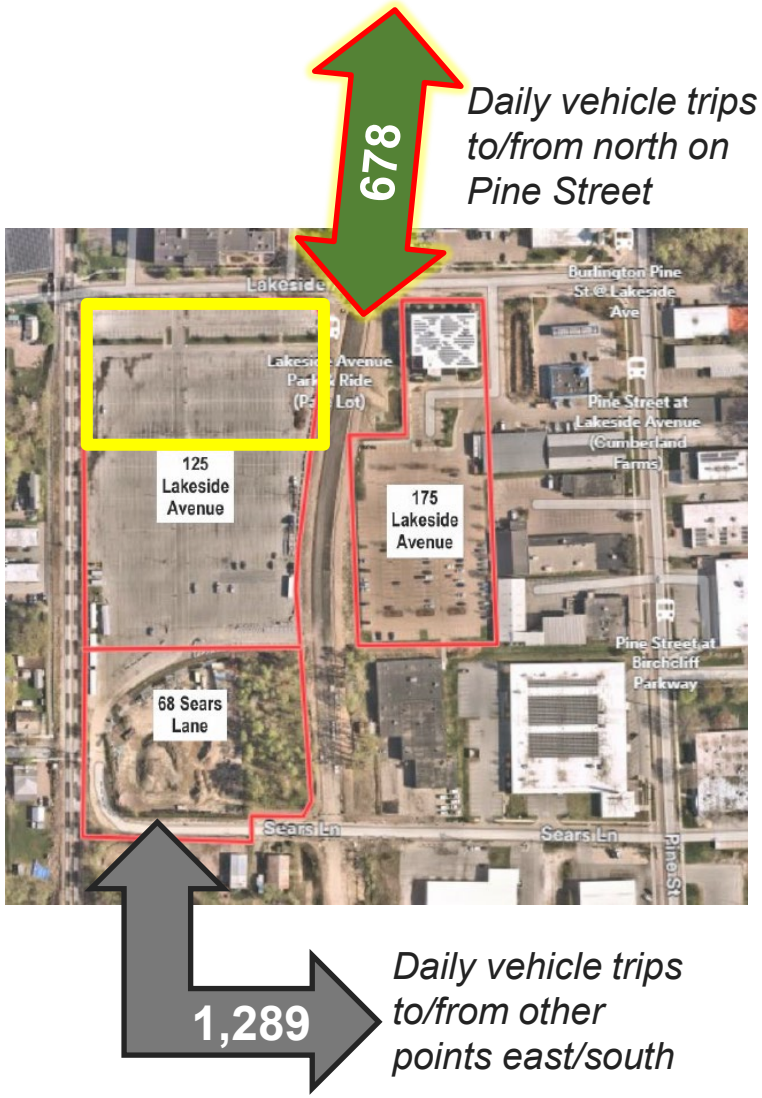
Note: Daily estimates produced by "K-factor" applied to peak trips. K-factor of 9% indicates peak percentage of total daily observed locally in most recent 2022 counts.

Trip Generation: Vehicle Distribution Estimates



Source: Longitudinal Employer-Household Dynamics (LEHD); U.S. Census Bureau (2021)

Phase 1 SECORD (2028):



Full-Build SECORD (2044):

North on Pine b/w Lakeside and Maple

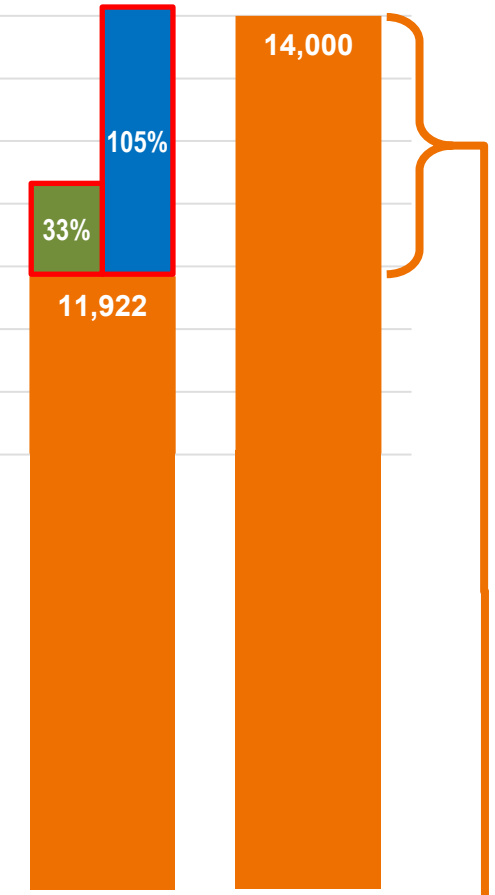
Pine Street: Lakeside Avenue to Maple Street

Period	Daily Vehicle Trips
FSEIS 2028 (as projected in 2009 Champlain Pkwy FSEIS)[1]	14,000
Updated 2028 (based on 2022 counts adjusted to 2020 using growth rate)[2]	11,922
Difference, aka Capacity for Development	**2,078**

[1] 2009 Champlain Parkway FSEIS; Table 4-5 Average Daily Traffic Volume Summary –Primary Study Area: Build Alternative 2
[2] 2022 Traffic Impact Analysis (TIA) of Railyard Enterprise Project (REP) Alternatives (Appendix G); Table 3 2022 Roadway Vehicle Traffic Demand (January Counts); increased to 2028 using a compound annual growth rate of 0.45% (which is derived from the FSEIS Table 4-5 growth between 2008 and 2028)

