

**C E R T I F I C A T E**

The undersigned, Gary Burke and N. Kathryn Brigham hereby certify that they are the Chairman and Secretary, respectively, of the Board of Trustees of the Confederated Tribes of the Umatilla Indian Reservation, and at a regular meeting of said Board of Trustees at the Board Chambers of the Nixyáawii Governance Center, Mission, Oregon, on the 4th day of June, 2018, a quorum of said Board was present and the following Resolution was regularly moved, seconded, and adopted by a vote of 6 for, 0 against, and 0 abstaining.

**R E S O L U T I O N**

- WHEREAS,** the Board of Trustees is the governing body of the Confederated Tribes of the Umatilla Indian Reservation (Confederated Tribes) by the authority of Article VI, Section 1 of the Constitution and Bylaws of the Confederated Tribes, adopted on November 4, 1949 and approved on December 7, 1949, as amended; **AND**
- WHEREAS,** pursuant to Article VI, Section 1(a) of the Constitution and Bylaws, the powers of the Board of Trustees include the authority "to represent the Tribes and to negotiate with Federal, State and local governments"; **AND**
- WHEREAS,** pursuant to Article VI, Section 1(b) of the Constitution and Bylaws, the powers of the Board of Trustees include the authority "to manage all affairs of the Confederated Tribes, including the administration of tribal lands, funds, timber and other resources, under appropriate contracts, leases, permits and loan or sale agreements"; **AND**
- WHEREAS,** the Tribal Transportation Improvement Plan (TTIP) must be consistent with the Tribal Transportation Program (25 CFR 170.421(a)); **AND**
- WHEREAS,** the 2016 Local Roads Safety Plan (LRSP) is consistent with the Tribal Transportation Program (25 CFR 170.421(b)); **AND**
- WHEREAS,** the 2016 LRSP may include Federal, State, County, and municipal transportation projects initiated by or developed in cooperation with the tribal government (25 CFR 170.421(d)); **AND**
- WHEREAS,** the 2016 LRSP will be reviewed and updated as necessary by the tribal government (25 CFR 170.421(e)); **AND**
- WHEREAS,** the 2016 LRSP can only be changed by the tribal government, and must be based on a current Transportation System Plan (25 CFR 170.421(f)); **AND**

**RESOLUTION NO. 18-040**  
**TOPIC: 2016 Local Road Safety Plan**  
**Department: Tribal Public Works**  
**Exhibits: 1**  
**Page 2 of 3**

**WHEREAS,** the 2016 LRSP must be forwarded to the Bureau of Indian Affairs by resolution or by tribally authorized government action for inclusion into the Bureau of Indian Affairs Department of Transportation Improvement Program (25 CFR 170.421(g)); **AND**

**WHEREAS,** according to 25 CFR 170.425(b) the tribe must adopt the 2016 Local Road Safety Plan and send it to the Bureau of Indian Affairs Regional Office; **AND**

**WHEREAS,** the 2016 LRSP was published in November of 2016 for The Board of Trustees approval in accordance with the Tribal Transportation Improvement Program. No. (25 CFR 170.424); **AND**

**WHEREAS,** the Departments of Economic and Community Development, Planning, Public Works, Oregon Department of Transportation; and Umatilla County have been consulted on the development of the 2016 LRSP; **AND**

**WHEREAS,** the Board held a work session on May 31, 2018, to review the adoption of the 2016 LRSP; **NOW, THEREFORE, BE IT**

**RESOLVED,** that the Board of Trustees enacts the proposed 2016 Local Roads Safety Plan (LRSP) and directs the Executive Director to execute the necessary contracts and program documents required to accomplish the projects and make modifications as necessary to implement the 2016 Local Roads Safety Plan; **NOW, THEREFORE, BE IT FINALLY**

**RESOLVED,** that the Board directs the Executive Director to forward this resolution and Exhibit 1 the Confederated Tribes of the Umatilla Indian Reservation 2016 Local Road Safety Plan to the U.S. Department of Interior Bureau of Indian Affairs Umatilla Agency and the Northwest Regional Office, Division of Transportation;

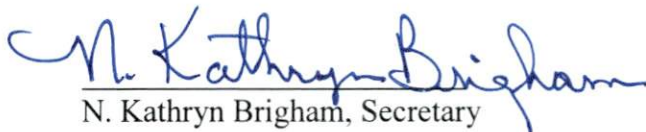
**AND,** that said Resolution has not been modified amended or repealed and is still in full force and effect.

