

MEETING SUMMARY

SUBJECT: Willard Street Drainage Improvements Project
Community Meeting #3 Summary

DATE: Thursday October 19, 2017; 6:30 – 8:30 PM

LOCATION: Friends Meeting at Cambridge, 5 Longfellow Park, Cambridge MA 02138

1. Presentation Overview

The third Community Meeting for the Willard Street Drainage Improvements Project involved a recap of the first two community meetings and the process that led to the development of the preferred alternative, as well as a detailed review of the elements of the preferred alternative. The meeting was led by Jerry Friedman, Project Manager for Cambridge DPW and Juan Avendano, Traffic Calming Project Manager for the City of Cambridge Community Development Department. Neal Price of Horsley Witten Group provided information on stormwater management techniques and Michael Leckie of Halvorsen Design provided information on green infrastructure and streetscape elements. Items for follow-up are included in **bold text**. A PowerPoint presentation was given (available for viewing at www.cambridgema.gov/theworks/willardstreet) and is attached herewith.

1. Overview and Background

Jerry Friedman reviewed the overall goals for the project for reducing stormwater impacts, noting this investment in infrastructure provides an opportunity to consider surface improvements for the street such as traffic calming and improved sidewalks and landscaping.

2. Watershed Overview & Proposed Stormwater Treatment

Neal Price reviewed the Willard Street watershed area. The watershed requires a 51% phosphorus reduction to reach the Total Maximum Daily Load (TMDL) requirement for the Lower Charles River. Due to the new outfall at the Charles River, stormwater management techniques are needed to clean the water before it enters the river. Treatment could be performed using surface level green infrastructure (GI) and/or underground storage/infiltration or filtering techniques. Green infrastructure is a water treatment technique which mimics natural processes whereby water is absorbed and filtered by soil and plants, and has the added

benefit of providing a visual amenity to the streetscape. It can be less disruptive to install compared to conventional subsurface infrastructure, and also can be less costly to operate and maintain.

Types of GI applications considered for Willard Street include:

- *Tree Trenches:* These could be planted along the west side of Willard Street within the line of existing vegetation. They would add to the existing inventory of street trees and provide water filtration.
- *Bioswales:* These could be installed into the east sidewalk and would collect water directly from the sidewalk as well as from the roadway surface through catch basins.

Note: These features would both be maintained by the City.

The GI and non-GI Alternatives and levels of effectiveness for each of the three design alternatives presented in Community Meeting #2 were presented. It was highlighted that the “One Way NB Traffic w/Bike Lane “B” alternative provides greater phosphorous reduction in comparison to the other alternatives. It was also noted that the Willard Street project in isolation will not be sufficient to treat the stormwater from upstream areas, and so the City will need to take a tiered approach over time to implement stormwater management techniques upstream from Willard Street in order to meet water quality requirements.

3. Review of Prior Meetings & Process

Juan Avendano reviewed the feedback received at Community Meetings #1 and #2. He went through each of the three alternative designs presented at Community Meeting #2 and discussed the extent to which each alternative addresses the community concerns which have been expressed. The additional comments heard at this meeting are incorporated into the Community Discussion section below.

4. Preferred Alternative

Jerry Friedman led the discussion of what the City believes to be the preferred alternative, “One-way NB with Bike Lane,” based on comments heard at the previous two meetings. The key elements of this alternative include:

- One 10-foot travel lane and one 6-foot bike lane, both in the northbound direction. The minimum street curb to curb width must be 16-feet to accommodate fire trucks.
- On-street parking (7 feet wide) is retained on the west side of the street.
- 4-foot sidewalks with a 3-foot wide planting strip on the west side. The planting strip would accommodate both the existing trees, as well as new GI tree trenches. The

sidewalk clearance will be narrowed to 3-feet at certain large trees, which would still be ADA compliant.

