



# TRANSPORTATION SAFETY AND IMPROVEMENT STUDY

UConn HARTFORD CAMPUS

OCTOBER 2017



# STUDY BACKGROUND

The Capitol Region Council of Governments (CRCOG) in consultation with the Connecticut Department of Transportation (CTDOT) initiated this Transportation Safety and Improvements Study. Spurred by UConn's announcement that it would relocate its Greater Hartford campus to downtown Hartford, the purpose of the study was to develop a suite of transportation recommendations for multi-modal policy and infrastructure improvements at the new campus.

In particular, the UConn Hartford study seeks to leverage the benefits available in Hartford's multimodal downtown, such as CT**fastrak**, CT**transit**, regional rail service, walking, and bicycling opportunities.

UConn's relocation will bring a new population into downtown Hartford, which will reinvigorate the southeast corner of downtown and also create significant new travel needs. The University anticipates having approximately 3,000 students downtown at that time, including the School of Social Work. In addition, the downtown will gain approximately 300 staff and faculty members. This plan identifies a palette of recommendations for the area surrounding the campus to address potential issues and opportunities that will arise for these new commuters as well as those who already live, work, and visit Downtown Hartford.

Prepared in cooperation with the City of Hartford, University of Connecticut, Capitol Region Council of Governments, and the Connecticut Department of Transportation. The opinions, findings and conclusions expressed in this publication are those of the Capitol Region Council of Governments and do not necessarily reflect the official views or policies of the Connecticut Department of Transportation and/or the U.S. Department of Transportation.

# WHY STUDY MULTIMODAL ACCESS?

By supporting options other than the personal vehicle, strategic interventions at and surrounding UConn's downtown campus can support more walking, greater safety, better connections to local businesses and amenities benefiting not just UConn students, faculty, and staff, but also Hartford residents, visitors, and employees.

## LEVERAGING HARTFORD'S MULTIMODAL ENVIRONMENT

Moving a UConn campus into Hartford is exciting for many reasons. It will bring a new population into the downtown to patronize local shops, spend time in the City's parks, utilize existing resources such as the Science Center, Atheneum, and library, and add to the City's resident population. In addition, the investments that UConn is making will provide new opportunities for people who live, work, or otherwise visit downtown Hartford.

The downtown campus presents an opportunity for the University to offer staff, faculty, students, and visitors a distinct, urban experience with access on foot, via transit and bicycle, and in a "park once" environment. In order to realize this vision and to provide affordable choice it is important to consider a full menu of transportation interventions. This means supporting daily errands with on-demand vehicles, improving traffic signal timing to support pedestrians, and progressing larger ticket items such as parking policies. In Hartford's dense core, continued reliance on personal vehicles as a primary means of travel will create further demand for parking and associated costs to construct, operate, and maintain. An

approach that instead supports a variety of travel options will benefit both UConn and the City of Hartford by reducing demand for surface parking and supporting the ongoing revival of the City Center as a walkable economic hub and regional destination.

## ONGOING PLANNING EFFORTS IN HARTFORD

In the last decade, local agencies have been investing in significant planning efforts for the future. New projects such as the **Hartford-New Haven-Springfield Rail line** and **CTfastrak** are underway, while others like the **CTtransit Comprehensive Service Analysis (CSA)** recommendations have yet to be implemented. Regardless, building on new links and planning for proposed transit service will allow UConn to take advantage of its location in downtown Hartford and encourage students to use these new and improved services.

The City and its partners are also working to create more options for people walking and bicycling in Hartford. This includes adopting a **Complete Streets Ordinance** in 2016, as well as a rewrite of the **Zoning Code** that reduces parking requirements and adopts a draft bicycle route map. The **East Coast Greenway**, an effort to create a network of bicycle and multiuse trails that stretches from Maine to Florida, passes through downtown Hartford next to UConn's campus. Finally, the **iQuilt Plan** provides an overall urban design vision for Hartford, which includes efforts to connect key destinations through wayfinding and pedestrian signals.

The UConn Hartford Transportation Safety and Improvements Study builds on this momentum to improve multimodal options with a focus on access to the UConn campus.

## TRAVEL TRENDS

Walkability, transit access, and bicycle-friendliness are key elements of livability in cities and on campuses nationwide. Fewer millennials are getting drivers licenses, and young adults are finding new ways to travel.

### Urban campuses that support travel options for students (and faculty and staff) are campuses that support affordable and convenient lifestyles

In order to attract top talent, university campuses have started to frame commute options as part of benefits packages. The provision of free parking, for example, is not free for the entity that maintains, leases, and/or finances its construction, and is a significant subsidy for the user. Framing this as a benefit allows the consideration of other benefits for more cost-effective travel options such as bicycle infrastructure or transit passes.

With the move into downtown Hartford, UConn travelers are direct beneficiaries of Hartford's existing multimodal environment. Through a range of programmatic improvements and infrastructure investments, UConn Hartford can reduce demand for parking and support a walking, biking, and transit culture. Providing a multimodal campus is a benefit that UConn can tout as it strives to recruit staff, faculty, and students. Campuses that support travel options for students (and faculty and staff) are campuses that support affordable and convenient lifestyles.

UConn is not alone in relocating to downtown Hartford; many state schools are expanding or establishing downtown locations, reflecting a desire to have a presence near other central city cultural and educational institutions and proximity to amenities and services that many students desire. University at Albany, Florida State University, Louisiana State University, and Indiana University - Purdue University Indianapolis all have recently expanded their presence in the urban core, investing in local neighborhoods and supporting local economic development efforts.

## STUDY PROCESS

The study spanned approximately 9 months, as shown below.



# PURPOSE



UConn Hartford will draw up to 3,000 daily travelers to its campus. Establishing a menu of travel options now will set expectations and support sustainable future growth amongst students and employees.

## A TOOLKIT FOR THE FUTURE

As travel habits take hold, issues and opportunities will emerge as up to 3,000 people find their way to campus and local destinations daily.

This plan intends to arm the City, University, and CRCOG with options to address issues as they arise. Conversations with stakeholders as well as analyses of the existing built environment identified key “desire lines” for people traveling to, from, and around the new campus. This exercise identified some potential concerns, which guided the development of recommendations. This plan provides a customized toolkit

of both programmatic and infrastructure-based interventions to improve access in and around campus. However, while these options are tailored to the study findings, they will also provide a starting point for addressing new challenges that the opening of campus will precipitate.

This toolkit provides both short- and long-term improvement strategies to meet study goals. As UConn Hartford grows, its position in a major metropolitan area will be an advantage in recruiting students, faculty, and staff. In order to help the university grow sustainably, it is important that travelers find more efficient means to get to/from campus than private vehicles. Although many of the longer term ideas here will require further analysis, this planning process gives the City, University, and CRCOG a starting point, in line with other local planning efforts, to create mobility options.

# DOCUMENT STRUCTURE



## ORGANIZATION

This document presents a range of recommendations organized around key travel paths for access to the UConn campus. These include:

- Walking to campus and walking from transit stops
- Transit service and access to campus
- Driving to campus and walking from parking
- Bicycling to campus
- Downtown UConn Transportation Program

Each section provides a **summary of key issues** that the study identified as associated with each desire line. To address these issues, the study team worked with stakeholders to identify a **palette of recommendations** that represent a downtown Hartford-specific “toolkit.”

The ideas generally fall into two buckets: short-term interventions and long-term ideas. Short-term

interventions are those that are relatively low-cost and would not require much further study to pilot. In contrast, long-term ideas require more significant study and financial investment.

