

**River Street Reconstruction
Working Group Meeting #10**

Tuesday, August 18, 2020

5:30 PM – 7:30 PM

Zoom



ATTENDEES

Working Group Members	City Staff	Public
Gabriel Cira	Patrick Baxter – TP&T	Eitan Normand
Matthew Ciborowski	Bill Deignan - CDD	Sabrina Borges
Saul Tannenbaum	Jerry Friedman - DPW	Greg P.
Christopher Tassone	Andy Reker - CDD	David Salomon
Abby Duker	Rachel Tanenhaus - CCPD	Francis Stone
Kai Long	Kathy Watkins – TP&T	J M Horde
Randy Stern	Sara Fontanez- CDD	Shuang Sang
Valerie Bonds	Lillian Hsu - CAC	Daniel Wagner
Daniel Beaulieu	Officer Frank Gutoski - CPD	Michael Frutkoff
Oliver Turner	Cara Seiderman - CDD	David Sears
Annie Tuan		Ana Hurka-Robles
	Consultants	David Peel
Not here:	Cynthia Smith, Halvorson	Peter Kuhlmann
Sienna Berry	Rich Houghton, Halvorson	Ritsuko Tahoe
Sai Boddupalli	Natalie Raffol, McMahon	Sarah Stone
Patrick Barrett	Erin Fredette, McMahon	Gavin Lund
Sam Gebru	Christi Apicella, McMahon	Emmet Sheehan
Melissa Greene	Nidhi Gulati, PPS	Kara Oberg
Andrew Tarsy	Rosie Jaswal, HDR	Lia Downing
	Rick Plenge, HDR	
	Arthur Bonney, HDR	
	Ruthie Tane, HDR	

Key:

CCPD = Cambridge Commission for Persons with Disabilities

CPD = Cambridge Police Department

CDD = Community Development Department

DPW = Public Works

TP&T = Traffic Parking & Transportation

MEETING SUMMARY

The following is a meeting summary of the Working Group Meeting #10 for the City of Cambridge's River Street Reconstruction. For more information see Cambridgema.gov/riverstreet.

Welcome and Overview

Andy Reker, Transit Planner, City of Cambridge, initiated the meeting by reviewing remote participation instructions. Working Group members were able to show video and asked to use the "raise hand" button to speak. Members of the public were instructed to submit questions in writing via the Q&A panel or use the "raise hand" button to comment during this period.

Bill Deignan, Transportation Program Manager, City of Cambridge, continued the presentation by providing an overview of City staff and the design team working on the project, as well as the meeting's agenda. Bill explained that many of the graphics shown will be posted to the City's website and the City will also print and mail copies by request, so that people have more time to review the complex information. **Andy will send a follow up email following the meeting for people to sign up to receive printed materials and also sign up for "office hours" with Bill, Jerry, Andy, and Patrick to ask questions and comment.**

The focus of the meeting was to review concepts for Carl Barron Plaza and get feedback on pieces of the concepts, including general likes and dislikes, what's missing, and elements people want to see incorporated. Bill noted that the purpose of the meeting was to not select a preferred alternative but identify elements that Working Group members liked and disliked. The meeting was also focused on traffic analysis and the transportation network around Carl Barron Plaza.

Bill reviewed the extended project timeline due to the on-going COVID 19 pandemic. The City is working towards a public meeting in the fall to share publicly what has been reviewed at the last two Working Group Meetings. The next Working Group meeting is expected to take place in November and will share feedback from the public meeting and updated project design refinements.

Project Updates

Bill reviewed project area updates including the Magazine Shared Street initiative, MBTA schedule changes to take effect August 30th, separate neighborhood side street design initiatives, and Eversource gas work. Working Group members may get in touch with the City if they want to be added to DPW's mailing list on upcoming community processes and construction.

Corridor Traffic Overview

Erin Fredette, McMahon Associates, provided a brief overview of the traffic analysis completed on the corridor. VISSIM, a simulation software used to model transportation networks, was the main tool used for traffic analysis. The VISSIM model includes buses, bicycles, pedestrians, cars, and heavy vehicles and provides an opportunity to see how they all interact and influence each other. A variety of data is put into the model, including traffic volumes, speeds, and

queues to try to understand driving behavior. These elements are projected into a future year to see changes to operations with and without improvements.

