



Recommendations to Improve Pedestrian & Bicycle Safety for the Quartz Valley Indian Reservation



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Acknowledgements

Planning Committee

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We would like to thank the planning committee for inviting us into their community and for hosting the Community Pedestrian and Bicycle Safety Training on the Quartz Valley Indian Reservation.

We would like to thank The California Endowment for providing dinner and childcare supplies in support of this training.

We would like to acknowledge the many community members and agencies present at the workshop and their dedication to pedestrian and bicycle safety. Their collective participation meaningfully informed and strengthened the workshop's outcomes.

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Recommendations to Improve Pedestrian & Bicycle Safety for the Quartz Valley Indian Reservation

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Introduction

At the invitation of the Quartz Valley Indian Reservation tribal administrators, California Walks (Cal Walks), the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and the Planning Committee collaboratively planned and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) on the Quartz Valley Indian Reservation on July 10, 2018 and a follow-up meeting with tribal administrators on July 11, 2018. The CPBST is a community-driven pedestrian and bicycle safety action-planning workshop aimed to improve walkability and bikeability across the Reservation.

The Quartz Valley Indian Reservation requested a pedestrian and bicycle safety action-planning workshop to inform and strengthen the tribe's grant application to the California Active Transportation Program (ATP) through a community-driven process. The tribe's goals for the workshop were to 1) provide tribal administration staff, community organizations, and residents with a toolkit for promoting pedestrian and bicycle safety to inform future active transportation projects; 2) strengthen working relationships between various agencies and organizations and other stakeholders to ensure the best outcomes for the Quartz Valley Indian Reservation residents; 3) develop consensus regarding pedestrian and bicycle safety priorities and actionable next steps; 4) collect community feedback on



Participants Learn the 6 E's Framework for Improving Pedestrian and Bicycle Safety

the tribe's ATP proposal through a community prioritization exercise; and 5) conduct an exercise to crowdsource unreported documented traffic collisions and qualitative safety concerns. This report summarizes the workshop proceedings, as well as ideas identified during the process and recommendations for pedestrian safety projects.



Cal Walks facilitated the workshop from 6:00 pm to 7:30 pm on July 10, 2018 at the Quartz Valley Indian Reservation Gymnasium. Dinner and childcare activities were provided to maximize community participation. Thirty-three (33) individuals attended the workshop, including Tribal Chairwoman Frieda Bennett, Vice-Chairperson Sherrie Williams, and other Business Council members (the tribe's governing body); representatives from the tribal administration; and many residents and families.

The one and a half (1.5) hour training consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety using the intersectional 6 E's framework including: Equity & Empowerment, Evaluation, Engineering, Education, Encouragement, and Enforcement, with an emphasis on sharing how these strategies are used in tribal contexts; 2) a data crowdsourcing activity to identify unreported traffic collisions and qualitative safety concerns; and 3) a community voting exercise and discussion to prioritize the strategies participants would like to see the tribe pursue to improve pedestrian and bicycle safety. This report summarizes the workshop proceedings, as well as recommendations for projects, policies, and programs for pedestrian and bicycle safety on the Quartz Valley Indian Reservation.

Background

The CPBST is a joint project of Cal Walks and SafeTREC that aims to leverage a community's existing strengths to develop a community-driven pedestrian and bicycle safety action plan and to identify pedestrian and bicycle safety priorities and actionable next steps in collaboration with community partners. For each training, the program convenes a local multi-disciplinary planning committee to tailor and refine the training's curriculum and focus to meet the community's needs. Cal Walks and SafeTREC conduct site visits to collect on-the-ground observations of existing walking and biking

conditions to adapt the CPBST curriculum and to provide context-specific strategies for the community's existing conditions. For tribal communities, the CPBST program has integrated data crowdsourcing and community prioritization exercises to be more responsive to tribal communities' needs and staff resource constraints when it comes to planning.

Planning Process

The Quartz Valley Indian Reservation CPBST planning process was initiated in April 2018. The planning process consisted of:

- **Community Plans and Policies Review:** Cal Walks conducted a review of current community planning documents to inform the training with local context and prepare to build off existing efforts. The following documents were reviewed prior to the site visit:
 - Walking Trail Project - Schematic Design Report. Prepared by Restoration Design Group, LLC. 2015
 - Ragland, Bigham, Oum, et al. Traffic Injury on Tribal Lands in California. 2014.
 - Safe Journeys: A Report on Roadway Safety in California Indian Country. Prepared by The National Indian Justice Center.
- **Analysis and Mapping of Pedestrian and Bicycle Injury Data:** UC Berkeley SafeTREC used the Statewide Integrated Traffic Records System (SWITRS), the Transportation Injury Mapping System (tims.berkeley.edu), and supplemental techniques from their Tribal Data Collection Project to analyze injury data on the Quartz Valley Indian Reservation, as well as within a 5-mile buffer. As with many other tribal communities, traffic collision data on the reservation is limited and likely to reflect substantial underreporting due to a variety of factors. Accordingly, the Planning Committee decided that the community would benefit from a data crowdsourcing activity to identify and document unreported collisions and qualitative safety concerns.
- **Identification of Priority Discussion Topics for Training:** Quartz Valley Road was identified as the geographic focus of the training because it is currently the only road that crosses Shackelton Creek and connects the tribal housing complex in the upper part of the reservation to the Tribal Administration Building, Gymnasium, and Anav Tribal Health Clinic in the lower part of the reservation. Following years of community engagement on improving safety for people walking and biking between the two parts of the reservation, the Planning Committee identified the workshop as an opportunity for residents to reaffirm their support for the planned trail project and to help guide tribal administrators prepare an ATP grant application that aligned with current resident needs and concerns.
- **Site Visit:** The Project Team facilitated an in-person site visit on the mornings of July 10 and July 11, 2018 immediately preceding and following the community workshop. The Project Team worked with the Planning Committee to 1) collect qualitative data based on in-person observations of existing conditions and travel behaviors; and 2) collect bicycle and pedestrian count data to understand existing travel patterns. During planning calls, the Planning Committee identified the Tribal Business Council, Gymnasium Director, Anav Tribal Health, residents of the tribal housing complex as key stakeholders to invite to the CPBST.

Existing Conditions

Pedestrian & Bicycle Collision History

Of the available data from the Statewide Integrated Traffic Records System (SWITRS) between 2012-2016,¹ there was one bicycle collisions in 2016 that resulted in one severe injury and one other visible injury. It is important to understand, however, that traffic collision data on tribal lands is limited and likely to reflect substantial underreporting due to a variety of factors, such as the complex history that results jurisdictional discrepancies in which many tribal roads are under the County’s jurisdiction with traffic safety enforcement under the jurisdiction of the California Highway Patrol (CHP); limited CHP response to collisions on tribal lands; and the geographic remoteness of tribal communities. As part of the workshop, community members were asked to identify both overall traffic collisions, including pedestrian or bicycle collisions, that have occurred on tribal lands that were not captured in the SWITRS data and qualitative safety concerns.