## WHO WILL IMPLEMENT THESE IDEAS?

This study sought to identify programs, infrastructure investments, and coordination that any organization could take up and implement. In Hartford, this may include a collaboration amongst:

- City of Hartford
- University of Connecticut
- Capitol Region Development Authority
- Connecticut Department of Transportation / *CTtransit*
- Capitol Region Council of Governments

# STUDY GOALS



## STUDY GOALS

The following goals guided the study process, from the identification of issues to the development of recommendations:

- Support **sustainable growth** of UConn Hartford
- Identify opportunities to enhance current **multi-modal transportation options**
- Identify opportunities to **increase the mode share of alternative transportation** for commuters
- Develop a **menu** of implementable planning-level projects

## STUDENT TRAVEL CONSIDERATIONS

Students and staff have different needs than typical commuters.

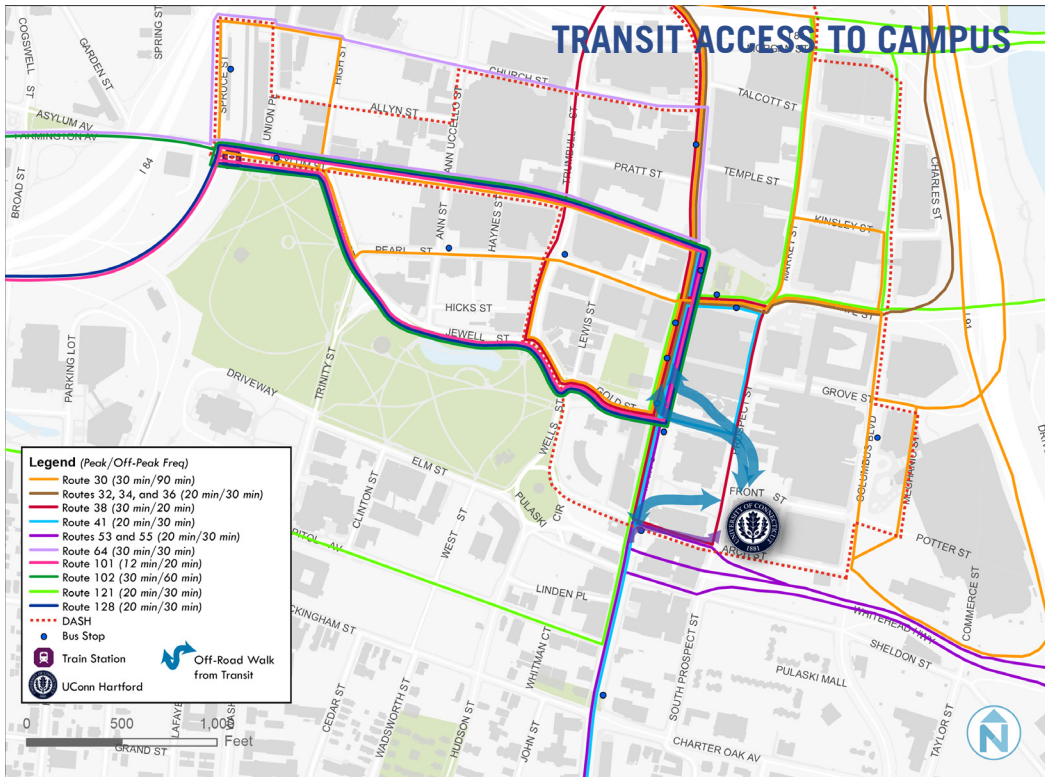
There are significant details to consider when planning for student travel, including:

- **Flexible Schedules:** Student travel peaks between classes, rather than at hourly intervals or during traditional AM and PM peaks. Varying class schedules, meetings with professors, and other on-campus activities require flexible travel options.
- **Early and Late Hours:** Early classes, evening classes, and extracurricular obligations mean students travel to and from campus throughout the day.
- **Easy to Find Information:** Information about transit service, parking, bicycle programs, and other transportation options should be easy to find.
- **“Low Barrier” to Use:** First-time users should find it easy to start using the system, and to continue on regular basis. For example, transit passes or UPass programs make it easy and hassle-free to take bus on regular basis.



# KEY DESIRE LINES

The study team worked with local stakeholders to identify the paths that people using different travel modes would take to campus. This analysis highlighted areas of concern as well as opportunity.

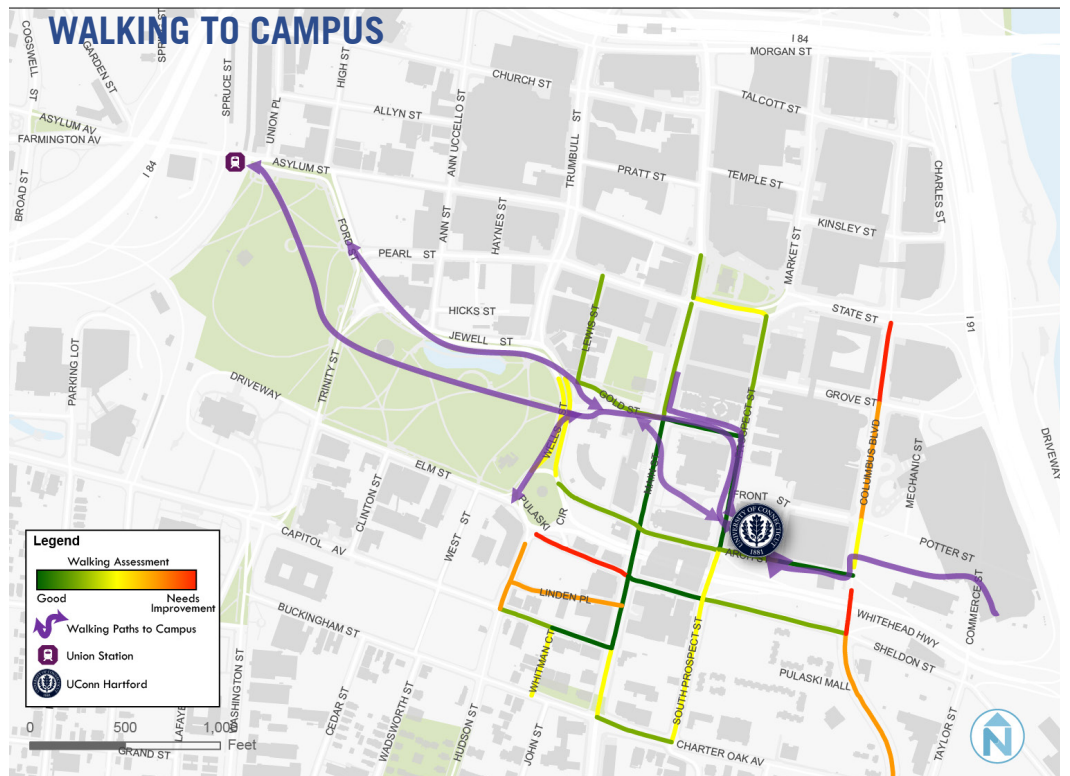


## Key Findings

- Almost all trips will begin/end on Main Street (10 CTtransit routes stop there)
- Hartford's off-street walkways provide safe and direct routes to campus, but are not currently well-signed
- Shelters along Main Street north of Gold are in good condition, but those to the south lack amenities such as shelters and information
- There is no information linking CTtransit stops to UConn campus

