

# Memo

To: Mayor Lambert and City Council  
From: Les MacDonald, Public Works Director  
Date: January 30, 2018  
Re: Third Street Corridor Traffic Management Workshop

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The FY2018 budget adopted by the City Council in August 2017 includes funding for the installation of a new multimodal bridge across Paradise Creek at Third Street. This project is consistent with the recommendations of the Multimodal Transportation Plan (MMTP) adopted by the City Council in July 2014. The MMTP recommends that traffic calming measures be installed along the Third Street Corridor in conjunction with the installation of the new bridge to manage anticipated increases in vehicular traffic volumes. After adoption of the FY2018 budget, the Mayor and City Council directed City Staff to implement traffic calming measures within the Corridor concurrent with the construction of the new bridge.

Public Works Department Staff started an assessment of the Corridor including review of existing traffic counts, sidewalk infrastructure, bicycle network opportunities, speed limits, school zones, intersection traffic control, lighting, and adjacent land uses. To assist in this process a request was made to the Transportation Commission to review potential traffic calming measures to identify which could be applied within the Corridor. Due to the short timeframe between the adoption of the budget and the City Council's intention to have the bridge construction in FY2018, a Subcommittee of the Transportation Commission was formed for an intense in-depth review of traffic calming measures. The Subcommittee was comprised of three Transportation Commission members, four members of the public, the City Council liaison to the Commission, an outside technical advisor, and the Public Works Director. A list of the membership of the Subcommittee is attached to this memo for reference. The Subcommittee met eight times over a four week period between the Transportation Commission meetings of November 9<sup>th</sup> and December 14<sup>th</sup>.

One of the first tasks of the Subcommittee was the identification of major issues of interest within the Corridor. A summary of those issues and the final status of discussion regarding them is included in the packet for reference. Based on the issues identified, the

Subcommittee expanded the scope of their work to include many facets of the Corridor beyond simple traffic calming measures. These included the following:

- Speed Limits
- Traffic Volumes
- Sidewalk system completeness
- Bicycle network opportunities
- Street lighting
- Adjacent land use activities such as the High School, 1912 Center, East City Park, Lena Whitmore Elementary School, multifamily housing, etc.
- Traffic Calming measures
- Truck Routes
- Traffic Speed Data
- Accident History
- Noise
- Street Trees

Three plans were created through the work of the Subcommittee and City Staff. While each plan uses different approaches to modifying the Corridor to address identified issues, there are some proposed traffic management features that are consistent among all of the plans. A summary of those features and descriptions of their attributes is attached. A summary of the three plans, which outlines their characteristics, advantages, and disadvantages, is also attached along with a summary of estimated costs for each plan. At the conclusion of the Subcommittee's meetings a report of activities and findings was presented to the Transportation Commission at the December 14<sup>th</sup> meeting. This report included information on the topics discussed, information gathered, and plans developed. The Subcommittee also conveyed a preference for Plan C to the Commission. Plan C proposes the use of Two Way Separated Bike Lanes on the north side of Third Street.

At the December meeting, the Transportation Commission discussed how best to proceed with the information provided by the Subcommittee and the next step of the public input process. The Commission recommended starting the public input period as quickly as possible and desired to let it run long enough to provide ample opportunity after the Holidays to gather input. The January Commission meeting was postponed for two weeks to allow a longer input period. The public input period opened on December 22<sup>nd</sup> and closed on January 21<sup>st</sup>. During this time an exhibit was on display on the second floor of City Hall which included information on the overall process, Subcommittee, traffic calming measures, plan alternatives and features, and the estimated costs for each of the three plans. In addition, similar information was placed on the City's webpage and two Open Houses with additional information were held in the Council Chambers on January 11<sup>th</sup> and 18<sup>th</sup>. Public input was received via comment cards at the City Hall display and Open Houses, emails directed to the Third Street email address, and by hand delivery of information. A summary of all the input received is included in the Council Packet. Also included are three files which contain scans of the original documents received.

