# NEIGHBORHOOD GREENWAY ASSESSMENT 

November 3, 2022

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## Executive Summary

This memo summarizes the results of analysis, engagement, and design work to assess the potential for a neighborhood greenway running north-south through Spokane's West Central neighborhood and connecting the Centennial Trail to Cannon Park and other local destinations (see Figure 1). Two possible corridors were evaluated: Chestnut St / Belt St and Elm St. The total length for each corridor would be approximately 0.7 miles. This memo provides an overview of the street widths, parking regulations, traffic volumes, speeds, design considerations, and stakeholder feedback in order to weigh the suitability of each corridor for a neighborhood greenway treatment. It then discusses the revised proposal for the two corridors that was developed in response to public feedback, which includes neighborhood greenway bicycle improvements on Elm St as well as pedestrian improvements at key locations along Chestnut St.

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Figure 1: Neighborhood Greenway Context Map


## EXISTING CONDITIONS REVIEW

This section provides an overview of existing along Chestnut St and Elm St, including street widths, parking use and regulations, traffic volumes, and speed data.

## Street Widths \& Parking Regulations

Chestnut St measures approximately 19-20 ft curb face to curb face. Parking is generally not permitted, with the exception of the east side of the street between Bridge Ave and College Ave, where parking is allowed.

Figure 2: Cyclist riding on Chestnut St adjacent to Dutch Jake's Park


Belt St is approximately 31 ft wide curb face to curb face and parking is allowed on both sides. The northernmost block approaching Maxwell Ave/Pettet Drive widens to approximately 45 ft with curb extensions narrowing that width back down to 30-35 ft at either end.

Figure 3: Belt St at Sinto Ave, looking north


Elm St measures $34-36 \mathrm{ft}$ curb face to curb face. Existing curb extensions at Bridge Ave and Summit Pkwy bring the width down to 28 ft . Parking is permitted on both sides of the street.

Figure 4: Elm St approaching Boone Ave, looking south


Either route would require a short (roughly 100 ft ) jog along Boone Ave, since both streets are offset at this intersection. Boone Ave is approximately 40 ft wide with parking on both sides. However, on the majority of Boone Ave between Chestnut St and Belt St, as well as the offset portions of Elm St, parking is not allowed on either side of the street, with the exception of two spots on the south side of Boone Ave between the north and south legs of Elm St.

## Parking Use

Staff conducted a survey of street parking use along the corridors at four points in time:

- 5pm on Wednesday, May 18, 2022
- 12 pm on Tuesday, May 24, 2022
- 7am on Tuesday, May 24, 2022
- 12pm on Tuesday, June 7, 2022

The results of these surveys are discussed in Parking Impacts subsection of the subsequent Design Elements section.

## Traffic Counts

Traffic counts were collected at four locations:

1. Chestnut St, between Boone Ave \& Broadway Ave
2. Belt St, between Boone Ave \& Maxwell Ave
3. Elm St, between Broadway Ave \& Boone Ave
4. Elm St, between Boone Ave \& Maxwell Ave

Motor vehicle volumes were collected for a four-day period from Wednesday July $28^{\text {th }}$ to Saturday July $31^{\text {st }}$, 2021, using pneumatic tubes. Bicycle and pedestrian volumes were observed from $6 \mathrm{am}-8 \mathrm{pm}$ on Thursday, July $29^{\text {th }}$. The table below summarizes average volumes at each location by travel mode, between 6am and 8 pm , as well as the peak hour and peak hour volume in (parentheses). Where two hours were tied for peak volumes, the hour whose adjacent volumes were higher was chosen.

Table 1: Summary of traffic volumes by location, 6am-8pm (with peak hour and peak volumes in parentheses)

| Location | Bicycle | Pedestrian | Cars \& Motorcycles | Trucks \& Buses |
| :--- | :---: | :---: | :---: | :---: |
| Chestnut St, between Boone | 33 | 95 | 296 | 28 |
| Ave \& Broadway Ave | $(7-8 \mathrm{am}: 7)$ | $(2-3 \mathrm{pm}: 15)$ | $(5-6 \mathrm{pm}: 28)$ | $(11 \mathrm{am}-12 \mathrm{pm}: 4)$ |
| Belt St, between Boone Ave \& | 64 | 83 | 1527 | 226 |
| Maxwell Ave | $(8-9 \mathrm{am}: 9)$ | $(7-8 \mathrm{am}: 13)$ | $(4-5 \mathrm{pm}: 148)$ | $(1-2 \mathrm{pm}: 20)$ |
| Elm St, between Broadway | 48 | 84 | 501 | 35 |
| Ave \& Boone Ave | $(10-11 \mathrm{am}: 6)$ | $(8-9 \mathrm{am}: 12)$ | $(12-1 \mathrm{pm}: 47)$ | $(8-9 \mathrm{am}: 5)$ |
| Elm St, between Boone Ave \& | 30 | 25 | 265 | 20 |
| Maxwell Ave | $(1-2 \mathrm{pm}: 5)$ | $(2-3 \mathrm{pm}: 6)$ | $(4-5 \mathrm{pm}: 28)$ | $(5-6 \mathrm{pm}: 3)$ |