**RESOLUTION NO. 18-040**  
**TOPIC: 2016 Local Road Safety Plan**  
**Department: Tribal Public Works**  
**Exhibits: 1**  
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**DATED** this 4<sup>th</sup> day of June, 2018.

  
for Gary Burke, Chairman  
Board of Trustees

**ATTEST:**

  
N. Kathryn Bringham, Secretary  
Board of Trustees

**Exhibit 1. 2016 Local Road Safety Plan**

NAME	YES	NO	ABSTAIN	LEAVE
Gary Burke, BOT Chairman				Travel
Jeremy Wolf, BOT Vice Chairman				
Doris Wheeler, BOT Treasurer	X			
N. Kathryn, BOT Secretary	X			
Rosenda Shippentower, BOT Member	X			
Aaron Ashley, BOT Member				Travel
Sally Kosey, BOT Member	X			
Woodrow Star, BOT Member	X			
William Sigo, General Council Chairman	X			

# **Exhibit 1**

## **CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION**

### **LOCAL ROAD SAFETY PLAN**

June 2016



Prepared by



# **CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION**

## **LOCAL ROAD SAFETY PLAN**

**June 2016**

**Prepared by**

**Akana  
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## Introduction

In the United States, during the period 1975-2002, traffic fatalities resulting from motor vehicle crashes decreased by 2.2%. However, during the same period, Native American fatalities increased 53%. According to the Centers for Disease Control and Prevention, motor vehicle crashes are the leading cause of death for Native Americans and Alaska Natives ages 1-44. Overall, the death rate from vehicle crashes for Native Americans/Alaska Natives is 1.5 higher than for whites and for blacks.

With the prior enactment of the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP—21) and with the recently passed (December 2015) Fixing America's Surface Transportation Act (FAST Act), it is evident that the Federal Government is placing a great deal of emphasis on becoming proactive in improving traffic safety and reducing fatalities on the nation's road system. Future funding is likely to center on traffic safety projects. As a result, the Federal Highway Administration is promoting developing Local Road Safety Plans (LRSP) by state and local governments, including Indian Tribes.

To initiate a Local Road Safety Plan and traffic safety program, the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) received approximately \$12,000 in grant funding from the Bureau of Indian Affairs (BIA). Because of limited funding, this initial planning effort is limited as well, but sets in motion an ongoing safety program for future planning and implementation efforts.

## Mission

The mission statement established by the Tribe and Working Group is: Identify and provide a clear understanding of safety concerns and develop strategies to improve vehicular, bike, and pedestrian safety on the reservation.

## Goals

The overall goal of this planning effort is to initiate a local road safety program for the CTUIR. Near term goals are:

- + Implement an ongoing safety program through the establishment of a permanent Working Group to direct safety planning efforts and to monitor results
- + Develop an initial Local Road Safety Plan that identifies safety issues but focuses, at this point, on recommendations, strategies, and countermeasures that can be implemented in the next several years and are relatively low cost. Future updates of the Plan will be able to focus on the more complex issues that require higher cost solutions and need to be integrated into the Umatilla Reservation Long-Range Transportation Plan both from the standpoint of priority and funding availability.

## Methodology

The CTUIR LRSP was developed based on the FHWA guide. In its publication *Developing Safety Plans, A Manual for Local Rural Road Owners* (March 2012), the FHWA sets out a six-step process for developing and maintaining Safety Plans. These steps include:

- Step 1: Establish Leadership
- Step 2: Analyze Safety Data
- Step 3: Determine Emphasis Areas
- Step 4: Identify Strategies
- Step 5: Prioritize and Incorporate Strategies
- Step 6: Evaluate and Update the LRSP

The initial step in the development process was to establish leadership and convene a working group responsible for developing the LRSP.