Residents engaged in data crowdsourcing activity on July 10, 2018



¹ 2015 and 2016 SWITRS data are provisional as of November 2017.

The results of the crowdsourcing exercise identified five non-injury collision sites, which were not evident in SWITRS. Though these collisions did not involve people walking or biking, they all underscored other qualitative safety concerns identified by residents, namely the high speed of drivers traveling through the community. As one youth participant noted on the crowdsourcing map: "Cars drive by me fast when I ride on my bike [on Quartz Valley Road]." The Project Team recorded the speed of cars traveling along Quartz Valley Road during the site visit and found the 85th percentile for speed was 48 MPH, which validates residents' qualitative concerns with speeding along Quartz Valley Road and feeling unsafe walking or biking without physical separation. Participants also communicated that many people from outside the reservation travel to the Anav Tribal Health Clinic for services, drive very fast on Quartz Valley Road and do not slow down to make the turn onto Sniktaw Lane. Consequently, parents shared that they do not allow their children to walk or bike during the day when the Clinic is open. These parents shared that they would allow their children to walk or bike during the day if there was a safer, physically separated route as proposed in this project.

Equity Concerns

The Quartz Valley Indian Reservation is a small tight-knit community, consisting of 164 acres held in trust with twenty-five households and a population of 150 people. Like many tribal communities, tribe members experience high levels of poverty, unemployment, alcoholism, drug use, children in foster care, high school dropout rates, and violence. The reservation unemployment rate is estimated to be 50% and the latest Housing Authority surveys indicate that nearly 90% of the tribal housing occupants are low- to moderate-income. According to the National Indian Justice Center's "Safe Journeys: A Report on Roadway Safety in California Indian Country," pedestrian fatalities involving Indian youth are almost four times that of all other races combined,² and Native American male pedestrians in California experience four times the death rate Whites or Asian pedestrians.³

Key Opportunities to Improve Walking and Biking Safety

Community Recommendations

Following a presentation from Rick Hill, Tribal Planner, on the proposed Impaah⁴ project for the Active Transportation Program, participants were asked to prioritize the strategies they would like to see the tribe pursue to improve pedestrian and bicycle safety. Residents were provided with three voting dots and were asked to vote on the following categories developed with the Planning Committee:

- Paved Shoulders / Sidepaths
- Trails
- Road Reconfiguration (e.g., road diets, lane narrowing, etc.)
- Lighting
- Education
- Encouragement

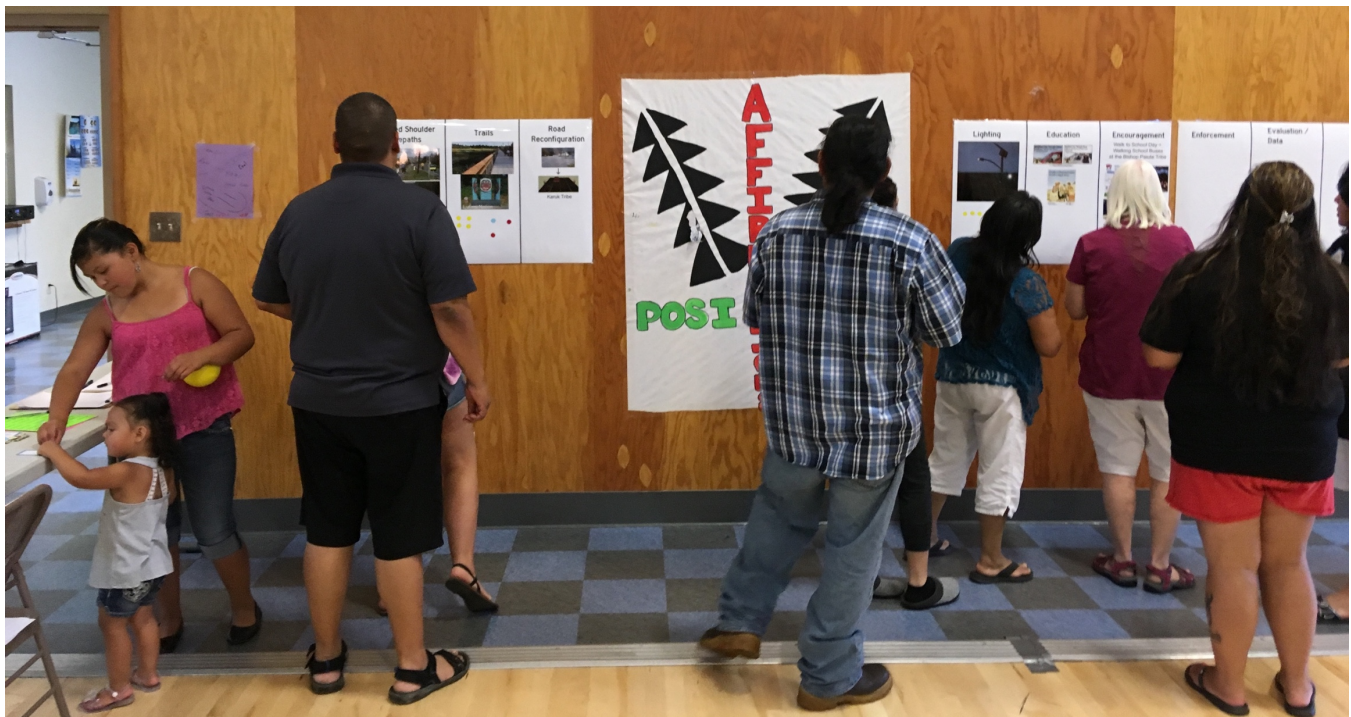
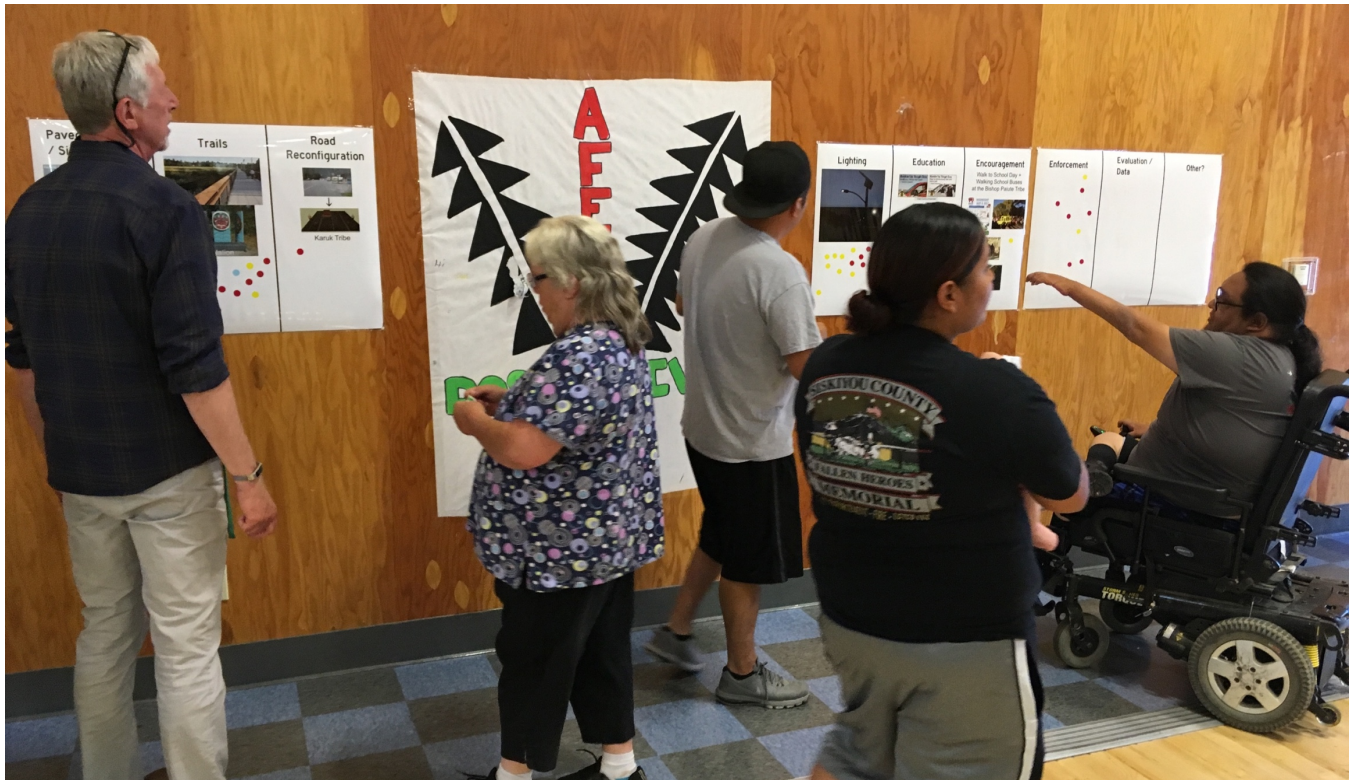
² The National Indian Justice Center. Safe Journeys: A Report on Roadway Safety in California Indian Country. Available at <http://www.nijc.org/pdfs/TTAP/NIJC%20Environmental%20Report.pdf>