The public input data was provided to the Transportation Commission for review prior to their meeting on January 25<sup>th</sup>. At that meeting the Commission discussed the input received, the advantages and disadvantages of each plan, and if the members were comfortable making a recommendation for the City Council. Also discussed were alternative approaches that varied from the three original plans developed by the Subcommittee. Of these alternatives, the one that received the most attention included the concept of standard bike lanes on each side of the Third Street rather than the Two Way Separated Bike Lanes concept in Plan C. For the sake of discussion, this option has been titled Plan D and Staff has created a supporting Plan D drawing. Copies of all four plans are included in the Council packet.

At the Commission meeting, and consistent with the public input received, the least supported plans were A and B. Plan C was considered the front runner, but concerns were expressed over maintenance activities, turning movement conflicts, and general understanding of how to enter and exit the separated lanes. The maintenance concerns primarily related to snow removal and street sweeping. The placement of the lane separation buffer seven to eight feet off the north curb line precludes snow plowing operations from accessing the entire street section and may result in decreased lane widths during heavy snow periods. A memo from the Streets Division of the Public Works Department which addresses the identified issues is attached. Alternative methods of street maintenance have been discussed in depth, but significant challenges remain for operations with the Plan C concept. The issue of turning movements and potential conflicts between bikes in the bike lanes and cars in the vehicle lanes all entering the cross street intersections at the same time caused some consternation for the Commission. A suggestion was made to consider hiring a consulting firm which specializes in bicycle facilities to assess proposed Plan C to determine if it can be implemented in a safe and functional manner. The outcome of this assessment could be used to determine whether the City should pursue the Plan C option. If Plan C is not found to be viable, the alternative conclusion suggested by the Commission would be to implement Plan D with the traditional bike lane configuration. Since all other features of Plans C and D are consistent, this approach would allow work to commence on those features while the assessment of Plan C continued. The Commission supported this concept. In the end, the Commission approved a recommendation to implement Plan C. This recommendation was made with recognition that a full description of the advantages and disadvantages of each plan be presented to the City Council and that an assessment of the viability of Plan C by a consultant would be beneficial.

The Council Workshop is an opportunity for the City Council and Mayor to consider the plans and information developed by the Transportation Commission Subcommittee, the public input received on the proposed plans, and the deliberations and recommendation of the Transportation Commission. Determination of a preferred plan by the Council will allow City Staff to commence design of the associated plan features with the intent to begin construction this summer.

**TRANSPORTATION COMMISSION**  
**THIRD STREET CORRIDOR SUBCOMMITTEE MEMBERSHIP**

November 2017

Transportation Commission Members:

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Philip Cook

Brian Johnson

Public Members:

Becker Gutsch

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Marshall Comstock

Dan Carscallen

Technical Advisor:

Mike Lowry P. E., University of Idaho, Department of Civil Engineering

City Council Liaison:

Kathryn Bonzo

Staff Liaison:

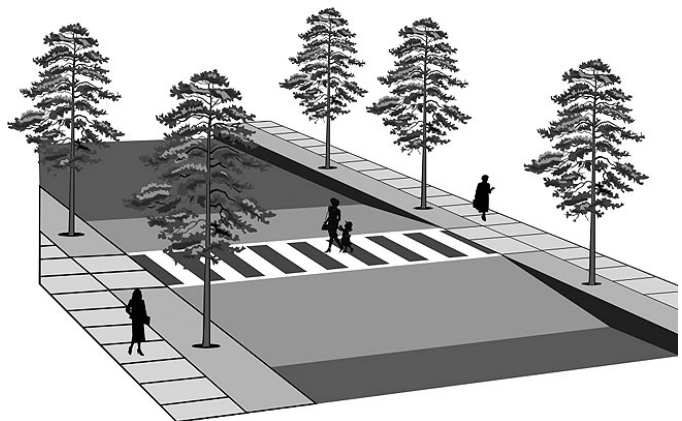
Les MacDonald P. E., Public Works Director

## Overview of Corridor Plan Concepts

The Transportation Commission Subcommittee developed three concepts for improvements to the Corridor which could be made to address changes in traffic patterns anticipated after the construction of the Paradise Creek Bridge. These conceptual plans were titled Plan A, Plan B, and Plan C. While each of the plans have some unique characteristics, there are a number of common features that are shared by all the plans as shown below:

### Features Common to all Plans

- Speed Limits:
  - Set the speed limit at 25 mph from Washington Street to Mountain View Road
    - ✓ *This plan component would reduce the currently posted 30 mph speed limit between Van Buren Street and Hayes Street to 25 mph. This would provide a consistent reduced speed limit throughout the corridor and assist in the management of vehicular speed.*
  
- Time activated warning lights on School Zone signage at two locations:
  - High School Zone
  - Lena Whitmore Elementary School Zone
    - ✓ *This plan component would provide enhanced visual cues to vehicular drivers and bicycles that they are entering a reduced speed zone related to the nearby schools. The intent is to raise awareness of the roadside activities, reduce potential conflicts with pedestrians crossing the streets, and manage vehicular speed.*
  
- Raised Pedestrian Crossings at three locations:
  - Adams Street Intersection (east side) – 10' wide crossing
  - Monroe Street Intersection (east side) – 8' wide crossing
  - Cleveland Street Intersection (west side) – 8' wide crossing



- ✓ *This plan component would provide emphasis on the pedestrian crossings at high pedestrian activity centers such as the High School, Lena Whitmore Elementary School, and East City Park. The raised crosswalks also provide a physical change intended to make drivers aware of their vehicular speed.*

- Intersection Traffic Control:

- Change to Four Way Stop Control at Hayes Street intersection
- Change to Four Way Stop Control at Blaine Street intersection

- ✓ *This plan component would address two separate issues. At the Hayes Street intersection it is anticipated that the traffic volumes on all four legs of the intersection will be similar in*



*scale. Such conditions favor four way stop control to maintain an acceptable level of service on all legs and to reduce overall intersection delay. The Blaine Street intersection is in near proximity to the Lena Whitmore Elementary School and is actively used as a crossing of Third Street by the Elementary School students. The four way stop control at this location will provide better opportunity for drivers to observe pedestrians crossing the roadway.*

- Center Medians:

- Five foot to nine foot wide median starting on east side of the Washington Street intersection and extending east approximately 40 feet, including vertical elements such as lighting and/or signage
- Varied width center median in the lane taper for the left turn pocket on the approach to the Mountain View Road intersection



- ✓ *This plan component would narrow the widest sections of the Corridor to provide visual cues to the drivers that they are entering a congested area and to manage their speed appropriately. The median at Jefferson Street will also provide a pedestrian refuge on the crosswalk, an opportunity to enhance the streetscape with lighting, plantings, or other features, and the message to*

*drivers that they are transitioning from the Central Business District to an institutional and residential portion of the City.*

○ Sidewalks:

- Complete the installation of the sidewalk system on both sides of Third Street by filling gaps in the existing system. These gaps are between the Hayes Street intersection and the Mountain View Road intersection

- ✓ *This plan component would complete the existing sidewalk system so that there would be continuous pedestrian routes on both sides of the Corridor from Mountain View Road to Main Street. This would enhance the ability of pedestrians to navigate the Corridor and reach desired destinations. This would also*



*increase accessibility for the mobility challenged and enhance walking route opportunities for school children at the High School and Elementary School.*