During April 2015, the consultant team spent several days on the Reservation looking at road and safety condition of roads serving the Reservation. During this period, meetings were held with the Tribe, followed by a meeting and presentation to the Working Group. Other State and Federal stakeholders were also contacted by phone or email.

Following initial meetings with the Tribe, the Working Group, and other stakeholders, as well as field inventory of reservation roads, a working paper summarizing planning efforts and results to date was prepared in July 2015 and submitted to the CTUIR and Working Group for review. The Working Paper, and the comments received, served as the basis for the Draft Plan, which was sent to CTUIR in early 2016 for internal review. Several revisions were made, and the Draft Plan was subsequently sent out to the Working Group for review. No comments were received, and the Plan was finalized in June 2016.

## **Safety Partners/Stakeholders**

The initial step in developing the CTUIR LRSP was identification of plan leadership and establishment of a Working Group to guide the plan and bring together the right agencies and individuals to implement the plan and to monitor and update the plan in the long term. The consultant first identified potential stakeholders (federal, state, and local agencies), who were contacted and invited to participate in the planning effort. From this list the Working Group was established. Table 1 lists stakeholders and the Working Group.



**TABLE 1**  
**Local Road Safety Plan Stakeholders**

Stakeholders	Working Group
Confederated Tribes of the Umatilla Indian Reservation (CTUIR)	CTUIR
Bureau of Indian Affairs	Frank Anderson, Public Works Director ("Champion")
Federal Highway Administration	Alaina Mildenerberger, CTUIR Public Works
Local engineering and public works department	JD Tovey, Planning Director, CTUIR
City of Pendleton	Ray Denny, CTUIR, Emergency Operations Center Director
Umatilla County Traffic Engineering Department	Al Tovey, Wildhorse Casino
State of Oregon Department of Transportation	Bill Tovey, Director, CTUIR Economic and Community Development
Local, County, and State Enforcement Agencies	Theda Scott, CTUIR Senior Elder's Coordinator
City of Pendleton Police Department	Kirk Tullis Yellowhawk Tribal Clinic Facilities Manager
County Sheriff's Department	Modesta Minthorn, CTUIR Education Department
State Police	Michael Jackson, Superintendent, Bureau of Indian Affairs, Umatilla Agency
Pendleton School District	Marilyn Holt, ODOT District Manager
	Tom Fellows, Director of Public Works, Umatilla County
	Lonnie Ruchert, Forest Road Manager, Umatilla National Forest
	Dana Taylor, Forest Road Manager, Wallowa Whitman National Forest

## Safety Data Collection and Analysis

In Oregon for the 5-year period 2009 to 2013, an average of 335 people were killed in crashes and another 1440 were seriously injured annually. Also, a little over half of these fatalities and serious injuries occurred in rural areas. Rural collector and local roads accounted for 21% of all fatalities and serious injuries. The *2016 Draft Transportation Safety Action Plan* (ODOT) further reports that over 30% of all fatal and serious injury crashes involve young drivers, 25 years and younger, and 15% involve elderly drivers, 65 years and older. When compared to the number of drivers in these age groups, the number of crashes is disproportionally higher, particularly for young drivers.

Safety data collected included traffic volumes and crash rate on state highway, fatality and serious injury crash rates for the state and for Native Americans, and crash data recorded by CTUIR police over the period 2006-2014. Data is summarized in Tables 2, 3, and 4.