Bicycles represent roughly 9\% of the overall vehicular traffic on Chestnut St, 4\% on Elm St, and 8-10\% on Elm St. The chart below shows northbound versus southbound vehicular volumes on each street as a daily ( 24 hour) mid-week average.

Table 2: Summary of traffic volumes (24 hour, mid-week average) by travel direction

| Location | Northbound | Southbound | Total |
| :---: | :---: | :---: | :---: |
| Chestnut St, between Broadway Ave \& Boone Ave | $\begin{gathered} 219 \\ (53 \%) \end{gathered}$ | $\begin{gathered} 196 \\ (47 \%) \end{gathered}$ | 415 |
| Belt St, between Boone Ave \& Maxwell Ave | $\begin{aligned} & 1038 \\ & (48 \%) \end{aligned}$ | $\begin{aligned} & 1136 \\ & (52 \%) \end{aligned}$ | 2174 |
| Elm St, between Broadway Ave \& Boone Ave | $\begin{gathered} 426 \\ (61 \%) \end{gathered}$ | $\begin{gathered} 272 \\ (39 \%) \end{gathered}$ | 698 |
| Elm St, between Boone Ave \& Maxwell Ave | $\begin{gathered} 205 \\ (51 \%) \end{gathered}$ | $\begin{gathered} 195 \\ (49 \%) \end{gathered}$ | 400 |

The traffic counts collected do not indicate a significant difference between northbound and southbound traffic volumes, with the exception of Elm St between Broadway Ave and Boone Ave, where the traffic counts collected suggest a higher volume of northbound traffic relative to southbound.

## Speed Data

The pneumatic tubes also collected approximate speed data for each corridor. Speeds are summarized in the table below.
Table 3: Summary of speeds by location

| Location | Median <br> Speed | $85^{\text {th }}$ <br> Percentile | $>25 \mathrm{MPH}$ | $>35 \mathrm{MPH}$ |
| :--- | :---: | :---: | :---: | :---: |
| Chestnut St, between <br> Broadway Ave \& Boone Ave | 18.9 | 22.2 | 72 | 2 |
| Belt St, between Boone Ave \& | 20.5 | 24.8 | $(4.4 \%)$ | $(0.1 \%)$ |
| Maxwell Ave |  |  | $(14.7 \%)$ | $(0.3 \%)$ |
| Elm St, between Broadway | 20.1 | 24.0 | 265 | 23 |
| Ave \& Boone Ave |  |  | $(10.2 \%)$ | $(0.1 \%)$ |
| Elm St, between Boone Ave \& | 18.5 | 23.3 | 115 | 4 |
| Maxwell Ave |  |  | $(7.9 \%)$ | $(0.3 \%)$ |

## DESIGN ELEMENTS

## Route Planning + Volume Management

In order for a neighborhood greenway to effectively provide a convenient, low-stress connection it must offer a continuous and direct route along low-traffic streets with safe crossings at major streets. Guidance from the National Association of City Transportation Officials (NACTO) suggests a strict target of fewer than 3,000 motor vehicles per day, with a preferred target of 1,500 . In the existing condition, none of the corridors exceed NACTO's volume threshold, but Belt St does exceed the preferred threshold.

On Chestnut St, a large refuge island at Broadway Ave would reduce volumes by diverting northbound traffic to turn onto Broadway rather than continuing straight. The proposed design on Elm St does not include any additional volume management but would likely still see reduce motor vehicle use due to the lower vehicle design speed.

## Speed Management

NACTO recommends an 85 th percentile speed of no more than 25 mph ( 20 mph preferred) for neighborhood greenways. None of the four locations studied had $85^{\text {th }}$ percentile speeds above NACTO's threshold, but all of them were above the 20 mph preferred speed. Additional traffic calming would help bring $85^{\text {th }}$ percentile speeds closer to or below that preferred threshold. After installing the proposed traffic calming treatments, the City may also consider lowering the posted speed limit to 20 mph . For each corridor, a different speed management strategy has been proposed.