## Key Findings

- Most non-parking walkers will approach campus from the west or south
- Prospect and Front Streets will be a "front door"
- Front Street, in location and character, is a defacto "university plaza"
- Key walk intersections:
  - Prospect & Arch
  - Prospect & Front
  - Arch & Front Xing
  - Columbus & Arch



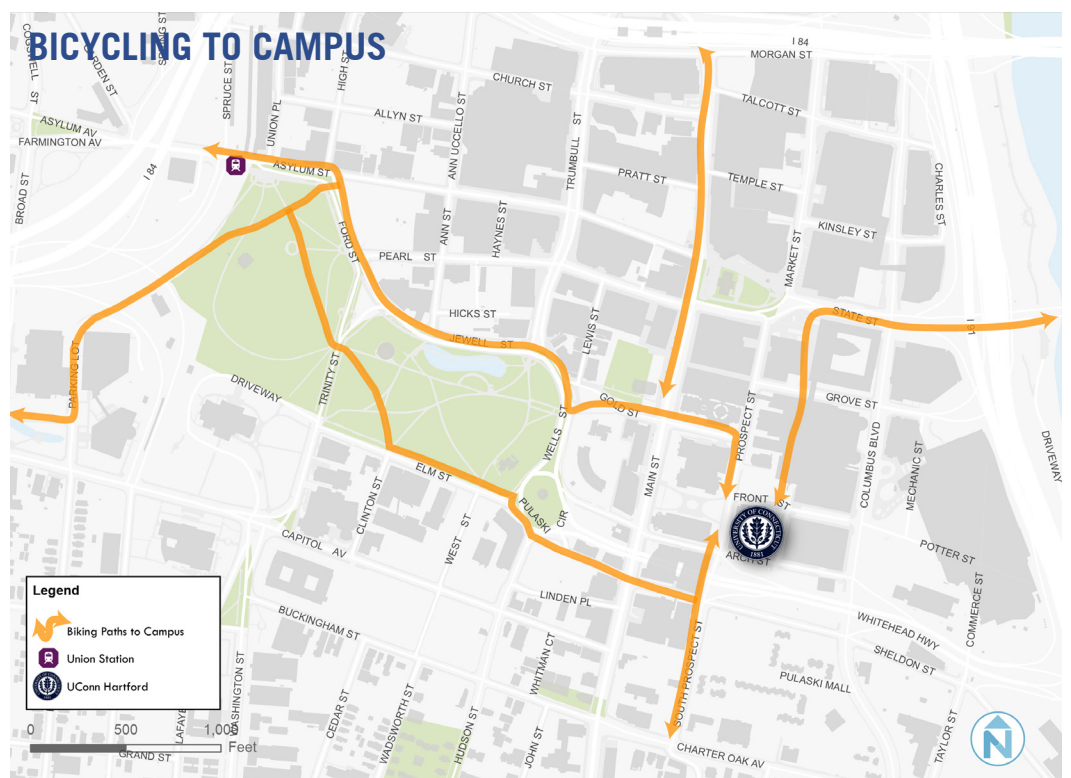


### Key Findings

- Walk from parking to campus is less than 5 minutes
- Walk crosses intersections that have high levels of pedestrian delay
- Parking is underpriced compared to other parking facilities in Hartford
- Driving routes are indirect and it is not clear where parking is relative to campus

### Key Findings

- No designated bicycle facilities currently reach campus
- Previous planning efforts in Hartford include bicycle links near/to campus
- East Coast Greenway includes link to campus
- There is little to no publicly available bicycle parking in the area, and no publicly accessible long-term parking







# RECOMMENDATIONS



# TRANSIT ACCESS TO CAMPUS

Hartford has extensive transit service via CT**transit**, including CT**fastrak**. However, **frequency, which is one of the top indicators of convenience and ridership, is much lower on weekends.**

While higher service frequencies drive ridership, student and faculty housing will also be key to making transit a convenient service. **Only about 15% of today's UConn Hartford students live within a 5 minute walk of a weekday transit route that runs at least every 30 minutes.**

Transit can be the most appealing choice for UConn students, faculty, and staff for a variety of reasons. While increasing frequencies and expanding the footprint of CT**transit** schedules to better serve UConn may be worth pursuing in the long-term, the study team identified several local improvements to encourage transit use.

Almost any transit trip (except for future train service to Union Station) will end on Main Street (Figure 4). Stops at Main and Gold and Main and Arch are a short walk from campus and should become key UConn access points.

## Recommendations include:

1. Add UConn Hartford branding to main CTtransit bus stop near campus
2. Update southern Main Street bus facilities
3. Provide on-campus transit connections
4. Collaborate with service providers and partners
5. Designate transit-only facilities

## 1 Add UConn Hartford branding to main CTtransit bus stop near campus

- Add UConn Hartford signage at bus stop shelters at Gold and Main Streets
- Designate stops at the intersection of Gold and Main Street as UConn Hartford on CT**transit** maps and schedules (Figure 1).
- Add maps showing pedestrian paths and walkways to campus from the Gold and Main Street stops.
- Add real-time information at this bus stop



Figure 1 Update existing signage, like the image above, to incorporate UConn campus and off-road walkways for pedestrians.

## 2 Update southern Main Street bus facilities

- Add shelters to bus stops on Main Street in front of the public library
- Add real-time information at bus stops (Figure 2)

## 3 Provide on-campus transit connections

- Install TransitScreen in main campus building entrances
- Add wayfinding signage to bus stops that serve the campus
- Install bus pass/ticket machines on campus for visitors (Figure 3)
- Provide transit information packets to prospective students
- Encourage housing choices near transit connections, especially those with 30-minute or better frequencies
- Maintain hourly bus connections between Hartford and Storrs campuses, consider increasing frequency

## 4 Improve City transit facilities

- Consider transit-priority treatments on Main Street, as identified in the CTtransit Comprehensive Service Analysis.

## 5 Collaborate with service providers and partners

- Pursue partnership with CTtransit to connect UConn campuses to avoid service duplication
- Maintain hourly bus connections between Hartford and Storrs campuses, consider increasing frequency
- Consider updating website to improve user-friendliness



Figure 2 Real-time arrival information for Triangle Transit in Chapel Hill (image source: [http://www.data-display.com/chapel-hill-passenger-information\\_](http://www.data-display.com/chapel-hill-passenger-information_))



Figure 3 CTtransit ticket machines like those positioned near CTfastrak in downtown Hartford should also be on campus. This will both heighten visibility of transit service as an options and make it easy to buy fares.

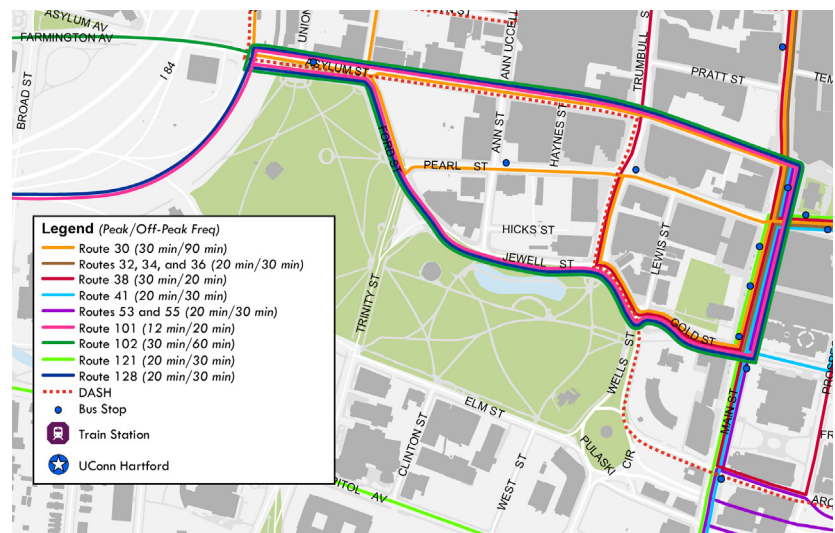


Figure 4 Main Street is Hartford's transit spine, with almost every route that serves the city beginning or ending there.