**TRANSPORTATION COMMISSION**  
**THIRD STREET CORRIDOR SUBCOMMITTEE**

December 2017

**SUMMARY OF PLAN ALTERNATIVES**

**Plan A**

- Bike lanes:
    - 6' wide with door zone buffer from Washington Street to Adams Street (south side only)
    - 6' wide Adams Street to Polk Street (south side only)
    - 5' wide with door zone buffer from mid-block east of Blaine Street to Mountain View Road (south side)
    - 5' wide from Blaine Street to Mountain View Road (north side)
  - Parking:
    - Parking from Washington Street to Adams Street (both sides)
    - Parking from Adams Street to Polk Street (north side only)
    - Parking from Polk Street to Paradise Creek east of Roosevelt Street (south side only)
  - Curb Extensions:
    - NW corner of Polk Street
    - SE corner of Polk Street
    - SW corner of Monroe Street
    - SE corner of Monroe Street
    - SW corner of Hayes Street (double extension)
    - SE corner of Hayes Street
    - NW corner of Blaine Street
    - SW corner of Blaine Street (double extension)
    - SE corner of Blaine Street
    - SW corner of Grant Street
    - SE corner of Grant Street
    - SW corner of Cleveland Street
    - SE corner of Cleveland Street
    - SW corner of Roosevelt Street
    - SE corner of Roosevelt Street
- ✓ *Plan A would retain the most parking of all the proposed plans. In the 30' wide street section between Polk Street and one half block east of Blaine Street the parking would*



*remain on the south side of Third Street as currently exists. Bicycles would share the lane with vehicles as is currently the practice. Curb extensions would be constructed at many intersections to provide reduced road width on Third Street. This serves to reduce vehicle speeds, shorten the crosswalk distance for pedestrians, and to bring the pedestrians to the edge of the travel lanes so that view of their presence is not obstructed by vehicles parked on Third Street. The curb extensions would require that bicycles remain in the lane at each intersection where the extensions are installed. Current conditions allow east bound riders to use the parking lane when no cars are present, which is usually the case west of Hayes Street.*

### **Plan B**

- Bike lanes:
  - 6' wide with door zone buffer from Washington Street to Adams Street (south side only)
  - 6' wide Adams Street to Polk Street (south side only)
  - 6' wide from Blaine Street to Grant Street (both sides)
  - 5' wide with door zone buffer from Grant Street to Mountain View Road (north side)
  - 5' wide from Grant Street to Mountain View Road (south side)
- Parking:
  - Parking from Washington Street to Adams Street (both sides)
  - Parking from Adams Street to Lincoln Street (north side only)
  - Parking from Lincoln Street to Blaine Street (south side only)
  - Parking from midblock east of Blaine Street to Grant Street (south side only)
  - Parking from Grant Street to Paradise Creek east of Roosevelt Street (north side only)
- Curb Extensions:
  - NW corner of Polk Street
  - NE corner of Polk Street
  - NW corner of Monroe Street
  - NE corner of Monroe Street
  - NW corner of Lincoln Street
  - SE corner of Lincoln Street
  - SW corner of Hayes Street (double extension)
  - SE corner of Hayes Street
  - NW corner of Blaine Street
  - SW corner of Blaine Street (double extension)
  - SW corner of Grant Street
  - North side of Grant Street
  - NW corner of Cleveland Street

- NE corner of Cleveland Street
- NW corner of Roosevelt Street
- NE corner of Roosevelt Street

- ✓ *Plan B is similar to Plan A and would retain almost as much parking as Plan A. In the 30' wide street section between Polk Street and one half block east of Blaine Street the parking would alternate between the north and south sides of Third Street. The alternating location provides a minor "chicane" feature that requires vehicles to "weave" slightly. This tends to require vehicles to reduce speeds. Bicycles would share the lane with vehicles as is currently the practice. Curb extensions would be constructed at many intersections to provide reduced road width on Third Street. This serves to reduce vehicle speeds, shorten the crosswalk distance for pedestrians, and to bring the pedestrians to the edge of the travel lanes so that view of their presence is not obstructed by vehicles parked on Third Street. The curb extensions would require that bicycles remain in the lane at each intersection where the extensions are installed. Current conditions allow east bound riders to use the parking lane when no cars are present, which is usually the case west of Hayes Street.*

### **Plan C**

- Bike lanes:
  - Separated Bike lanes from Washington Street to Mountain View Road (north side). Width of lanes varies from 3.5' to 5'. Separation buffer is one foot wide with vertical separation elements
- Parking:
  - Parking from Washington Street to Adams Street (both sides)
  - Parking from Adams Street to Polk Street (north side only)
  - No Parking from Polk Street to Blaine Street
  - Parking from midblock east of Blaine Street to Paradise Creek east of Roosevelt Street (south side only)
- Curb Extensions:
  - NW corner of Blaine (on Blaine only)
- ✓ *Plans C and D would retain the least parking of all the proposed plans. In the 30' wide street section between Polk Street and one half block east of Blaine Street all parking would be removed from Third Street. This includes the area between Hayes Street and Blaine Street that currently experiences the most parking use due to the proximity of adjacent apartment complexes. Separated Two Way Bicycle Lanes would be installed along the length of the Corridor from either Washington Street or Jefferson Street to Mountain View Road.*