For the traffic analysis the River Street corridor was broken into three sections: Memorial Drive to Putnam Avenue, Putnam Avenue to Auburn Street, and Auburn Street to Mass. Avenue. The ends of the corridor are the primary focus of the analysis because this is where the majority of activity occurs between modes entering and exiting the network.

Improvements modeled along River Street between Memorial Drive and Putnam Avenue included the bus lane, right turn lane, and concurrent pedestrian phasing. The model showed sufficient capacity to process vehicles on River Street with the vehicle delay matching current conditions, and a reduced pedestrian wait time compared to today. Erin showed a VISSIM video clip of this segment for the weekday morning peak hour. The video was shown at 2x real time. Erin explained that a bus is shown stopping in front of Whole Foods. Once the bus continues through the intersection the remaining cars queue up in the left turn lane. The queue shrinks significantly by the end of the signal cycle. The leading pedestrian interval provides pedestrians with a walk signal with no conflicting vehicles until the vehicles are provided with a green signal and the pedestrians continue to cross concurrently with vehicles. Bicyclists may move first when the signal turns green during the lead bicycle/pedestrian interval and establish themselves ahead of vehicles.

Erin continued by reviewing metrics used to assess the corridor overall:

1. Pedestrian Wait-Time - Weekday Morning Peak Hour: The removal of exclusive pedestrian phasing at Putnam Avenue and Kelly Road/Howard Street results in a significant reduction in pedestrian wait-time at these signalized intersections under future conditions with the project in comparison to future no-build conditions. Pedestrians will be able to cross each leg of the intersection individually concurrent with adjacent through traffic, which reduces overall signal cycle length. The crossing at River Street/Green Street/Western Avenue has a longer pedestrian wait time, but the crossing itself will operate more safely, with crossing pedestrians protected from vehicles. There is not much wait time change at Mass. Avenue, as there are no significant changes at the intersection from a traffic standpoint.
2. Transit Travel Time: There are significant travel time savings, 4-5 minutes, with the proposed bus lane and signal improvements. The bus lane also facilitates more on-time and reliable bus service.
3. Vehicle Travel Time: On average travel times are 4-6 minutes. This increases to 6-8 minutes in the future without the project, but with the improvements to signal timing and lane configurations, travel times in the future condition with the project are similar to existing conditions.
4. Bicycle improvements: The focus of the project was on providing a separated bicycle facility. By providing this, the Bicycle Level of Comfort is brought from a 3 or 4 today to a 1 in the future with the project, providing the highest level of comfort.

Auburn Street to Mass Ave – Circulation

Patrick Baxter, Engineering Manager Traffic, Parking and Transportation Department, City of Cambridge, continued reviewing traffic analysis by discussing changes from Auburn Street to Mass. Avenue. There will be significant changes to improve circulation for vehicles and buses and provide safety improvements for walkers and cyclists. This section maintains a single general purpose lane and bus only lane, additional turning lanes at Green Street and Mass. Avenue, and removes the raised median between Green Street and Mass. Avenue to allow for the proposed bus lane and separated bike lanes.

In previous meetings, the Working Group showed a preference for the butterfly shape plaza. The butterfly plaza removes the busway that cuts through the existing plaza and increases the pedestrian space next to Green Street. There are necessary circulation changes for this to work:

- The City is proposing that a very short piece of Green Street, between Magazine Street and River Street, become bus only (with bikes). All other vehicles will be required to turn left onto Magazine Street from Green Street. Patrick reviewed the proposed network changes (see slide 23) which involve allowing only buses and bikes to continue through on Green Street, converting the block of Magazine Street between Green Street and Franklin Street to one-way operation, two blocks of Franklin to two-way operation between Pearl Street and Magazine Street, and including new signals at Franklin Street with River Street/Western Avenue. The existing parking on Franklin Street next to the First Baptist Church will be removed, but it is anticipated that many of those spaces can be relocated on Magazine Street. The proposed change in traffic operation direction on Magazine Street from two-way to one-way narrows the travel lane requirements on the street and will open curb space to accommodate parking.
- Re-routing MBTA Route 47 off Mass. Avenue to instead make a loop from Green Street to Franklin Street (see slide 24). This change will make the route faster and improve service by bypassing the congestion in Central Square, while still appropriately serving the neighborhood. The change has been coordinated with the MBTA and discussions are on-going.