³ Office of Health Equity, California Department of Public Health. Healthy Communities Data and Indicators Project, 2013. Available at

https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/ADA%20Compliant%20Documents/HCI_Transportation_to_work_42_Narrative_and_examples_10-2-13-ADA.pdf

⁴ Impaah is the Karuk word for trail.

- Enforcement
- Evaluation/Data
- Other



Residents engaged in community Prioritization Exercise

Participants were not allowed to vote twice on a single strategy. The top three strategies prioritized by residents were: 1) trails, 2) lighting, and 3) enforcement and paved shoulders/sidepaths (tied).

Community Prioritization Exercise Results

Strategy	Votes
Paved Shoulders / Sidepaths	10
Trails	25
Road Reconfiguration	3
Lighting	23
Education	7
Encouragement	1
Enforcement	10
Evaluation/Data	0
Other?	1

The Project Team facilitated discussions around these top three strategies to gather more feedback and direction from residents on the proposed Impaah project and more generally for desired pedestrian and bicycle safety improvements. Following the workshop, the Project Team met with tribal administrators on July 11, 2018 from 1:00 pm to 3:00 pm to debrief workshop participants' feedback and to develop next steps for integrating feedback into the Impaah project application. This follow-up meeting was attended by seven (7) participants, including tribal Business Council members, the Tribal Administrator, the Tribal Planner, the Gymnasium's after-school program coordinator, and the director of the tribe's Environmental Education Program. The following is a summary of participants' recommendations during the workshop, as well as the tribal administrator's recommendations for the Impaah project.

Infrastructure Concerns & Priorities

- **Support for the Impaah Project:** During the debriefing of the prioritization exercise, workshop participants were unanimous in the need to provide physically separated pedestrian facilities for residents and reaffirmed their support of the Impaah project. Participants also voiced support for integrating tribal cultural and natural resources into the design of the trail through the inclusion of interpretive features to highlight native flora and fauna and their traditional uses. Tribal administrators committed to preparing and submitting an application for the Impaah project in the current round of Caltrans' Active Transportation Program funding. The tribe should be notified whether it has been awarded the funds in December 2018.
- **Install Pedestrian-Scale Lighting for the Impaah Project and on Quartz Valley Road:** Participants were also unanimous in their support of installing pedestrian-scale lighting throughout the reservation. For the Impaah project, participants reaffirmed the integration of pedestrian-scale lighting as a priority for the trail, which was previously identified during the initial trail planning in 2015. Participants also identified the need for pedestrian-scale lighting along Quartz Valley Road as it is the main road that traverses the community.
- **Paved Shoulder along Quartz Valley Road:** Though a trail was overwhelmingly supported by participants, they also identified a paved shoulder as a desired long-term project for Quartz Valley Road. Quartz Valley Road is owned and operated by Siskiyou County, so coordination with the County will be required to implement this community priority.

Community Programs, Policies, and Campaigns

- **Addressing Personal Security and Maintenance Along the Proposed Trail:** In debriefing participants' prioritization of enforcement as a key strategy for the tribe, participants clarified

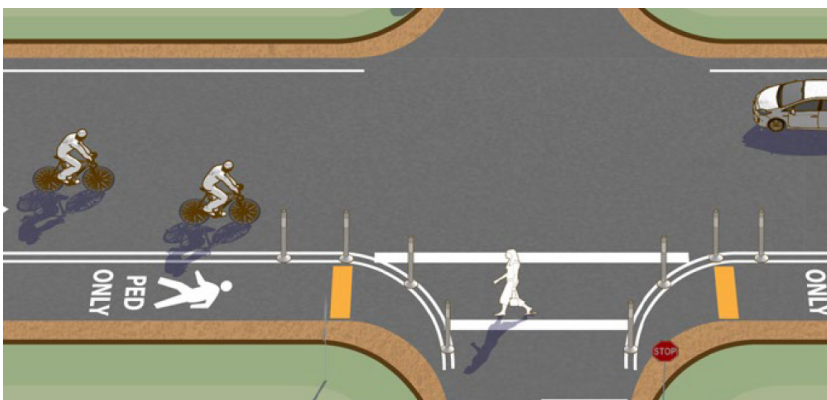
that they wished to see enforcement of respect for the trail (in terms of illegal dumping, trash, and vandalism) and to enhance personal security along the trail. During the follow-up meeting with tribal administrators, they shared that the residents' desire for enforcement stem from the recent and immediate vandalization of the new playground in the upper reservation area. Tribal administrators discussed integrating security cameras into the Impaah project application with remote download capabilities to address residents' personal security concerns, as well as potentially amending the tribe's existing solid waste ordinance to institute a progressive warning system for vandalism. This warning system would allow for community service, particularly to clean up graffiti and other vandalism, as an alternative to financial fines, with extreme cases resulting in a deduction of an offending tribal member's distributions.