Allowing on-street parking in certain locations along the west side of Chestnut St (which already exists between Bridge Ave and College Ave) could further calm traffic, creating a natural chicane that forces vehicles to make lateral shifts. Speed humps could also be added if speeds remain above the preferred threshold.

On Elm St, traffic circles would be the primary speed management strategy, slowing down vehicles as they navigate the intersection with each cross street. Speed humps could also be added mid-block if speeds remain above the preferred threshold.

Figure 5: Example of a neighborhood traffic circle at Madison St and Montgomery Ave in Spokane


Signs and Pavement Markings
Signs and pavement markings reinforce street prioritization of bike travel and provide wayfinding for users. The following signage and marking treatments are recommended along Elm St:

- Modified street name signs that brand the route without requiring additional signage. The signs could include a bicycle symbol and/or a modified background color (see Figure 6)
- Bicycle wayfinding signs that guide users through jogs in the route and provides information about the direction and travel distance/time to key destinations and connecting bikeways (see Figure 7)
- Shared lane markings that provide wayfinding through jogs and encourages safe lane positioning for bicyclists
- Green intersection conflict markings where the corridors cross major roadways (i.e. Maxwell Ave, Boone Ave, and Broadway Ave)

Figure 6: Examples of modified street name signs along neighborhood greenways from Berkeley, CA (left) and Madison, WI (right) (Photos: NACTO)


Figure 7: Example of wayfinding signage and markings along neighborhood greenway in Bellingham, WA


## Crossings

In order to facilitate safe crossings for bicyclists as well as pedestrians, Rectangular Rapid Flashing Beacons (RRFBs) are tentatively proposed where Elm St and Chestnut St cross Boone Ave and Broadway Ave. ${ }^{1}$ Additional data on traffic speeds and volumes for Boone Ave and Broadway Ave is needed to determine whether these crossings are good candidates for RRFBs or other enhanced crossing treatments. If included, RRFBs on Elm St should include push buttons on the sidewalk for pedestrians and curbside for cyclists. ${ }^{2}$

The proposed design includes new marked crosswalks at all street crossings along Chestnut St and Belt St as well as select locations along Elm St (Summit Parkway, Broadway Ave, Boone Ave and Maxwell Ave. Pedestrian refuge island and/or median tip extensions are proposed at five locations along Belt St, Chestnut St, and Elm St (see Table 4).

Figure 8: Proposed design for the intersection of Elm St and Broadway Ave, including refuge islands, curb extensions, RRFBs, marked crosswalks, and bike conflict markings


[^0]Proposed curb extensions shorten crossings at several locations along both corridors. The proposal for Chestnut St at Broadway Ave also includes a raised intersection, designed to create a safer, more accessible crossing and creating a plazalike design adjacent to Dutch Jake's Park (see Figure 9).

Figure 9: Proposed design for Chestnut St and Broadway Ave, including a median refuge island and diverter, a raised intersection, curb extensions, marked crosswalks, and RRFBs


Intersection treatments across the project area are summarized in the table below.
Table 4: Summary of proposed intersection treatments by location

| Location | Marked Crosswalks | Bike Conflict <br> Markings <br> ("Crossbike") | Refuge <br> Island / <br> Median Tip <br> Extension | Curb <br> Extensions | Traffic Circle | RRFB |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Belt St at Maxwell Ave | X |  | X |  |  |  |
| Belt St at Sinto Ave | X |  |  |  |  |  |
| Belt St at Sharp Ave | X |  |  |  |  |  |
| Chestnut St at Boone Ave | X |  |  | X |  | X |
| Chestnut St at Gardner Ave | X |  |  |  |  |  |
| Chestnut St At Dean Ave | X |  |  |  |  |  |
| Chestnut St at Mallon Ave | X |  |  |  |  |  |
| Chestnut St at Broadway | X |  | X | X |  | X |
| Chestnut St at College Ave | X |  |  | X |  |  |
| Chestnut St at Bridge Ave | X |  |  | X |  |  |
| Elm St at Maxwell Ave | X | X | X |  |  |  |
| Elm St at Sinto Ave |  |  |  |  | X |  |
| Elm St at Sharp Ave |  |  |  |  | X |  |
| Elm St at Boone Ave | X | X |  | X |  | X |
| Elm St at Gardner Ave |  |  |  |  | X |  |
| Elm St at Dean Ave |  |  |  |  | X |  |
| Elm St at Mallon Ave |  |  |  |  | X |  |
| Elm St at Broadway Ave | X | X | X | X |  | X |
| Elm St at College Ave |  |  |  |  | X |  |
| Elm St at Bridge Ave |  |  |  |  | X |  |
| Elm St at Summit Pkwy | X |  | X |  |  |  |

## Offset Crossings

Both the Chestnut St / Belt St and Elm St routes would include an offset crossing at Boone Ave. On Elm St, the proposed design for the offset crossing at Boone Ave includes two buffered curbside lanes along Boone Ave that connect to green "crossbike" markings with RRFBs (see Figure 10). The City will need to complete a detailed crosswalk analysis looking at volumes and crossing distance to confirm the need for an RRFB.