**TABLE 2**  
**ODOT Crash Rates (per 1 Million Vehicle Mile)**

Location	2013 ADT	Crash Rates*				
		2013	2012	2011	2010	2009
Oregon: State Rural Areas		0.62	0.65	0.64	0.57	0.56
Interstate		0.30	0.31	0.29	0.29	0.30
All Other Roads		0.85	0.88	0.88	0.77	0.75
Other Principal Arterials		0.72	0.76	0.76	0.66	0.65
Minor Arterials		1.12	1.11	1.08	1.30	0.93
Rural Major Collectors		1.35	1.42	1.41	1.19	1.13
Rural Minor Collectors		2.15	1.87	2.16	1.40	0.35
Rural Roads		0.00	0.00	0.00	0.00	7.49
<b>SR 11 (State Hwy 8)</b>						
City Limits to Reservation	3,856	0.73	4.18	2.07	2.04	1.67
Reservation to SR 331	3,300	0.73	1.41	1.17	0.47	0.30
SR 331 to Hwy 335	4,400	0.35	1.05	1.38	0.34	0.95
SR 335 to WCL Adams	4,079	0.12	0.48	0.48	0.35	0.32
Adams to Hwy 334	3,558	0.45	0.58	0.58	0.29	0.12
Hwy 334 to Hwy 330	3,644	0.24	0.72	0.47	0.23	0.16
<b>SR 331 (State Hwy 331)</b>						
SR 11 to Mission Rd.	1,697	0	1.28	0.64	0.64	1.67
Mission Rd. to I-84	4,700	0.75	1.24	1.48	0.52	0.38
<b>I-84 (State Hwy 6)</b>						
E. Pendleton Int. to SR 331	13,520	0.25	0.25	0.06	0.13	
SR 331 to Deadmans Pass Int.	9,666	0.58	1.12	0.84	0.55	0.46

\* Crash Rate Formula: (crashes\*1,000,000)/VMT

Source: Oregon Department of Transportation Traffic Data

TABLE 3

Umatilla Tribal Police Department Crash Data: April 2006 - November 2014

	Fatalities	Major Injury	Minor Injury	No Injury	TOTAL
<b>INJURIES</b>	8	24	110	235	378
	Driver Error	Animal	Weather	Other	TOTAL
<b>CAUSE</b>	237	46	28	67	378
	Intersection	Street	Parking Lot	Other	TOTAL
<b>LOCATION</b>	59	156	69	94	378
	Day	All Other	Unknown		TOTAL
<b>LIGHTING</b>	184	188	13		378
	Freeway or Ramp	Highway or Street	Pub./Priv. Property	NA or Unknown	TOTAL
<b>ROAD TYPE</b>	33	216	36/66	27	378
	Clear	Rain	Snow	Other	TOTAL
<b>WEATHER</b>	248	29	18	83	378

Source: CTUIR Police Department

TABLE 4

Annual Crashes: Umatilla Indian Reservation

	April 2006	2007	2008	2009	2010	2011	2012	2013	Nov. 2014	Total
<b>Total Crashes</b>	31	38	36	47	54	47	51	43	31	378
<b>Years of Data</b>	8.7									
<b>Crashes per Year</b>	43									

Source: CTUIR Police Department

Overall, based on the Tribal Police Records, most crashes happen on streets and highways, during the daytime, in clear weather, and are the result of driver error. Approximately 35% involve some type of injury, and 2% involve a fatality or approximately one fatality per year on average.

When evaluating specific locations, approximately 30% of crashes for which there was a location reported (331 crashes) occurred somewhere along Highway 331. By far the majority of these occurred in parking lots, most noticeably at the Wildhorse Resort and the Arrowhead Travel Plaza. Other crash locations along Highway 331 include the major intersections from Mission Road south to I-84. Since January 2011,



there have been 16 accidents reported at Wildhorse Blvd. of which 14 are reported to be in the parking lot, and almost all were a result of driver error. Also, there have been 7 accidents at the Ti'mine Way intersection, since April 2010. North of Mission Road, the major trouble spot for crashes is at the Kirkpatrick Road intersection. Overall, most crashes on the Reservation road network occur randomly, which is a fairly normal pattern for crashes.

## Emphasis Areas

The identification of key emphasis areas for the CTUIR LRSP is focused primarily on addressing safety issues and concerns identified by the Working Group, other various stakeholders, and the community.

