Shoshone Street Bikeway Concept Design Recommendations

- **Low Stress Bikeway** (Wayfinding and pavement markings)
  - Bike lanes on both sides of Rose Hill St.

- **Conventional Bike Lanes** (Remove parking from east side of street and retain on west side)
  - 2-way cycle track on south side of Overland Rd. and improved crossing

- **Multi-Use Pathway** (City-park connection)
  - Install curb ramp on south side of crossing
  - Explore bulbouts at crossing

- **Future connection to S Capitol Blvd**
  - Wayfinding connection to Shoshone Park
  - Wayfinding connection to Columbus St. bikeway
PROJECT DESCRIPTION

The Ada County Highway District (ACHD) has prepared a concept design for the Shoshone Street Bikeway. The Shoshone Street Bikeway will connect the south and north sides of the Central Bench Neighborhood via a low stress bikeway as an alternative to biking on Vista Avenue. It will provide access to Crescent Rim and Downtown Boise in the north. Shoshone Street was identified as potential bikeway in the 2012 Boise Central Bench Pedestrian and Bicycle Plan. It is also included in the 2018 Roadways to Bikeways Master Plan Update.

CONCEPT DEVELOPMENT PROCESS

The figure below illustrates the Shoshone Street Bikeway concept development process. The project team developed the initial concept using motor vehicle volumes and speeds provided by ACHD (see Appendix 1 for further details) in combination with the ACHD Bike Facility Matrix and the findings from a site visit. The concepts were then refined and finalized based on feedback from the public (see Appendix 2 for summaries) and the project technical team, which included ACHD and City of Boise representatives.

85% of the public survey participants are IN FAVOR of the Shosone Street Bikeway

Concept Development Process
For the purposes of this report, the corridor is broken into segments to describe the recommended design features along each section of the corridor. The following summarizes the recommended design treatments along each segment of the Shosone Street Bikeway.

<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>CANAL STREET FROM VISTA AVENUE TO SHOSHONE STREET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pavement Markings</strong></td>
<td>Install shared lane markings (i.e., sharrows).</td>
</tr>
<tr>
<td><strong>Wayfinding Signage</strong></td>
<td>Signage could include Shoshone Park, South Junior High, South Pool, Downtown Boise, Columbus Street Bikeway, Vista Village, Albertsons, and Boise State University.</td>
</tr>
</tbody>
</table>

1 Anticipated to tie-in to the existing signalized crossing of Vista Avenue at Canal Street and eventually to the Columbus Street Bikeway.

<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>SHOSHONE STREET FROM CANAL STREET TO NEZ PERCE STREET</th>
</tr>
</thead>
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<tr>
<td><strong>Wayfinding Signage</strong></td>
<td>Signage could include Shoshone Park, South Junior High, South Pool, Downtown Boise, Columbus Street Bikeway, Vista Village, Albertsons, and Boise State University.</td>
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<tr>
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<td>Install shared lane markings (i.e., sharrows).</td>
</tr>
<tr>
<td><strong>Improved Crossing</strong></td>
<td>Install bulb-outs and curb ramps at the crossing at the westernmost Nez Perce Street/Shoshone Street intersection.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SEGMENT</th>
<th>SHOSHONE STREET FROM NEZ PERCE STREET TO OVERLAND ROAD</th>
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<tbody>
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<td><strong>Wayfinding Signage</strong></td>
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</table>
## Shoshone Street from Overland Road to Rose Hill Street

<table>
<thead>
<tr>
<th><strong>2-Way Cycle Track and Improved Overland Road Crossing</strong></th>
<th>Construct a 2-way cycle track on the south side of Overland Road between the two Shoshone Street approaches.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wayfinding Signage</strong></td>
<td>Signage could include Shoshone Park, South Junior High, South Pool, Downtown Boise, Columbus Street Bikeway, Vista Village, and Boise State University.</td>
</tr>
<tr>
<td><strong>Conventional Bike Lanes</strong></td>
<td>Install conventional bike lanes on Shoshone Street from Overland Road to Rose Hill Street, removing the on-street parking from the east side of Shoshone Street. Install conventional bike lanes on Rose Hill Street between Shoshone Street and Peasley Street, connecting the enhanced crossing at Peasley Street with the bike lanes on Shoshone Street.</td>
</tr>
<tr>
<td><strong>Mini Roundabout at Shoshone Street/Cassia Street Intersection</strong></td>
<td>Construct a mini roundabout at the intersection of Shoshone Street/Cassia Street to provide for traffic calming and operational improvements. Compliance with the current four-way stop control is below average according to ACHD. Explore gateway features noting the intersection of two bikeways.</td>
</tr>
</tbody>
</table>