# WALKING TO CAMPUS & WALKING FROM TRANSIT

Hartford's short blocks and good sidewalk coverage mean that pedestrians near UConn Hartford have relatively good conditions for walking between campus and CT**transit** stops or other local destinations. However, **many intersections close to campus have significant pedestrian delay and/or unsafe crossing conditions.**

Because CT**transit** stops at Main and Gold and Main and Arch, these are key access points to campus. Sidewalk and intersection improvements can increase pedestrian safety.

## Recommendations include:

1. Improve key intersections
2. Integrate Front Street as part of campus
3. Install pedestrian-scale lighting
4. Provide off-road connections
5. Incorporate UConn and expand pedestrian-scale wayfinding signage
6. Construct campus gateways at key locations

## 1 Improve Key Intersections (see page 23)

- Prospect & Arch Streets
- Prospect & Front Streets
- Arch Street & Front Street Crossing
- Columbus Boulevard & Arch Street

## 2 Integrate Front Street as part of campus

- Consider Front Street a key part of campus as it links directly from a front door to the bookstore/cafe
- Use short- and long-term improvements (see next page) to create a "shared street" feel

## 3 Install pedestrian-scale lighting

- Add pedestrian-scale lighting along Prospect Street
- Add pedestrian-scale lighting along Front Street Crossing



**Figure 5** Travelers Plaza offers pedestrians an off-road cut-through to campus, but access is not consistent.

## 4 Provide Off-Road Connections

- Add pedestrian-scale lighting and seasonal seating to Burr Mall (Figure 6)
- Paint new crossing at Front Street and Prospect Street to Burr Mall (see next page)
- Work with Travelers to remove barrier to plaza, if present, and encourage cut-through foot traffic (Figure 5)



Figure 6 Students, faculty, and staff who cut through the Burr Mall alongside City Hall can enjoy Calder's Stegosaurus statue

## 5 Incorporate UConn and expand pedestrian-scale wayfinding signage

- Support expanded iQuilt wayfinding program, particularly with wayfinding signs with UConn Hartford at key intersections (Figure 7)



Figure 7 Existing wayfinding signage along Columbus Blvd.

## 6 Construct campus gateways at key locations

- Construct walking gateways at key locations at campus edges: Prospect and Front Street, Columbus Blvd., Arch Street, and Travelers Plaza (Figure 8)



Figure 8 Similar signs like the those across from the new development and apartments in Storrs Center can be installed for UConn Hartford.

(Image source: <http://updc.uconn.edu/wp-content/uploads/sites/1525/2016/04/sign150406b017-1280x500.jpg>)

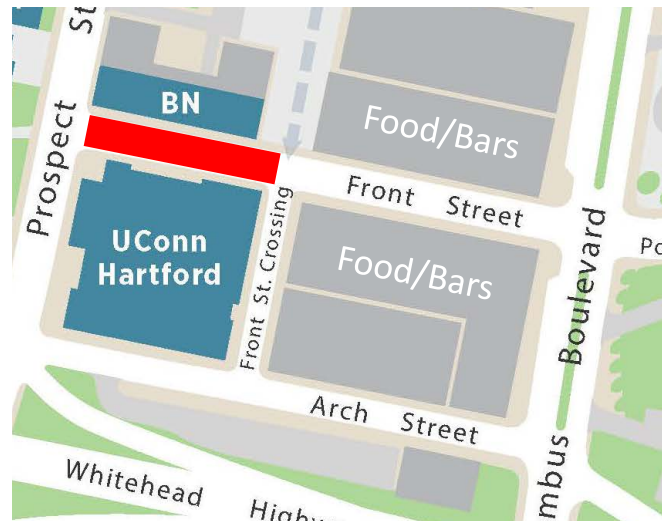
# FRONT STREET CAMPUS GATEWAY

Front Street is UConn's front door, and should therefore **prioritize people walking and bicycling over vehicles**. UConn's bookstore and cafe are located on the north side of the street, and many restaurants/bars are located on the next block between Columbus Boulevard and Front Street Crossing. Local stakeholders noted that the street would likely be a heavily used UConn entrance, and that accommodations for people walking and bicycling would be important.

Incorporating Front Street as a part of campus creates exciting possibilities for student life and may encourage people to travel outside of UConn Hartford's main building. A planning-level review of Front Street circulation shows that the block between Prospect and Front Street Crossing is likely not key for vehicle circulation (Figure 9). Therefore, the study developed recommendations that at a minimum prioritize people walking and bicycling on this block.

## SHORT-TERM

- Use rolling planters to temporarily close street to all vehicles at busy times of day (Figure 10).
- Paint UConn street art directly onto pavement. Painted pavement indicates to drivers that they should slow down, and to people walking and bicycling that the road is not only accommodating cars.
- Install curb ramp and paint a wide mid-block crossing between UConn's front door and the new book store.
- Program food trucks to use the street during the day (Figure 11).
- Rather than "over designing," leave lanes (including centerline) unstriped to create a comfortable mix of people driving, walking, and biking.
- Consider these improvements a pilot to determine the impact of closing or limiting vehicle access on the street on other vehicle traffic operations.



**Figure 9** A review of Front Street shows that it will be heavily traveled by people on foot, and is potentially less important for people driving.

(Map source: <http://ssw.uconn.edu/uconn-hartford-campus-map/>)

## LONG-TERM

- Consider repaving street to create a pedestrian and bicycle priority plaza that could still allow vehicle access for deliveries and/or emergencies (Figure 12).
- Program more university and local events that use the street.

*“Center line stripes (if present) shall be removed or not repainted, except for short sections on intersection approaches that have a stop line or traffic circle. Drivers have an easier time passing bicyclists on roads that do not have centerline stripes.” - Urban Bikeway Design Guide<sup>1</sup>*

<sup>1</sup> For more information, see: <https://nacto.org/publication/urban-bikeway-design-guide/bicycle-boulevards/signs-and-pavement-markings/>



**Figure 10** Rolling planters in Cambridge, Massachusetts, provide temporary street closure during busy pedestrian hours.



**Figure 11** Food trucks in Amherst, Massachusetts, create street activity and serve both Amherst College and UMass Amherst as well as the local community.



**Figure 12** Pratt Street in Hartford is an example of a commercial shared street that prioritizes people walking over people in vehicles. It will be important to test the operation of Front Street as a shared street before fully converting it.



# DRIVING TO CAMPUS & WALKING TO/FROM GARAGES

The system of off-ramps associated with I-91 and the Whitehead highway coupled with the one-way couplet of Arch Street and Grove Street mean that circulation patterns for people driving to Hartford and the UConn campus can be confusing.

Once parked, every person driving becomes a pedestrian. UConn's planned parking approach is an efficient use of local underutilized parking facilities. However, facilities are not located directly on campus and there is a perception among stakeholders of safety issues, thus focusing on pedestrian connections between the two are paramount.

