#### **Main Street**

Highway 191 serves as Bluff's Main Street, creating a substantial safety issue for residents and businesses adjacent to the street. Improvements on this road include adding a multi use path on the north side of the road, adding four pedestrian crossings at key intersections, and improving access across the Highway 191 bridge. The multi use path continues on Highway 191 and Highway 162 through the extent of the Bluff municipal boundary, connecting Bluff to other municipalities and attractions in the region. These destinations include Sand Island Boat Launch and Campground, Bluff Fort's Camp Sticky, Bluff Airport, Butler Wash hiking area, St. Christopher's Mission, and the Navajo community south of Bluff Town.

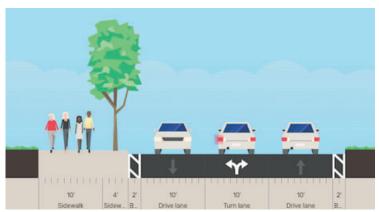
The existing road is 35-45 feet wide with a speed limit of 40 miles per hour while in town. Travel lanes are 12 feet throughout with a 12-foot center turn lane existing on West Main St and on a small portion of East Main St near the Navajo Twins Dr/Mission Rd intersections.



West Main Street near 7th W, looking east

## Street Improvements:

- Reduce lane widths from 12 ft to 10 ft
- Add 10-12 ft multi use path on the north side of the street
- Add 4-5 ft median separating multi use path from the street
- Reduce speed limit from 40 mph to 30 mph





West Main St. design

East Main St. design

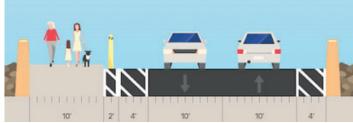
# Highway 191 Bridge

The Highway 191 bridge is currently the only crossing over Cottonwood Wash. High speed traffic coupled with limited shoulder space makes this a perilous and unpleasant route for pedestrians and cyclists. This plan proposes adding a multi-use path on the north side of the bridge, separated by a physical barrier or median. An additional multi-use path on the south side of the street may be considered but would require widening the bridge, resulting in significantly higher costs. This improvement should be prioritized given the current safety risk and concerns expressed by residents during public engagement.

## Bridge Improvements:

- Reduce lane widths from 12 ft to 10 ft
- Add 10-12 ft multi use path with physical barrier on the north side of the street





Highway 191 bridge, looking east

Highway 191 bridge design

# **Mission Road**

Mission Road (part of Highway 162) connects into the eastern side of Bluff Main Street near Navajo Twins Dr and extends to Bluff Bench Road. Mission Road provides access to Bluff Dwellings Resort & Spa, Saint Christopher's Episcopal Mission Church, residential properties, tribal communities, White Horse High School, and Utah Navaho Health System. The existing road is a two-lane high-speed highway that lacks any infrastructure for cyclists or pedestrians.

Similar to improvements on Main Street, this plan proposes adding a 10-12 ft multi-use path on the north side of Mission Road. Pedestrian crossings should be added at the Main Street intersection and the Foot Bridge Road intersection.



Mission Road near Saint Christopher's Episcopal Mission Church, looking east

# **Pedestrian Crossings & Bridge Improvements**

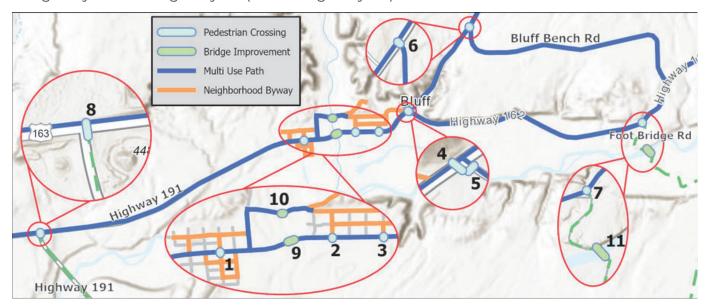
Pedestrian crossings and bridge improvements are needed to ensure pedestrians and cyclists can safely cross high speed roads or natural barrier. These improvements should include median islands, curb bulb outs, raised pavement, flashing beacons, and other traffic calming measures (when applicable) as depicted in the design standards above. Grade separated crossings may be considered as funding allows. In some cases, equestrian crossing signs or signals may be appropriate as part of a larger equestrian trail system.

## **Pedestrian Crossings:**

- 1. 5th W (across Main St)
- 2. 3rd E (across Main St)
- 3. 6th E (across Main St)
- 4. Mission Rd and Main St (across Main St)
- 5. Mission Rd and Main St (across Mission Rd)
- 6. Highway 191 and Bluff Bench Rd (across Highway 191)
- 7. Foot Bridge Rd and Mission Rd (across Mission Rd)
- 8. Highway 163 and Highway 191 (across Highway 191)

# **Bridge Improvements:**

- 9. Highway 191 bridge
- 10. East-West connecting trail bridge
- 11. Foot Bridge Rd bridge



# Highway 191 and Highway 162

These highways extend beyond the municipal boundary, connecting Bluff to Mexican Hat, White Rocks, and Montezuma Creek communities in the north, south, and west. Currently, the absence of dedicated infrastructure for non-motorized transportation makes these routes hazardous and discourages active mobility.