Patrick continued by reviewing changes at River Street and Green Street for each mode as well as the benefits of the Green Street “Bus/Bike Connector.”

- The conflict between left turning vehicles out of Green Street and pedestrians in the crosswalk across River Street/Western Avenue at Green Street will be removed. The combination of the long crosswalks and gradual turns makes this an unexpected conflict. By converting Green Street between Magazine Street and River Street to bus only, pedestrians in the crosswalk across River Street/Western Avenue will not be in conflict with left turning vehicles out of Green Street, only left turning bicycles from Green Street to Western Avenue, as bicycles are allowed in the bus only section.
- Instances of vehicles blocking intersections and crosswalks that occur today will be eliminated.

- Green Street buses at River Street will proceed with a separate signal and have improved travel times.
- New signals at Franklin Street at River Street/Western Avenue will make the intersection operate smoother.
- Vehicles on River Street will not experience additional delay, but rather traffic will be metered as it enters Central Square. Signals will be coordinated through the Green Street intersection. There will be a longer queue on River Street, but it will be managed better with roughly the same or slightly better travel times and much less safety concerns.

Patrick then reviewed potential changes to vehicular routes. Existing vehicle volumes were analyzed using origin-destination data, which shows where vehicles are going to and coming from (see slides 28-29). The data shows that for vehicles entering Green Street at Magazine Street, roughly 40% are coming from Magazine Street and 60% are coming from Green Street. When exiting Green Street at River Street, approximately 20% of vehicles travel north, 40% are headed down Western Avenue, and 40% are headed down Green Street.

Clarifying questions were taken from several Working Group Members:

- Randy Stern: What do you mean by protected crossing?
 - Patrick explained that a protected pedestrian crossing means that the crossing from Green Street across River Street/Western Avenue (shown in pink) will not have any conflicts with vehicles, only bicycles would be allowed to turn while pedestrians are crossing (buses will be allowed to go during both the bus and pedestrian phases).
- Gabriel Cira: What is the criteria for being able to add a one-way designation for cars and also a bike lane on the one block of Magazine Street towards Central Square? Otherwise what has been presented is phenomenal.
 - Patrick responded that the City hasn't gotten into the design of Magazine Street yet, but it is something they will look into.

Patrick continued by showing assumptions for how vehicles may travel with the closure of Green Street (see slides 30-31). Those going north are assumed to turn onto Franklin Street and continue to Western Avenue. It is assumed those continuing on Green Street would make three turns onto Magazine Street, to Franklin Street, to River Street and then back to Green Street. Vehicles heading west may take Pearl Street or other streets to get to Putnam Avenue to access Western Avenue. Some vehicles will re-route in a different way not pictured, but there is not expected to be a significant number of vehicles taking any one of these routes and no issues have been found with this configuration. In the peak hour there may be 1-10 additional cars.

Erin presented a second VISSIM clip showing Auburn Street to Mass. Ave. This shows a bus waiting to use the new Green Street bus/bike connector, a bus waiting at the signal on River Street, and a bus laying over on River Street. Pedestrians and bicyclists are also moving, with red and green signals showing how traffic flow is managed into Central Square. Overall travel times are remaining approximately the same. Today, most of the delay is at Mass. Avenue and

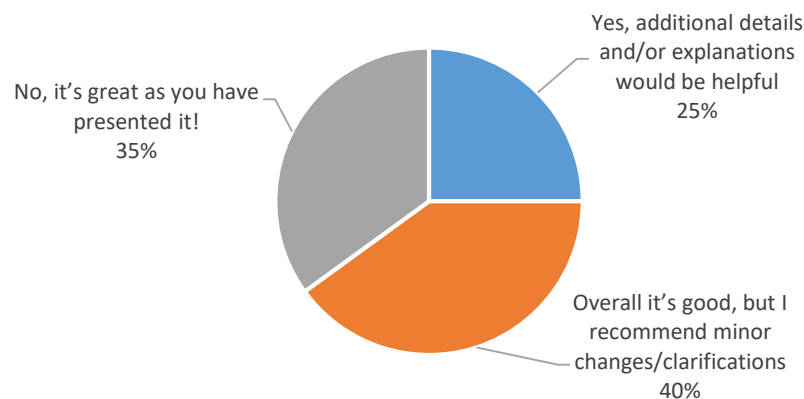
Green Street, but in this future scenario it will be spread out to Franklin Street and Auburn Street. This should streamline how traffic flows through the intersection.