To meet the goals of the study, the team developed recommendations to both accommodate people who choose to drive and park at UConn Hartford and to support people who choose to take transit, walk, or bicycle. There is more information on the latter in the "Downtown UConn Transportation Program" section.

Driving routes around campus could be confusing, and the system should be set up to intercept vehicle traffic before it reaches campus. Campus will be an epicenter of pedestrian demand, particularly along Front Street. Thus the recommendations focus on interventions to help people driving find their way to designated drop-off zones and/or parking facilities.

The walk from the student parking facilities at the Convention Center is of particular concern. There are poor pedestrian accommodations on the Convention Center property, both inside the garage and between the garage and the Columbus Boulevard sidewalk. Stakeholders noted that the perception of personal safety may be an issue, as well as concerns about people walking in a high vehicle traffic area.

Recommendations include:

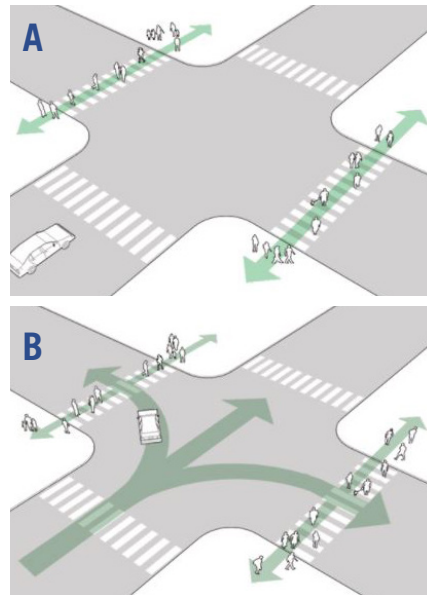
1. Designate a drop-off area
2. Improve pedestrian accommodations at intersections along Columbus Blvd.
3. Use wayfinding signage to intercept UConn-bound traffic before it reaches campus
4. Provide pedestrian accommodations through Convention Center parking facilities

## 1 Designate a drop-off area

- Create designated drop-off area for visitors and transportation network companies (TNCs; i.e., Uber, Lyft) on Prospect Street
- Work with TNCs to link designated drop-off zones to app for rider requests

## 2 Improve pedestrian accommodations at intersections along Columbus Blvd.

- Add wayfinding signage from Convention Center parking
- Use Leading Pedestrian Intervals (LPI) to heighten pedestrian visibility and safety while decreasing delay by using concurrent signal phasing (Figure 13)
- Extend northeast curb at Whitehead Highway exit ramp to Columbus Blvd.
- Remove unnecessary left-turn pocket in southbound lanes of Columbus Blvd. (see page 23)
- Consider study to determine if both Whitehead off-ramps near campus are necessary



**Figure 13** Leading pedestrian intervals (LPI) improve safety by giving pedestrians a head start in high vehicle and pedestrian volume intersections (A). By the time traffic begins to turn, pedestrians are already partway through crossing and are therefore more visible, causing turning traffic to yield (B).

(Image source: <https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/traffic-signals/leading-pedestrian-interval/>)



**Figure 14** Possible improvements to walking facilities within the Convention Center surface lot.

## 3 Use wayfinding signage to intercept UConn-bound traffic before it reaches campus

- Work with HPA to provide coordination resources on publicly available parking on UConn website.
- Use wayfinding and advance information when possible to intercept visitors' vehicles before they reach UConn campus

## 4 Provide pedestrian accommodations through Convention Center parking facilities

- Create designated pathways for people walking within the Convention Center Garage through surface lot to Columbus Blvd.
- Consider redesign of lot to accommodate pedestrians

# KEY INTERSECTION IMPROVEMENTS FOR ALL USERS

*\*Elimination of travel lanes may require additional traffic analysis prior to implementation.*

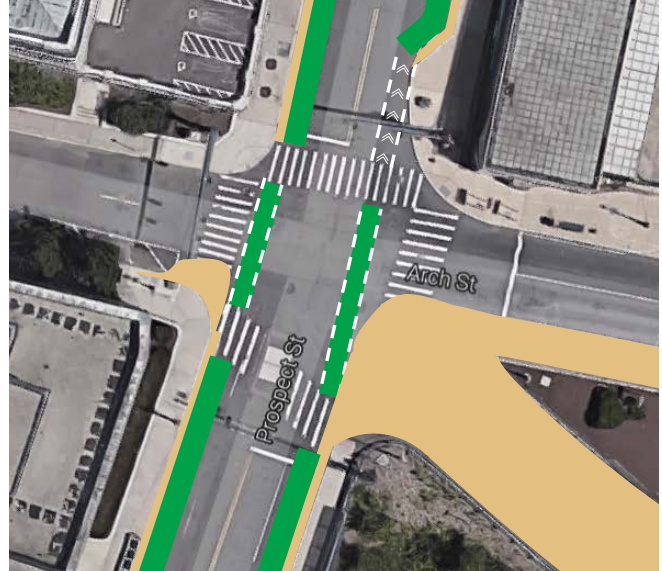
## PROSPECT & ARCH STREETS

### SHORT-TERM

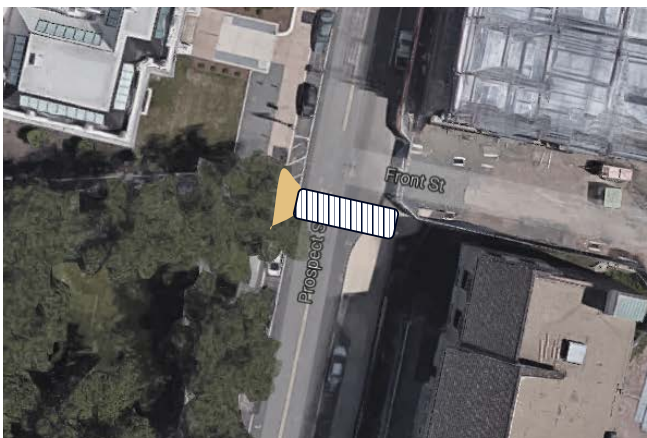


- Remove on-street parking in favor of bicycle facilities. These approximately 25 spaces on Prospect Street between Gold and Arch Streets are not a significant portion of Hartford's overall parking inventory, although they may currently fill short-term needs.
- Remove or shift left turn pocket and fill in extra lane to decrease crossing distances. Preliminary changes could be in paint/planters rather than with more permanent infrastructure.

### LONG-TERM



- Add curb extension on the southwest corner of Arch and Prospect to decrease crossing distances from the south.
- If feasible, close Whitehead Highway off-ramp and reclaim space for development. This would also create a much smaller, more pedestrian-and-bicycle-friendly intersection.
- Increase sidewalk width to accommodate people walking. Sidewalks should be wide enough that two people in wheelchairs can pass.



## PROSPECT & FRONT STREETS

### SHORT-TERM

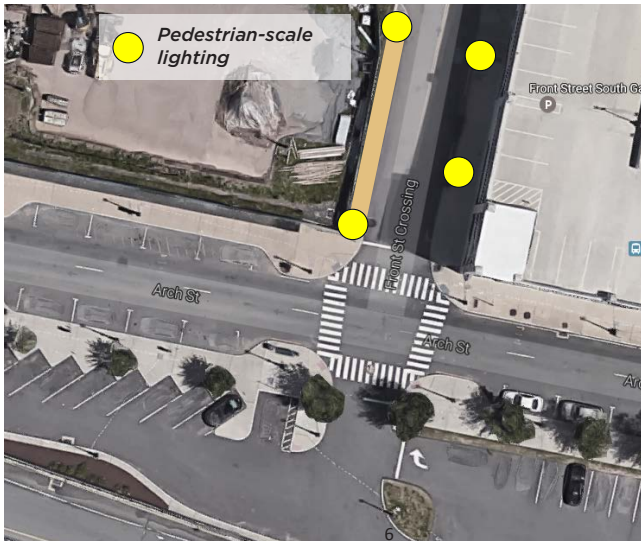
- Add crosswalk and curb extension in paint. Align with park entrance to connect park to campus.