Similar to improvements Main Street and Mission Road, this plan proposes adding a 10-12 ft multiuse path on the north side of both highways to the edge of the Bluff municipal border. Coordination with surrounding municipal and county authorities will be needed to connect this trail into the full statewide network.



**Note:** Bluff Main Street, Mission Road, Highway 191, and Highway 162 are all state-owned roads, meaning any improvements must be approved by the Utah Department of Transportation (UDOT). We anticipate significant coordination between UDOT while designing and implementing the proposed active transportation improvements.

## **Neighborhood Byway**

The West Bluff Neighborhood Byway primarily includes Cottonwood Ave, 7th W, 5th W, 4th W, and Rabbit Brush Ave (with many smaller links on other roads). This byway plays a crucial cole in connecting residents and key destinations on the west side of Bluff into 3rd W and the East-West Connecting Trail. Other major buildings within this byway include Bears Ears Education Center and trail access, Bluff Park, and numerous local businesses.

The East Bluff Neighborhood Byway includes Mulberry Ave and Black Locust Ave, with connections to Main Street on Navajo Twins Dr, 6th E, and 3rd E. The byway continues west up Cemetery Road, connecting into the East-West Connecting Trail and the Cemetery. The Bluff Community Center, Bluff Fort, and Bluff Cultural Center are all situated along the Neighborhood Byway, serving as destinations for pedestrians and cyclists.

See maps on the next page for visualizations of the East and West Neighborhood Byway.

The existing residential roads throughout East and West Bluff are 20-25 feet wide without sidewalks, gutters, or lane markings. The right-of-way on these roads is often much larger—up to 90 ft in East Bluff, 80 ft on north-south roads in West Bluff, and 60 ft on many east-west roads in West Bluff. This space can be more fully utilized to ensure streets are safe and comfortable for pedestrians and cyclists.

The Neighborhood Byway network is primarily created by reducing traffic speed and providing safe crossings at major barrier streets. Traffic calming measures should be used, particularly at access points and intersections, to slow down motorists and create awareness that they are entering a pedestrian-priority street. This may include signage, lateral shifts, medians, roundabouts, bulbouts, and trees (see "Design Standards" for more on taffic calming).



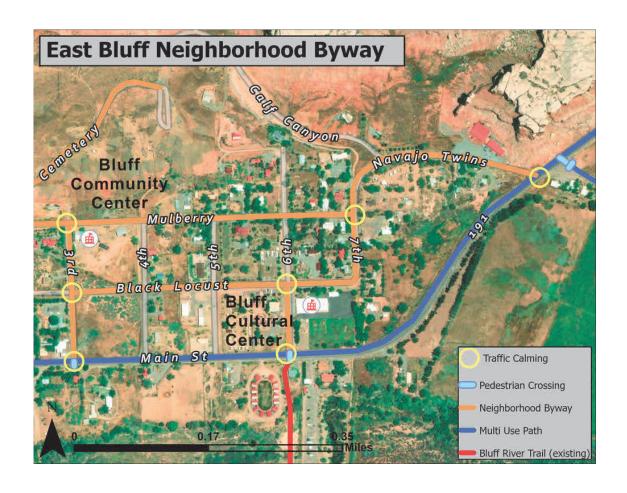


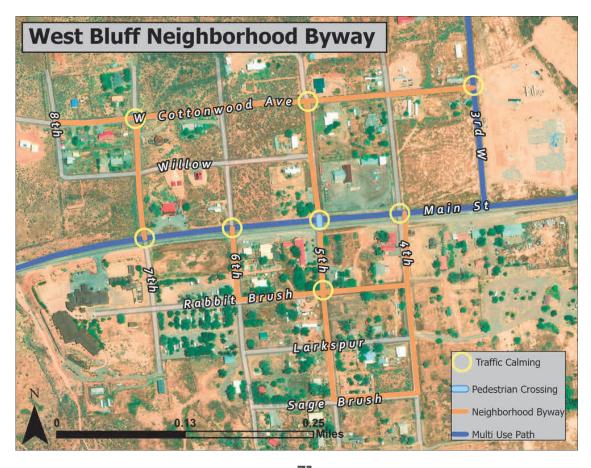


3rd E, looking north

#### Street improvements:

- Sharrows and signage indicated pedestrian and cyclist priority
- Wayfinding signs
- Traffic calming improvements throughout (potential locations shown as yellow circles in the maps below). See "Design Standards" for more information.
  - Raised multi-use paths on Main Street, serve as speed bumps coming into the Neighborhood Byway
  - Median islands, curb extensions, and/or roundabouts at major intersections
  - Speed bumps throughout





