River Street Reconstruction

River Street Reconstruction
Working Group Meeting
Wednesday, July 17, 2019
6:00 PM – 8:00 PM
Manning Apartments 1st Floor
237 Franklin Street – Community Room

ATTENDEES

Working Group Members	City Staff	Public
Daniel Beaulieu	Juan Avendano - CDD	Henry Johnsons
Gabriel Cira	Patrick Baxter – TP&T	Amy Flat
Abby Duker	Jerry Friedman - DPW	Rachel Donley
Sam Gebru	Wendell Joseph - CDD	Stacey Young
Melissa Greene	Khalil Mogassabi - CDD	Magery Davies
Kai Long	Adam Patten - CPD	Arthur MacEwan
Annie Tuan	Emily Paulsen - DPW	Maria Ded
Oliver Turner	Susanne Rasmussen - CDD	Joan Kamp
Not Here	Rach Tanenhaus - CCPD	James Williamson
Patrick Barrett	Tegin Teich - CDD	
Sienna Berry	Kathy Watkins - DPW	
Sai Boddupalli	**Consultants**	
Valerie Bonds	Christi Apicella	
Matthew Ciborowski	Arthur Bonney	
Neil Rodriquez	Rick Plenge	
Randy Stern	Natalie Raffol	
Christopher Tassone	Cynthia Smith	
Andrew Tarsy	Peter Stidman	

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 #5 for the City of Cambridge's River Street Reconstruction Project. For more information see Cambridgema.gov/riverstreet.

1. Welcome and Logistics

The meeting was initiated by Tegin Teich, Transportation Planner for the City of Cambridge, who began with a review of the agenda and upcoming schedule. There will be no Working Group meeting in August. The next Working Group meeting will be on September 24th, along with the Carl Barron Plaza Design Charrettes and outdoor engagement, scheduled for Saturday, September 14th and Tuesday, September 17th. Recent activities have included two public walks, outreach at River Fest, and the Carl Barron Plaza existing conditions outdoor engagement.

The focus of this Working Group meeting is an introduction to mobility design considerations or "Mobility 101", while the next meeting will move on to discussing draft design alternatives for parts of the corridor. A "Mobility Design Toolbox" was sent to Working Group members via email in advance of the meeting. The presentation refers to some pages in it, but it is not fully covered. Tegin confirmed that members of the public who sign in on the sign-in sheet will receive project emails.

2. Transportation Considerations

Tegin provided an overview of transportation considerations for River Street, emphasizing that transportation is multimodal. Many people use more than one way to get around, and that can vary by day, by weather, by mood, by time of life, by what else they have to do in a day, and other factors. At least in part because of River Street's role as a street making regional connections and as a truck route, a relatively high percentage of the trips being made on River Street are being made in automobiles. However, the new design can help influence people's transportation decisions in a way that reduces single occupancy vehicle trips, meeting the City's goals related to livability, climate change, and air quality. In addition, the design can help create a more pedestrian scale environment as discussed in the Urban Design 101 Working Group meeting (May 28, 2019).

The City plans and designs its streets for people of all ages and abilities, often described as "8 to 80". People may hear the term "8 to 80" used to make a case for improving a specific facility (e.g. a sidewalk or a bicycle facility). True "8 to 80" cities provide a range of healthy, safe and comfortable transportation opportunities, including walking, biking, and taking public transit for people of ages and abilities to make their trips in an equitable way.

There are standards and guidelines for design and how to measure the needs of different users. The group was asked to think about how pedestrians move and how people of different heights (i.e., a child and an average height adult) and abilities (i.e. a person with a

mobility device) interact with the street. Other elements to consider include different types and sizes of bicycles, levels of comfort on different bicycle facilities, as well as turning radii needed for vehicles, including buses and trucks, especially given that River Street is a truck route.