Figure 10: Proposed design for offset intersection at Elm St and Boone Ave


## Landscaping and Green Infrastructure

The design does not get into detail about potential landscaping and green infrastructure but many of the proposed curb extensions and refuge islands would create opportunities both for ornamental plantings and for stormwater management. Green infrastructure could capture and filter stormwater, mitigating flood risk and reducing the quantity of polluted runoff that reaches sewers and local waterways. Vegetation should be managed to ensure proper visibility at pedestrian crossings. Shrubs and ground plantings should be no higher than 1 ft 6 in . Consistent with public comments, increasing the number of street trees along Elm St is also recommended. Street trees have been found to reduce speeding and increase perceptions of safety along with many other benefits. ${ }^{3}$

Figure 11: Example of a curb extension with green stormwater infrastructure in Bellingham, WA


[^1]
## Parking Impacts

Table 5 below summarize the average observed parking use for locations where parking may be removed as part of the revised proposal.

Table 5: Average observed parking use along the two corridors and approximate parking loss under the revised design proposal

| Elm St | East Side <br> Used / Available | West Side Used / Available | Approximate <br> Parking Loss | Notes / Assumptions |
| :---: | :---: | :---: | :---: | :---: |
| Maxwell Ave to Sinto Ave | 2 / 8 | $1 / 7$ | 3 | Proposed traffic circle |
| Sinto Ave to Sharp Ave | 4 / 10 | 2 / 11 | 5 | Proposed traffic circle |
| Sharp Ave to Boone Ave | $3 / 10$ | 2 / 10 | 3 | Proposed traffic circle |
| Boone Ave to Gardner Ave | $3 / 9$ | 2 / 10 | 2 | Proposed traffic circle |
| Gardner Ave to Dean Ave | 2 / 13 | 6 / 13 | 4 | Proposed traffic circle |
| Dean Ave to Mallon Ave | $2 / 9$ | $3 / 9$ | 5 | Proposed traffic circle |
| Mallon Ave to Broadway Ave | $1 / 11$ | 1 / 11 | 7 | Proposed traffic circle |
| Broadway Ave to College Ave | 1 / 10 | $0 / 8$ | 7 | Proposed traffic circle |
| College Ave to Bridge Ave | $0 / 9$ | $1 / 9$ | 6 | Proposed traffic circle |
| Bridge Ave to Summit Pkwy | N/A (no removal) | N/A (no removal) | 0 | Assuming no parking inside pinch point |


| Boone Ave | North Side | South Side | Approximate <br> Parking Loss | Assumptions |
| :---: | :---: | :---: | :---: | :---: |
| Elm St to Elm St | N/A (no parking) | $2 / 3$ | 3 | Proposed curbside bike lanes |
| Chestnut St to Belt St | N/A (no parking) | N/A (no parking | 0 | No parking loss with either proposal |
| Belt St | East Side | West Side | Approximate <br> Parking Loss | Assumptions |
| Maxwell Ave to Sinto Ave | $0 / 11$ | N/A (no removal) | 0 | No parking loss with revised proposal (previously 8 spots lost) |
| Sinto Ave to Sharp Ave | $1 / 12$ | $1 / 12$ | 0 | No parking loss with revised proposal (previously 23 spots lost) |
| Sharp Ave to Boone Ave | 1 / 10 | $0 / 7$ | 0 | No parking loss with revised proposal (previously 18 spots lost) |
| Chestnut St | East Side | West Side | Approximate <br> Parking Loss | Assumptions |
| College Ave to Bridge Ave | 5 / 10 | N/A | 0 | No parking loss with revised proposal (previously 3 spots lost) |

Under the original proposal, the two proposed alignments repurposed comparable amounts of on-street parking: approximately 52 spots for the Chestnut St / Belt St alternative and approximately 45 spots for the Elm St alternative. The revised proposal involves the same parking changes along Elm St, but little to no parking loss along Chestnut St / Belt St. Table 6 below further breaks down the observed parking use by time of day and applies the approximate parking loss to show the percent of parking that would be occupied under the revised proposed condition.

