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Taos Pueblo Tribal Council Resolution No: 2023- 31

Acceptance and Approval of Taos Pueblo Tribal Transportation Safety Plan and Safe Routes to School

Whereas, Taos Pueblo is a federally recognized Sovereign Government composed of the Tribal Council, the Governor's Office and the War Chief's Office; and

Whereas, The Taos Pueblo Tribal Council is the legislative authority and acts in the best interest of Taos Pueblo; and

Whereas, The Taos Pueblo Governor's Office, as an executive branch of Taos Pueblo Tribal government, has responsibility to oversee roads for the Taos Pueblo community; and

Whereas, Motor vehicle crashes are among the leading causes of death for Native Americans; and,

Whereas, It has been determined that the Taos Pueblo community is in need of a Tribal Transportation Safety Plan to include a Safe Routes to School emphasis area to protect the health and safety of children and persons traveling on Taos Pueblo lands; and

Whereas, The Taos Pueblo Tribal Transportation Safety Plan will identify problems and guide a collaborative effort toward addressing the high-risk attributes of transportation infrastructure, human behavior, and vehicles to achieve the highest level of transportation safety; and

Whereas, The Taos Pueblo Tribal Transportation Safety Plan will facilitate the implementation of effective transportation safety strategies to save lives while respecting Taos Pueblo values by fostering communication, collaboration, and cooperation; and

Whereas, Taos Pueblo is striving to reduce roadway fatalities and serious injuries by 50% within ten years (or by the end of calendar year 2033) with an eventual goal of eliminating roadway fatalities and serious injuries; and

Whereas, Taos Pueblo self-certifies that not only does this Taos Pueblo Tribal Transportation Safety Plan meet Federal Highway Administration requirements for Tribal Transportation Safety Plans, it also is substantially similar to, and meets the criteria for a Comprehensive Safety Action Plan per the eligibility requirements of the U.S. Department of Transportation Safe Streets for All grant program; and

Now Therefore Be It Resolved, that the Taos Pueblo Tribal Council, after due consideration hereby approves the Taos Pueblo Tribal Transportation Safety Plan, including the Safe Routes to School emphasis area, to prevent and reduce fatalities and injuries associated with the use of Tribal transportation facilities; and

"Acceptance and Approval of Taos Pueblo Tribal Transportation Safety Plan and Safe Routes to School"

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Now Therefore Be It Further Resolved, that the Taos Pueblo Tribal Council recommends the establishment of a Taos Pueblo Transportation and Active Transportation Safety Management Committee whose responsibility is to develop partnerships across disciplines, programs, and organizations to assist in acquiring data, analyzing data, selecting emphasis areas, developing safety strategies and implementing the plan; and

Now Therefore Be It Finally Resolved, that the Taos Pueblo Tribal Council hereby authorizes the Taos Pueblo Governor, as the official signatory for Taos Pueblo, to execute all documents required to implement the intent of this Resolution.

CERTIFICATION

	•	
The foregoing Taos Pueblo Tribal Counc	il Resolution 2023 - <u>31</u> , 'A	cceptance and Approval of Taos
Pueblo Tribal Transportation Safety Plan	and Safe Routes to School,' was	adopted at a duly called meeting
of the Taos Pueblo Tribal Council on the	14th day of August	_2023, at which a quorum was
present and 26 voted in favor, 6 o	pposed, andabstained.	
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Gary J. Lujan	John Archuleta /	
Governor	War Chief	
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Paul T. Martinez	Senior Councilman	
Cacique		
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ATTEST:		

12/00 0

Richard Archuleta/ For Tribal Council Secretary Daniel R. Lucero Tribal Secretary

Joel Archuleta War Chief Secretary



TRIBAL TRANSPORTATION SAFETY PLAN

Prepared For:

Taos Pueblo

P.O. Box 1846 Taos, New Mexico 87571



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August 2022

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The author wishes to thank the Federal Highway Administration's Tribal Transportation Program for making these Safety Fund grants available to federally recognized tribes for transportation safety planning and the implementation of numerous transportation safety projects and activities. The author also extends thanks to Taos Pueblo staff for directing and participating in many of the activities vital to this plan's completion. The plan could not have been finalized without Mr. Vernon Lujan's incredible guidance, patience, and repeated crash data acquisition support. Ms. Leslie Keahbone tirelessly responded to questions and co-facilitated a very productive Tribal Transportation Safety Plan Meeting during which Pueblo residents and Taos Pueblo staff members described Taos Pueblo's most dangerous roadway locations and concerns, and shared critical background about several crashes that have occurred within the Pueblo. Ms. Reva Sauzo fielded detailed aerial map requests and offered an inspiring account of Taos Pueblo's reacquisition of Blue Lake. Mr. Andrew Haimowitz and Dr. Gladys Herrera-Gurule, then Principals at Taos Day School and Enos Garcia Elementary School respectively, welcomed the author's site visits and subsequent recommendations, and shared valuable meeting time responding to comprehensive sets of Safe Routes to School interview questions. Mr. Larry Apodaca gave a thorough tour of the Taos Day School and Head Start campuses and adjacent grounds, and was attentive to providing a campus aerial map and pencil drawing.

