

Union Square Utility and Streetscape Improvements Study and Design

Public Meeting #4

SUMMARY MINUTES

LOCATION OF MEETING: Argenziano School, 290 Washington Street Somerville, MA

DATE/TIME OF MEETING: Monday October 20th, 2014 from 6:30pm- 8:30pm

ATTENDANCE: Sign in sheets (Attachment A)

PROJECT TEAM:

Hayes Morrison- City of Somerville
Rachel Burckardt- Parsons Brinckerhoff
Joanne Frascella- Parsons Brinckerhoff
Kristen Clarke- Parsons Brinckerhoff
Lisa Chandler- Parsons Brinckerhoff

PURPOSE/SUBJECT: To provide a project overview and update, recap the Team Better Block demonstration, and discuss the traffic data collection that has occurred to date.

WELCOME

Hayes Morrison, City of Somerville, started the meeting, introduced the team, and welcomed attendees. She provided an overview of the meeting and the agenda, which included a project update, summary of the Team Better Block Demonstration, and overview of the traffic data collection. She explained that a question and answer period would be provided after each of the agenda items. Ms. Morrison welcomed the Chairman of the Union Square Citizens Advisory Committee (CAC), Wig Zamore, who was willing to answer any questions about the work the CAC is doing.

Ms. Morrison outlined the public outreach schedule, highlighting that this was the fourth meeting regarding preliminary streetscape design, and a fifth meeting to discuss design alternatives would be held in January 2015. She then introduced Rachel Burckardt of Parsons Brinckerhoff to provide an update of the utility improvements.

PRESENTATION

Utility Improvements

Rachel Burckardt began by describing the water system improvements anticipated based on the preliminary design. She showed a map and explained that there are several locations where new water mains will be required on portions of Somerville Avenue, Washington Street, Everett Street, Emerson Street, Charlestown Street, and Sanborn Court. In addition, pipes on Webster Avenue and portions of

Washington Street that are adequate size and can be reused will need to be cleaned and lined. To clean these pipes, they will need to place temporary pipes and redirect water during construction.

Ms. Burckardt then described the necessary improvements to the sanitary and stormwater system to increase capacity and reduce likelihood of flooding. She explained how sewer separation would occur on Somerville Avenue and the existing pipes would be upgraded. Under Somerville Avenue, an existing 72" pipe will likely be upgraded by adding a new 96" pipe; the existing pipe will remain and be used for the dirtier water, while the new pipe will be used for the cleaner water. She explained how there is a significant amount of space under Somerville Avenue without existing utilities for the new pipe to be placed, likely due to the fact that the old street car right-of-way was over this portion of the roadway so utilities wouldn't have been constructed beneath it. Construction of the new sewer line will be more invasive and have more traffic impacts than the water system due to the size of the pipes and the location in the center of the roadway. She explained how there is potential for a storage tank under the plaza for additional storage during storm surges. MWH Global will be doing modeling for the project using their model for the City of Somerville.

An attendee asked about the impacts of groundwater levels rising, impacts of sea level rising, and whether the City is doing any resiliency planning. Ms. Burckardt explained how water flows thru the MWRA CMI interceptor sewer to Deer Island or in a combined sewer to the MWRA Prison Point pump station in Cambridge and, at either location, is pumped so the water level is not a concern. She explained how the impacts of sea level rising on the groundwater in the Union Square area are hard to predict without more study. Ms. Morrison added that the City has applied for a grant for a citywide resiliency planning effort.

An attendee asked if MWRA and DCR have control over the amount of water pumped and if their decisions impact flooding in Union Square. Ms. Burckardt explained that DCR controls the Charles River Dam and when storms are anticipated, they let water out at low tide so they can create storage capacity. She explained how many cities and towns working with the Massachusetts Emergency Management Agency (MEMA) create Readiness Plans and have memorandums of understanding in place with other state agencies on preparation for larger storms as part of resiliency planning.

An attendee asked if there was a storage tank under the plaza if it would prohibit growth of trees in the plaza. Ms. Burckardt responded that the root ball of a tree would require that the storage tank is 4-5 feet underground. That has been done successfully at other locations including the Post Office Square Garage in Boston.

An attendee asked about recent flooding of basements along Bow Street that historically haven't had flooding issues and asked if the proposed changes on Somerville Ave would help along Bow Street as well. Ms. Burckardt explained that 2/3 of Somerville drainage comes thru Somerville Avenue so upgrades downstream will definitely help. She explained how there is also potential for an underground storage tank by the dog park off Summer Street to mitigate flooding by sending less storm flows downstream.

An attendee asked about the rough cost of the utility improvements and how the City was planning on funding them. Ms. Burckardt explained that utility improvements are still preliminary but they will be more than \$10 million. Ms. Morrison added that the City is seeking state and federal funds in addition to costs taken on by the D2 parcel developer. She added that the City will have to pay for some of the infrastructure costs.