North on Pine b/w Lakeside and Maple

Pine Street: Lakeside Avenue to Maple Street



- ***Phase 1 consumes 33% of available capacity***
- ***Full-Build consumes 105% of available capacity***

Stantec

Memo

To:	City of Burlington, DPW	From:	Stantec Boston
Project/File:	South End Innovation District (SECORD)	Date:	May 23, 2024May 23, 2024

Reference: DRAFT SECORD Project Northerly Trip Generation and Distribution

This memorandum summarizes the anticipated northerly traffic impacts associated with the proposed South End Coordinated Redevelopment (SECORD) project in Burlington, VT. The project, which abuts an approximately 0.2-mile segment of the Champlain Parkway (Phase1) between Lakeside Avenue and Sears Lane, will introduce new residential and commercial development across multiple phases, with the first phase anticipated to come online in 2028.

As traffic generated by the SECORD site is projected to use Pine Street to access Downtown Burlington to and from the north, Stantec Consulting Services Inc. (Stantec) carried out this analysis in order to compare northerly project-generated traffic volumes against the estimated capacity of Pine Street in the Champlain Parkway Full Supplemental Environmental Impact Statement (FSEIS) for Build Alternative 2 (the selected alternative). The following sections document the trip generation and distribution process and detail how anticipated future traffic volumes compare against the capacity of Pine Street.

The memorandum demonstrates that daily trips generated by Phase 1 of the SECORD project (a portion of 125 Lakeside Avenue, which is planned to be fully-occupied by 2028) does not introduce volumes to Pine Street north of the development to a degree great enough to exceed capacity.

Full Buildout of the SECORD (including the remainder of 125 Lakeside Avenue plus 68 Sears Lane and 175 Lakeside Avenue, which is anticipated to be fully-occupied by 2044) may place northerly traffic volumes on Pine Street between Maple and Lakeside slightly in excess of capacity projections for this link, unless the construction of a proposed roadway connection between Pine Street and Battery Street—also known as the Railyard Enterprises Project (REP)—is completed. While REP is not planned for immediate construction, it is anticipated to be completed before the estimated 20-year time horizon for full buildout of the SECORD project is reached.

Project Description

The full-build project site is bounded by a rail corridor to the west, Lakeside Avenue to the north, Sears Lane to the south, and the new Champlain Parkway or the rear of parcels fronting Pine Street to the east. The project site includes three parcels that are part of a memorandum of understanding (MOU) between three parties: 125 Lakeside Avenue, which is controlled by Ride Your Bike, LLC; 68 Sears Lane, which is controlled by the City of Burlington; and 175 Lakeside Avenue, which is controlled by Champlain College. The project site and corresponding MOU parcels are shown in Figure 1.

Reference: SECORD Project Northerly Trip Generation and Distribution

Figure 1 – Project site and MOU Parcels
(Source: VHB South End Innovation District Transportation & Parking Assessment)

The first phase of the development in the northerly portion of 125 Lakeside Avenue is planned to bring 35,000 square feet of gross floor area (GFA) containing a mix of non-residential uses along with 492 units of housing, which includes a mix of market-rate, workforce, and student housing. At full buildout, SECORD is estimated to have a total of 121,800 GFA of mixed non-residential uses, plus a total of 1,437 residential units. The full land use program can be found in the appendix to this memorandum. Phase 1 is anticipated to be fully-occupied in approximately 2028 and the Full Buildout in approximately 2044.

These land use assumptions inform the planning-level assessment included in this memorandum and are subject to change and refinement by the MOU project team. There may be additional phases after Phase 1, prior to full buildout, that are determined in the future and unknown at this time.

Northerly Trip Generation and Distribution Results

An estimated project trip generation was developed using peak hour rates from the Institute of Traffic Engineers (ITE) *Trip Generation Manual 11th Edition*, the latest available addition. The trip generation process followed the recommended steps described in the ITE *Trip Generation Handbook,* for multimodal projects. This includes adjustments for average vehicle occupancy (which is nationally observed to be 1.67

people per car from the latest National Household Travel Survey from the Federal Highway Administration), internal capture (which was estimated by National Cooperative Highway Research Program methods), and local mode shares (based on US Census American Community Survey (ACS) 2021 5-year estimates of Journey to Work data). These adjustments are described in detail in the appendix to this memorandum.

Peak hour trips were then distributed to the north, east, south, and near the project site (withing a 15-minute walkshed) based on regional job locations available in the Longitudinal Employer-Household Dynamics dataset from the US Census Bureau. As opposed to simply distributing trips based on local turning movement patterns, this approach was intended to recognize that development at SECORD will have easy roadway access to southerly and easterly destinations via the Champlain Parkway but significant multimodal options to the north, thanks to the multi-use path, sidewalks, and transit service connecting the development site to downtown Burlington. This methodology arrives at the directional mode splits in Table 1 below.

Table 1 – Directional Trip Distribution Assumptions

Direction	**Directional Distribution** (share of person trips going in this direction)	**Directional Auto Mode Share** (share of trips in this direction that are made by driving)
North	44%	55%
East	37%	90%
South	10%	93%
Inside 15 min walkshed	8%	30%

When these distributions are applied to vehicle trip generation estimates for the development, trips to/from the north can be identified. Conservatively putting all northerly trips on Pine Street produces the results in Table 2. The daily estimate is based on applying a K-factor (a ratio that represents the share of daily trips that occur during a peak hour) from the *Traffic Impact Analysis (TIA) of Railyard Enterprise Project (REP) Alternatives (Appendix G)* report. This K-factor (0.09) is based data collected at seven locations near the project site in January 2022.