- ✓ *The relatively narrow proposed bicycle lanes are concerning for some as the arrangement would place west bound bikes and west bound cars on either side of an east bound bike. On the steeper section of the Corridor between Polk Street and Adams Street the lanes widen to four feet each, but the west bound bikes would potentially have much higher speeds. The one foot buffer between the bike lanes and the west bound vehicle lane would contain vertical elements to delineate the buffer and provide more visual barriers between the modes. This option is seen as being the most attractive for the more casual bicycle riders and would provide one of the easiest street grade routes from the Central Business District to Mountain View Road.*
- ✓ *Two significant concerns have been raised about this concept. The first is the impact on maintenance activities related to snow removal and street sweeping. The presence of the buffer seven to eight feet off the north curb line would preclude normal snow removal equipment and street sweeping equipment from clearing/cleaning the bike lanes. In addition, snow removal operations would have to be modified to push all snow from the travel lanes to the south side of the street. Most of the Corridor has tree lawns available for snow storage, but about two and one half blocks east of Hayes Street do not. Relocation of the existing sidewalk to create a tree lawn in this segment may be a necessary addition to the project to remedy this situation (not reflected in costs estimates below). Heavy snow events could result in reduced vehicle lane widths (starting at 11') due to the inability of the snow removal equipment to be operated directly at the edge of the buffer. This could have a detrimental impact upon vehicle travel including school busses. The second significant concern identified relates to the unfamiliarity of drivers and cyclists with how to navigate intersections that have two way bike lanes next to two way vehicular lanes when making turning movements. The issues of who has right of way, visibility of bicycles to drivers, and overall safety of more complex intersections complicate the viability of this option.*

#### **Plan D**

- Bike lanes:
  - 6' wide with door zone buffer from Washington Street to Adams Street (south side only)
  - 6' wide Adams Street to Polk Street (south side only)
  - 4' wide Polk Street to Blaine Street (both sides)
  - 5' wide with door zone buffer from mid-block east of Blaine Street to Mountain View Road (south side)
  - 5' wide from Blaine Street to Mountain View Road (north side)
- Parking:
  - Parking from Washington Street to Adams Street (both sides)
  - Parking from Adams Street to Polk Street (north side only)
  - No Parking from Polk Street to Blaine Street

- Parking from mid-block east of Blaine Street to Paradise Creek east of Roosevelt Street (south side only)
  - Curb Extensions:
    - NW corner of Blaine (on Blaine only)
- ✓ *Plans C and D would retain the least parking of all the proposed plans. In the 30' wide street section between Polk Street and one half block east of Blaine Street all parking would be removed from Third Street. This includes the area between Hayes Street and Blaine Street that currently experiences the most parking use due to the proximity of adjacent apartment complexes.*
- ✓ *Bicycle Lanes would be installed on each side of Third Street along the length of the Corridor from Jefferson Street to Mountain View Road with the exception of the north side west of Polk Street. The west bound bicycle traffic would share the lane on the downhill section west of Polk Street to Jefferson Street. In this Plan all bicycle traffic would be flowing in the same direction as the adjacent vehicular travel lane. Some reduction in attractiveness of the route for the casual cyclist is anticipated, but the use of standard bicycle lanes is consistent with the City's adopted Street Standards for Collector and Minor Arterial class streets.*
- ✓ *Maintenance issues identified with Plan C would be resolved with Plan D as there would be no bike lane buffer and no vertical elements installed. Snow removal and street sweeping operations would continue as they are currently performed.*
- ✓ *Some reduction in traffic calming may occur in Plan D as compared to Plan C, but the traffic management features common to all the plans would be implemented in Plan D as well. The reduction in vehicular lane width from current conditions to a continuously striped 11' width will provide some traffic calming benefits.*