### LONG-TERM

- Consider raised crosswalk to increase visibility of pedestrians
- Install flashing pedestrian beacon, similar to others in the city

## ARCH STREET & FRONT STREET CROSSING\*

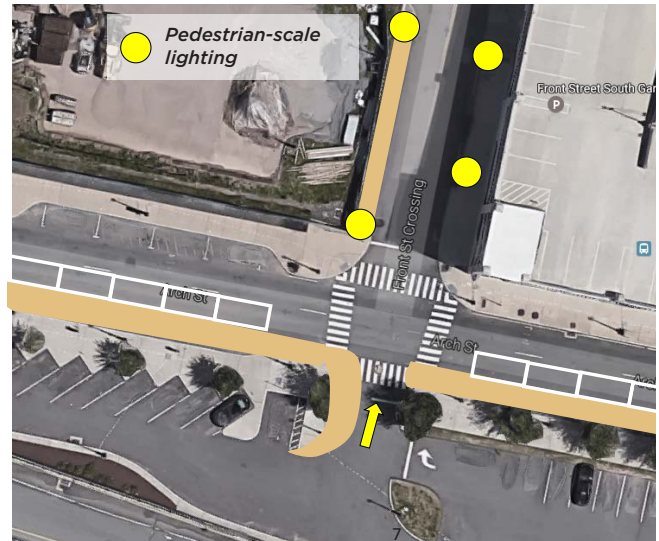
### SHORT-TERM



- Add pedestrian-scale lighting along Front Street Crossing to combat inactive nighttime uses (Front Street South garage).
- Fill in asphalt sidewalk along UConn campus.

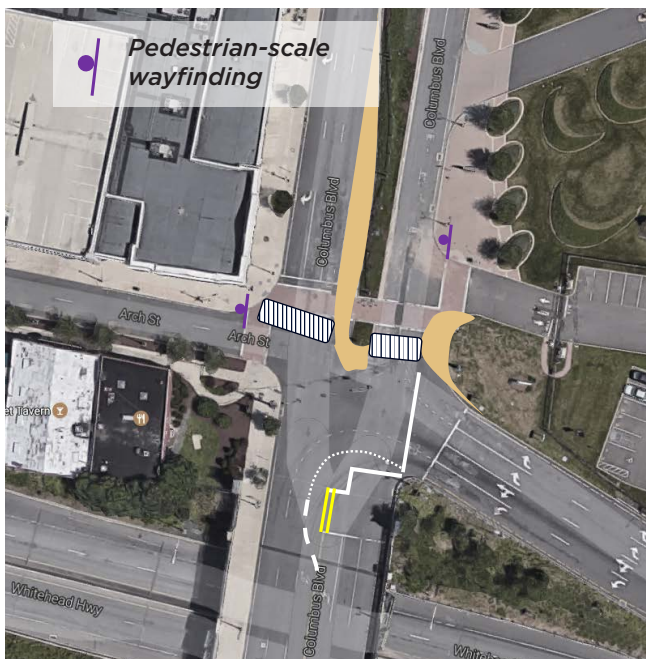
*\*Pending development may replace parking lot on Arch Street.*

### LONG-TERM



- Replace southern vehicle lane on Arch Street with parking. Parking on both sides of a street will signal to drivers that they are entering an urban area and should decrease speeds.
- Fill in south parking lane to create a wider sidewalk alongside future development.
- Narrow driveway for exit traffic only (maintain entrance to the west).

### LONG-TERM



## COLUMBUS BOULEVARD & ARCH STREET

### SHORT-TERM

- Add UConn pedestrian-level wayfinding.
- Use concurrent pedestrian signal timing to decrease the wait time for people walking.
- Use Leading Pedestrian Intervals (LPI) to increase visibility of people crossing.

### LONG-TERM

- If feasible, consider removing southbound left turn lane and adjusting receiving lanes.
- Move stop bar on northbound Columbus up to decrease intersection size. This will reduce delay for drivers, and in turn for people walking, as signal timing may be able to be decreased.
- Add curb extension next to Hartford Steam property to decrease walk times.



# BICYCLING

While the City has made strides in planning for bicycle accommodations, **there is currently no direct, comfortable route to campus.** The only facilities nearby are the residential bikeway along Gold Street and Atheneum Way that connects Bushnell Park to the Founders Bridge and striped bike lanes on Charter Oak Ave from Sheldon Street to South Prospect Street.

Secure bicycle parking is also rare close to campus. While the new campus has short-term bicycle parking planned, it is unclear whether **secure and covered spaces** will be available.

Biking to campus should be a convenient and attractive choice for UConn students, faculty, and staff. Thus, bicycle facilities and bicycle parking should be extended and installed in highly-visible locations. Short-term solutions are relatively simple; long-term solutions may require rededicating road space currently devoted to vehicles.

The City has been working to improve the local bicycle infrastructure, from improvements to Gold Street to codifying a proposed bicycle route map. The East Coast Greenway provides off-street bicycle links, but its connection to campus is on a plaza separated from Front Street by a set of stairs. The following recommendations build on these efforts and should be coordinated with future local bicycle plans.

## Recommendations include:

1. Facilitate Bicycle Parking on Campus
2. Improve Bicycle Linkages to Campus
3. Enhance Regional Connections

## 1 Facilitate Bicycle Parking on Campus

- Audit bicycle parking for national standards, including quantity, convenience, lighting, and visibility<sup>1</sup>
- Provide wayfinding for bicycle parking
- Install on-site amenities to support those who choose to bike, including showers and changing facilities and bicycle repair facilities
- Pursue long-term, covered, and secure bicycle parking on-campus and/or in the Convention Center parking garage
- Consider long-term bicycle parking where East Coast Greenway meets campus above Front Street North garage, so that people biking do not have to go up and down stairs

<sup>1</sup> The Association of Bicycle and Pedestrian Professionals (APBP) provides recommended ratios for bicycle parking provision at institutions. According to these standards, UConn should provide 1 short-term space per 10 students and employees, and one long-term space per 10 students, or about 330 short-term and 300 long-term spaces.