Table 2 – Adjusted Vehicle Trip Generation

Period	Phase 1 SECORD (2028)		SECORD Full Buildout (2044)	
	Total Vehicle Trips	**Vehicle Trips to/from the North**	**Total Vehicle Trips**	**Vehicle Trips to/from the North**
AM	176	61	568	197
PM	177	61	526	182
DAILY	1,967	678	6,311	2,189

To evaluate the impact of this northerly volume, both the baseline volume and the maximum capacity in the future had to be established, against which the development's trips could be gauged. The baseline volume comes from a count conducted and validated in the 2022 *TIA of the REP* on Pine Street between Lakeside Avenue and Maple Street. This count was then inflated to 2028 (when Phase 1 of the SECORD project is anticipated to be fully occupied) using a compound annual growth rate of 0.45% derived from the FSEIS growth between 2008 and 2028 at the same location. Using this method, the updated 2028 baseline estimate is 11,922 daily vehicle trips. The maximum capacity comes from the original 2028 projection for this corridor of 14,000 daily vehicle trips, which was defined by the Full Supplemental Environmental Impact Statement (FSEIS) for the Champlain Parkway (Build Alternative 2).

Reference: SECORD Project Northerly Trip Generation and Distribution

The difference between the 14,000 maximum capacity daily vehicle trips and the 11,922 baseline daily vehicle trips is **2,078 trips, which is assumed to reflect the potential capacity for additional traffic volume along Pine Street before traffic exceeds capacity.** Table 3 defines these figures and their significance.

Table 3 – 2028 Traffic Volume Benchmarks on Pine Street between Lakeside Avenue and Maple Street

2028 Volume Figure	Source	Description
Maximum tolerable volume: 14,000 trips	Champlain Parkway FSEIS (2009)	Volume figure assumed for 2028
Baseline volume: 11,922 trips	Railyard Enterprises Project TIA (2022)	Updated volume figure projected for 2028 given volumes observed in 2022
"Capacity": 2,078 trips	Difference between FSEIS and TIA figures	Potential capacity for traffic volume growth before volumes exceed the 14,000 daily trip capacity

As noted in Table 3 above, Phase 1 of the SECORD project is anticipated to place 678 daily vehicle trips on Pine Street. This figure represents approximately 33% of the potential capacity (2,078) for traffic volume growth on Pine Street.

Full buildout of the SECORD project would place 2,189 daily vehicle trips on Pine Street, exceeding the 2,078 trip threshold by 111 vehicles (105%). Full buildout of SECORD is presently anticipated to occur by 2044, before which additional network changes—such as the REP—may be in place to prevent the capacity of Pine Street from being exceeded.

Further analysis of interim year impacts is anticipated as part of the master planning process for SECORD, including estimates for other parcels in the South End Innovation District (SEID). More refined traffic assignments are expected, especially looking at local distribution of northerly trips on other roadways besides just Pine Street.

Trip Generation and Distribution Appendix

Overview

This section describes, at a high-level, the process for developing a vehicle trip generation estimate for the SECORD, including the estimated number of vehicle trips to/from north of the project site. More detail on this analysis can be found subsequent sections of the Trip Generation and Distribution Appendix.

Trip Generation Process

An estimated project trip generation was developed using rates from the Institute of Traffic Engineers (ITE) *Trip Generation Manual 11th Edition*, the latest available addition. The trip generation process followed the recommended steps described in the ITE *Trip Generation Handbook,* for multimodal projects. This process includes the steps and assumptions depicted in Table 4.

Table 4 – Trip Generation Process and Assumptions

Trip Generation Step	Assumptions	Data Sources
1. Initial Trip Generation	Rates and fitted curve equations corresponding to the Land Use Codes in **Error! Reference source not found.**	Institute of Traffic Engineers (ITE) Trip Generation Manual 11th Edition
2. Convert to Person Trips	Average Vehicle Occupancy (AVO): Ranging from **1.18 to 2.1**, based on land use	Summary of Travel Trends by the National Household Travel Survey (NHTS), USDOT Federal Highway Administration (Washington, DC), 2017
3. Apply Internal Capture	Separate reduction assumptions for each land use, resulting in the following overall reductions: • Phase 1: **AM: 31%; PM: 40%** • Full Buildout: AM: 20%; PM: 36%	National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool
4. Apply Mode Share	Auto Mode Share: **70%**	US Census American Community Survey (ACS) 2021 5-year estimates of Journey to Work data Replica location-based survey data for the Spring 2023 season
5. Convert Back to Vehicle Trips	Average Vehicle Occupancy (AVO): **1.67**	Summary of Travel Trends by the National Household Travel Survey (NHTS), USDOT Federal Highway Administration (Washington, DC), 2017

Project Land Use Inputs

The project land use is detailed in Table 5 in two phases: a Phase 1 of development, which is projected only for a portion of 125 Lakeside Avenue, and the full buildout of the MOU SECORD parcels. Phase 1 is anticipated to be fully-occupied in approximately 2028 and the Full Buildout in approximately 2044.

These land use assumptions inform the planning-level assessment included in this memorandum and are subject to change and refinement by the MOU project team. There may be additional phases after Phase 1, prior to full buildout, that are determined in the future and unknown at this time.