- 5-foot sidewalks and a 4-foot bioswale strip on the east side. The sidewalk clearance will be narrowed to 3-feet at certain large trees and at utility poles, which would still be ADA compliant. One accessibility variance would be required at 18 Willard for an existing tree that reduces the sidewalk width below 3-feet.
- Raised side street crossings across Willard Street at Mt. Auburn Street and at Brattle Street, and across Dinsmore Court and Willard Street Court, to prioritize pedestrians and reduce vehicular speeds. Since the side-street crossings are raised, curb ramps at the crossings are not necessary.
- A raised crossing table throughout the intersection of Willard Street at Foster Street to prioritize pedestrians and reduce vehicular speeds, providing traffic calming.
- The intersection of Willard Street at Brattle Street will be improved by moving the stop bar and crosswalk, and removing one parking space, to improve operations and sight lines for left turning vehicles. Moving the crosswalk on Brattle Street further west will improve sight lines.
- The crossing island at Mt. Auburn will be retained as pedestrians find it favorable. As it is likely to be temporarily removed for construction, **the City can explore if the design or location of the island could be further optimized.**

5. Landscape Design

Michael Leckie provide further detail about the additional street trees and green infrastructure options proposed in the preferred alternative. The existing street trees on Willard Street will be maintained and new ones will be added where possible, of various species. Smaller trees will be used where there are overhead utility lines. Tree pits will use structural soil allowing for roots to extend under the sidewalk, reducing the potential for heaving sidewalks and improving the health of the trees. It was noted that tree roots typically only extend as far as the canopy so root encroachment on private property is unlikely. The main goal of mixing tree species will be to enhance the neighborhood feel and assist in the longevity of retaining a consistent tree canopy. The trees will also be salt tolerant, appropriate for narrow conditions, and have low maintenance needs. The shade/shadows and existing trees on private property were also considered in the proposed tree placement to minimize impacts on private gardens.

Bioswales were then reviewed, with a range and plant and flower options discussed. Flowers are likely to be used, providing color and visual interest May to September. The bioswales are snow resistant, allowing snow to be piled on top of them without the plants dying. Plants are chosen for weed prevention and in consideration of adjacent gardens.

Michael then showed two photo-realistic perspectives on Willard Street to illustrate the overall neighborhood feel of the existing and proposed streetscape.

6. Community Discussion

The major issues and concerns discussed throughout the meeting are listed by topic below. Comments relating to the preferred alternative include:

- Two-way vs. One-Way Option
There were mixed opinions about converting Willard Street to one-way northbound. Some attendees were in favor, citing it is the only way to create wider sidewalks, add street trees to improve the streetscape, and have the greatest impact on improving water quality. It is not feasible to add street trees with a two-way option. Others were concerned a one-way street would attract additional northbound traffic, lead to higher traffic speeds, and be an inconvenience, especially when accessing Willard Street from Brattle Street. Several meeting attendees did not have an immediate preference, seeing both sides of the issue.
- Traffic Patterns
Residents expressed concerns that northbound traffic on Willard Street could increase, and it is felt to already be congested during peak periods. The City team responded that based on traffic data and analysis in April 2017, northbound traffic is not expected to increase. The road is already mainly used in the northbound direction due to the existing turn restrictions from Mt. Auburn Street onto other nearby streets. Therefore there does not appear to be a source of additional northbound traffic which would be drawn to Willard Street.
- Bioswales
Meeting attendees would like to see bioswales that use materials to blend into the existing neighborhood, shying away from concrete and modern shapes that are more reflective of more urbanized areas such as Kendall Square than the historic, residential character of Willard Street. The Project Team noted the bioswales will also have to be approved by the Historic Commission and the meetings will be open to the public.

There was also concern over how the bioswales will be integrated into the sidewalk. They will be separated by a curb with 4-6-inch reveal, so pedestrians will not step into them by accident, even though they are depressed. Bioswales are proposed on the eastside to avoid conflicts with passengers existing parked cars from the on-street parking lane proposed on the west side of the street.
- On-street Bike Lane
It was asked why the 6-foot bike lane was not removed in favor of more space dedicated to GI. The bike lane makes up 6-feet of the 16-feet of required roadway space for fire

truck access. If the bike lane were not included, the result would be a very wide (16') travel lane, which would likely result in increased traffic speeds.