In April 2015, the consultant team spent two days on the Reservation looking at safety conditions of roads serving the Reservation. During this period, a meeting was held with the Tribe, members of the Working Group, and other stakeholders, at which traffic safety issues and emphasis areas to be addressed in the LRSP were identified. Emphasis areas identified for inclusion in this LRSP are: education and enforcement, access, traffic control/intersection alignment, and pedestrian/bike facilities. Emphasis areas are summarized in Table 5 along with potential strategies and described below.

**TABLE 5**  
**Emphasis Areas/Potential Strategies**

Emphasis Area	Measure(s)	Potential Strategies
<b>EDUCATION AND ENFORCEMENT</b>	+ Reduce number of injuries/fatality crashes related to speeding	+ Undertake a safety education program in coordination with ODOT including visual and print media campaigns
	+ Reduce number of injuries/fatality crashes related to lack of seat belts/child restraints	+ Conduct a public information/ education campaign, targeting specific audiences (e.g. students, 18-34 year olds), focused on seatbelts/child restraint, speeding, driving under the influence, and pedestrian/ bicyclist awareness
	+ Reduce number of alcohol-related accidents, on and off reservation	+ Conduct sustained high-visibility enforcement initiatives (e.g. targeted enforcement at high hazard locations)
	+ Reduce number of pedestrian/bike related injuries/fatalities	+ Continue current best practice enforcement and education programs (e.g. signage, Click It or Ticket) + Continue best practices in crash reporting and use of timely and accurate reporting (e.g. GPS devices in patrol cars, use of RIMS system for coding)
<b>ACCESS</b>	+ Provide year-round	+ Provide crash gates or removable bollards

Emphasis Area	Measure(s)	Potential Strategies
	emergency access + Improve access management	for emergency access to roads/streets + Implement snow removal program + Undertake a joint Tribal/State Access Management Plan + Conduct road safety audit targeting high crash locations, e.g. casino access, to determine the contributing crash factors and identify effective countermeasures + Coordinate/support local governments in prioritizing safety work
<b>INTERSECTION SAFETY</b>	+ Reduce number of annual intersection-related injuries/fatalities crashes	+ Address intersection alignment problems + Reduce number of conflict points + Provide better guidance for motorists at intersections, i.e. improved lighting, signage,
<b>TRAFFIC CONTROL</b>	+ Reduce the number of traffic crashes annually	+ Complete high reflective sign replacement on BIA and tribal roads + Integrate traffic calming devices into new development and retrofit existing streets + Implement regular enforcement
<b>PEDESTRIAN SAFETY</b>	+ Zero injuries or deaths	+ Add sidewalks and/or pedestrian bike paths in high hazard locations + Widen and pave shoulders for pedestrian and bicycle use + Conduct periodic roadway safety assessments of locations with growing traffic and pedestrian volumes and locations at greatest risk for pedestrian fatalities and injuries

## Education and Enforcement

The consensus of the Working Group was to focus on education and enforcement as the most cost-effective measures to implement, particularly considering the limited funding currently available for major construction improvements. Identified issues to be addressed through driver education and enforcement were: speeding, use of seatbelts and child restraints, driving under the influence, and high hazard locations.

Potential strategies to address these issues include: establishing a public education program targeting specific audiences. For example, evaluating and improving the school driver education program; creating media campaigns and developing an outreach program, in coordination with ODOT, to educate teen drivers and increase awareness of the dangers of speeding and unsafe driving.



Other activities could include the development of a Tribal Traffic Safety Ordinance, implementing additional police patrols in problem areas such as along Highway 331.

## **Access**

Several access-related life safety issues were identified, including blocked roads which impede emergency access, the lack of snow removal which impacts access to homes, insufficient space for school bus turnarounds, and the need for better access management on SR 331 from Mission Road to I-84.

As SR 331 is under the jurisdiction of the State, potential strategies to reduce hazardous highway access locations could include a joint CTUIR/State development of an access management and safety plan to determine specific improvements that will enhance traffic safety and improve access.