Table 5 – Full Buildout MOU Development Program Used for Trip Generation Analysis

Land Use and Parcel	Land Use Code (per ITE)	Phase 1 SECORD	SECORD Full Buildout
Multifamily Housing - 68 Sears	221		72 units
Multifamily Housing - 125 Lakeside	221	392 units	865 units
Multifamily Housing - 175 Lakeside	221		280 units
Student Housing - 125 Lakeside	226	100 Bedrooms	100 Bedrooms
Student Housing - 175 Lakeside	226		120 Bedrooms
Classroom - 125 Lakeside	550	100 Students	150 Students
Child Care - 125 Lakeside	565	11,000 SQFT	11,000 SQFT
High-Turnover Restaurant - 125 Lakeside	932	3,000 SQFT	4,000 SQFT
High-Turnover Restaurant - 175 Lakeside	932		4,000 SQFT
High-Turnover Restaurant - 68 Sears	932		1,000 SQFT
Fast Casual Restaurant - 125 Lakeside	930	2,000 SQFT	2,000 SQFT
Fast Casual Restaurant - 175 Lakeside	930		3,500 SQFT
Alcohol Tasting Room - 175 Lakeside	971		1,000 SQFT
Medical Office - 175 Lakeside	720		7,000 SQFT
General Office - 125 Lakeside	712	5,000 SQFT	6,000 SQFT
General Office - 68 Sears	712		6,000 SQFT
R&D - 125 Lakeside	760		5,000 SQFT
R&D - 175 Lakeside	760		19,000 SQFT
Salon - 175 Lakeside	822		3,000 SQFT
Salon - 125 Lakeside	822	1,400 SQFT	1,400 SQFT
Retail, unspecified - 125 Lakeside	822	2,600 SQFT	4,480 SQFT
Retail, unspecified - 68 Sears	822		1,000 SQFT
Retail, unspecified - 175 Lakeside	822		6,500 SQFT
Bank - 175 Lakeside	911		4,000 SQFT
Supermarket - 175 Lakeside	850		5,000 SQFT
Museum - 175 Lakeside	580		5,920 SQFT
Generator - Artist/maker - 175 Lakeside	110		6,000 SQFT
TOTAL Commercial/Non-Residential	**-**	**35,000 SQFT**	**121,800 SQFT**
TOTAL Residential Units	**-**	**492 units**	**1,437 units**

Unadjusted Vehicle Trips

Trip generation for the SECORD project was estimated using rates from the Institute of Traffic Engineers (ITE) Trip Generation Manual 11th Edition, the latest available addition. The development program's land uses are categorized by Land Use Code (LUC), which correspond to land use categories included in the ITE Manual. The ITE Manual provides fitted curve equations and/or average rates that can be applied to the land use program to yield initial **unadjusted vehicle trips**. The fitted curve for each land use was used where a fitted curve was available with an R^2 greater than 0.75; in all other instances, the average rate was used.

Unadjusted vehicle trip generation is provided for Phase 1 in Table 6 and the MOU full buildout in Table 7. In all cases these estimates are based on the land use context referred to by ITE as "General Urban Suburban."

Table 6 – Phase 1 MOU Unadjusted Vehicle Trip Generation

Land Use	LUC	Quantity	Units	Unadjusted AM Vehicle Trips	Unadjusted PM Vehicle Trips
Multifamily Housing - 125 Lakeside	221	392.0	DU	161	154
Student Housing - 125 Lakeside	226	100.0	Bedrooms	7	21
Child Care - 125 Lakeside	565	11.0	KSF	121	123
High-Turnover Restaurant - 125 Lakeside	932	3.0	KSF	29	28
Fast Casual Restaurant - 125 Lakeside	930	2.0	KSF	3	26
Salon - 125 Lakeside[1]	822	1.4	KSF	4	10
Classroom - 125 Lakeside[2]	550	100.0	Students	15	15
General Office - 125 Lakeside	712	5	KSF	9	11
Retail, unspecified - 125 Lakeside	822	2.6	KSF	7	18
TOTAL				***356***	***406***

[1] Uses retail (822) fitted curves and rates because hair salon (918) rates were developed based on only 1 study
[2] Fitted curve provided however applying it to this land use quantity results in negative numbers, rates used instead

Reference: SECORD Project Northerly Trip Generation and Distribution

Table 7 – Full Buildout MOU Unadjusted Vehicle Trip Generation

Land Use	LUC	Quantity	Units	Unadjusted AM Vehicle Trips	Unadjusted PM Vehicle Trips
Multifamily Housing - 68 Sears	221	72	DU	21	29
Multifamily Housing - 125 Lakeside	221	865	DU	369	338
Multifamily Housing - 175 Lakeside	221	280	DU	112	110
Student Housing - 125 Lakeside[1]	226	100	Bedrooms	7	21
Student Housing - 175 Lakeside[1]	226	120	Bedrooms	9	26
Child Care - 125 Lakeside	565	11.0	KSF	121	123
High-Turnover Restaurant - 125 Lakeside	932	4.0	KSF	39	37
High-Turnover Restaurant - 175 Lakeside	932	4.0	KSF	39	37
High-Turnover Restaurant - 68 Sears	932	1.0	KSF	10	10
Fast Casual Restaurant - 125 Lakeside	930	2.0	KSF	3	26
Fast Casual Restaurant - 175 Lakeside	930	3.5	KSF	6	44
Salon - 175 Lakeside[2]	822	3.0	KSF	8	20
Salon - 125 Lakeside[2]	822	1.4	KSF	4	10
Classroom - 125 Lakeside[3]	550	150	Students	23	23
Medical Office - 175 Lakeside	720	7.0	KSF	23	26
General Office - 125 Lakeside	712	6.0	KSF	11	13
General Office - 68 Sears	712	6.0	KSF	11	13
Retail, unspecified - 125 Lakeside	822	4.5	KSF	11	30
Retail, unspecified - 68 Sears	822	1.0	KSF	3	7
Retail, unspecified - 175 Lakeside	822	6.5	KSF	16	43