#### 3rd West

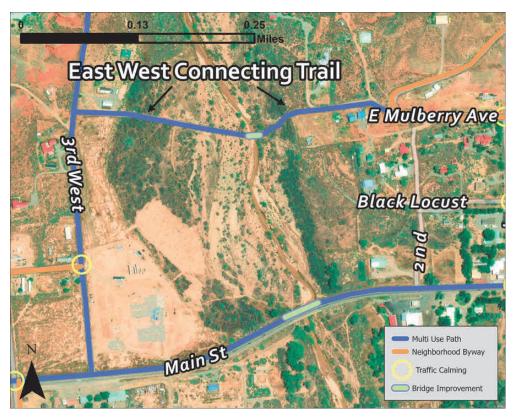
3rd West connects residents and visitors to recreational opportunities in northern Bluff. Given higher traffic volumes here compared to other neighborhood streets, this plan suggests adding a multi-use path on the East side of the road, providing a safe and separate space for pedestrians and cyclists. This path provides access to Bluff Elementary School and connects into the multi-use paths on Main Street and the East-West Connecting Trail (see map below).



3rd W Street Design

# **East-West Connecting Trail**

The East-West Connecting Trail is a multi-use path designed to create an additional connection between east and west Bluff. This pedestrian- and cyclist-only route links 3rd West with Mulberry Ave via the municipal water easement across Cottonwood Wash. Additional easements may be needed for this segment to be completed as shown below.



#### **Bluff Bench Road**

Bluff Bench Road connects Highway 191 to Highway 162 (Mission Road) on the northeast side of Bluff. Altogether, these roads form a scenic loop as shown below. This loop is ideal for those seeking a longer and more immersive outdoor adventure, allowing them to explore and appreciate the diverse and captivating terrain of Bluff's northeast region.



## **Five Points Trail\***

The Five Points Trail is a proposed trail located on the southern side of Bluff, extending beyond town borders into the White Rock Point, Tselakai Dezza, and Five Points Communities. This trail branches off Highway 163 on the west side of town, follows Highway 191, Desert Creek Road, South Foot Bridge Road, and Foot Bridge Road, then connects into Highway 162 on the east side. At Foot Bridge Road, the trail passes over the San Juan River via the historic foot bridge, which will need to be replaced.

The Five Points Trail offers a vital connection between Bluff Town and the various native communities in San Juan County, facilitating both commuting and recreational biking for residents and visitors. This proposed trail crosses through both state-owned land and tribal lands of the Navajo Nation. Given this complex ownership, significant coordination will be needed between tribal communities, state entities, and the federal government.

It is important to note that while developing this plan, we did not engage with local tribal communities. This proposed trail reflects the active transportation goals of Bluff residents. To ensure the project's inclusivity and respect for the Native community, broader community engagement with local tribes is necessary to incorporate their perspectives, input, and aspirations into the planning process.

#### Montezuma Creek Connection\*

This connection continues on Highway 162 east of Bluff towards Montezuma Creek, creating a connection to White Horse High School, the Utah Navajo Health System, and other destinations. Improvements include a multi-use path along the north side of Highway 162.

<sup>\*</sup>pending approval from surrounding communities, local tribes and/or state/federal agencies

# 7: IMPLEMENTATION PLAN

# **Next Steps**

After this plan is approved by the Town Council, Bluff can begin looking for and applying to various funding sources. This plan provides a wide range of funding sources at the federal, state, and local levels. Simultaneously, Bluff should initiate engagement with other stakeholders and regional partners. As described under "Regional Coordination" below, successful realization of this plan will require significant coordination with state entities and surrounding jurisdictions.

Once funding and sufficient coordination are in place, Bluff can begin to identify and contract with design, engineering, and construction companies. This selection process will likely involve issuing requests for proposals (RFPs) and reviewing applications to ensure the chosen company aligns with Bluff's objectives, budget constraints, and project timelines. Depending on available funding, Bluff may undertake multiple projects simultaneously or choose a phased approach, focusing initially on a single project. Project prioritization is provided in this section to inform this decision based on the preferences expressed by residents during this plan's engagement process.

# **Regional Coordination**

Transportation networks are inherently interjurisdictional, connecting various cities and communities through roads owned by different agencies. As such, implementing this plan will require extensive coordination with surrounding jurisdictions and the Utah Department of Transportation (UDOT). This may involve conducting meetings with neighboring schools and municipalities, county officials, Association of Governments (AOG) officials, and UDOT staff to facilitate communication, share project plans, and address potential challenges that may arise.