## Peasley Street from Rose Hill Street to Crescent Rim Drive²

<table>
<thead>
<tr>
<th><strong>Wayfinding Signage</strong></th>
<th>Signage could include Shoshone Park, South Junior High, South Pool, Downtown Boise, Columbus Street Bikeway, Vista Village, and Boise State University.</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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</table>

² There is a planned connection in the City of Boise’s Ann Morrison Park Master Plan from Crescent Rim to the park, however, the surface type and alignment still need to be determined. Additionally, the connection from the bikeway down Capitol Boulevard is still pending future resolution of the Capitol Boulevard Concept Study.

## Crescent Rim Drive from Peasley Street to Capitol Boulevard

<table>
<thead>
<tr>
<th><strong>Pavement Markings</strong></th>
<th>Install shared lane markings (i.e., sharrows).</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>
Appendix 1

Background Document Review & Data Collection
BACKGROUND DOCUMENT REVIEW

The project team reviewed previous studies to determine what routing and treatments had been previously identified. The Shoshone Street Bikeway has been identified in the 2012 *Central Bench Neighborhood Pedestrian and Bicycle Plan* (Reference 1), and in the 2018 *Roadways to Bikeways Master Plan Update* (Reference 2) as serving the Central Bench and providing connectivity throughout the Boise Bench. The *Bike Facility Matrix* from the 2018 *Roadways to Bikeways Master Plan Update*, pictured in Exhibit A, was used as a guide to identify treatments along the corridor.

DATA COLLECTION

Vehicle speed data and ADT volumes collected during spring of 2017 and 2018 by ACHD were used when assessing the corridor sections in relation to the Bike Facility Matrix. Exhibit B shows the observed speeds along the corridor and Exhibit C shows the observed average daily traffic (ADT) volumes along the corridor. Exhibit A also shows where each segment falls in ACHD’s *Bike Facility Matrix*.

As shown in Exhibit B, posted speeds along the Shoshone Street corridor vary from 20 to 30 miles per hour (mph). Generally, observed speeds are similar to posted speeds, with 85th percentile speeds along the corridor ranging from approximately 27 mph in areas with 25 mph posted speeds to 31 mph in areas with 30 mph posted speeds. There was no data available for areas with posted speeds of 20 mph.

Exhibit C illustrates the observed ADT volumes on the corridor, showing that most of the corridor carries less than 3,000 vehicles per day, which is the maximum ADT for a Level 1 bicycle facility, and many are under 1,500 vehicles/day, which is ideal for a Level 1 bicycle facility.

Additionally, ACHD performed a compliance study at the all-way stop-controlled (AWSC) intersection of Shoshone Street/Cassia Street. This study was in response to public comment indicating frequent instances of vehicles running the stop signs at this intersection. From this investigation, ACHD determined that compliance at this intersection was less than desirable.
**Bike Facility Matrix**

**EVALUATION REQUIRED**

Engineering analysis required to determine whether bike facilities are appropriate.

**TRAFFIC**

- **HIGH**
- **MID**
- **LOW**

**SPEED**

- 85th-percentile speed (preferred), design speed or posted speed (MPH)

**BIKEWAY**

- **LOW-STRESS**
- **CONSTRAINED CONNECTIONS**

**Segment #**

**3**

- Buffered Bike Lane
- Protected Bike Lane
- Raised Bike Lane
- Cycle Track
- Multi-use Pathway

**2**

- Shoulder Bike Lane
- Conventional Bike Lane
- Buffered Bike Lane

**1**

- IDEAL BIKEWAY
- Shoulder Bike Lane
- Buffered Bike Lane

**0**

- LOW-STRESS BIKEWAY
- Shoulder Bike Lane
- Buffered Bike Lane
Observed 85th Percentile Speeds*

- 27 - 32 mph
- Project Study Corridor

XX mph: Posted Speed Limit

*85th percentile speeds were not available on all study segments

Exhibit B
MEMORANDUM

Date: May 1, 2018
Project #: 22563/4

To: David Corcoran, AICP and Christy Foltz-Ahlrichs; ACHD
From: Jamie Markosian, EIT and Nick Foster, AICP
Project: Cassia Street & Shoshone Street Bikeways
Subject: Public Comment Summary

This memorandum summarizes public feedback received for the Cassia Street & Shoshone Street Bikeways Concept Designs. Public comments were collected through two individual online surveys, each accompanied by an interactive map using the MetroQuest application. The online surveys/maps were open from March 22, 2018 through April 9, 2018. Additionally, a paper version of the surveys was made available to those that wished to use that form of media to provide input.