Tribal crash data indicate that a number of crashes are occurring at the Wildhorse Casino Resort and the Arrowhead Travel Plaza areas, with most occurring in the parking lots. One potential strategy to address this issue is to conduct a safety audit targeting the actual locations to determine the contributing crash factors and identify effective countermeasures. This would at least show whether these are crashes occurring from vehicles backing out of parking stalls or whether there are some internal circulation issues.



Snow removal can also be a safety issue. Generally school bus routes have the highest priority. However, there is also a need to have all-weather access to homes of dialysis patients, so they can get to the treatment centers. Maintaining an updated snow removal plan can help address this issue.

Another emergency access issue was identified concerning roads/streets that have been blocked off on one end for various reasons. The concern was the ability of emergency vehicles to access a site from two different directions as well as the ability to evacuate people in case of an emergency, such as fire or flooding. Facilitating school bus turnarounds on dead end roads can also be a problem.

## **Intersection Safety**

As would be expected along a high volume road, crashes along Highway 331 at the major intersections are a problem as the number of crash points significantly increase at intersections. Besides the major intersections at the Tribal Center, Industrial Park, Travel Plaza and Casino/Resort, the Intersection at Kash Kash Road was identified as a potential problem because of its proximity to the I-84 interchange



ramps. Relocation of the intersection is one option, or a second it to bring the road into the Travel Plaza area where existing highway access is already available.

North of the Casino/Resort, besides some crashes occurring at the Ti'mine Way and Mission Road intersections, a surprising number are also occurring at Kirkpatrick Road north of the railroad crossing. The intersection of Highway 331 and Highway 11 was also cited as a problem because of its configuration as a five-legged intersection. However, Tribal Police records only show a couple of accidents at this location.

The emphasis area also coincides with the emphasis area of "Infrastructure" that is included in the 2016 *Draft Oregon Transportation Safety Action Plan (OTSAP)*, which includes retrofitting to improve roadway and intersection safety. Potential strategies to improve intersection safety include appropriate signage, pavement markings, lighting where possible, and signalization when warranted. All such devices should conform to the specifications in the Federal Highway Administration's *Manual on Uniform Traffic Control Devices* published by the American Traffic Safety Services Association.

## **Traffic Control**

Two traffic control issues were identified: the need to improve traffic control signage and pavement markings on BIA and tribal roads, and the need for traffic calming measures for better speed control, particularly in residential areas. Potential strategies to improve traffic control on reservation roads include completing the sign replacement program utilizing the new signs with high retroreflectivity, and integrating traffic calming devices, such as speed humps, into new development, as well as retrofitting existing streets.



## **Pedestrian Safety**

In Oregon, during the period from 2009 to 2013, an average of almost 800 pedestrians per year were hit by motor vehicles, with an average of 50 of these resulting in a fatality. Approximately a quarter of the pedestrians were struck in crosswalks. Statistics also show that the survival rate for pedestrians who are struck by vehicles traveling 40 mph or more is very poor.

For 2014, bicycle and pedestrian fatalities in Oregon totaled 64, which accounted for 18% of all traffic fatalities in the state. The Draft 2016 OTSAP identifies pedestrians and bicyclists as being more exposed than motor vehicle drivers to serious injury in the event of a crash. As a result, these groups are included in the State's emphasis area on "Vulnerable Users".

The lack of sidewalks, pedestrian paths, and bike lanes as well as narrow shoulders create safety issues on several roads, notably the north side of Confederated Way, River Road, Immigrant Hill Road, Short Mile Road, Cedar Street, and Highway 331. Adding sidewalks and/or pedestrian/bike paths on roads would increase safety. Another potential strategy is to conduct periodic roadway safety assessments of locations with growing traffic and pedestrian volumes and locations at greatest risk for pedestrian fatalities and injuries to identify countermeasures.

## Implementation Process

There are four main components on which to build a Local Road Safety Plan. These include Engineering, Enforcement, Education, and Emergency Medical Services. These are sometimes referred to as the four E's of safety.