Land Use	LUC	Quantity	Units	Unadjusted AM Vehicle Trips	Unadjusted PM Vehicle Trips
Bank - 175 Lakeside[4]	911	4.0	KSF	91	49
Supermarket - 175 Lakeside	850	5.0	KSF	15	45
Museum - 175 Lakeside[5]	580	5.9	KSF	2	2
Generator - Artist/maker - 175 Lakeside	110	6.0	KSF	5	4
R&D - 125 Lakeside	760	5.0	KSF	6	5
R&D - 175 Lakeside	760	19.0	KSF	20	19
Alcohol Tasting Room - 175 Lakeside[6]	971	1.0	KSF	1	10
TOTAL				***986***	***1,120***

[1] Uses the subcategory of the land use for "Adjacent to Campus"
[2] Uses retail (822) fitted curves and rates because hair salon (918) rates were developed based on only 1 study
[3] Fitted curve provided however applying it to this land use quantity results in negative numbers, rates used instead
[4] Uses retail (822) fitted curve for daily because bank (911) does not provide a daily rate
[5] Uses library (590) fitted curve for daily because museum (580) does not provide a daily rate
[6] Uses rates describes for a LUC describes as brewery

It is important to note that use of the ITE Trip Generation Manual is focused on suburban stand-alone sites that can be easily measured and therefore measures only vehicle trips (not multimodal trips). It typically results in trip generation projections higher than what many projects experience once operational. Furthermore, given the diversity of land uses associated with SECORD, many land uses feature small sample sizes in the ITE data and may not be reliable estimates of project-generated traffic for these uses.

This memorandum's trip generation estimate exercise applies, as detailed in the following sections, additional steps to overcome ITE's limitations which account for travel by means other than single-occupancy vehicle (such as walking, bicycling, transit usage, and carpooling), as well as internal capture from walking trips between two on-site uses.

Person Trips

The next step is to convert unadjusted vehicle trips—the output of the step described above—to person trips, before proceeding with internal capture and mode share. Person trips were calculated using an Average Vehicle Occupancy (AVO) factor, listed in Table 8. These factors, for different trip types, are sourced from the Summary of Travel Trends by the National Household Travel Survey (NHTS), USDOT Federal Highway Administration (Washington, DC), 2017. While carpooling to work may remain rare, traveling in a vehicle with another person to errands, trips to restaurants, retail, and other personal trips is common, as reflected in the data from the NHTS.

Table 8 – Average Vehicle Occupancy Assumptions

Land Use	AVO
Multifamily Housing	1.67
Student Housing	1.67
Child Care	1.67
High-Turnover Restaurant	2.1
Fast Casual Restaurant	2.1
Hair Salon	1.82
Classroom	1.67
Medical Office	1.82
General Office	1.18
Retail, unspecified	1.82
Bank	1.82
Supermarket	1.82
Museum	2.1
Generator - Artist/maker	1.18
R&D	1.18
Alcohol Tasting Room	2.1

Internal Capture

Internal capture is the assumption that within a mixed-use development some trips will occur between the uses (internal trips) rather than off site on external networks to other destinations (external trips).

The National Cooperative Highway Research Program (NCHRP) 684 Internal Trip Capture Estimation Tool was queried to estimate internal capture reductions. This tool is the industry standard tool for calculating internal capture. The calculation takes as inputs the vehicle trip generation estimates for the most common land uses.

A few uses included in the SECORD project are not present in the tool and were therefore assigned by direct assumptions based on an understanding of how the site is expected to operate (Child Care: 65% and Classroom: 70%). Furthermore, the student housing internal capture percentage assumptions were inflated above the residential assumptions to 70% to account for the significant proportion of student trips that are anticipated to be on the college shuttle, by foot, or accommodated on site.

The NCHRP tool outputs reduction rates for different land uses for different time periods as summarized in Table 9 and Table 10, the difference from total person trips is included in these to give a sense of total trip reduction that results from applying the land use specific internal capture reductions.

Table 9 – Phase 1 MOU Internal Capture Reductions

Land Use	AM		PM	
	Entering Trips	Exiting Trips	Entering Trips	Exiting Trips
Office	11%	50%	75%	22%
Retail	25%	25%	72%	56%
Restaurant	24%	10%	24%	48%
Cinema/Entertainment	N/A	N/A	N/A	N/A
Residential	3%	4%	9%	12%
Difference from Raw Person Trips	-31%		-40%	

Table 10 – Full Buildout MOU Internal Capture Reductions

Land Use	AM		PM	
	Entering Trips	Exiting Trips	Entering Trips	Exiting Trips
Office	20%	88%	91%	21%
Retail	26%	29%	60%	57%
Restaurant	34%	20%	36%	62%
Cinema/Entertainment	0%	0%	0%	50%
Residential	4%	5%	12%	16%
Difference from Raw Person Trips	-20%		-36%	

Mode Share

Stantec reviewed the US Census American Community Survey (ACS) 2021 5-year estimates of Journey to Work data alongside Replica location-based survey data for the Spring 2023 season to estimate the mode share. Journey to Work data from the ACS reflects only commute to work trips, whereas Replica data reflects all trips. Replica is a person-based travel demand model based on Census data, cell-phone travel pattern data, and other sources.