- Sidewalk Width

It was asked why the sidewalk cannot be reduced to 3-feet throughout, as that dimension is currently proposed at "pinch points" of existing trees and utility poles. The City team responded that accessibility regulations allow for minimum 3-foot clearances, and/or variances for less than 3-feet, only where existing constraints dictate. The City cannot (and would not), create new constrained sidewalks where they do not currently exist.

- Skating Club Access

The Skating Club is concerned that access from Willard Street will be impeded by the bike lane and bioswale and would like a drop-off area on the east side of the street near Mt. Auburn. The Project team has been in contact with the Skate Club and is reviewing options.

- Raised Crosswalk at Willard Street Court

Residents of Willard Street Court were concerned about the difficulty of backing out of the street, and impacts on their snow removal operations, due to the raised crossing. The project team will review available sight distance and grades.

- Striping

The bike lane will be a painted white line, not a green lane shown in the rendering (for clarity only). The on-street parking may or may not be striped. If it is striped it will break at driveways to ensure access.

- Parking

Two parking spaces are removed closest to Brattle Street to reduce conflicts for turning vehicles at the approach to the intersection. The abutting property owner was in agreement with the removal of these spaces.

Other topics discussed, not directly related to the Willard Street design include:

- Neighborhood Traffic Circulation

Some meeting attendees expressed concerns regarding Willard Street being the only northbound left off Mt. Auburn during peak periods, and the prevalence of one-way streets in the neighborhood.

The City responded that although it is true that Willard Street is impacted by the left-turn restrictions from Mt. Auburn Street, this project can and should be separated from

wider neighborhood traffic circulation issues. If turn restrictions are, in future, modified on other neighborhood streets, both of the Willard St. design options presented (i.e. one-way northbound; and two-way) would still be valid and should therefore be judged on their own merits. **The City will take resident feedback on the left turn restrictions and overall traffic flow to the Department of Traffic, Parking and Transportation (TP&T). A separate process will be needed to reevaluate this issue. Juan and Jerry directed participants to reach out to TP&T with questions on the history of how left turns and one-way streets were put into place.**

- Use of Longfellow Park for Stormwater Management
Residents asked if Longfellow Park could be used to treat stormwater from Willard Street. The City responded that this would not be technically and economically feasible given site topography.
- Green Infrastructure Options
A participant asked if a list of potential GI options could be sent to the neighborhood for their review. **The City will post GI options on the project website.**
- Project Scope
A few meeting attendees expressed concern over how a drainage project turned into a new street design. The City explained that transportation changes were (and are) not the primary goal of the project. Rather, the stormwater and flooding improvements will require the roadway to be substantially disrupted and then reconstructed. In such cases, it is City policy to at a minimum, meet accessible sidewalk requirements, and to offer neighborhood residents an opportunity to make other improvements which improve streetscape conditions and safety for all users.
- Construction Duration
A participant asked if there will be a difference in the duration of construction for the one-way vs. two-way options. The two-way option would likely take longer due to constructing more flood control and stormwater management techniques underground. No timetable has been developed yet for either option.
- Snow Removal
Snow will be plowed as it currently is on Willard Street and piled on the side of the road/edge of the sidewalk. The bioswales can survive snow coverage. Plows will operate on the street with the bike lane as they do currently.
- Public Input Process
There was a desire to hear from more members of the community who have not attended each of the three meetings. **The Project Team will consider supplemental**

outreach strategies to solicit input on design preference from additional members of the community.

7. Schedule and Next Steps

Jerry reviewed the project schedule moving forward. The Project Team will reach out to the broader community to understand the general feeling of residents regarding the preferred alternative. Several permits can continue to move forward before the design is finalized. The final design and permitting is expected to occur during the winter and spring of 2018 with construction beginning tentatively in 2018.

Attachments

cc: Project Team



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Meeting Attendees

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4. Annette LaMond
5. Susan Epstein
6. Amanda Rodriguez
7. Veronica French
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9. Dixie Morse
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