Tegin briefly reviewed types of transportation analysis:

- Pedestrian Delay – If wait times are over 30 seconds at an intersection, pedestrians are more likely to cross without a walk signal.
- Bicycle Level of Comfort – Individuals who bike have different levels of comfort, some requiring full separation from traffic while others will ride in mixed traffic. The city's goal is to increase the level of comfort for people of all ages and ability, targeting specific streets like River Street.
- Vehicle Capacity Analysis/Level of Service (LOS) – LOS is a measure of delay represented by an A through F grading system, with A representing free flow and F complete congestion. Free flow conditions are not necessarily desirable as they can encourage high speeds and also encourage more automobile use. LOS D and E are acceptable in urban areas.
- Bus Delay – Although buses carry many more people in a small amount of space and in a more equitable way, they are subject to the same congestion and delay as other vehicles unless they are given priority. People riding buses also experience delay associated with dwell time and passenger boarding at many stops. The MBTA plans their schedules and allocation of resources (i.,e. buses) on a route based on the 90th percentile travel times (representing a worst -case traffic scenario). Because of this, the level of congestion at the worst times matters significantly more than other modes when planning how resources should be spent.

Tegin then reviewed different elements of transportation in relation to a few of the design goals established in previous meetings.

- Multimodal Safety: Crash data on River Street shows us how many and what types of crashes involve vulnerable users, like people walking and biking. By understanding the types of crashes that occur, the City can improve the design to address conflict areas where crashes occur. For example, pedestrian crashes occur at intersections, illustrating the need to think about safe crossings. Separated bicycle lanes would improve safety for bikers. There are multiple types of separation, including a raised buffer with parking like on Western Avenue, but the amount of space on River Street is more limited. To create a facility that feels safe and comfortable, the typical standards are a 5 to 6 foot-wide bike lane (over 7-feet provides the opportunity for side-by-side riding) with a 1 to 3-foot buffer. Multiple types of bike lane separation are shown in the presentation as well as the Mobility Toolbox.

- Bus Priority: Prioritizing buses can be an efficient way to improve transportation for a high number of people, and help shift people out of driving personal vehicles. Bus priority can include providing bus-only lanes, queue jump lanes, and transit signal priority (TSP). Existing examples of bus lanes and queue jumps in Cambridge are on Mount Auburn Street and southbound on Massachusetts Avenue towards Boston between Central Square and Memorial Drive. A queue jump allows the bus to use an area like a curbside space to pull out of traffic, getting ahead of a line of vehicles, and then getting a head start on other vehicles with a special signal. A morning rush hour eastbound queue jump lane is being included in the Inman Square reconstruction project. At an intersection, TSP can give buses extra green time when approaching a light or give an early green light for waiting buses. TSP has been installed by the City at one location on Massachusetts Avenue and at two locations on Mt. Auburn Street.

  Several questions were raised regarding the success of/availability of data for bus priority measures in Cambridge. Tegin responded that in the case of Mt. Auburn Street, there are significant travel time savings and improved reliability for bus riders. On Massachusetts Avenue, the bus priority served more to mitigate additional delay that would have been introduced due to other changes on the Street. More data is available on bus lanes and effectiveness in the City.

On-going challenges with bus lanes include them being blocked by drivers double parking or stopping and transition issues when buses merge back into traffic. Transitions and enforcement/compliance are very important to their success. It can often take observational work to understand the real challenges.

- Traffic calming: Traffic calming tools are intended to help move people calmly through a neighborhood space, improving safety. Traffic calming tactics like raised side street crossings, crossing islands, and having a dynamic and used street edge, among others as seen in the Mobility Toolbox, can be used to slow traffic and make a neighborhood feel safer. Juan Avendano, the City's Traffic Calming Program Manager was present at the meeting to follow up with any specific questions.

- Curbside Space: Activating the curbside space has been a focus of conversation in Working Group meetings. Working Group members had expressed an interest in creating a sense of community, comfort, and safety through elements such as seating, food trucks, curb extensions, or green infrastructure/stormwater management tools. Curbside space is also frequently used by transportation network companies (TNC) also known as ride-hailing services like Uber and Lyft. A Working Group member asked if a law would have to pass to create pick-up zones. Tegin responded that the City can allow for short term parking for this type of use, and they can work with the company to designate pick-up spots.

- New Mobility: The City is currently undergoing a "New Mobility Blueprint" study. Its focus is on rethinking the way we use our streets as modal boundaries blur and as new technologies introduce new ways of getting around. The Blueprint will recommend ways to adapt policies to accommodate new forms of mobility in a way that meets City goals.

3. Intersection Considerations

Patrick Baxter, City of Cambridge Traffic, Parking and Transportation Department Engineering Manager, continued the discussion by using Putnam Avenue at River Street as an example of transportation considerations at an intersection.