The mode shares from these data sources are summarized below for the City of Burlington as a whole, Census Tract 8, and Census Tract 10. Census Tract 10 *includes the project site* as well as *Downtown*

Burlington. Census Tract 8 is located immediately east of the project site along the east side of Pine Street and includes less dense residential neighborhoods of southern Burlington.

Based on a review of these tracks and their characteristics in comparison to the SECORD, an **existing auto mode share of 70%** for all land uses was used and a future auto mode share of 65% was identified for the project site. The 70% auto mode share is applied for the analyses included in this memorandum; that is, 70% of person travel to and from the site will be done in an automobile, either as a driver or passenger.

The observed existing mode shares from the both the Census data and Replica are summarized below in Table 11 and Table 12, respectively. While Census Tract 8 may represent how the site operates today, Census Tract 10 includes much more dense mixed-use development, the type of development that the project aims to include. Therefore, an average auto-mode share of 70% was selected based on the average these two Census Tracts. This is still higher than the citywide average and can be considered conservative.

Table 11 – ACS 2021 (5-year estimates) Journey to Work Mode Share (excluding work from home)

MODE	Burlington city, Chittenden County	Census Tract 8, Chittenden County	Census Tract 10, Chittenden County
Drive (including carpool)	65%	84%	56%
Transit	6%	1%	6%
Bicycle	7%	6%	18%
Walked	22%	8%	17%
Taxicab, motorcycle, or other means	1%	0%	3%
TOTAL	100%	100%	100%

Table 12 – Replica Spring 2023 All Trip Mode Share

MODE	Burlington city, Chittenden County	Census Tract 8, Chittenden County	Census Tract 10, Chittenden County
Drive (including carpool)	69%	74%	70%
Transit	1%	1%	1%
Bicycle	4%	4%	4%
Walked	24%	19%	22%
Taxicab, motorcycle, or other means	2%	2%	3%
TOTAL	100%	100%	100%

Adjusted Vehicle Trips

Auto person trips (trips taken to SEIR by car, including both drivers and passengers) were then converted to vehicle trips by reverting the AVO factors, which were applied to the unadjusted trip rates in the Person Trips section. The table below summarizes the adjusted vehicle trips generated by the SECORD project by time period.

Note the general AVO of 1.67 was applied to all auto person trips to convert to vehicle trips. The Stantec team tested a different approach to this step in which separate AVO assumptions were used for each land use, mirroring the approach in the Person Trips section, however this approach is not presented here in order to be conservative as it yields fewer vehicle trips.

The resulting estimated project generation vehicle trips are included in Table 13 for both the Phase 1 MOU and the Full Buildout MOU.

Table 13 – Adjusted Vehicle Trip Generation

Period		Phase 1 MOU	Full Buildout MOU
AM	**IN**	63	216
	OUT	113	352
	TOTAL	**176**	**568**
PM	**IN**	101	294
	OUT	75	232
	TOTAL	**177**	**526**

Trip Distribution

The distribution of trips to and from the project site will be influenced by many factors including demographics, income, job opportunities, and transportation options. The best available data for determining the distribution is the regional job or employment density. The trip distribution process detailed below first describes how a directional distribution was developed based on jobs density and then how trips in each direction were assigned a mode share, consistent with the overall mode share described above.

Figure 2 depicts the distribution of jobs within Chittenden County based on the US Census Longitudinal Employer-Household Dynamics (LEHD 2021) by census block. As shown in this map, higher regional employment densities are located in the following areas:

- To the south along Route 7
- To the east in South Burlington along Williston Road
- To the north in downtown Burlington, University of Vermont, and Winooski

The total jobs across Chittenden County were then aggregated into four zones, based on their geographic relationship to the project site: to the north, to the east, to the south, and the immediate vicinity of the project site (within a 15-minute walkshed). Figure 2 includes lines distinguishing how the census blocks were grouped into these four zones.

The percentage of Chittenden County jobs in each zone is shown in Figure 2 and Table 14. This percentage distribution was used as the directional distribution for the project. **Please note that this step does not yet apply specific trips assignment to roadways in the project vicinity.**

Table 14 – Directional Trip Distribution

Direction	Perfentage of trips
North	44%
South	10%
East	37%
Immediate vicinity (within a 15-minute walkshed)	8%