The survey and interactive map allowed the members of the community to provide their input on opportunities to improve biking on each corridor and identify challenges for the project team to consider.

Most comments were received via the online survey, with a few mail-in comments. Table 1 shows the number of comments received from each survey, as well as the number of surveys returned for each street.

Table 1 Overall Comment Summary

<table>
<thead>
<tr>
<th>Study Corridor</th>
<th>Number of Survey Participants</th>
<th>Online Survey Comments</th>
<th>Online Map Comments</th>
<th>Mail-In Comments</th>
<th>Total Comments Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cassia Street Bikeway</td>
<td>177</td>
<td>113</td>
<td>253</td>
<td>4</td>
<td>370</td>
</tr>
<tr>
<td>Shoshone Street Bikeway</td>
<td>161</td>
<td>116</td>
<td>232</td>
<td>2</td>
<td>350</td>
</tr>
</tbody>
</table>

SURVEY RESPONSE SUMMARY

Respondents were asked the same questions for each corridor. The surveys were developed to assess the level of support for a bikeway on Cassia Street and Shoshone Street, determine the biking ability of the respondents, and provide an opportunity for area residents to voice concerns or share details about the corridors.
The following summarizes key points gleaned from the two surveys:

- Most respondents support a bikeway on Cassia Street and Shoshone Street.
- Priority areas to address on each corridor include:
  - **Cassia Street:**
    - Areas between Shoshone Street and Roosevelt Street near South Junior High School, Monroe Elementary School, and Sacred Heart School.
    - Cassia Park connection.
    - Borah High School/Park area.
    - Orchard Street and Roosevelt Street crossings
  - **Shoshone Street:**
    - The Rose Hill Street crossing.
    - The Overland Road crossing.
    - The segments with posted speeds of 30 MPH.

The following sections summarize the responses to the individual survey questions.

**Respondent Profile**

Respondents were asked to denote where they lived in relation to the study corridors. As illustrated in Figure 1 and Figure 2, most, about 80%, survey participants live on or within 5 blocks of either Cassia Street or Shoshone Street.
Mode Choice

Respondents were asked to indicate their primary mode of transportation on or around the Cassia Street and Shoshone Street corridors. As seen in Figure 3 and Figure 4, most respondents use multiple modes of transportation. Driving (or riding a motorcycle) is the most frequently cited mode of transportation, followed closely by biking and then walking.
Biking Ability

Respondents were asked to characterize their ability/level of comfort biking on a variety of different facilities. As shown in Figure 5 and Figure 6, respondents are generally comfortable biking in situations with little interaction with motor vehicle traffic, such as separated paths and roads with low motor vehicle volumes and speeds (options were listed in a ranked order and respondents were only able to choose one option).
Figure 5 Responses to "How do you characterize your biking ability?" – Cassia Street Survey

Figure 6 Responses to "How do you characterize your biking ability?" - Shoshone Street Survey

Proximity to Schools

The Cassia Street and Shoshone Street corridors are adjacent to or within walking/biking proximity to approximately seven different schools, ranging from elementary to high school. Respondents were asked about their school aged children and the likelihood of those children biking to school. As seen in Figure 7 through Figure 10, most respondents do not have school aged children, but those that do note that adding more dedicated biking or walking facilities and safer crossings would increase the likelihood that their children would bike to school.
Figure 7 Responses to "Do you have school aged children?" - Cassia Street Survey

Figure 8 Responses to "What would increase the likelihood that your child/children would bike to school?" - Cassia Street Survey

Figure 9 Responses to "Do you have school aged children?" - Shoshone Street Survey

Figure 10 Responses to "What would increase the likelihood that your child/children would bike to school?" - Shoshone Street Survey
Reasons for Biking Near Cassia Street and Shoshone Street

Respondents were asked why they bike near the study corridors. ‘Recreation/Exercise’ was the most frequently selected option, followed by ‘Social Events’ and ‘Shopping/Errands’ for both surveys, as shown in Figure 11 and Figure 12.