Table 6: Average observed parking use along the two corridors in the existing and proposed configurations

|  | Approximate <br> Parking Loss ${ }^{4}$ | Existing Parking Utilization (Current Conditions) |  |  | Future Parking Utilization (Revised Proposal) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | AM | Midday | PM | AM | Midday | PM |
| Elm St |  | Both Sides |  |  | Both Sides |  |  |
| Maxwell Ave to Sinto Ave | 3 | 0\% | 23\% | 47\% | 0\% | 29\% | 58\% |
| Sinto Ave to Sharp Ave | 5 | 24\% | 21\% | 24\% | $31 \%$ | 28\% | 31\% |
| Sharp Ave to Boone Ave | 3 | 10\% | 23\% | 30\% | 12\% | 26\% | 35\% |
| Boone Ave to Gardner Ave | 2 | 26\% | 24\% | 16\% | 29\% | 26\% | 18\% |
| Gardner Ave to Dean Ave | 4 | 38\% | 37\% | 31\% | 45\% | 43\% | 36\% |
| Dean Ave to Mallon Ave | 5 | 22\% | 17\% | 22\% | $31 \%$ | 23\% | 31\% |
| Mallon Ave to Broadway Ave | 7 | 9\% | 5\% | 9\% | 13\% | 7\% | 13\% |
| Broadway Ave to College Ave | 7 | 6\% | 6\% | 6\% | 9\% | 9\% | 9\% |
| College Ave to Bridge Ave | 6 | 6\% | 6\% | 6\% | 8\% | 8\% | 8\% |
| Bridge Ave to Summit Pkwy | 0 | N/A |  |  | N/A |  |  |
|  |  | AM | Midday | PM | AM | Midday | PM |
| Boone Ave |  | Both Sides |  |  | Both Sides |  |  |
| Elm St to Elm St | 3 | 67\% | 67\% | 100\% | Nearby parking ${ }^{5}$ |  |  |
| Chestnut St to Belt St | 0 | N/A |  |  | N/A |  |  |
|  |  | AM | Midday | PM | AM | Midday | PM |
| Belt St |  | Both Sides |  |  | Both Sides |  |  |
| Maxwell Ave to Sinto Ave | 0 | 5\% | 3\% | 0\% | 5\% | 3\% | 0\% |

[^2]|  | Approximate <br> Parking Loss ${ }^{4}$ | Existing Parking Utilization (Current Conditions) |  |  | Future Parking Utilization (Revised Proposal) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sinto Ave to Sharp Ave | 0 | 9\% | 0\% | 13\% | 9\% | 0\% | 13\% |
| Sharp Ave to Boone Ave | 0 | 6\% | 3\% | 6\% | 6\% | 3\% | 6\% |
|  |  | AM | Midday | PM | AM | Midday | PM |
| Chestnut St |  |  | Both Sid |  |  | Both Side |  |
| College Ave to Bridge Ave | 0 | 30\% | 35\% | 50\% | 30\% | 35\% | 50\% |
| Corridor-Wide |  | 16\% | 15\% | 20\% | 19\% | 19\% | 24\% |

Across the two corridors, the proposed greenway and pedestrian safety treatments would preserve ample on-street parking for neighborhood residents and visitors to find spots near their homes.

## PUBLIC AND STAKEHOLDER ENGAGEMENT

## Phase One

During the first phase of public engagement, comments were collected using an online mapping portal. The table below details the comments received through the Community Comments Map. Two dozen comments were received from various local organizations and individuals. Table 7 below includes all of the comments received via the Map.