- Signal phasing: There are different styles of turning phases and pedestrian phases. Right now, the River Street/Putnam Avenue signal has three phases: through traffic on River Street, through traffic on Putnam Avenue, and an exclusive pedestrian phase. This allows vehicle turns to be made without conflicting with pedestrian crossings. This is called exclusive phasing. Most intersections in Cambridge have concurrent phasing, which allows pedestrians to cross at the same time as parallel through traffic. This reduces waiting time for pedestrians.
- Signal Technology: Signal technology can enable increased efficiency through signal coordination and actuation. Signal equipment may include pedestrian signals with countdown timers, accessible pedestrian signals (APS), or bike signals. These tools help balance walking, biking, and driving needs.
- Traffic Flow: It is optimal to balance the side-street and main street to keep delay from getting too high on either.
- Operations/Capacity: The project work includes a detailed analysis using Synchro modeling software that can look at delay for each user in seconds. If an intersection is backing up to the previous one, this could result in gridlock.
- Geometry: Intersection geometry considers the length and alignment of crosswalks, visibility, and safety vs. speed. Traffic calming elements such as curb extensions can help reduce crossing distances, as seen in the before and after picture on Western Avenue. Features like curb extensions significantly reduce the exposure of pedestrians when crossing.

A Working Group member asked how the MBTA Route 64 bus turning from River Street onto Putnam Avenue impacts traffic. Particularly, if the bus struggles to make the turn, could the stop line for the through lane on Putnam be moved back? Patrick responded that the City will look at pulling stop bars back from crosswalks when bus turning movements need to be accommodated to help shrink the turning radius of a corner.

A Working Group member asked about the width of travel lanes on River Street. Tegin and Jerry Friedman, Cambridge DPW Supervising Engineer, responded that River Street is 33-feet curb to curb with 29' dedicated to travel lanesa and parking (with travel lanes being

approximately 10.5’ and parking approximately 8’), and a 4-foot bike lane. These dimensions vary along the corridor.

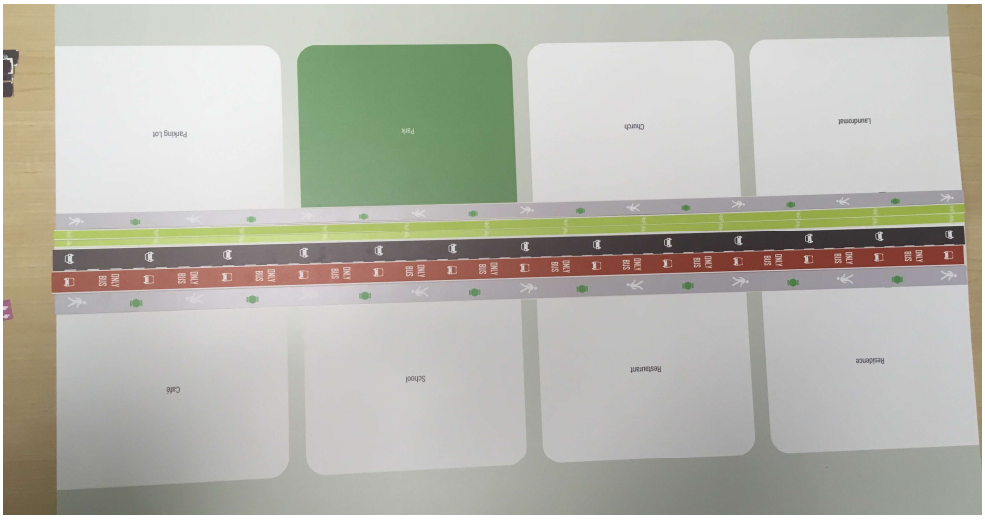
4. Street Design Activity

Tegin introduced the street design activity as a process for the Working Group to negotiate and balance goals with limited space on a representative corridor. The Working Group was asked to break into small groups to collaboratively design a fictional “Main Street” with a similar width to River Street. The goal for each group was to address as many project goals as possible. The purpose of this design was to help Working Group members practice balancing priorities in a way that provides input to the City and project team as they start to develop designs for River Street.

Pete Stidman on the project consultant team explained the activity further, stressing it is not design input, but about understanding how decisions are made in the group and thinking about each other’s perspectives. The Working Group split into two small groups, with members of the public making a third group. All groups were required to agree on their final design for Main Street.