- **Celebrating to the Tribe's Cultural and Natural Resources:** Responding to workshop participants' support for integrating tribal cultural and natural resources into the design of the trail, tribal administrators discussed pursuing a non-infrastructure component to the tribe's ATP application that was not originally considered. The non-infrastructure program would leverage the tribe's after-school program to engage youth in the development of culturally-relevant traffic safety messages and the design of interpretive signs and pavement markings that would heavily feature tribal designs. This non-infrastructure program would not only teach youth about traditional uses of plants and animals in the area but could also instill a sense of pride and ownership of the Impaah in advance of its construction.

Cal Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the Quartz Valley Indian Reservation:

- **Collaborate with Siskiyou County to Provide Separated Pedestrian Facilities on Quartz Valley Road:** Echoing workshop participants' priorities and based on our assessment, Cal Walks and SafeTREC strongly recommend the tribe strengthen their relationship with Siskiyou County to elevate the need for separated pedestrian facilities on Quartz Valley Road, which may require widening the road to secure enough right-of-way. In particular, we recommend the tribe explore opportunities with the County for integrating some form of dedicated facility during the next scheduled maintenance or rehabilitation project for Quartz Valley Road. Ideally, we recommend an asphalt side path to provide full separation for pedestrians. However, a clearly delineated and marked shoulder with flexible, retro-reflective bollards or soft-hit posts installed at regular intervals to reinforce the shoulder as a pedestrian-only space, except in rare



Example of a pedestrian lane treatment in lieu of a dedicated sidepath or sidewalk. Image Credit: Federal Highway Administration

emergency instances where a car must pull off the road, may be a short-term alternative while seeking funding for a side path. This type of treatment is referred to as a "pedestrian lane" and is endorsed by the Federal Highway Administration as a

context-sensitive solution for small towns and rural communities.⁵



Example of a pedestrian lane treatment in Detroit, OR. Population: 200.



Example of a pedestrian lane treatment in McKinleyville, CA. Population: 15,177. Photo Credit: Redwood Community Action Agency.

⁵ See Federal Highway Administration. Small Town and Rural Multimodal Networks Guide. December 2016. Available at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf



Example of a low-cost temporary curb extension that can be leveraged as a placemaking opportunity with art. Photo Credit: John Greenfield.

- **Install a Pedestrian Safety Enhancements at the Intersection of Sniktaw Lane and Quartz Valley Road:** One of the biggest concerns raised by workshop participants was the high speed of drivers along Quartz Valley Road and that drivers turn onto Sniktaw Lane without slowing down. Because there is a school bus stop located at Sniktaw Lane and Quartz Valley Road, Cal Walks and SafeTREC recommend installing a temporary curb extension at the intersection as a way to slow drivers down who are turning onto Sniktaw Lane. Additionally, we recommend exploring the potential for installing a raised crossing on Sniktaw Lane at the intersection with Quartz Valley Road as a traffic calming measure. This raised crossing would increase the visibility of residents, particularly students,

walking in the area, as well as force drivers to slow down to navigate the turn onto Sniktaw Lane. The raised crossing should be paired with high-visibility crosswalk markings and warning signage.



Example of raised crossing at a school in Eureka, CA. Photo Credit: Humboldt Partnership for Active Living

- **Integrate the Tribe’s Culture into School Bus Stops:** Cal Walks and SafeTREC recommend the tribe work with students to leverage the three bus stops on the reservation as a placemaking opportunity. Students can decorate the bus stops with tribal art and images, which would also function as a gateway treatment to the Tribal Administration Building and the Anav Tribal Health Clinic areas to signal to drivers that they are entering a community and need to slow down.



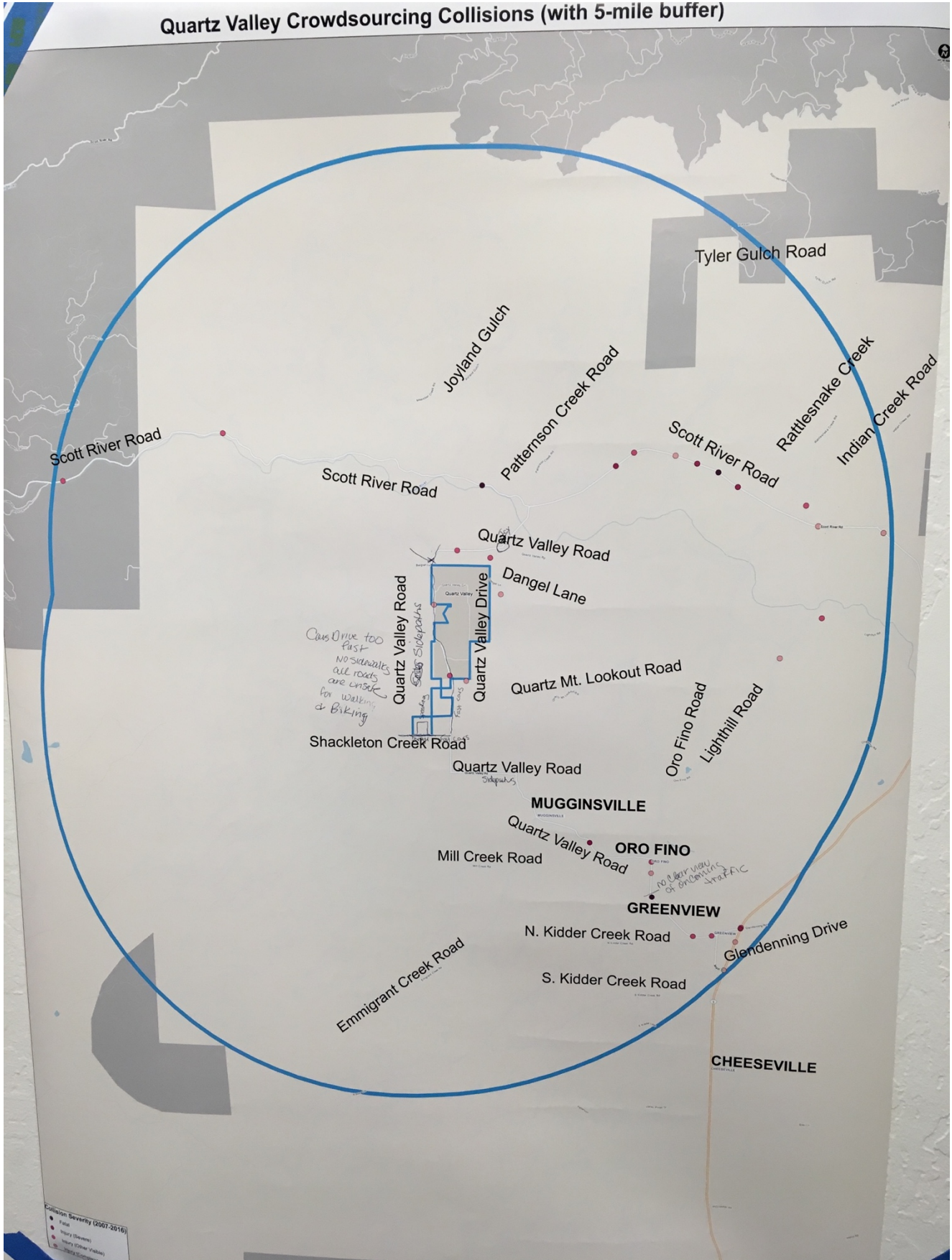
Example of a decorated bus stop on the Tule River Indian Reservation.
Photo Credit: Tony Dang