Erin also clarified an earlier question submitted in writing from David Peel that bicycles were not considered to be vehicles, and so were not included in the travel time summary charts.

Patrick concluded the section by stating the entire corridor plan will be posted on the project website to provide an opportunity for everyone to review it. Emails with questions and comments can be sent to riverstreet@cambridgema.gov.

The following check-in question was asked:

Do the proposed network changes require further clarification when presented at the public meeting?



Clarifying questions were taken from several Working Group Members:

- Matt Ciborowski: How many bus layover spots will be located on River Street and will the sidewalk width be affected?
 - Patrick responded that the layover is designed for two buses to operate independently and there will be adequate sidewalk width.
- Kai Long: It seems short sighted to be making all of these bike lanes, but to not consider bikes as vehicles and not consider how they will impact the design. To not be really thinking of bikes as vehicles, especially since bikes are supposed to follow same rules, is short sighted, and is there possibility that could change?
 - Erin responded that bikes are definitely part of model, they were just not included as part of the travel time run charts. The team has done work to figure out how many bikes are likely to use the corridor in the future. There are bikes moving through network in the VISSIM model, which identifies how cars and bikes may interact and the impact to overall network. Bill added that bikes will be allowed in the bus/bike connector on Green Street, but no other vehicles.
- Saul Tannenbaum: I remain unconvinced about the re-routing of Route 47 bus. What was presented was a 2 minute, 15 seconds shorter trip time, but adding 550 feet to walk

to the relocated stop adds 2 minutes to people's travel time if going to the Red Line. This looks like a complete wash in terms of speeding people up. Are we doing this for people or buses? It is not clear that it's a greater win. I am also concerned about new routing with the left on Green Street, right on Franklin Street, right on Western Avenue. No one will want to make the right and left so there will need to be signage for discouraging people from taking the straight shot.

- Valerie Bonds: All of the visuals presented are entertaining and clear. I am concerned about the bicycle level of comfort where bikes will cross the entrance/exit of the Memorial Drive housing complex on River Street. There needs to be signage to remind cars turning into/out of the complex that bicyclists will be going past. Will the signals at River Street/Western Avenue/Franklin Street be activated by traffic volumes? Sometimes the area is frequented and sometimes there is no traffic out of Franklin Street. Will the parking on Franklin Street be removed on both sides?
 - Patrick responded that standard sign details that warns drivers of the need to yield to pedestrians and bicyclists will be considered for the driveway along River Street. They are used at any location with significant bicycle volumes. The signal at Franklin Street will have concurrent pedestrian phases and operate on a pre-timed basis, and be coordinated with the Mass. Avenue and Green Street signals. The signals will change by time of day. Parking will be removed on Franklin Street, but additional space will be created on Magazine Street to reallocate parking.

Carl Barron Plaza – Urban Design Options

Bill introduced the review of Carl Barron Plaza urban design options. This segment was intended to talk about the approach and various feel and features of the plaza concepts. These options will also be shown at the public meeting.

Nidhi Gulati, Project for Public Spaces, provided an overview of the community process that was used to derive these options. The process started in early spring 2019 with a series of on-site research and engagement with members of community to understand what this space means to people, desire lines for movement through the space, current uses, and future visions for the space. The feedback was distilled into themes to identify the top priorities for the design to reflect: comfort, identity, access, uses, and sociability. These input was also used to elaborate on and substantiate the shared design goals developed by the Working Group that guide the entire process for River Street.

Cynthia Smith, Halvorson, continued by reviewing the site analysis and constraints. Significant utilities are located underneath the new plaza space including a major MWRA line, sewer lines, drainage, and the MBTA Red Line. Of the seven existing trees in Carl Barron Plaza, the healthiest will remain in place and the others will be considered for relocation or transplant. The existing art installation is being re-envisioned with a new series of sculptures along the River Street corridor. There are also a number of microclimate considerations in terms of sun orientation, with the Green Street end of the plaza being quite sunny and the Mass. Avenue end being quite shady except for during the noon time during sunny days.