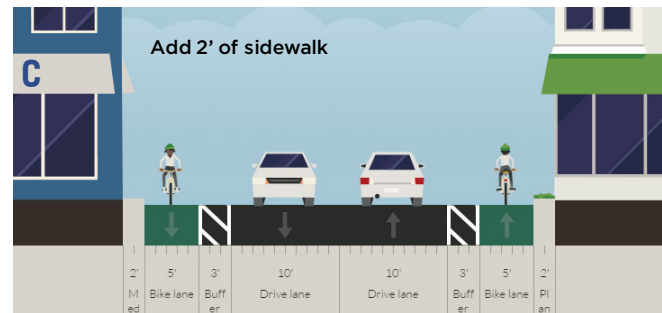
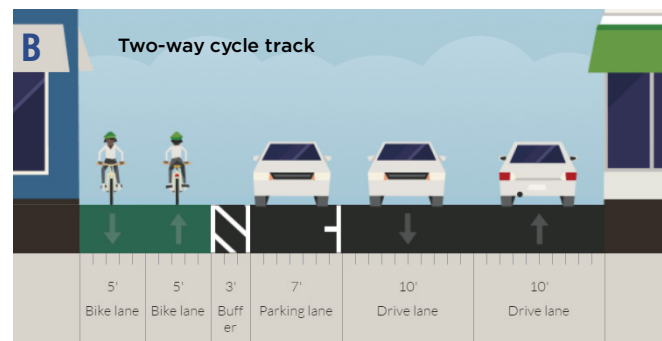
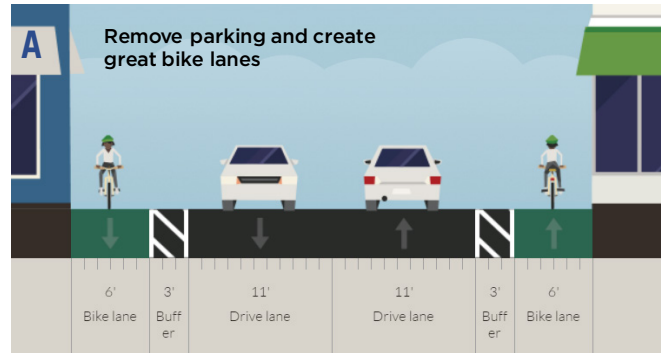
## 2 Improve Bicycle Linkages to Campus

- Designate an off-street facility along the wide sidewalk on Gold Street, in accordance with the East Coast Greenway plan
- Add sharrows and signage on Prospect Street in the short-term (Figure 15)
- Consider removing parking on one or both sides of Prospect Street and/or Gold Street to create high quality bicycle lanes (Figure 16)
- Improve bike links between East Coast Greenway and Campus, for example installing a bike gutter on the stairs to Travelers Plaza from Front Street Crossing.



Figure 15 Potential short-term cross-section for Prospect Street retaining existing parking.

Figure 16 Prospect Street and Gold Street are approximately 40' curb-to-curb. The following diagrams illustrate how bicycle lanes could be integrated into this right-of-way, including options that preserve some on-street parking.



The East Coast Greenway can be hard to find from the UConn Hartford campus, as seen in this sign atop a parking lot gate.

## 3 Enhance Regional Connections

- Implement connections to regional/recreational bicycle network such as the East Coast Greenway and Riverwalk Path
- Pursue designated bicycle facilities in downtown Hartford through additional planning efforts
- Pursue city-wide bicycle share system that can extend the reach of transit and serve short trips



# DOWNTOWN UCONN TRANSPORTATION PROGRAM

UConn has secured approximately 600 student spaces for about 3,000 students, and ample parking for faculty and staff. The current plan is to provide parking at the same price as other UConn campuses, which will be approximately an **85% discount from typical monthly parking rates.**<sup>1</sup> This discount, if not balanced by support for other mode choices, **will encourage driving and parking and may begin to cause a parking crunch for students.** In addition, this system **creates an imbalance for all** by incentivizing parking and providing little to no encouragement for those who choose to walk, bicycle, and/or take transit. Transportation Demand Management (TDM) programs will be key to encourage people to walk, bicycle, and/or take transit to campus.

The broader UConn system creates parity between driving and other modes by providing benefits to those who choose to do something other than drive to campus through Transportation Demand Management (TDM) programming. TDM is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or time.

TDM can help UConn Hartford proactively respond to and accommodate anticipated future campus growth and the corresponding transportation demands of students, faculty, staff, and visitors. TDM will also reduce the need to build additional or rent expensive parking spaces from the Convention Center and Front Street District garages.

These TDM measures will build UConn Hartford as an attractive student and workplace environment, helping to increase the profile of the University and promote recruitment. By employing TDM strategies and programs, UConn Hartford can provide a greater range of

student and employee transportation benefits. Better communications and alternative transportation opportunities responds to parent and family concerns about UConn Hartford as a commuter campus.

## Recommendations include:

1. Adopt and Expand Staff/Faculty/Student TDM Program
2. Expand Carshare Opportunities
3. Communications
4. Conduct Annual Transportation Monitoring

<sup>1</sup> UConn rates will be \$269/semester, or approximately \$22/month. Typical Convention Center monthly permits are approximately \$170. For more information, see <https://www.lazparking.com/local/hartford-ct/ct-convention-ctr-330> and [http://park.uconn.edu/employee-rates-and-fees/ Area 2](http://park.uconn.edu/employee-rates-and-fees/Area 2).

# 1 Adopt and Expand Staff/Faculty/Student TDM Program

- Create a UConn Downtown campus transportation program tailored to the specific needs of downtown staff, faculty, and students
- Offer a parking cash out program where employees/staff/faculty who choose not to park would be paid the cash value of the parking subsidy
- Establish bicycle benefit for commuters through the federal commute benefits program
- Establish other bike/walk incentives for students who do not receive a parking pass
- Provide on-campus materials on ridesharing programs (i.e. NuRide, CTRides)
- Consider pricing parking closer to market value for downtown Hartford
- Continue UPass Program so that students, faculty and staff receive free transit passes with a UConn ID.

# 2 Expand Carshare Opportunities

- Locate carshare vehicles closer to campus. Carshare can provide an option for those who need to drive occasionally, such as to transport materials for a project.
- Expand UConn Storrs campus program of discounted carshare memberships.

# 3 Communications

- Promote existing on-demand shuttle service to Bradley International Airport and the New London campus.
- Promote regular bus service between UConn Storrs and UConn Hartford.
- Brand UConn TDM program and promote via traditional print media, social media, and annual transportation benefits fairs to raise awareness.

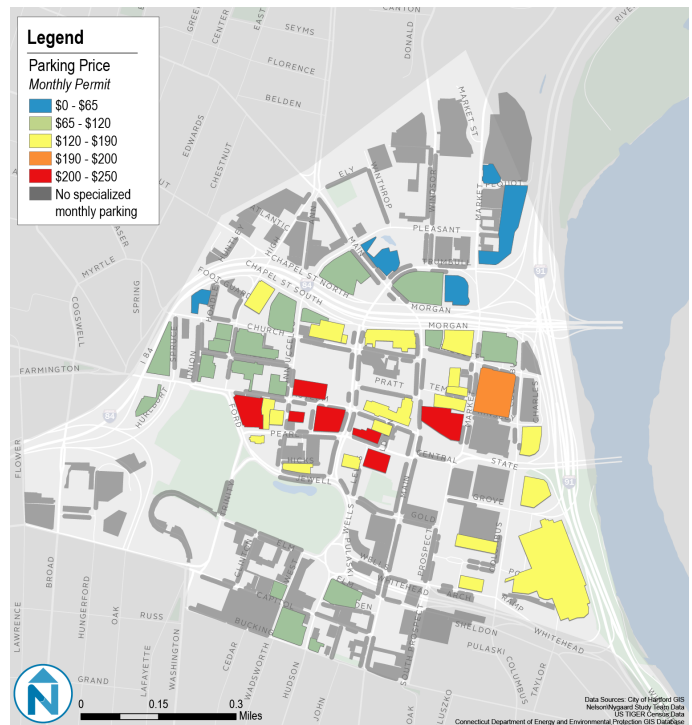


Figure 17 A 2014 survey of monthly parking prices in downtown Hartford shows that almost no parking south of I-84 is less than \$65/month. UConn's parking price will be subsidized for University affiliates to closer to \$22/month.