Appendix A

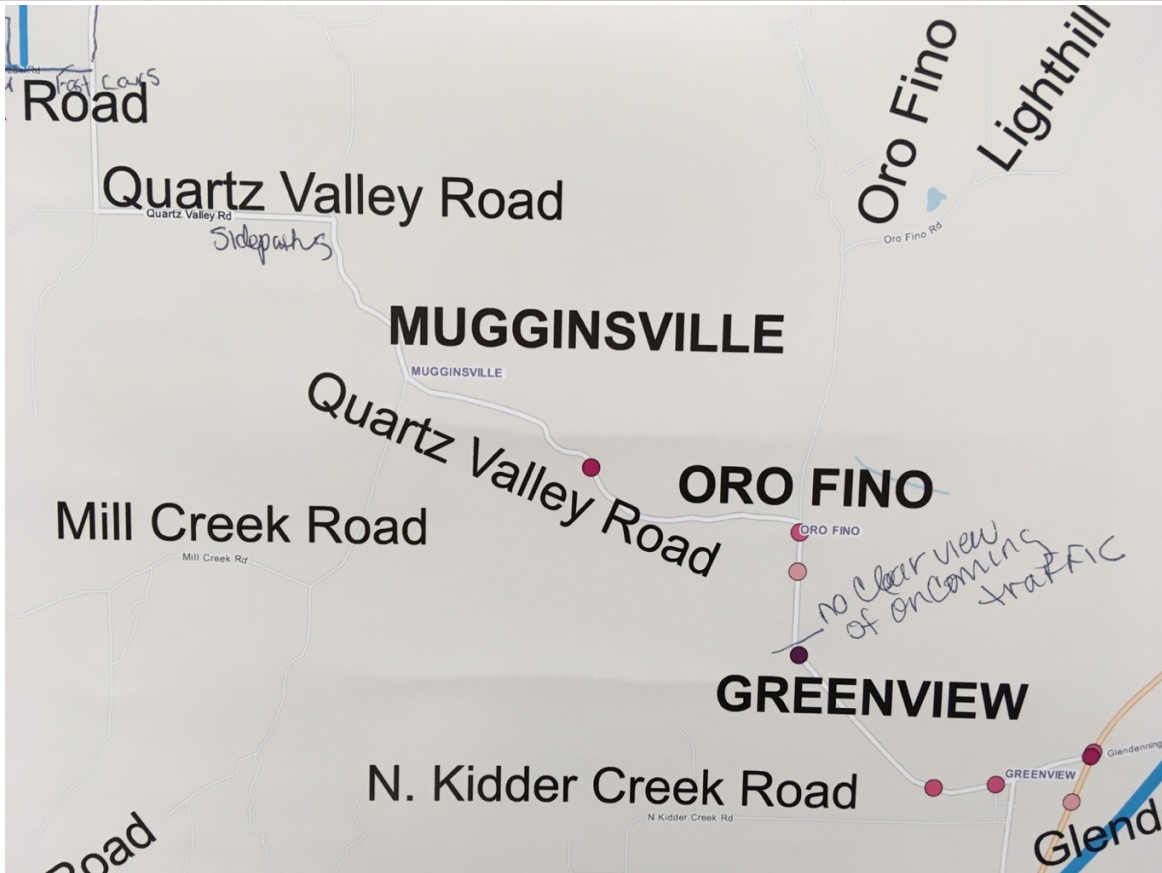
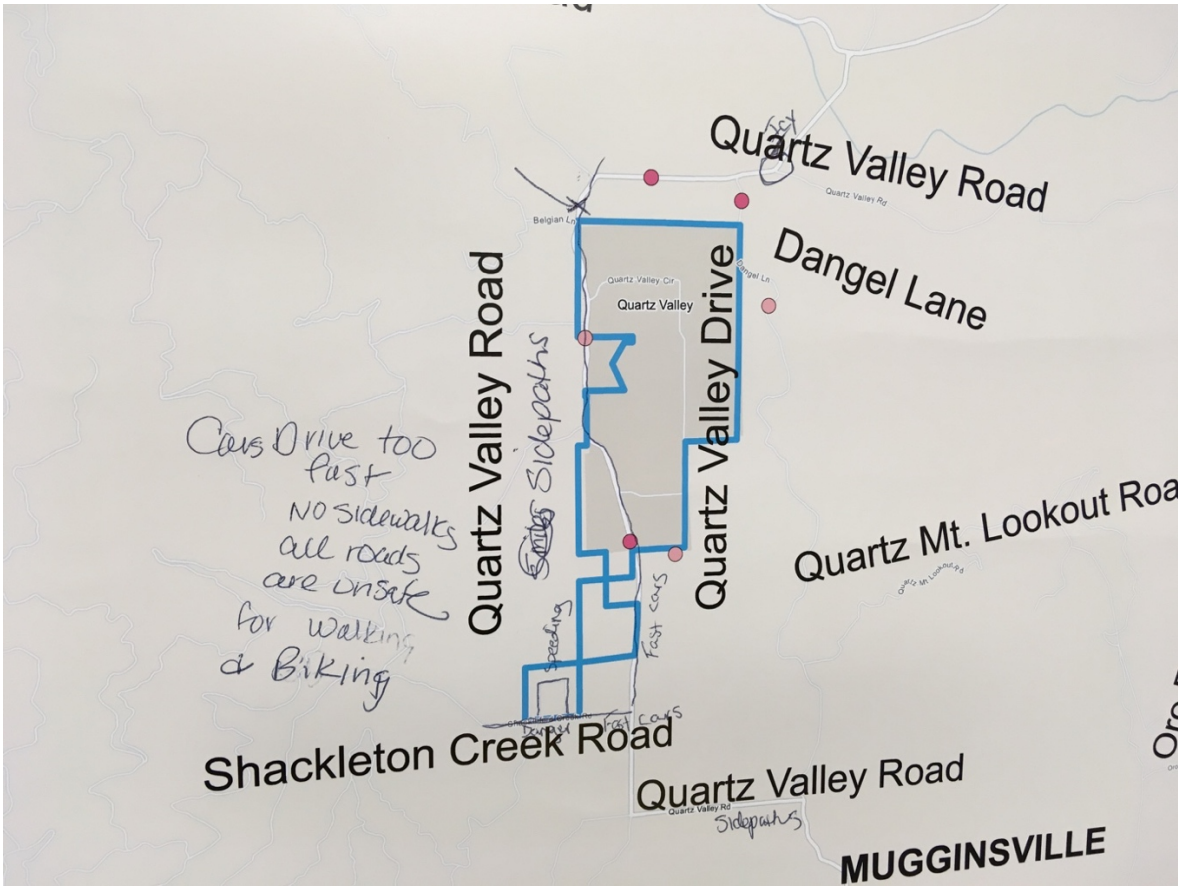
Data Crowdsourcing Maps and Prioritization Exercise Results