There were certain design givens that were included in all options, such as transit shelters in three locations to support five bus routes, an improved MBTA operator's booth, convenient and direct pedestrian circulation respectful of major desire lines, separated one-way bicycle facility, healthy tree canopy, and flexible open plaza areas for a variety of activities and events to occur.

Cynthia continued by reviewing four design options for the butterfly plaza, also called an S curve configuration. At this point, the visuals are massing studies and not reflective of specific architecture. The separated bicycle lane is shown in the same location from Green Street up to the Mass. Avenue intersection. The materials shown are drafts for the Working Group to provide feedback on the design features. There will be many more opportunities to comment, including once the graphics are online to download and print. They will also be shared again at the fall public meeting.

Option A: Yin Yang Pavilions: This option includes an iconic pergola at the Mass. Avenue intersection with a flexible plaza space beneath it, creating a strong visual element. There is opportunity for overhead catenary lighting, seating and planting elements. The Green Street end has a flexible multiuse plaza/green space. The birds eye views show the iconic architecture, which makes a statement and provides identity as one enters the area. The pergola is open for sunlight and a variety of activities could occur underneath. There is a new planting edge along the Mass. Avenue corner extending down along the bus lane. The custom bus shelter in the plaza and narrow bus shelter on Green Street can be seen. The eye level perspectives provide a sense of how pedestrians move through the space, the furniture, and different activities. The Arts Council and BID will be consulted on the type of programming. This could include fixed seating and in nicer months movable furniture that is too heavy to move or can be tethered down. Bill added that the City does not have a current mechanism to program the space and is mainly trying to create opportunities to program the space in the future as resources allow.

Option B: Serpentine Gardens: This option is defined by a linear, asymmetrical water feature with more flexible open paved area. The Green Street end has a more semi-circular curvilinear bus shelter. All of the schemes maintain two mature trees in the center part of the plaza, with the potential to plant 10-13 new trees in other locations. The water feature becomes the special element, providing seasonal interest, but is more understated than an architectural structure. At the Green Street end, the pathway runs alongside two bus shelters. The upper right perspective shows how this option is more open for programming, while the lower right shows how people would move through the space. Small and medium size gathering places would be feasible.

Option C: Gateway Plazas: The Green Street end includes an iconic transit structure that bridges over the pathway and bike lane and becomes the visual feature that anchors that end. At Mass. Avenue there is a more formal water feature at the entrance to the plaza. The plaza space is open for flexible activities. The birds eye views show how the gateway fountain and architecture feature create presence at each end. With an open overhead structure at the bus stops it is likely that we will need to figure out a way to protect people from the elements, which may warrant a secondary shelter area. This might also be true for other structures depending on how the custom structure is designed. On the perspectives, the lower right image provides a sense of how the

overarching shelter space functions. The plantings reinforce circulation, while providing beauty and shade.

Option A+C Hybrid: This option takes elements of both A and C schemes to combine the two, proposing both the pergola and the iconic transit structure. Trees are flush with the pavement at the Green Street end, which provides a lot of flexibility. The birds eye views and perspectives shown are not new, but taken from both schemes.

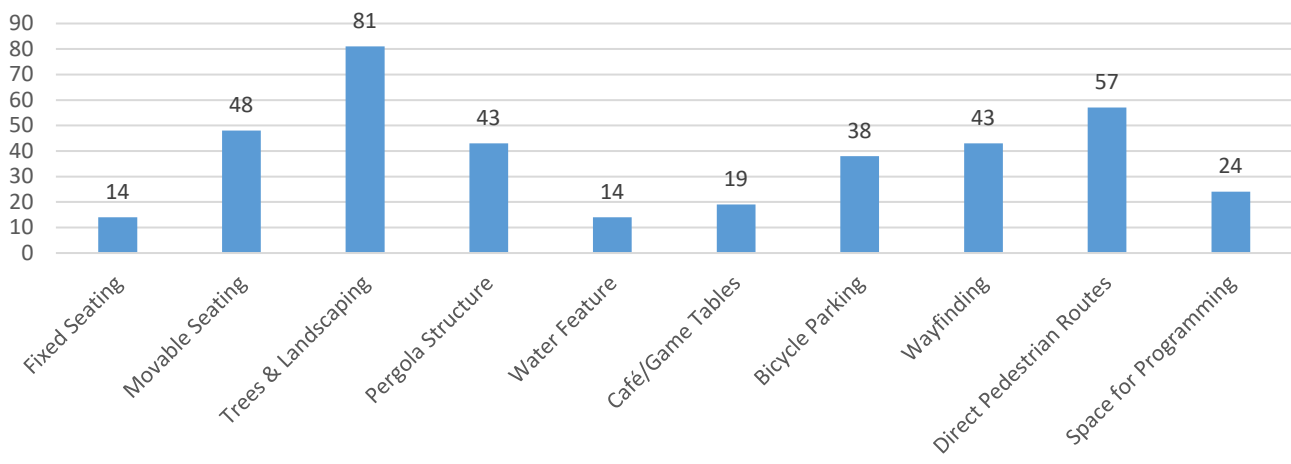
Bill reviewed a summary of the plaza options (slide 60), which provides another way to identify which features are included within each of the options. Bill then opened the meeting up to questions regarding which features are preferred over others.