Ms. Burckardt then introduced Joanne Frascella, Parsons Brinckerhoff, to provide an overview of the Team Better Block Design Process.

Team Better Block Summary

Ms. Frascella began by providing an overview of Team Better Block and the community build day. Team Better Block started in Dallas, Texas about 7 years ago to promote change at a community level by engaging the community in visualizing change and creating a full scale mock up of the improvements. She explained how Andrew Howard and Jason Roberts came to our last public meeting on March 25th and presented examples of their work and talked through the concepts to be included in the demonstration in Union Square.

Team Better Block led a community event on May 30th to test out design concepts for improvements to Union Square. The build weekend included:

- On May 29th/Workshops on the 29th trained volunteers in building – for example how to build a bench from a wood pallet.
- On May 30th/Build Day, 20 volunteers constructed the pedestrian crossing, connection to the T station, bocce court and performers on the plaza, and a parklet that built into a single parking space on Somerville Avenue.

Based on observation, the midblock pedestrian crossing worked well and was well used. It was noted that the pedestrian connection to the proposed MBTA station from the plaza is feasible and land owners were open to the idea, so it seems to make sense when the station is active.

Ms. Frascella asked if anyone present had any comments on their participation in the Team Better Block event.

An attendee commented on how she was part of constructing the midblock crossing and she felt that people were happy to have another option for crossing and that cars actually yielded for pedestrians in the temporary crosswalk.

An attendee asked if the potential pedestrian path was part of the redevelopment parcel. Ms. Morrison explained that it was not part of the D2 development and the City does not intend to take it via eminent domain. An attendee commented that the concept of a pedestrian route to the new MBTA station in Union Square was discussed in a recent public meeting on another project and suggested that the project teams coordinate on this.

Ms. Frascella then introduced Kristen Clarke, Parsons Brinckerhoff, to discuss the traffic data collection that has occurred since the previous meeting.

Traffic Data Collection

Ms. Clarke began by describing the depth of traffic data collection that has been underway to provide flexibility to test different alternatives moving forward. The traffic data collection included the following:

- Turning movement counts (TMC) were conducted on a Thursday in April from 7 AM – 9 AM and 4 PM – 6 PM at 15 study area intersections. Vehicles, trucks, buses, pedestrians, and bicycles were counted separately at each location. Ms. Clarke presented graphics showing how some of the heavier bicycle and pedestrian volumes are at locations that were identified in previous meetings as the difficult crossings/movements to make.
- Average daily traffic (ADT) counts were conducted at seven locations for four days and use tubes across the road to collect volumes 24 hours a day from Thursday to Sunday.
- Bluetooth data collection was completed at key entry and exit points to the study area to understand vehicle paths thru Union Square. Bluetooth transponders were located at nine locations and collected data for a continuous week. Ms. Clarke explained that the transponders collect unique IDs from the cell phone/GPS in vehicles with Bluetooth enabled and no personal information is collected that could tie the ID with a specific device. The Bluetooth captured 8-15% of the traffic which is statistically significant data.

Ms. Clarke presented some of the initial findings. The findings showed how in the AM Peak, of the vehicles traveling SB on Washington Street, 61% of the traffic turned right on Somerville Avenue and left on Webster Avenue, showing that if Prospect Street were two-way a significant amount of traffic would be taken off of Somerville Avenue. The findings also showed how in the PM Peak, of the vehicles traveling NB on Prospect Street, 28% turn left on Somerville Avenue to Bow Street/Washington Street, showing that if Webster Avenue were two-way a significant amount of traffic would be taken off of Somerville Avenue.

- Crash data was collected thru the MassDOT Crash Portal and Somerville Police Reports for 2009 to 2011 to calculate crash rates at signalized and unsignalized intersections. She explained how crash rates are based on the number of crashes that occur per million entering vehicles. Three study area intersections have crash rates that are higher than the MassDOT District 4 average: Somerville Avenue/Washington Street/Prospect Street, Somerville Avenue/Warren Avenue, and Washington Street/Bonner St/Municipal Lot.
- Inventory of existing signal timing and phasing was completed by checking the controller settings at each of the signalized intersections.

After providing an overview of all the data collection, she explained how the data has been updated in the existing conditions Synchro model. A LOS analysis was completed for existing conditions. Ms. Clarke explained how LOS is based on a scale of A to F and measures the amount of delay going thru the intersection. For urban areas, the design LOS is typically LOS D, which represents stable flow with tolerable delay. She presented results for existing conditions showing that in the AM Peak, the Somerville Avenue/Washington Street/Prospect Street intersection performs at LOS E and that in the PM Peak, the Somerville Avenue/Washington Street/Webster Avenue intersection performs at LOS E. The next steps in the traffic analysis are to coordinate future traffic projections and background growth rates, determine capacity requirements and evaluate alternative roadway configurations, and to evaluate the potential for near term implementation of two-way Webster Avenue and Prospect Street.