Data Crowdsourcing Map Results

Quartz Valley Crowdsourcing Collisions (with 5-mile buffer)



Close Ups



Quartz Valley Crowdsourcing Collisions

CA

W/ider 2016/17
car and on the paved road
coming from south
Cody mirrors Hill, no signs

Quartz Valley Circle

Quartz Valley Road

Quartz Valley Drive

Steelman Lane

A160
Bumper car
50 mph

Car off
highway
ditch

Quartz Valley Road

Cars drive up me fast
when I ride on
my bike

* Shrik-pawl Ln
high traffic volume
due to tribal clinic
I don't slow down
to turn down
the road into

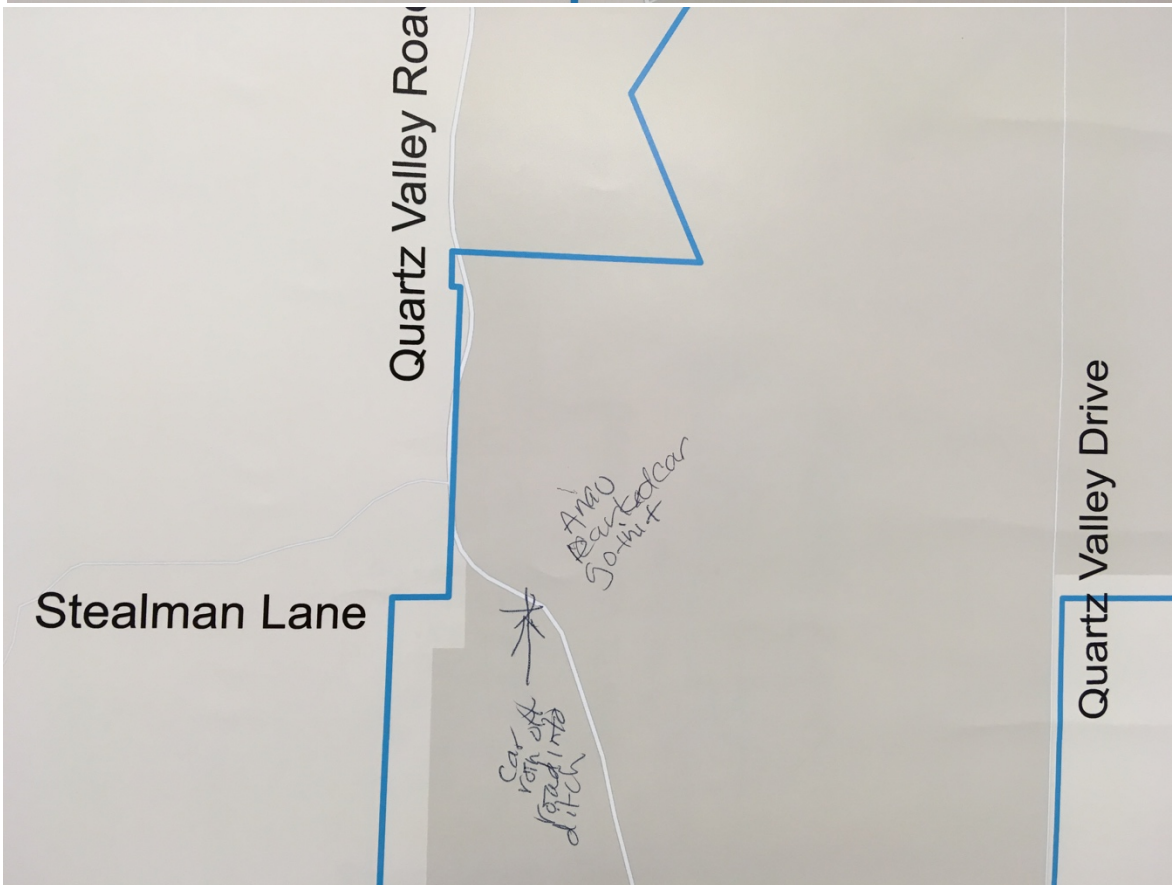
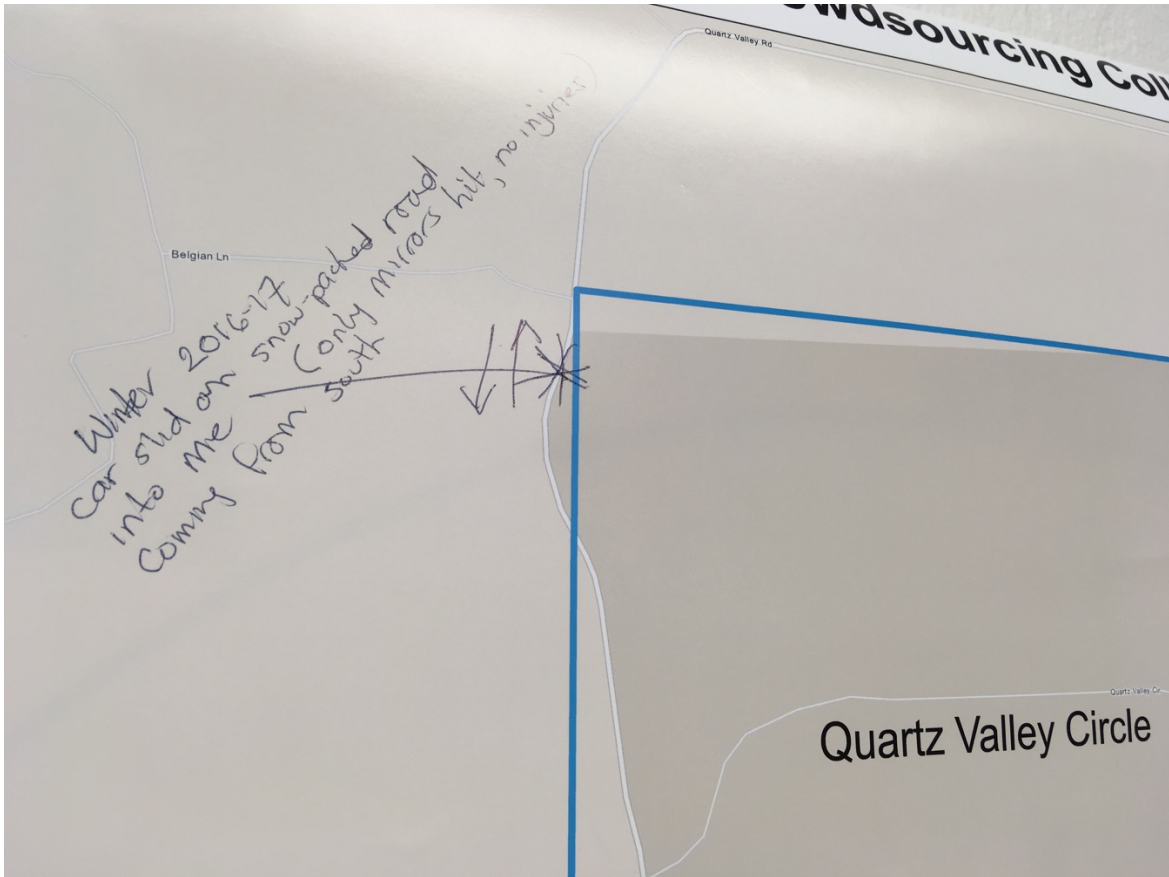
Shackleton Creek Road