Establishing clear lines of communication is crucial for streamlined coordination efforts. Designating key points of contact for each jurisdiction or agency involved creates a structured communication network. This ensures that relevant information is shared promptly, milestones are tracked, and revisions are efficiently addressed. By maintaining effective communication, Bluff Town can ensure that all stakeholders are well-informed and actively involved in the successful realization of this Active Transportation Plan.

As state-owned roads, such as Main Street, Mission Road, Highway 191, and Highway 162, are integral parts of this plan, UDOT's approval and involvement are crucial. Close coordination with UDOT will be necessary to obtain the required permits, approvals, and technical guidance to implement the proposed improvements effectively. By proactively involving UDOT in the planning and decision-making processes, Bluff Town can ensure compliance with state regulations and benefit from UDOT's expertise in transportation infrastructure.







# **Community Integration and Programming**

Success for this plan extends beyond the physical infrastructure of paths and byways. This section explores how the proposed active transportation network might integrate with the larger Bluff community, forging connections with various institutions and fostering a sense of belonging for residents and visitors.

The envisioned trail network plays a crucial role in enhancing connectivity for school-aged children within Bluff and the surrounding area. Multi-use paths along Highway 191 and Highway 162 provide safe routes for students and families to walk or bike to school. Additional programs such as bicycling safety training or "bike bus" initiatives would further enhance school connectivity and encourage active transportation.

As this plan is implemented, special attention should be given to integrating the trail network with important civic buildings, historic sites, local businesses, and nature trails. These connections should include the Bluff Community Center, Bluff Cultural Center, Bluff Fort, Bears Ears Education Center, and Bluff River Trail, among others. Additional trail enhancements may include improving trailside amenities and bike parking, providing nearby community gathering spaces, or adding art installations that reflect the town's values and heritage.

When built, the trail network will offer space for community events, such as neighborhood nature walks, bike rides, or historic tours. These events are an opportunity to collaborate with local organizations and surrounding communities. For instance, collaboration with the Utah Navajo Health System through health and wellness events may encourage walking and biking on the trail network while also aligning with the community's broader wellbeing objectives.





Hank Aaron State Trail, Milwaukee (Hinrichs, 2017)



Bicycle Collective event in SLC (Samuels, 2022)



Bicycle Education and Safety Training Program (Bike Utah, 2023)

# **Planned Roadway Construction and Maintenance**

When undertaking resurfacing, repaving, or improvement projects on existing roads, Bluff Town officials have an opportunity to integrate active transportation facilities or traffic calming measures. By reviewing and assessing the planned roadway maintenance or construction activities, they can identify areas where active transportation improvements can be seamlessly incorporated. This approach allows for the efficient allocation of resources and minimizes the need for additional costs associated with retrofitting or modifying roads in the future.

Similarly, when constructing new roads or paving existing gravel roads, Bluff should adopt a proactive approach by incorporating active transportation facilities or traffic calming measures right from the outset. By considering these enhancements during the initial design and construction phases, Bluff Town can optimize funding utilization, save costs, and more quickly develop roads that prioritize safety and comfortability for all road users.

# **Project Prioritization**

This plan encompasses various projects, each with their own significance, challenges, and impact on the community. Improvements include 4.3 miles of Neighborhood Byway and 26.1 miles of multi-use paths within Bluff Town, plus 36.6 miles of multi-use path on regional connections pending approval. In total, excluding design and engineering costs, these improvements are estimated to cost roughly \$17M within Bluff plus \$22M for regional connections, for a total of \$39M (see table below for more detail).

Prioritizing these projects is crucial to allocate available resources effectively, address community needs, and ensure a phased implementation that maximizes the benefits of the plan. The prioritization of projects should take into account factors such as community desirability, available funding, and approval processes from relevant agencies.

Additionally, this plan proposes 8 pedestrian crossings, all of which are on UDOT roads. Given UDOT design standards and regional highway needs, there may be some resistance to these pedestrian crossings. Prioritization is provided for these crossings to ensure the most valuable crossings are built and to aid in negotiations with UDOT staff.

## **Project Segments within Bluff:**

# 1. <u>Main Street, Highway 191 Bridge, and Mission Road</u>

These improvements have been identified as critical due to the expressed concerns of residents and the urgent need to enhance safety and comfort within the town center. Although coordination with the Utah Department of Transportation (UDOT) may introduce some time constraints, efforts should be focused on expediting the necessary approvals and initiating the implementation of these improvements promptly.

## 2. East-West Connecting Trail and 3rd West

These projects provide essential connections between the eastern and western parts of Bluff, which is particularly significant for school-aged children who rely on walking or biking to school. These safe and accessible routes will contribute to the overall livability of the town and promote active transportation for all residents.