Table 7: Comments received through the Community Comments Map

| Location | Comments | Commenter |
| :---: | :---: | :---: |
| Belt St at Pettet Dr / Maxwell Ave | Would like to see the greenway crossing narrow the street width here with curb extensions. | West Central Neighborhood Council |
| Belt St at Pettet Dr / Maxwell Ave | Concerned primarily about having maintenance plans for any landscaping improvements associated with the project. This location is currently landscaped but doesn't receive maintenance. | West Central <br> Neighborhood Council |
| Cannon Park | Would like to see the greenway extend north here along the existing swale to connect with Belt Street north of the West Central Community Center. | West Central <br> Neighborhood Council |
| Chestnut St | This project should focus on creating a greenbelt/linear park on Chestnut | REACH West Central |
| Chestnut St | Consider removing car traffic entirely from Chestnut, except for residential access and access to alleyways for residents. | REACH West Central |
| Chestnut St at Boone Ave | Would like to see the greenway route extend through the Bong's parking lot along the previous Chestnut right-of-way/alleyway, rather than going on Belt. | West Central <br> Neighborhood Council |
| Chestnut St at Boone Ave | Important location for improving the crossing design for walking. | REACH West Central |
| Chestnut St at Boone Ave | Need Crossing improvements at Broadway and Boone on Chestnut. The park and businesses bring many pedestrians up and down Chestnut, but motorists on the Broadway and Boone rarely yield | WC Neighborhood Residents |
| Chestnut St at Bridge Ave | Critical to work with property owners here to discuss possibilities, and whether increased walk/bike traffic is desirable on this block and south of Summit Parkway. | Kendall Yards HOA |
| Chestnut St at Broadway Ave | Critical location for improving crosswalk safety for kids and families. This is the core of the greenway. | West Central Neighborhood Council |
| Chestnut St at Broadway Ave | Improve visibility, slow down crossing traffic on Broadway | West Central Neighborhood Council |


| Chestnut St at Dean Ave | This is a popular walking route and destination at Dean, with poor visibility to see traffic crossing Chestnut at Dean. | REACH West Central |
| :---: | :---: | :---: |
| Chestnut St at Dean Ave | Important corner for community gathering, would like to see the linear park included here on Chestnut at Dean. | REACH West Central |
| Chestnut St at Gardner Ave | Pedestrians and Cyclists needs solutions on Chestnut. Dean is wide enough but Chestnut connects more of the heart of WC- Dutch Jake, Made with Love, Bongs, Doyle's to the WC community center | WC Neighborhood Residents |
| Chestnut St at Gardner Ave | Chestnut would be safest if turned into a true greenway with one-way for traffic. The parks and businesses draw pedestrians along Chestnut and cars drive far too fast down a road that is already too narrow | WC Neighborhood Residents |
| Chestnut St at Mallon Ave | Can we put a traffic calming circle here? | Kirstin |
| Chestnut St btwn Broadway Ave and College Ave | Treat this section of Chestnut as the core of the project, to extend a park-like design and atmosphere into the street | West Central <br> Neighborhood Council |
| Elm St | Elm Street is more appropriate for people bicycling and the greenway should be put on Elm as it already connects directly with the Centennial Trail. | Kendall Yards HOA |
| Elm St | Elm is already fine for biking and doesn't need much improvement. Would rather see improvements on Chestnut. | West Central Neighborhood Council |
| Elm St at Boone Ave | Key location to improve crossing safety | West Central <br> Neighborhood Council |
| Elm St at Broadway Ave | Need to improve crossing treatments at Broadway if Elm was selected. | West Central Neighborhood Council |
| Elm St at Centennial Trail | Elm is a better option because it connects directly with the Centennial Trail here and is wider, allowing more space for bikes and cars to share the road. | Kendall Yards HOA |
| Elm St at Dean St | Slow speeds of traffic crossing Elm on Dean, improve visibility of people crossing Dean from bend in the road. Cars speed through here. | REACH West Central |
| Elm St at Maxwell Ave | Existing pedestrian median doesn't seem to help a lot for people walking and bicycling, would like to see a more robust improvement. | West Central <br> Neighborhood Council |

Most commenters favored Chestnut St /Belt St for the neighborhood greenway connection. They pointed to the many neighborhood destinations along Chestnut St and the need to improve visibility at crossings. There was a desire to create a more park-like design with plantings and traffic calming, particularly adjacent to Dutch Jake's Park.

The one stakeholder who favored Elm St for the greenway was the Kendall Yards HOA, who cited it's direct connection to the Centennial Trail and greater width. They expressed concerns about the possibility of routing the greenway through the garden box path south of Bridge Ave.

During the first phase of public engagement, the project team also met with several local stakeholder groups:

- The West Central Neighborhood Council noted that many destinations are on Chestnut St and there is more desire and opportunities for Placemaking. They noted that Elm St is already relatively good for biking and doesn't connect to many neighborhood destinations.
- The Kendal Yards HOA expressed concern about losing semi-private space in peoples front yards if a path were constructed to connect Chestnut St to the Centennial Trail. If a path were constructed, they would be more amenable to it going through the center of the gardens, which would allow the landscaping to provide a screen between the trail and peoples' homes.
- The Friends of the Centennial Trail shared concerns about safety on Chestnut due to its narrow width and poor visibility. They made the point that Elm St starts from the more developed part of Kendall Yards.


## Phase Two

Following the completion of conceptual design for the two corridors, the second phase of engagement occured in May and June of 2022. This second phase included an online public house, survey, and comments map.

