



Legislation Text

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City Council Meeting Date: October 15, 2019

To: Mayor and City Council
City Administrator

From: Sean Simonson, Engineering Manager
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City Council discussion on the 2020 Mill and Overlay Project (Bikeway Concepts and Sidewalks) for the Third Street, Fourth Street and College Street segments.

Action Requested:

The Northfield City Council discusses the 2020 Mill and Overlay Project Bikeway Concepts and Sidewalks for Third Street, Fourth Street, and College Street segments.

Summary Report:

City Council Ordered the Preparation of Feasibility Report for the 2020 Mill and Overlay Project at the August 20, 2019 City Council meeting. With the adoption of the recent City of Northfield Pedestrian, Bike, and Trail System Plan, a number of segments included in the adopted Pedestrian, Bike, and Trail System plan are also included in the 2020 Mill and Overlay Project. Those segments include:

- Third Street from Maple Street to Oak Street (New sidewalk installation - South Side)
- Fourth Street from Nevada Street to Prairie Street (Existing On-Street Bikeway)
- Second Street from Washington Street to Oak Street (Proposed On-Street Bikeway)
- Nevada Street from First Street to Fourth Street (Proposed On-Street Bikeway)
- Eighth Street from Linden Street to Water Street (Proposed On-Street Bikeway)
- Jefferson Road from Hidden Valley Drive to Heritage Drive (Existing On-Street Bikeway)
- Heritage Drive from TH 3 to Hidden Valley Apartments (Proposed On-Street Bikeway)

In addition to the segments noted in the Pedestrian, Bike, and Trail System Plan, City Council approved an additional project scope for the Professional Services Agreement for the 2020 Mill and Overlay Project at the October 1, 2019 City Council meeting. This additional scope included the exploration of a protected bike lane on College Street from First Street to Third Street, replacing the parking on the west side of College Street.

The purpose of this discussion with City Council is to receive direction on the following segments:

- Third Street from Maple Street to Oak Street (New sidewalk installation - South Side)
- Fourth Street from Nevada Street to Prairie Street (Existing On-Street Bike lanes), Local Spur to the Mill Towns State Trail. Should the existing On-Street Bike lanes be converted to a more family friendly bike for a wider age range of users.

- College Street from First Street to Third Street bikeway

The remaining segments listed above will have Staff recommendations brought forth at the time of the Feasibility Report Presentation.

Third Street from Maple Street to Oak Street - Sidewalk Extension (Attachment 2)

Third Street from Maple Street to Oak Street was identified in the Pedestrian, Bike, and Trail System Plan as an identified sidewalk gap. This 38' street section currently has two 8' parking lanes and two 11' drive lanes. Three options are being presented for consideration. They are as followed:

Option #1

Option #1 would include a new 6' wide sidewalk adjacent to the back of curb. The pros for this option include limited tree removal to a certain extent, but tree removal would still occur. Additionally, this option can be constructed within the existing street section; therefore, no curb removals would be required. This option would be the most cost effective method to install the sidewalk. The cons to this option would be the lack of boulevard green space, the lack of snow storage in the winter, and addition of retaining walls to match the existing grade add cost and additional tree conflicts.

Option #2

Option #2 would include a new 5' sidewalk installed 1' off the Right-of-Way (R/W). This is the common location of new sidewalk when installed. The pros to this option would be the increased boulevard space for green space and snow storage. This would also align with the existing sidewalks on either end of the new sidewalk area, and would be constructed in the existing street section. The cons to this would be the numerous tree conflicts to the already established forested area along the proposed sidewalk segment, and the relocation of existing carriage walks and steps to individual properties. Additionally, retaining walls or additional easements may have to be acquired to construct Option #2. This option would be more costly than Option #1.

Option #3

Option #3 would include the removal of the existing curb on the south side of the sidewalk segment, narrowing the existing 38' street to a 32' street. This would allow the installation of a 4' boulevard, along with a new 5' sidewalk. The pros to this option would limit trees, similar to Option #1, but tree removal would still be required. Additionally, the 4' boulevard, although not ideal for snow storage, would provide some snow storage and green space along the entire sidewalk segment. The cons to this option would be the elimination of parking on the south side of the segment, addition of retaining walls, and this option would not fit within the existing street section. This option is estimated to be the most expensive one.

Option #4

This option is just a variation of Option 3, where the 4' boulevard is removed and the sidewalk is pulled up adjacent to the back of curb. This option would nearly eliminate any trees from being removed for the sidewalk installation. This option would align best with the City's Complete Street Policy and Ped/bike Plan.

Option #5

No sidewalk at this time with this Mill and Overlay project. This option would align with the of the resident feedback that we heard from the open house. It also aligns with the City's Complete Streets policy related to topography challenges in this area and tree loss, but doesn't follow the Ped/Bike Plan.