- + **Engineering:** Although most crashes are the result of human error, some can be prevented through good roadway and intersection design. Appropriate signing, striping and pavement markings, rublestrips, lighting, etc. have all proven to be effective low-cost measures that will reduce crashes.
- + **Education:** Education training for drivers, pedestrian, and bicyclists is also an effective means of reducing crashes and potential fatalities. Understanding roadway engineering and traffic laws and regulations from the standpoint of different user groups can go a long way in reducing crashes and fatalities.
- + **Enforcement:** Enforcement of traffic laws is a critical element in any traffic safety program. Without enforcement, the effectiveness of traffic laws and regulations is greatly diminished. Increased patrolling of roads is the most effective short-term way to reduce traffic crashes.
- + **Emergency Medical Response:** Another element in preventing fatalities is rapid emergency medical response. The sooner medical responders can reach a crash scene, the better the chances of preventing fatalities resulting from serious injuries. Well engineered roads and good driving behavior on the part of the public are important if emergency responders are to minimize response times to crash scenes.

As stated before, Education and Enforcement were identified by the Working Group as being the least cost actions that could be effective in the initial stages of implementing the LRSP. Further, because of limited funding currently available for major construction improvements, it is recommended that the CTUIR focus initially on implementing relatively low-cost strategies for highest-priority emphasis areas. Higher cost safety projects, such as road widening, need to be coordinated with the Long-Range Transportation Plan as they will need to be prioritized with other tribal transportation needs for funding and implementation. The following are recommended actions that could be implemented in the near term

### Education and Enforcement

The Tribe should initiate, in coordination with ODOT, a safety education/information program especially targeting high-risk populations, such as high school Driver's Ed, bicycle and pedestrian safety for school children, and laws and benefits of using seatbelts and child restrains for infants and small children. The education program should also include public information/education campaign – make available public information materials, posters, etc.; public service announcements; articles in tribal newsletter; safety fairs; etc.

In addition to ODOT resources and publications that include driver, motorcycle, bicycle and pedestrian rules and safety measures, the following organizations



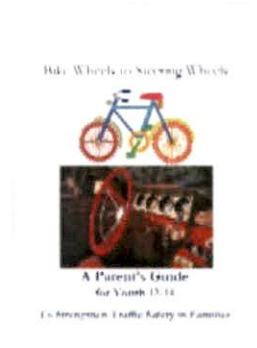


have additional resources that can be accessed via the Internet:

- + Federal Highway Administration
- + National Center for Bicycling and Walking
- + University of North Carolina—Highway Safety Research Center
- + University of Minnesota—Center for Transportation Studies

Enforcement is also a critical element of the LRTP. Enforcement should target high crash locations, known speeding problem areas, problem intersections, and times when there are more pedestrians and bicycles on the roadways.

Additional patrolling is also a cost issue, and it is recommended that the various law enforcement agencies coordinate efforts and also that the Tribe seek additional funding sources to support these efforts.



An additional element in enforcement is continued recordkeeping of crash locations and crash characteristics. In addition to the general location description, it is recommended that the coordinates of the crash be recorded. Hand held GPS units are available to record this data and should be provided to tribal police. If nothing more, Google Maps can be used to determine the longitude and latitude. Having the exact location of crashes is important to analyzing crash data.

## Access

The Tribe should initiate discussions with the State regarding development of an Access Management Plan for SR 331 from I-84 to the Umatilla River that would involve all land owners. The purpose of the Plan would be to maintain traffic safety and to provide safe access for business, institutional uses, and agricultural uses.

Another access issues surrounds snow removal to maintain school bus access and access to dialysis patients. It is recommended that a snow removal plan be developed by the Tribe and BIA to address changing access needs and emergency situations.

## Intersection Safety

Several intersections have been identified earlier where there have been a number of crashes. Safety studies of these intersections need to be conducted to identify if any engineering (including signing and/or striping) is appropriate to reduce the potential for crashes. The intersection of most concern at this point in time is the intersection of SR 331 with Wildhorse Boulevard, the northern entrance to the Wildhorse Casino Resort and Tama'stslikt Cultural Center. This intersection appears to have inadequate signing to warn drivers of the divided nature of the roadway in that there are no "WRONG WAY" signs in the westbound lanes and no direction signs on either the eastbound or westbound lanes. There is also a lack of one-way directional signage at intersections with the parking lot along this route. Adding signage is a low-cost solution that should solve these issues.