## Public Workshop

The City hosted a virtual workshop to get feedback the proposed designs and help finalize a preferred corridor on Wednesday, May $25^{\text {th }}$ at $5: 30 \mathrm{pm}$. There were approximately 21 attendees, not including Toole Design and City staff. The majority of attendees reported that they lived in the West Central neighborhood, including Kendall Yards. Most workshop participants favored focusing improvements on the Chestnut St corridor. Other themes raised during the workshop discussion included the need to calm traffic and reduce speeds, especially at Maxwell Ave, and the desire to create a safe and attractive pedestrian environment on Chestnut St.

## Survey

The second survey received 131 responses:74 from West Central, including Kendall Yards, 10 from Emerson/Garfield, 7 from Riverside, Peaceful Valley, and Browne's Addition, and 28 from other neighborhoods in the City of Spokane. The precent of respondents with a favorable opinion of the Chestnut St route was $58 \%$ compared to $56 \%$ for the Elm St route. When asked where the City should focus infrastructure investment for a north-south cycling route through West Central, 57 respondents $(47 \%)$ favored Chestnut St, $43(36 \%)$ favored Elm St, and $21(17 \%)$ favored some other route. The most common suggestion under "Other" was Nettleton St, with 4 respondents (3\%).

One of the most frequently discussed issues for respondents regarding the Elm St route was the proposed traffic circles. Of the 18 respondents who mentioned traffic circles, 10 supported them and 8 were opposed. In addition, five respondents voiced their opposition to parking removal and four respondents advocated for a speed limit reduction to 20 mph .

## Key Takeaways from Public and Stakeholder Engagement

Public opinion was split between those who preferred the Chestnut St / Belt St alternative and those who preferred Elm St. Table 8 below summarizes public feedback regarding the preferred route alignment.
Table 8: Summary of public comments in favor of or against each of the potential greenway routes ${ }^{6}$

Chestnut St / Belt St
Elm St
"Pedestrians and Cyclists needs solutions on Chestnut"
"This project should focus on creating a greenbelt/linear park on Chestnut"
"Belt/Chestnut by far. There seems to be better connectivity, better opportunities to remove cars, and more mobility for residents."
"Chestnut. Seems like it's designed for better safety. It just has more solutions designed for cyclist and pedestrians."
"Chestnut makes more sense because it directly connects all the local parks."
"Chestnut, because most neighborhood destinations are on Chestnut, it is more central to the school \& community center, which are used by our most vulnerable citizens."
"Improvements focused on Chestnut would allow for a safer, community oriented, space to travel through west Central... Additionally, this plan has been fostered and supported by the West Central Community since at least 1986 (36 years!!)"
"Chestnut is already a regular throughway for neighborhood pedestrians, and the project would have immediate buy-in by foot and bike travelers."
"Elm is a better option because it connects directly with the Centennial Trail here and is wider, allowing more space for bikes and cars to share the road"
"Elm has a more direct route to Kendall Yards and logistics seems to work better. Direct connection to the Centennial trail is very beneficial."
"The Elm alternative is more desirable. It addresses both bicycle activity and controls/reduces car speeds and existing conflicts with bicycles and cars. Elm intersections are dangerous for all cars!!!"
"Highlights the Native Project as they improve the area with the new children center and the needed improvement near the Ice House."
"As somebody who drives in West Central and Kendall Yards on a daily basis and knows the streets well, I think this plan is a perfect solution... I don't believe the project would negatively impact locals from finding adequate on street parking. Furthermore, this route puts cyclists passing beside COPS west which would provide an easy way to monitor all traffic along the route and for Spokane PD to respond quickly to incidents."
"This a better option than Chestnut. It still has an offset crossing at Boone, but crossings at Broadway and Maxwell are well away from sight-limited curves. Aligns with pool entrance and improved STA stops at Maxwell. The entire route is in existing right of way."

[^3]"I believe Elm would be a better choice because it is wider. Chestnut is a narrow street where some houses only have on street parking. Elm also has direct access to the trail."
"Chestnut is far too narrow for the addition of traffic control measures. No one drives fast on Chestnut."
"The crossing at Maxwell/Pettet is in a curve, which will reduce visibility of crossers, complicate vehicular movements on an arterial, and cause maintenance issues at the islands."
"Elm is already fine for biking and doesn't need much improvement, would rather see improvements on Chestnut"
"Don't see any issues with Elm as it is"
"Bicycle improvements on Elm would primarily serve non residents of west central as a commuter route. It's fine and I wouldn't be opposed to these improvements but they do not meet the needs and wants of the community that asked for this study."