Clarifying questions were taken from several Working Group Members:

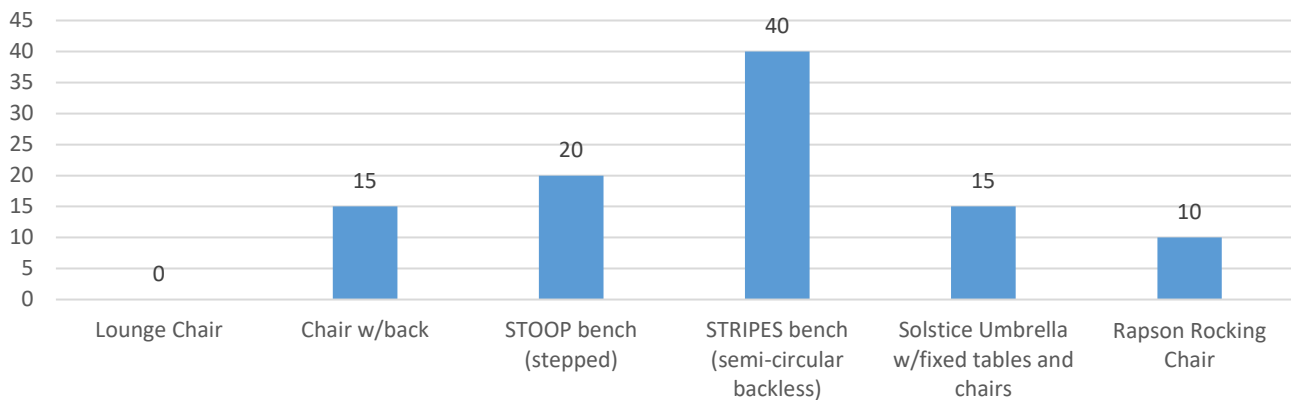
- Matt Ciborowski: I would recommend showing the images differently in the future, especially if virtual. The images are hard to understand – it’s hard to see where the pedestrian pathways are supposed to be. Incorporating purpose and use color diagrams to illustrate pedestrian and bicycle travel routes in a simple block diagrammatic way would be helpful.
- Randy Stern: Which options have a better/clear designation between the bicycle lane and pedestrian walkways?
 - Bill responded that each option provides this in a different way; they are all intended for separation. They are separated visually and have some kind of curb/planted area. There is a crosswalk across the bike facility so pedestrians can access the bus stop waiting area.

The following check-in questions were asked:

Which feature(s) are the most important to include in the redesigned Carl Barron Plaza?



Which movable seating do you like for Carl Barron Plaza?



Bill concluded the section by stating that **the City will take the images shown and put together an additional PDF with one image per page to post on the project website.** They are happy to go back to the graphics to point out walking routes and the bike facility, but are mainly interested in general feedback on some of the elements shown.