Reference: SECORD Project Northerly Trip Generation and Distribution

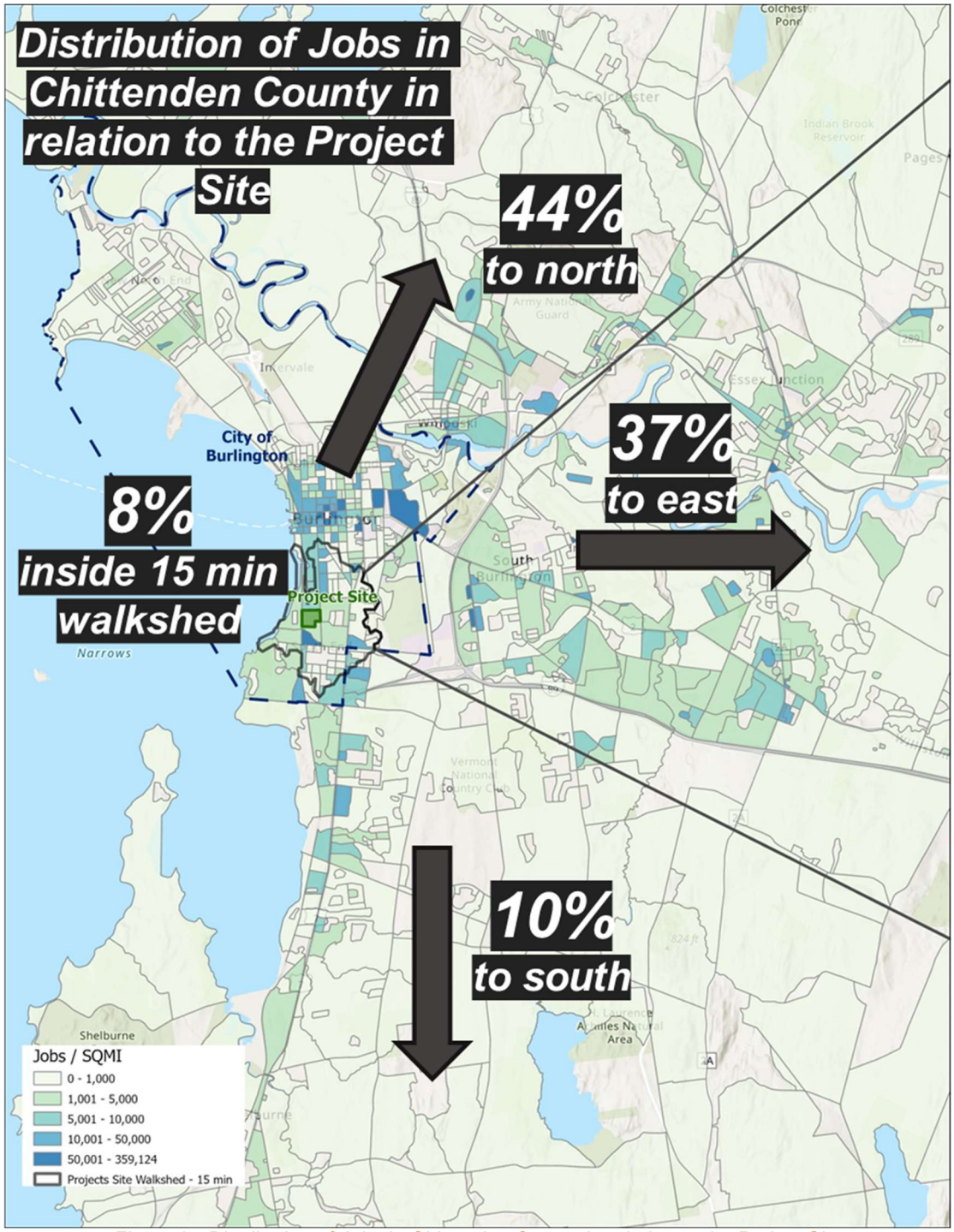


Figure 2 - Distribution of Jobs in Chittenden County in relation to the Project Site
(Source: Longitudinal Employer-Household Dynamics (LEHD); U.S. Census Bureau (2021))

Mode Share & Trip Distribution

Mode share for travel to and from the site is determined by the availability and quality of multimodal facilities and services in the vicinity of the project site and along desire lines to and from off-site destinations. This section details how the trip distribution projections were assigned to different modes of travel to obtain the directional distributions of all project-related trips, by mode.

Walking

Figure 3 includes walkshed areas radiating from the project site on the assumption that people are generally willing to walk five to 15 minutes for their daily travel, depending on the trip of destination. The walkshed is determined based on existing paths and connections from the project site; the SECORD's internal pedestrian network will feed into these existing paths. Depicted are three walksheds representing five, ten, and fifteen minutes from the project site.

Bicycling

The project site is well-served by bicycle infrastructure, especially to/from the north. The Burlington Greenway operates along the western edge of the project site and continues northward towards Downtown Burlington. This dedicated bicycle facility provides an off-street, vehicle-restricted travel path for bicyclists (and pedestrians) with near direct access to the project site. Pine Street, to the east of the project site, also provides a bicycle lane with direct access to Downtown Burlington to the north, which is being upgraded to a grade-separated and protected facility. An additional on-street bicycle lane is provided on Flynn Street south of the project site. These facilities are depicted in Figure 3.

Public Transit

Transit routes operated by Green Mountain Transit (GMT) operate in the vicinity of the project site, as shown in Figure 3. The most important of these is Route 5 along Pine Street, directly serving the project site and offering frequent, seven-day service to and from the Downtown Transit Center, which links to other prominent local and regional transit routes. Routes in the vicinity of the project site are summarized below in Table 15.

Table 15 – Bus Routes Near the SECORD

Route	Proximity to Site	Origin/Destination	Peak Frequency	Span of Service
5 – Pine Street	Adjacent to Site (Pine St)	Downtown Transit Center – GMT Admin Office	30 minutes	6:10A – 11:50P, 7 days
86 – Montpelier Link Express	Within Site	Montpelier – Pine St/Lakeside Ave (IB) or Pine St/Locust St (OB)	N/A	Inbound twice M-F daily (AM) and outbound three times M-F daily (PM)
326 – Edmunds & Integrated Arts Academy*	Within Site	GMT Office – Downtown Transit Center	N/A	Once daily AM M-F inbound service
337 – Edmunds & Champlain*	Adjacent to Site (Pine St)	Downtown Transit Center (loop)	N/A	Once daily AM M-F service
345 – Edmunds*	Adjacent to Site (Pine St)	S. Union St – Downtown Transit Center	N/A	One daily PM M-F inbound service
348 – Champlain*	0.1 miles from Site (Pine St)	Downtown Transit Center (loop)	N/A	Once daily AM M-F service

* - school-specific services

Directional Distribution by Mode

Based on the multimodal connections described above, directional patterns emerge as more or less suited to non-auto travel options. Firstly, trips within the 15-minute walkshed are most likely to use a combination of non-driving modes including walking, biking, micromobility, and potentially transit, depending on the bus frequency. To the east and south, most of the trips are likely to drive because multimodal options, specifically transit which would be more likely outside of the 15-minute walkshed area, do not serve these directions. Finally, to the north, toward Downtown Burlington, there are multiple transit options (Route 5 along Pine Street, linking to other prominent local and regional routes at the Downtown Transit Center), and off-road bicycle/pedestrian path (Island Line Trail) and bicycle lanes along Pine Street. These inform an estimate of fewer drive trips in this direction than to the south and east.