A summary of each group’s design and process is provided below:

Group 1



Group 1 started with sidewalks on both sides and one travel lane. The main component of the design evolved into a two-way raised bicycle lane to address desire lines to Watertown and Boston, and especially “wrong-way” desire lines. Some group members expressed concern that this would not allow parking to be provided on street, around which there did not appear to be consensus. Some people in the group felt parking on this street might not be needed due to the off-street parking available near the corridor. The sidewalk adjacent to the bike lane was narrowed to 8’ to allow for more space in the right-of-way. Travel lanes include one vehicular lane and one bus lane. The group expressed that the one lane of traffic may be a concern for fire trucks and emergency vehicles. There was not full agreement on the design in this group.

Group 2

Group 2 began with a consensus to include sidewalks on both sides of the street. A raised bike lane/cycle track was placed on the side adjacent to the school. The group felt that it was important to provide some parking for residents without driveways or off-street parking and that the on-street parking could also be used to help protect the bike lane. Separation was desired between the travel lane and sidewalk to reduce noise and emissions, which was accomplished by green infrastructure curb extensions and planters alternating with parking. There was not full consensus on the inclusion of the bus lane. Some felt the roadway volumes would require two vehicular travel lanes and that traffic should be prioritized over the bus lane. Crossings were provided between the park and school using curb extensions to avoid having pedestrians standing in the bike lane to wait to cross. Overall the inclusion of greenery was very important to the group. There was not full agreement on the design in this group.

Group 3

Group 3 began with sidewalks on both sides of the roadway and a raised bike lane/cycle track. The main priorities of the group were to encourage less driving, reduce speed, include a separated bike lane, and enhance green space. A green buffer strip was added to provide a barrier between the travel lane and the bike facility, but was eventually reduced to only part of the street to allow for two travel lanes. The amount of parking provided was debated among the group, with some feeling it was essential for residents and that commercial loading needs must be accommodated. The group decided to alternate parking with green infrastructure curb extensions as a compromise between providing parking and enhancing green space, and that the curb adjacent to the school would be limited to school drop-off.

The group debated two travel lanes vs. one travel lane and a bus lane. There was concern that one travel lane would increase congestion and that trucks would necessitate two travel lanes because of their width. The group initially included a bus lane, discussed having it only during peak hours and allow use by fire trucks and emergency vehicles, but ultimately converted it to two travel lanes for the segment of the corridor that approached a more congested area (such as Central Square). A bus stop was placed at the park with a raised crosswalk and curb extension to provide a connection to the school. The bus stop initially was located on a curb extension, but was converted to a curbside stop. The group placed pieces in the park to represent additional/enhanced waiting space for passengers due to the loss of the curb extension to accommodate the second travel lane.

5. Public Comments

A member of the public asked how this project will relate to the Allston I-90 project. Susanne Rasmussen, City of Cambridge Director of Environmental and Transportation Planning, responded that the Allston I-90 project timeline has been extended and permitting will begin in 2020. The River Street project may be completed by the time construction starts.

Jerry added that construction on River Street is expected to start at the end of 2020, and is anticipated to be an 30-36 month project. Construction will be completed in sections, so the entire corridor will not be under construction at once.

6. Next Steps

Tegin wrapped up the meeting by discussing the launch of the pre-construction user survey, which will serve as a way to evaluate improvements at the end of the project. She asked the Working Group to help distribute the survey. The survey will be open for a few months, likely now to the holidays, but it could be kept open longer. The public input map is closed, but can still be reviewed to understand public feedback received to date.

Working Group members should let the City know about upcoming events where they can advertise the project. National Night Out at Riverside Press Park, movie nights, the barbershop, and laundromat were mentioned as ideas. The City is also working with high school students over the next few weeks on outreach.

Moving forward, Working Group meetings will be back on Tuesday evenings, with the next one on September 24th, 2019 from 6:00-8:00 PM. Concept plans from Memorial Drive to Franklin Street will be reviewed. The Carl Barron design charrettes and Outdoor Engagement will be Saturday, September 14th (outdoors) and Tuesday, September 17th (indoors) and are open to the public. *(NOTE that since this meeting, the September Carl Barron plaza outreach has been rescheduled).*