## Traffic Control

Several traffic control actions can be taken in the short term. These include:

- + **Signing:** Complete the program underway to replace signage on BIA and tribal roads with the new retroreflective signs within the next two fiscal years.
- + **Striping and Pavement Markings:** Restripe and repaint pavement markings on a regular basis depending on wear, particularly on roads that are regularly sanded during the snow season.
- + **Traffic Calming Devices:** Require that speed humps, crosswalk tables, and other traffic calming devices be incorporated as appropriate in the construction of new residential and commercial streets or the reconstruction of existing streets. (Note: the traditional “speed bump” does not meet AASHTO nor BIA design standards, and they should not be used. They are also very dangerous for motorcyclists and are thus a liability problem, particularly to the BIA which can be sued as a result of damage or injury.)

## Pedestrian Safety

A number of locations have been identified in the Plan where pedestrian facilities are needed. Implementing these will require considerable funding and will need to be addressed and prioritized in the Tribe’s Transportation Plan when it is updated or amended. However, it is recommended that as new streets and roads are developed that they either have adequate shoulders for pedestrian and bicycle usage or that they have curbs and sidewalks, which are particularly appropriate in residential and commercial developments. These facilities provide good safety benefits as statistics show that a pedestrian is 60% safer walking on a road with 6-foot or wider shoulders and a person is 80% safer walking on a sidewalk adjacent to a street.

## Implementation Time Frame

It is realistic that the above actions could be implemented within Fiscal Years 2015 and 2016 as follows:

Signing: Wildhorse Boulevard	FY 2016
Education and Enforcement Program	FY 2016-17
Complete Retroreflective Signing Replacement	FY 2016-17
Traffic Calming Devices in New Construction	FY 2017
SR 331 Access Management Plan	FY 2017-19
Striping and Pavement Markings	FY 2017-19
Develop Emergency Access Plan (Snow, Flooding, etc.)	FY 2018

## Evaluation and Updating Process

At this stage, it is recommended that the Working Group meet twice a year, approximately every 6 months, to monitor the progress of the Safety Program. Based on the agenda items, it may be possible that one or both meetings could be accomplished through a conference call to reduce travel time for several of the members who are located some distance away. Objectives of the meeting would be to review and evaluate progress, discuss potential funding sources, to redirect priorities as appropriate or as

improvements are implemented, and to guide periodic updating of the Plan. It is suggested that the LRSP be updated on a two-year cycle.

It will be the responsibility of the CTUIR “Champion” to ensure that the activities identified in the Plan are carried out and that open communications are maintained with the Working Group members to apprise them of progress and problems as well as seeking guidance and support as appropriate.

## Next Steps

Essentially, the next steps should be undertaken within the next six month and are the responsibility of the CTUIR. They and include:

1. Adoption of this Local Road Safety Plan by the Board of Trustees.
2. Amend, if necessary, the CTUIR Long Range Transportation Plan and update the Transportation Improvement Program (TIP) to include identified safety projects, so FHWA funds can be used.
3. Initiate discussions with the State to formulate a public education/information program, identifying target audiences, methods, and implementation schedule.
4. Initiate signage improvements on Wildhorse Boulevard.

## References

A Primer on Safety Performance Measures for the Transportation Planning Process, U.S. Department of Transportation, Federal Highway Administration with support from Transportation Safety Planning, Transportation Safety Planning Working Group

Centers for Disease Control and Prevention, Native American Road Safety data

Developing Safety Plans, A Manual for Local Rural Road Owners, U.S. Department of Transportation, Federal Highway Administration

Oregon Department of Transportation. Crash data, traffic volumes, and various traffic safety publications, including the *2011 Transportation Safety Action Plan* and *2016 Draft Transportation Safety Action Plan*