# 4 Conduct Annual Transportation Monitoring

- Survey student/faculty/staff awareness of TDM and transportation programs
- Survey students/faculty/staff once campus is open to more accurately determine transportation needs
- Monitor parking garage ins and outs to determine daily mode share and track relative to university-wide transportation and sustainability goals

The following is a draft implementation timeline for planning purposes only:

CATEGORY	SUB-FOCUS	ACTION	IMPLEMENTATION TIMELINE			PLANNING-LEVEL COST
			Short	Med	Long	
Transit Access to Campus	Add UConn Hartford branding to main CTtransit bus stop near campus	Add UConn Hartford signage at bus stop shelters at Gold and Main Street.	◆			\$
		Designate stops at the intersection of Gold and Main Street as UConn Hartford on CTtransit maps and schedules	◆			\$
		Add maps showing pedestrian path and walkways to Front St. and Prospect Street from the Gold and Main Street stops	◆			\$
		Add real-time arrival information at this bus stop		◆		\$\$
	Upgrade southern Main Street bus facilities	Add shelters to bus stops on Main Street in front of the public library		◆		\$\$
		Add real-time information at bus stops		◆	◆	\$\$
	On-campus transit connections	Install a TransitScreen in the main campus building entrances	◆			\$
		Add wayfinding signage to local bus stops on campus	◆			\$
		Install bus pass/ticket machines on campus	◆			\$
		Provide transit information packets to prospective students	◆			\$
		Encourage housing choices near transit connections, especially those with service at 30-minute or better frequencies	◆	◆		
		Improve frequency of bus connections between Hartford and Storrs campus	◆		◆	\$\$\$
	Improve city transit facilities	Consider transit-priority treatments on Main Street,			◆	\$\$\$
	Collaborate with service providers and partners	Pursue partnership with CTtransit to connect UConn campuses	◆			\$\$
		Improve frequency of bus connections between Hartford and Storrs campuses	◆			\$\$\$
Consider updating CTtransit website to improve user-friendliness			◆		\$	
Walking to Campus and Walking from Transit	Improve key intersections	Prospect & Arch: remove on-street parking and replace with bicycle facilities	◆			\$\$\$
		Prospect & Arch: Remove or shift left turn pocket on Arch and fill in extra lane	◆			\$\$\$
		Prospect & Arch: Add curb extension on the southwest corner		◆		\$\$\$
		Prospect & Arch: Consider closing Whitehead Highway off-ramp			◆	\$\$\$
		Prospect & Arch: Increase sidewalk width			◆	\$\$
		Prospect & Front: Add crosswalk and curb extension in paint between park entrance and Front Street	◆			\$
		Prospect & Front: Consider raised crosswalk		◆		\$
		Prospect & Front: Install flashing pedestrian beacon		◆		\$\$
		Arch & Front: Add pedestrian scale lighting along Front Street crossing	◆			\$\$
		Arch & Front: Fill in asphalt sidewalk	◆			\$
Arch & Front: Replace southern vehicle lane on Arch Street with parking		◆		\$\$		

CATEGORY	SUB-FOCUS	ACTION	IMPLEMENTATION TIMELINE			PLANNING-LEVEL COST
			Short	Med	Long	
		Arch & Front: Fill in south parking lane to create a wider sidewalk		◆		\$\$
		Arch & Front: Narrow driveway for existing traffic only		◆		\$
		Columbus & Arch: Add UConn pedestrian-level wayfinding	◆			\$
		Columbus & Arch: Use concurrent pedestrian signal timing	◆			\$
		Columbus & Arch: Use LPI to increase visibility of people crossing	◆			\$
		Columbus & Arch: Consider removing southbound left turn lane and adjusting receiving lanes		◆		\$\$
		Columbus & Arch: Move stop bar on northbound Columbus up		◆		\$
		Columbus & Arch: Add curb extension next to Hartford Steam			◆	\$\$
	Integrate Front Street as a shared street that is part of campus	Short-term interventions (planters, paint, trucks, etc)	◆			\$
		Repave street to create a pedestrian/bicycle priority plaza			◆	\$\$\$
		Program more university and local events	◆	◆	◆	\$
	Pedestrian-scale lighting	Add lighting along Prospect Street		◆		\$
		Add lighting along Front Street Crossing		◆		\$
	Wayfinding	Expand iQuilt program to install wayfinding signs to UConn at key intersections	◆			\$
	Campus gateways	Create gateways at key campus locations		◆		\$
Driving to Campus & Walking From Garages	Designate a dropoff area	Create drop-off area on Prospect Street	◆			\$
		Work with TNCs to link designated dropoff zones to app for rider requests.	◆			\$
	Improve intersections along Columbus Boulevard (see Intersection Improvements)		◆	◆	◆	\$\$\$
	Use wayfinding to intercept vehicle traffic	Work with HPA to provide coordination resources on publicly available parking on UConn website.	◆			\$
		Use wayfinding and advance information when possible to intercept visitor's vehicles before they reach UConn campus	◆			\$
	Pedestrian accommodations through Convention Center parking facilities	Create designated pathways for people walking within the Convention Center Garage through surface lot to Columbus Blvd.	◆			\$
		Consider redesign of lot to accommodate pedestrians			◆	\$\$

***\*When improving key interstersections, the elimination of travel lanes may require additional traffic analysis prior to implementation.***

CATEGORY	SUB-FOCUS	ACTION	IMPLEMENTATION TIMELINE			PLANNING-LEVEL COST
			Short	Med	Long	
Bicycling to Campus	Facilitate bicycle parking on campus	Audit bicycle parking for national standards		◆		
		Provide wayfinding for bicycle parking.	◆			
		Install on-site amenities		◆		
		Pursue long-term, covered, and secure bicycle parking	◆	◆		
		Consider long-term bicycle parking where East Coast Greenway meets campus	◆			
	Improve bicycle linkages to campus	Designate an off-street facility along the wide sidewalk on Gold Street,	◆			
		Add sharrows and signage on Prospect Street	◆			
	Regional connections	Consider removing parking on one or both sides of Prospect Street and/or Gold Street to create high quality bicycle lanes		◆		
		Implement connections to regional/ recreational bicycle network	◆			
		Pursue designated bicycle facilities in downtown Hartford		◆	◆	
Pursue city-wide bicycle share system				◆		
Downtown UConn Transportation Program	Adopt and expand staff/faculty/student TDM program	Create a UConn Downtown campus transportation program	◆			
		Offer a parking cash out program	◆	◆		
		Establish bicycle benefit for commuters	◆			
		Establish other bike/walk incentives for students who do not receive a parking pass		◆		
		Provide on-campus materials on ride-sharing programs (i.e., NuRide, CTRides)	◆			
		Consider pricing parking closer to market value for downtown Hartford		◆		
	Expand carshare opportunities	Locate Zipcar vehicles closer to campus	◆			
		Expand UConn Storrs campus program of discounted carshare memberships.	◆			
	Communications	Promote existing on-demand shuttle service to Bradley International Airport, New London, and the UConn Storrs campus	◆			
		Brand UConn TDM program and promote via traditional print media, social media, and annual transportation benefits fairs to raise awareness	◆	◆	◆	
	Conduct annual transportation monitoring	Survey student/faculty/staff awareness of TDM and transportation programs		◆	◆	
		Survey students/faculty/staff once campus is open to more accurately determine transportation needs		◆	◆	
		Monitor parking garage ins and outs to determine daily mode share and track relative to University wide transportation and sustainability goals		◆	◆	