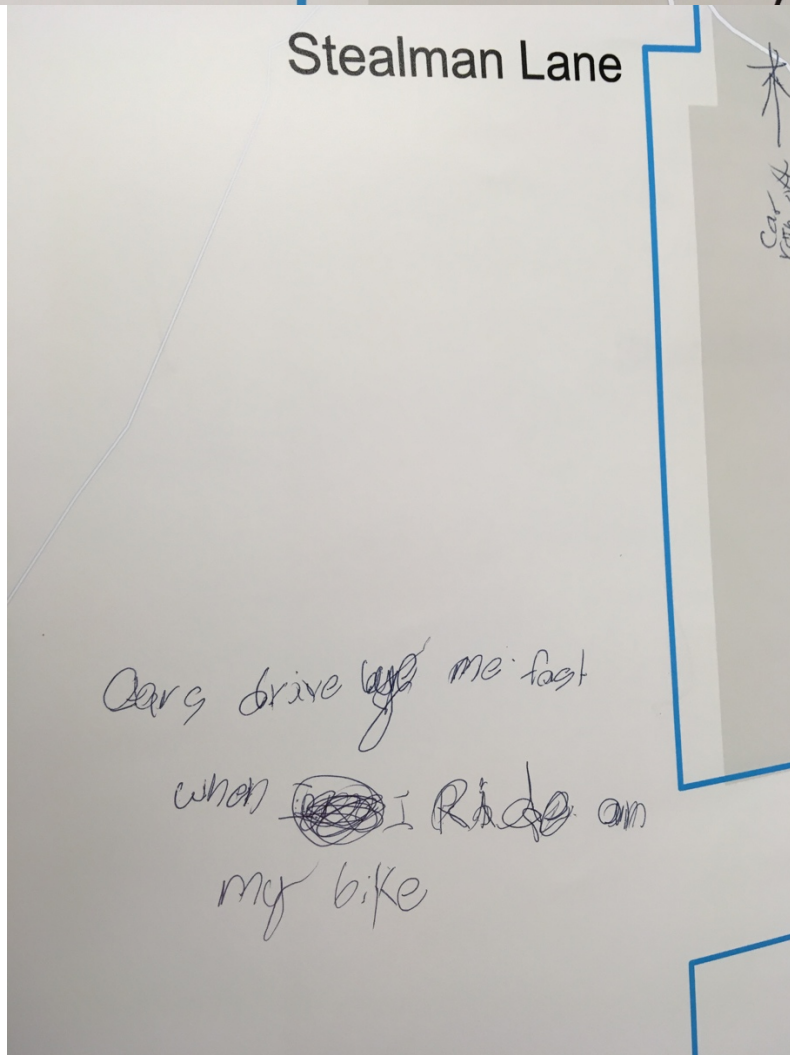
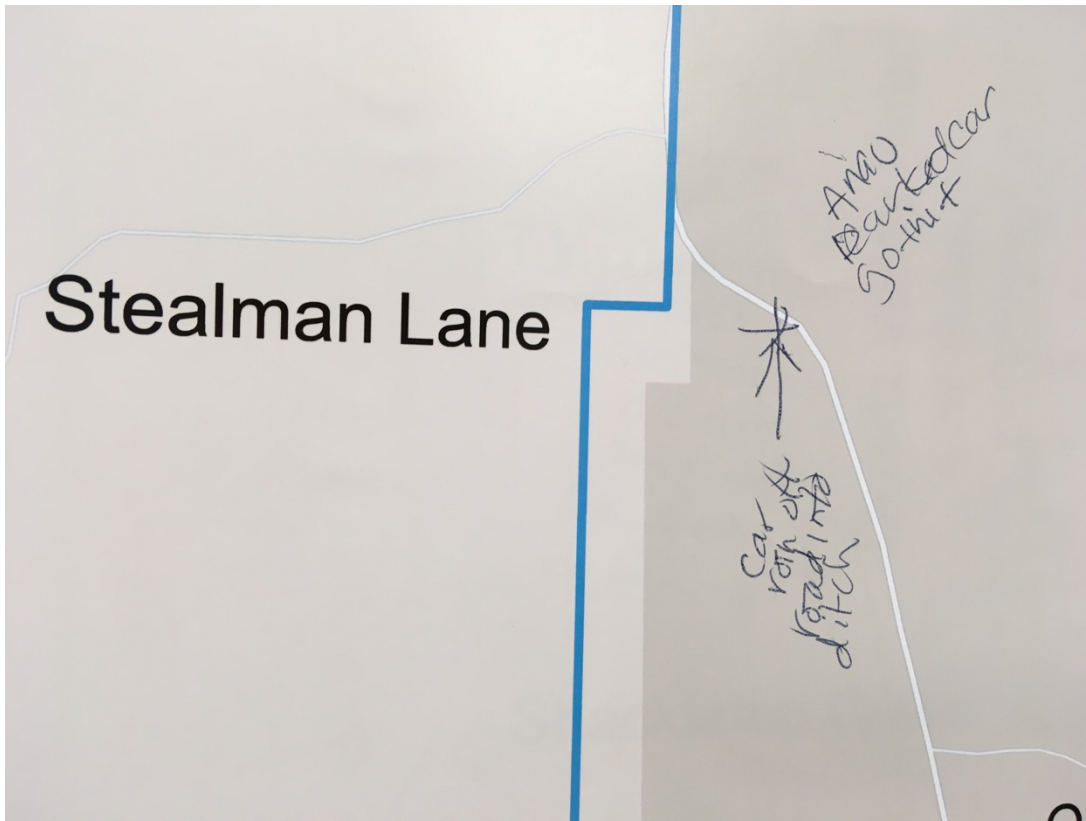
VENUE
(SHOW PLOT AREA)