![Figure 11 Responses to "Why do you bike near Cassia Street?" - Cassia Street Survey](image)

![Figure 12 Responses to "Why do you bike near Shoshone Street?" - Shoshone Street Survey](image)

Support for Bikeways on Cassia Street and Shoshone Street

Respondents were asked if they did or did not want a bikeway on Cassia Street and Shoshone Street. As shown in Figure 13 and Figure 14, most participants are supportive of bikeways on each corridor,
with approximately 90% of participants supporting the bikeway project on Cassia Street and approximately 85% of participants supporting the project on Shoshone Street.

Figure 13 Responses to "Would you like to see a bikeway project completed on Cassia Street?" - Cassia Street Survey

Figure 14 Responses to "Would you like to see a bikeway projects completed on Shoshone Street?" - Shoshone Street Survey

Further, of the participants that live on Cassia Street, approximately 80% (22/28) are supportive of a bikeway project and of the participants that live on Shoshone Street, approximately 85% (21/25) are supportive of a bikeway project on Shoshone Street.

Public Comment Themes

Upon review of the comments provided by respondents to the two surveys and interactive maps, the following themes were identified about the respective corridors:

- Cassia Street:
  - Connection to/through Cassia Park – There were approximately 50 comments regarding a connection to/through Cassia Park (approximately 15% of all received comments on the Cassia Street survey).
  - Cassia Street between Roosevelt Street and Shoshone Street Near Schools – There were 20 comments to reduce speeds and/or traffic volume, 25 comments to provide pedestrian facilities (either improve/add sidewalk, add bike lanes), and 10
comments regarding drivers running stop signs at Cassia Street/Owhyee Street and Cassia Street/Shoshone Street.

- Other areas where comments were concentrated included:
  - Borah High School/Borah Park area, including the Curtis Road crossing.
  - Crossings of Orchard Street and Roosevelt Street

- Shoshone Street:
  - Overland Road Crossing – There were 50 comments (approximately 15% of all comments received on Shoshone Street survey) regarding the challenging crossing at the Overland Road/Shoshone Street intersection. Specifically, respondents were concerned about the offset of the intersection between the north and south legs of Shoshone and the traffic signal timing and crossing of Overland Road as a cyclist or pedestrian.
  - Rose Hill Crossing – There were 80 comments (approximately 25% of all comments received on the Shoshone Street survey) noting the challenges at this intersection, ranging from sight distance and intersection offset between Shoshone Street and Peasley Street and traffic speeds and volumes.
  - Connection to Downtown Via Capitol Boulevard – There were 40 comments regarding the challenging biking conditions on the sidewalks on Capitol Boulevard and the lack of bike facilities on Capitol Boulevard.
  - Areas with 30 MPH Posted Speed Limit – There were 9 comments requesting/suggesting lowering the speed limit, 8 comments noting that Shoshone Street in these segments were too narrow/had too much traffic to add bike lanes, 16 comments noting the opportunity for adding bike lanes/signage, and 6 participants noting the desire to retain on-street parking.
SHOSHONE STREET
BIKEWAY

PUBLIC COMMENT SUMMARY
PMT MEETING 2
85% participants are supportive of bikeway on Shoshone Street.

21/25 participants living on Shoshone Street are supportive of bikeway.
Shoshone Street Themes

- Rose Hill Street Crossing.
- Overland Road Crossing.
- Segments with Posted Speed of 30 MPH.
SHOSHONE STREET BIKEWAY

POP-UP MEETING SUMMARY
PMT MEETING 3
Shoshone Street Summary

- 83% participants agree with the proposed treatments.

<table>
<thead>
<tr>
<th>Total Survey Participants</th>
<th>Online Survey Participants</th>
<th>Written Survey Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>9</td>
<td>22</td>
</tr>
</tbody>
</table>
Low Stress Bikeway vs. Bike Lanes

- **Low Stress Bikeway:**
  - Want lower motor vehicle speeds
- **Bike Lane:**
  - Want separate space
  - Concern about parking removal
Other Comments

- Excitement about intersection projects
  - Rose Hill Street
  - Overland Road
- Concern that 30 MPH is too fast for street
- Want better connection to Capitol and downtown
Appendix 3

Existing Bike Lanes
Existing Bike Lanes