The driving mode share percentage for each direction is shown in Figure 3, including a 30% drive mode share for the 8% of trips that would remain within this local area and a 55% drive mode share for the 44% of trips that would travel north to downtown Burlington and adjacent destinations. To the east a 90% drive mode share for the 37% of trips assigned in this direction is used, and a 93% drive share is assumed for trips assigned to the south.

These directional mode shares, when combined with the directional distribution (that is the share of trips estimated to travel in each direction), produce the same overall 70% driving mode share described in prior sections. These assumptions are assumed to represent both inbound and outbound travel as well as trips during the AM and PM peaks.

Reference: SECORD Project Northerly Trip Generation and Distribution

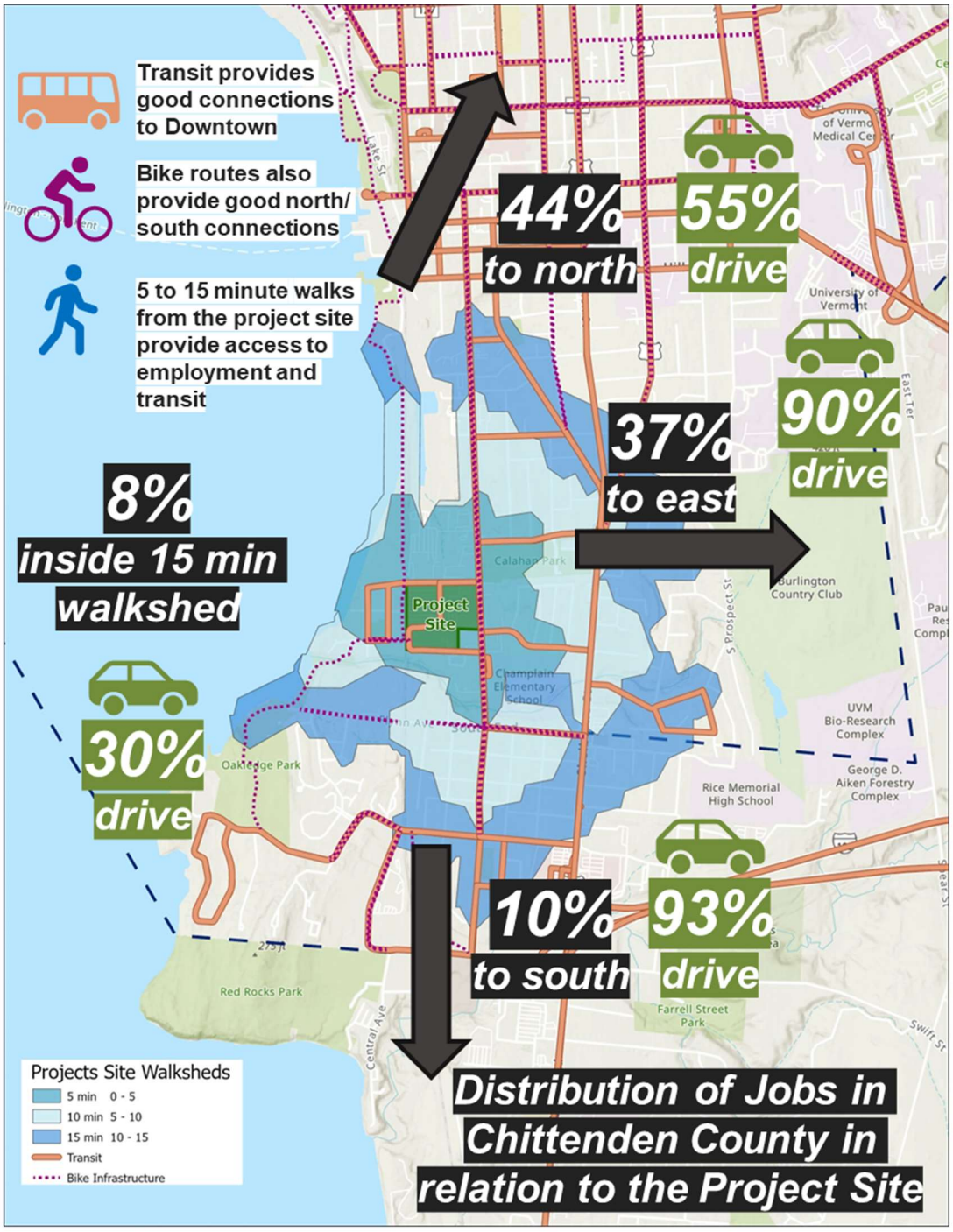


Figure 3 - Distribution of Jobs in Chittenden County in relation to the Project Site and Multimodal transportation Options (Sources: Longitudinal Employer-Household Dynamics (LEHD); U.S. Census Bureau (2021) and City of Burlington's Data Hub)