**Preliminary Estimated Project Costs\***

Component	Plan A	Plan B	Plan C
Construction Subtotal	\$339,120	\$355,320	\$196,985
Construction Contingency (20%)	\$67,824	\$71,064	\$39,397
Construction Total	\$406,944	\$426,384	\$236,382
Design & Construction Management (15%)	\$61,042	\$63,958	\$35,457
<b>Project Total</b>	<b>\$467,986</b>	<b>\$490,342</b>	<b>\$271,839</b>

\*An estimated project cost has not yet been prepared for Plan D.



# Memo

**To:** Tyler Palmer, Deputy Director-Operations  
Les MacDonald, Public Works Director

**From:** Steven Schulte, Streets Supervisor

**Cc:** Kevin Lilly, Deputy Director-Engineering

**Date:** 12/20/2017

**Re:** Third Street Traffic Calming Maintenance Considerations

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Gentlemen,

As requested, my Staff and I have conducted a maintenance review of the proposals generated by the Transportation Commission Task Force, and have prepared comments based on said review. We appreciate the opportunity to contribute our perspective to this important process, as the lifecycle costs of any facility are drastically influenced by the long-term operation and maintenance investments.

Plans A and B are similar from a maintenance perspective in that they create some challenges, and additional input of labor. The increase is most acutely experienced in the increase in pavement markings, especially with this being a higher-traffic, high-visibility area. We are a small crew, and pride ourselves on working effectively and efficiently, but we are truly close to saturation with our current available labor hours, and already commit 15-20% of our available construction season labor hours to traffic markings.

The bulb-outs in these two options present some challenges for plowing, and sweeping, as anything that disrupts straight-line operations has a negative impact on efficiency. Other minor considerations are the continued maintenance of flashing signals, and the impact of median islands on our ability to berm and remove snow from Washington to Van Buren.

Plan C presents some unique maintenance challenges in addition to the items covered in the previous paragraphs. The following are the specific items to Plan C generated in the review process:

1. Placement of garbage and recycling bins for collection could prove challenging.

2. The narrow bike lane, and physical buffer, would present challenges for sweeping. This would likely require special equipment, and additional man hours to maintain at an acceptable level of cleanliness. Sweeping is, and will increasingly be, a critical component in maintaining storm water quality.
3. Snow removal in the cycle track lane will be difficult and the Street Dept. does not have equipment capable of performing this task. Snow storage is also limited. Also, we will be unable to run a snow gate equipped plow along the North curb-line, which will impact the historic level of service.
4. Snow removal for the vehicle lanes is a concern throughout the entirety of the corridor. The following is a rundown based on section width:
  - a. Main to Washington- Snow on the north sidewalk and cycle track is isolated from the roadway and the furniture zone lacks the storage room for a normal winter. I am not sure how we would remove it without requiring a considerable change to our snow removal program.
  - b. Washington to Jefferson- This block may have enough room in the middle for a snow berm but it will be snug.
  - c. Jefferson to Adams- This block has 42' of plow-able width and 24' of driving lane. Our snow berm is generally about 6' wide leaving 9' of drive lane per side.
  - d. Adams to Polk - 22' of driving lane does not leave room for snow berm in the middle as we have historically done. One idea was to push all of the snow to the south side and try to put it on the green strip. This would be challenging and there are multiple driveways.
  - e. Polk to Hayes – All snow would need to be plowed to the south side green strip but there is also the issue of driveways/alleys that would be blocked.
  - f. Hayes to Grant- Maintenance along this stretch is highly challenging. There is not enough room to store the snow and keep two lanes of traffic open due to the bikes on one side and a sidewalk on the other. This narrow section also limits the potential of building a center berm as there still wouldn't be enough room for vehicles. We will continue to look for potential alternatives for this section.
  - g. Grant to Mountain View- This last section may have enough room for snow storage along both sides however the south side parking may be too dense to allow for much room.

Please let me know if you have any additional questions or would like any clarifications.

Regards,

Steve Schulte