Fourth Street from Nevada Street to Prairie Street - On Street Bikeway (Attachment 3)

Fourth Street from Maple Street to Prairie Street has been designated by City Council as a downtown spur trail from the Mill Towns State Trail. This existing 40' street section segment currently contains on-street bike lanes, with parking allowed on the south side of the segment. Three options are being proposed for this street segment, they are as follows:

Option #1 - On-Street Cycle Track

Option #1 would be an On-Street Cycle Track. This option would include two 11' drive lanes, a 4' striped buffer, and a 12' cycle track. The pros to this option include the design would fit within the existing street section, and would contain a high-visibility cycle track accomplished by applying pavement striping. Additionally, sections to the west of this project segment could easily be converted to this option as well. This would be the most cost effective option as well. The cons to this option would be the lack of a physical barrier between bicyclist and motorist with only a painted buffer, and the removal of parking on the entire segment.

Option #2 - Raised Cycle Track

Option #2 would be a Raised Cycle Track. This option would include two 11' drive lanes, a raised 5' buffer, and a raised 12' cycle track. The pros to this option would include an elevated buffer and cycle track which would be an added safety measure creating a defined buffer between cyclists and motorist. This option would also create a small snow storage area between the street and the cycle track. The cons to this option is that it would not fit within the existing street section. This would require curb removal and replacement along the entire project corridor to make this option work. This option would also not be easily converted on the western sections of Fourth Street outside the project corridor. Additionally, this option would also require the removal of parking, and the relocation of storm sewer along the proposed segment. This option would be more costly than Option #1.

Option #3 - Raised Buffer Cycle Track

Option #3 would be a Raised Buffer Cycle Track. This option would include two 11' drive lanes, an 8' raised buffer, and a 12' cycle track. The pros to this option includes a larger buffer area for snow storage and separation from motorist and bicyclists. This option also adds the option for stormwater

control within the buffer area. The cons to this option is that it would not fit within the existing street section. This option would require the removal of curb along the entire south side of the project segment. It would also require the installation of two additional curbs for the cycle track along the entire project segment. In this option, like Option #2, relocation of storm sewer would also be required, and the elimination of parking would be required to construction Option #3. Tree removals would need to occur along the entire south side of the project segment, although new trees could be installed as part of the project. Finally, this option would not be easily converted on the western section of Fourth Street outside of the current project segment. This option is estimated to be the most expensive option.

College Street from First Street to Third Street - On Street Bikeway (Attachment 4)

The addition of College Street from First Street to Third Street was included at the request of City Council to be evaluated for a protected bike lane and the elimination of parking on the west side of College Street as part of the Additional Project Scope approved at the October 1, 2019 City Council meeting. This existing 38' street section segment currently contains two 7' parking lanes, and two 12' drive lanes. Three options are being proposed for this street segment as well.

Option #1 - On-Street Bike Lanes

Option #1 would be On-Street Bike Lanes. This option would include a 5' bike lane, two 10.5' drive lanes, a 5' bike lane, and a 7' parking lane. The pros to this option is that it fits within the existing street section, and would be the least expensive option. All added amenities would only require pavement striping. The cons to this option include the elimination of a parking lane along the west side of the project segment, and the bicycle lanes adjacent to motorist with no buffer on with bike lane.

Option #2 - On-Street Cycle Track

Option #2 would be an On-Street Cycle Track. This option would include two 10' drive lanes, a 4' striped buffer, and a 12' cycle track. The pros to this option include the design would fit within the existing street section, and would contain a high-visibility cycle track accomplished by applying pavement striping. The cons to this option would be the lack of a physical barrier between bicyclist and motorist with only a painted buffer, and the removal of parking on the entire segment. Additionally, this option would also remove parking along the entire project segment. This option would be slightly more expensive than Option #1.

Option #3 - Raised Cycle Track

Option #3 would be a Raised Cycle Track. This option would include two 11' drive lanes, a raised 5' buffer, and a raised 12' cycle track. The pros to this option would include the elevated buffer and cycle track which would be an added safety measure creating a defined buffer between cyclists and motorist. This option would also create a small snow storage area between the street and the cycle track, maintain parking on the east side of the street and add additional streetscape options along the segment. The con to this option is that it would not fit within the existing street section. This would require curb removal and replacement along the entire project segment to construct this option along with the removal of the

majority of the existing boulevard trees, in which new trees would be planted. Additionally, this option would also require the removal of parking on the west side of the segment. This option would be most costly option.

Staff held a neighborhood meeting on Tuesday October 2, 2019 to discuss the project as a whole. At this meeting, Staff requested feedback on the options listed above, and the project as a whole. Staff also mailed out a questionnaire with the Neighborhood meeting invitation requesting feedback about the upcoming project. Attachment 5 is an overview of the feedback that was received from both the neighborhood meeting, and the questionnaires that were returned.

Alternative Options:

Staff would be open to any additional alternatives City Council may bring forth.

Financial Impacts:

Staff, along with the design Engineer, will develop cost estimates for the recommended options and present them with the Feasibility Report for the project.

Tentative Timelines:

Staff will bring forth the Feasibility Report for approval at the November 5, 2019 City Council meeting (Attachment 6).