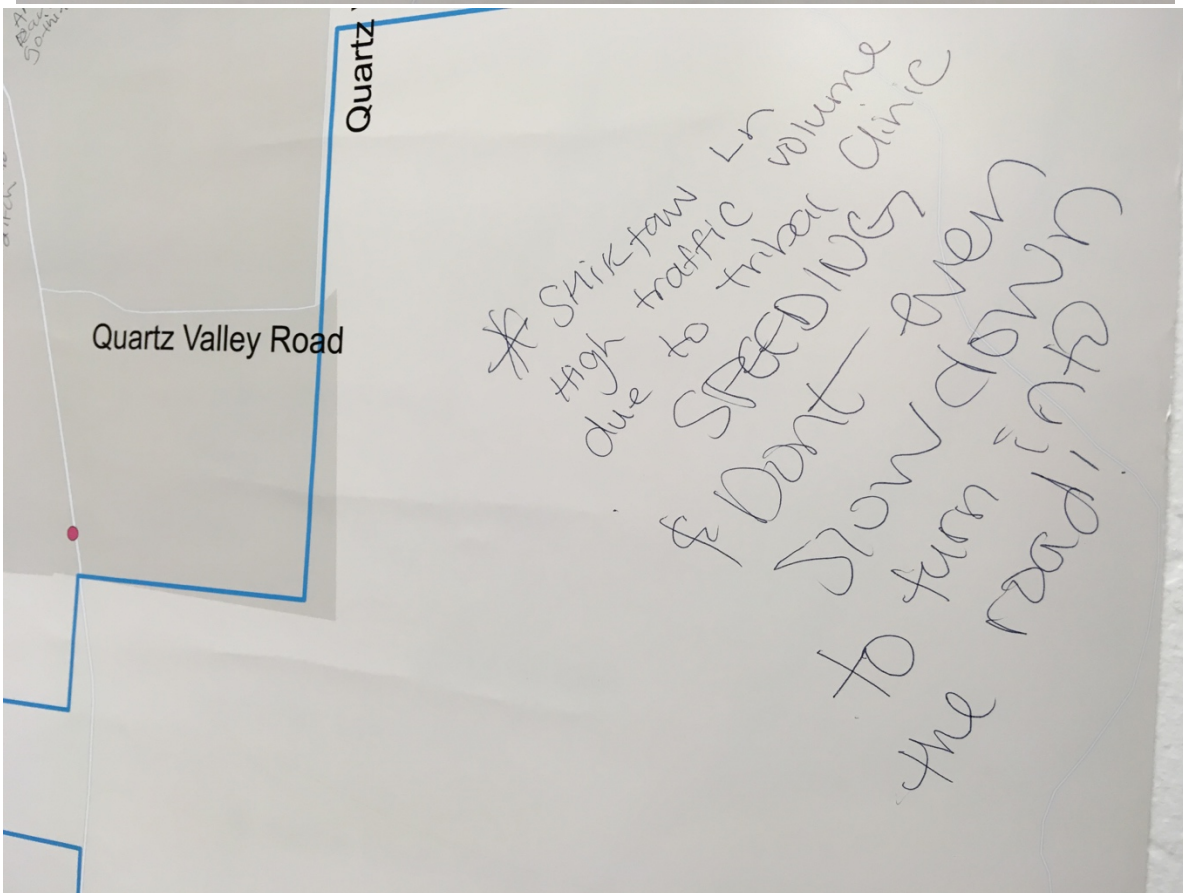
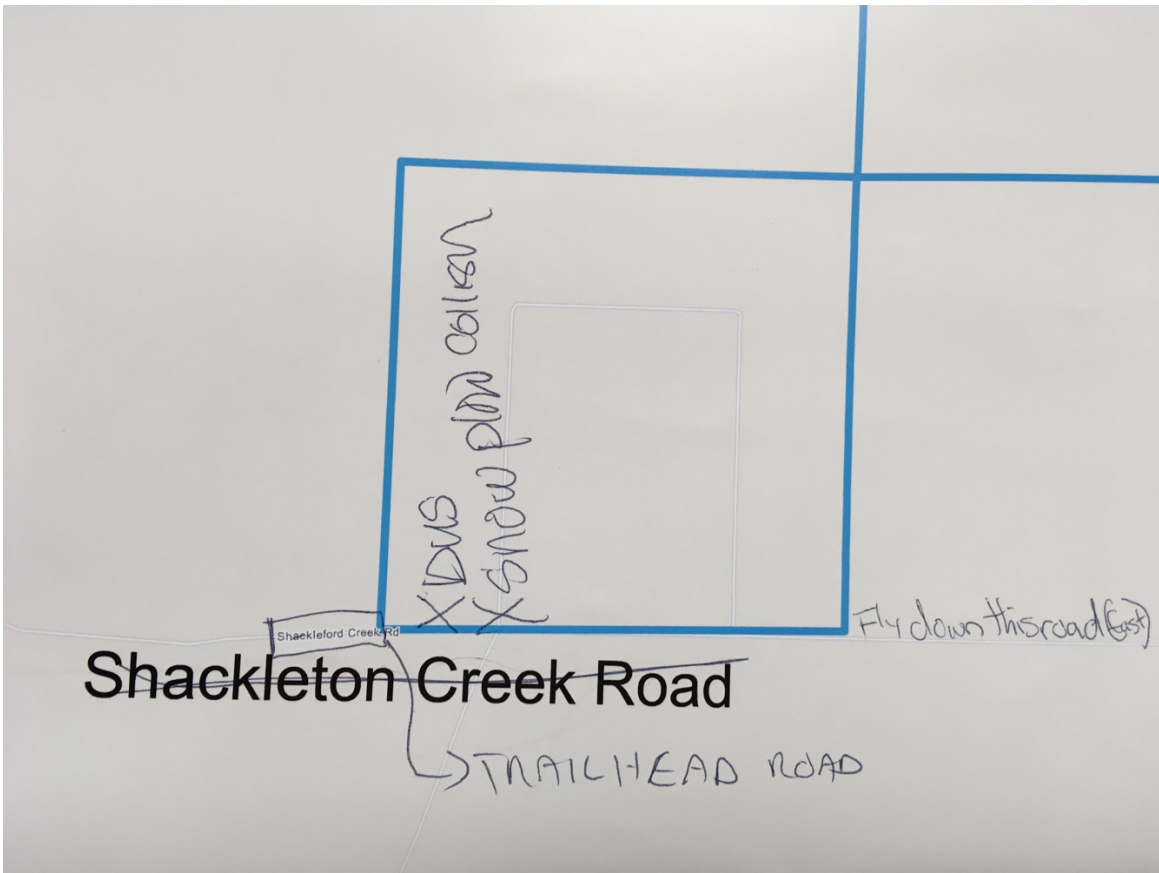
STARHEAD ROAD

Andantheroad(?)



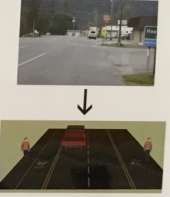

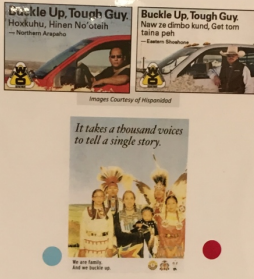

Close Ups







Community Prioritization Exercise Results

<h3>Paved Shoulder / Sidepaths</h3>  <p>Bayview, CA (Lumboldt County)</p> <p>Lummi Nation</p> <p>10</p>	<h3>Trails</h3>  <p>Lummi Nation</p> <p>23</p>	<h3>Road Reconfiguration</h3>  <p>Karuk Tribe</p> <p>3</p>	<h3>Lighting</h3>  <p>23</p>	<h3>Education</h3>  <p>7</p>	<h3>Encouragement</h3> <p>Walk to School Day + Walking School Buses at the Bishop Paiute Tribe</p>  <p>1</p>
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<h3>Enforcement</h3> <p>10</p>	<h3>Evaluation / Data</h3>	<h3>Other?</h3> <p>1</p>
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