Working Group Discussion

- Gabriel Cira: Bikes will be coming in hot (fast) into the iconic gateway pavilion – leaving two options (1) close off a small passage of the bicycle lane like in most options, especially A and C with longer planters to discourage pedestrians from hopping in, or (2) create an open passageway to so there is expectation that bikes are slowing down and interacting with pedestrians. The strategy must be really clear. It also seems ridiculous to have a specially designed pergola above the bus stop area and also a bus stop shelter underneath. Think about the existing bus stop in front of Artist & Craftsman Supply. It is designed well so it that it doesn't have small components, but is an icon for Central Square. The nested thing is ridiculous; pergolas should be designed as infrastructure.
 - Cynthia responded that the pergola with shelters is conceptual and intended to convey intent and not the final design configuration. An integrated design solution would be appropriate.
- Saul Tannenbaum: What would this all look like in snow? The views assume a bright sunny, warm day but that is not all New England weather. Most problems getting through Carl Barron Plaza are in the winter. How do you expect this to work the day after 6-12" of snow? I am concerned about snow clearance and how bike paths get cleared of snow – we need to see winter treatments as well.
- Kai Long: At the intersection of River Street and Green Street, how are bikes supposed to turn left? How do you do turn left and make it clear to cyclists?
 - Patrick responded that there would do a two stage turn box. For cyclists coming up River Street there will be a box in the intersection next to the crosswalk with a left turn arrow. They will wait for the bike signal and cross when the cross direction is activated.

- Matt Ciborowski: The goals laid out for Carl Barron Plaza are applaudable and demonstrate that it wants to be a lot of things to a lot of people, but we are missing an element. The plaza is also a place used to go through to go somewhere else; it should be easy to move through as well as beautiful, etc.
- Christopher Tassone: It is cool to see what has been produced. I am genuinely excited about what it looks like. It Looks great and is an exciting design to look over.

Nidhi provided clarification on using movable furniture in the space. PPS has studied public spaces around the country and looked at the kind of amenities that makes people feel welcome and empowered. Movable furniture gives people more choices for a type of experience they want to have, contributes to people feeling like they can control their own movement in space, a sense of a shared experience, and gives power to the user to not be dictated as to how to sit or where to look. Long-term maintenance and overnight storage will have to be looked into.

Public Comment

- Francis Stone: Thanks for including the public here. I have been an in person attendee at a number of meetings. Will this meeting be available as a recording for review later?
Thank you
 - Bill responded that working group meetings are not recorded. Meeting notes will be posted.
- Michael Frutkoff: Will anything be done to prevent Pleasant Street from becoming an alternative route to Central Square? Can part of Pleasant Street be made one way down to Memorial Drive to prevent overloading the residential street? Are there any plans to control traffic on Pleasant Street?
 - Bill responded that the changes are being made to keep the speed of traffic down. Travel times on River Street will be the same as there are today, so there will not be an incentive to re-route from River Street.
- Ana Hurka-Robles: I have a question about the Carl Barron Plaza study: were the views of members of the homeless/street involved community solicited for the study? I ask because members of this community appear to be heavy users of the plaza as it is, and I would expect them to have particular needs and concerns.
 - Bill responded that interviews were done with all users of the plaza, including the unhoused. There were approximately 140 comments collected on-site from regular users. The City is also working closely with human service agencies.
 - Ana Hurka-Robles: Is the amount of current seating in CB plaza the same, reduced, or increased in these plans?
 - Bill responded that they do not know yet. The project is not at that level of design.

- James Williamson: Have you sat down with anyone from the Greek Orthodox Church? It would seem like a very important part of the community that will feel impact from this. I second what Saul was raising about the Route 47 bus. There was also a woman speaking of transferring from the Route 1 bus to the Route 47 bus. I understand that it's more efficient from where it leaves, but not if you have to walk there for some people. I would like to hear more about the justice of that for people who are elderly and disabled. You have said a number of times that the bike lane as it goes through the plaza is not decided, but it seems like this has been decided. As for the dimensions and location of the bike lane as it traverses the plaza, I would like to see more space on the plaza side and less of the side where one is waiting for the bus.
 - Bill responded that the separated bike facility is a design given in that has to be incorporated. Narrowing the street edge would not work with people waiting for the bus. In terms of the Route 47, there are trade-offs. To get more plaza space the re-routing is needed. Some people will have the same transfer distance and some may have longer ones. The City is continuing to talk about this with the MBTA and Systemwide Accessibility, who are not raising flags with it. There were also be elements like signage and wayfinding to help make it as clear as possible where bus stops will be.

Next Steps

Bill concluded the meeting by confirming that the City will send out information regarding signing up for office hours for individual questions. Working Group members can email Bill or the project email address (riverstreet@cambridgema.gov) if they would like printed materials. Please include your mailing address.