One key takeaway, particularly from the second phase of public engagement, was that many West Central residents felt that Elm St was a better candidate for a bike route but that Chestnut St had a greater need for improvements. Many residents expressed a strong desire for walkability and placemaking improvements along Chestnut $S t$ to connect neighborhood destinations:
"Oh absolutely chestnut! Pedestrians and children for chestnut. Elm would be ok for some small upgrades for commuters but family pedestrian space belongs on chestnut"
"Chestnut, for traffic calming, place making and neighborhood connectivity"
"I don't see this as an either/or thing. If you want to fill a gap in citywide bike commuting infrastructure, go ahead and make bicycle crossing improvements on Elm. But the neighborhood wants a pedestrian priority zone for family and leisure riders connecting our parks, and that can only happen on Chestnut"

When asked about what improvements should be included in the design, traffic calming was the most common response. Residents expressed a strong desire to slow traffic using speed bumps, curb extensions, and traffic circles:

"Less traffic, slower speeds"<br>"Slowing traffic, possibly traffic circles. People often do not slow through uncontrolled intersections"<br>"Reducing speed at cross streets, slowing cars turning on to chestnut"

## SUMMARY OF FINDINGS

Table 9 below summarizes technical traffic and design considerations regarding the preferred route alignment.
Table 9: Traffic and design considerations for Chestnut St / Belt St and Elm St neighborhood greenway alignments

## Chestnut St / Belt St Elm St

- Lower traffic volumes and speeds than Elm
St on southern section
- Matches the original traffic calming request
- Would require parking removal for bike lanes
on Belt St
Would require additional new trail or
diversion to Elm St to connect to Centennial
Trail to the south
- Lower traffic volumes and speeds than Belt St on northern section
- Already connects to Centennial Trail to the south
- Elm St continues to the north of Maxwell Ave
- Parking loss near intersections for traffic circles

Based on the findings of the techncical analysis, conceptual design process, and public engagement, the recommendation is a hybrid approach that includes pedestrian and bicycle improvements to both corridors:

- Chestnut St / Belt St would benefit from targeted improvements to create safer and more comfortable crossings, particularly at Broadway Ave, Boone Ave, and Maxwell Ave / Pettet Ave. The proposed design includes refuge islands, RRFBs, curb extensions, and marked crossings that will make the corridor a safe and inviting corridor for people walking. The City should also consider pedestrianizing portions of the corridor or closing them to through traffic, particularly on the southern section (Bridge Ave to Boone Ave) where traffic volumes are low.
- Elm St is the more readily feasible bike route. The proposed neighborhood greenway treatment, with traffic circles, refuge islands, and bike conflict markings, would create a bike facilitiy that connects directly from the Centennial Trail to Cannon Park and could easily be continued north to Audobon Elementary, Northwest Blvd, and beyond. The proposed curb extensions on Elm St at Boone Ave and Broadway Ave could be removed if-need-be to reduce project costs. Some traffic circles could also be removed to reduce the loss of on-street parking. In that scenario, speed humps may become increasingly important to help mainain safe and comfortable speeds for the greenway.
The revised proposed concept design (attached) and treatments referenced earlier in the memo both reflect this updated recommendation.

Sincerely,


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[^0]:    ${ }^{1}$ The FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations includes speed and volume thresholds for the use of RRFBs at uncontrolled intersections. RRFBs are recommended for RRFBs may be used per FHWA Interim Approval 21 (IA-21).
    ${ }^{2}$ If there are concerns about a motor vehicle striking the pushbutton pole, bollards may be provided. Bicycle pushbuttons should have a supplemental sign (e.g. R10-24) explaining their purpose and use, mounted immediately above or incorporated into the pushbutton.

[^1]:    ${ }^{3}$ Alliance for Community Trees. (2011). Benefits of Trees and Urban Forests: A Research List.

[^2]:    ${ }^{4}$ Parking capacity and approximate parking loss was calculated using the original proposed design and assuming 20 ft parking spaces and taking into account driveways, fire hydrants, and other parking restrictions.
    ${ }^{5}$ For the short stretch of Boone Ave where parking is being removed entirely, some cars will need to shift to adjacent streets. For the $2-3$ cars that typically park along Boone Ave between the two legs of Elm St, they should be able to easily find spots on adjacent blocks of Elm St or Boone Ave.

[^3]:    ${ }^{6}$ Includes comments from public meetings, survey, and comments map. Some comments were edited (spelling and punctuation) for clarity.