An attendee asked if any thought has been given to what contributes to traffic thru Union Square on a broader scale. A lot of traffic is due to cut-thru movements to Storrow Drive, the Turnpike, etc. She questioned if there is a possibility of cutting off some of the pass thru traffic and designing roadways to be less inviting for trucks and other vehicles that are not coming to Union Square as a destination. Ms. Clarke explained how it was clear that there was a lot of cut thru traffic and as we move forward we consider changes to mitigate this. An attendee added that Cambridge's one-way street grid pushes traffic onto Somerville streets because it is an easier navigation for drivers and commented that the team should evaluate narrower lanes, traffic calming, or other ways to discourage this behavior.

An attendee asked if there were any trends noticed comparing new counts to the previous 2008 study and wondered whether specific movements saw an increase in growth. Ms. Clarke explained that for vehicular traffic the biggest increase was to/from Kendall Square area. A comparison of all traffic counts showed there were not consistent trends for growth at other locations between 2008 to 2014 with some movements increasing and some decreasing at inconsistent rates. Ms. Morrison added that there has been a significant growth in bicycle traffic with Somerville now ranking in the Top 5 locations in the US for number of people commuting by bicycle.

An attendee commented how trucks avoid AM/PM peaks and travel late at night (midnight-3 am) which is disruptive to residents. He suggested considering restricting truck hours or discouraging truck traffic by tightening radii of turns to make them not want to use Union Square as a pass-thru route. Another attendee added that there is a "mini-peak" of truck traffic a little after what the regular vehicle AM peak time would be and suggested restricting delivery times to certain hours to ease truck congestion in the Square.

An attendee commented that Boynton Yards development is integral to traffic patterns in the Square and that redevelopment will reconfigure street grid in Boynton making it easier to access, which will cause a rise in traffic. He added that all future growth projection for the Square need to include Boynton as well. Ms. Clarke explained how Parsons Brinckerhoff was on the team to evaluate development alternatives for Boynton Yards and is aware of the potential street grids and traffic projections estimated for development. She explained how the development potential is actually

limited by the amount of traffic that can get into Boynton Yards. An attendee expressed concern with delivery vehicles, including UPS and FedEx, using side streets to circumvent traffic during peak periods.

An attendee commented on how the pedestrian crossing times at Bow/Webster/Somerville intersection are barely sufficient for able bodied users. She suggested more consideration for all types of users needs to be considered when redesigning pedestrian phases. Ms. Clarke explained how the future timings will be based on MUTCD/ADA requirements.

An attendee followed up by asking if there is a possibility of employing concurrent pedestrian phasing with this project and whether some of the changes could be made in the interim. Ms. Clarke explained that concurrent phasing will be considered in the design. Ms. Morrison added that there are current projects going out to bid, including Davis Square and Beacon Street, that the proposed phasing is now concurrent. An attendee pointed out how traffic is currently one-way on Prospect Street NB and when the vehicle movement has a red light and there are no potential conflicts crossing Prospect Street, it still prohibits pedestrian crossing since Union Square has an exclusive pedestrian timing. Ms. Morrison added that there will also be a city-wide mobility study conducted which will look at all traffic lights in the City and make recommendations as to vehicular and pedestrian phasing.

An attendee asked how the team will address accommodating future capacity projections versus actual needs so that we do not turn Union Square into the easy route for more vehicles and trucks to continue using the area as a pass thru and not a destination. He asked if a road diet could be implemented in this area to discourage use. Ms. Clarke explained how growth projections will be used as a starting point, but we definitely want to consider practical design. Ms. Morrison added that we do need to follow a MEPA process, but that the City's intent is not creating wider roaders to accommodate an increase in cut-thru traffic.

An attendee suggested that we need to be flexible with our recommendations. If implementing a two-way Prospect/Webster alternative increases traffic on side streets, we need to be able to recognize that the good idea may not be the best idea. Ms. Morrison responded that we will evaluate potential for cut thru traffic and consider traffic calming devices or peak hour turning restrictions to reduce impacts to residents.

An attendee asked if any consideration will be given to a "shared streets" alternative. Unsignalized squares like Poynton, England have been hugely successful and have similar volumes and usage as Union Square. Ms. Morrison explained that the biggest differences is that Poynton is an isolated community and does not have the impact of being surrounded by an urban area like Somerville does, but the alternative can be considered.

An attendee asked if increased pedestrian movements are being considered coming out of the future MBTA station and whether a potential two-way Prospect Street will be harder to accommodate a safe

crossing for a larger number of pedestrians. Ms. Burckardt explained that the MBTA is still finalizing their station plans but pedestrian accommodations are being planned.

Wrap-Up/Next Steps

Ms. Clarke explained how the next steps included modeling of the sewer and storm drainage requirements, developing concept plans for street improvements including two-way Webster Avenue and Prospect Street, and development of the streetscape design including plaza alternatives. She explained that the next public meeting will be January 2015 to present design alternatives.