Without the meeting attendance, involvement, and other contributions of the following Taos Pueblo community residents and interested parties, this plan would not have been possible:

- Shawn Duran, Tribal Programs Administrator
- Vernon Lujan, Deputy Tribal Programs Administrator and Transportation Planner
- Leslie Keahbone, Municipal Services
 Division Administration/Enrollment
- Reva Sauzo, Realty
- Gary Lefthand, Chief of Police
- Elena Tafoya, Taos Department of Public Safety Administrative Assistant
- David Trujillo, Police Chief, Town of Taos
- Curtis Sandoval, Roads Department
- John C. Romero, Equipment Operator
- Richard Archuleta, Senior Citizen Program Manager

- Estelle Archuleta, Assistant Program Manager, Taos Pueblo Senior Center
- Lawrence Lujan, Taos Pueblo Utility Service Director
- Frederick Lujan, Sr., Community Member
- Henrietta Gomez, Community Member
- Andrew Haimowitz, Taos Day School
- Larry Apodaca, Taos Day School
- Gladys Herrera-Gurule, EdD, Enos Garcia Elementary School
- Stacey McGuire, Planning, Projects & Grants Manager, NCRTD
- Paul Sittig, Transportation Planner, NPRTPO



Preparation of this Tribal Safety Plan was funded by a Tribal Transportation Program Safety Funds grant from the Federal Highway Administration, March 2015.



Taos Pueblo lies the furthest north of New Mexico's 19 pueblos at an elevation of 7,200 feet. Coordinates: 36.43917°N105.54559°W



Red Willow Creek



Taos Pueblo in winter
Photo credit: Rick Romancito

Regarded as one of the oldest continuously inhabited communities in the United States, Taos Pueblo is a federally recognized Indian Tribe, organized pursuant to the authority of Section 16 of the Act of Congress on June 18, 1934 (48 Stat. 984) as amended by the acts of Congress, June 15, 1935 (49 Stat. 378) and May 1, 1936 (49 Stat. 1250). Taos Pueblo has a current total enrollment of 2,555 tribal members: 1,382 of whom live within the boundaries of Taos Pueblo; 100 of whom live on an adjacent land base; and 1,073 of whom live "off land base"; i.e., outside the Taos Pueblo boundaries.

With the backdrop of the Sangre de Cristo Range's Taos Mountains, New Mexico's northernmost Tiwa-speaking pueblo lies tucked in a valley embracing a small Rio Grande River tributary approximately one mile north of Taos, New Mexico. In the Tanoan (Northern Tiwa) language, Taos Pueblo is known as "ałopháymup' öhéothèolbo, translated as "at red willow canyon mouth," or also known by the shorter "ałopháybo, "at the red willows" (Sturtevant, 1978). Red Willow Creek flows through the Pueblo's midst, and divides the multistoried adobe residential complex for which the Pueblo is renowned, in two: Hlauuma (north house) and Hlaukwima (south house). Likely built between 1000 and 1450 AD, this ancient adobe ensemble of individual homes built in layers side-by-side with common walls represents Native American architecture that closely resembles much of its original appearance due to tribal members' strict adherence to annual mudding and maintenance with materials acquired from sacred tribal areas and applied using traditional techniques.

Uniquely representative of a culture whose traditions date back to the Southwest's Puebloan Indians, Taos Pueblo was designated a National Historic Landmark on October 9, 1960. Considered one of the world's most significant historic places, in 1992, the Pueblo was admitted to UNESCO's World Heritage Society as the only World Heritage Site that is a living community. Taos Pueblo also represents a sacred place "...that has survived with its cultural integrity intact... (National Park Service, 2019)," in part because the residents and Pueblo leadership for centuries have consistently and judiciously preserved the very private religious and traditional tenets and Pueblo

infrastructure, which sustain the vibrancy of this distinctive community.

Archaeological evidence suggests the Taos Valley has been inhabited since as far back as 3000 BC, and prehistoric ruins seen across the vicinity date from 900 AD (Weiser, 2017). Referred to as "Cornfield Taos," Taos Pueblo's original site sits directly east of the adobe complex today. Believed to have initially been constructed about 1325 AD, the first structure is now a sacred site and ruin. Archaeological studies have never determined precisely why the structure was rebuilt slightly west in approximately 1400 AD (National Park Service, 2019).

Taos Pueblo from its earliest years was a trading and communications center between Native Americans residing along the Rio Grande, between Native American tribes from outside the state, and eventually between Native Americans and the Spanish. Each fall, after the agricultural harvest, a trade fair was held at the Pueblo. In 1540 AD, Francisco Vasquez de Coronado sent Captain Hernando de Alvarado and a 20-soldier detachment across northeast New Mexico to continue searching for the fabled Seven Cities of Gold during the timeframe known to archaeologists as the Post-Pueblo Period (approximately 1300 AD to the late 1700s).

According to prevalent 16th century Spanish folklore, the Seven Cities of Gold would be found amongst the New Mexico Territory's pueblos. Known respectively as Matsaki, Quivira, Kiakima, Hawikuh, Halona, Kwakina, and Cibola (Wikipedia, 2019), Taos Pueblo was mistaken as the infamous seventh City of Cibola by Alvarado's contingent, because the micaceous mineral, which naturally occurs in the clay used by Taos Puebloans to make pottery and to mud the adobe residential complex's walls, gleamed in the Southwestern sun like gold. Quoting Gilbert Suazo, a Taos Pueblo elder and former Tribal Council member, "...The whole Taos valley was irrigated, and when the Spanish arrived they saw the shimmering pueblo surrounded by fields of corn. They thought there was wealth here (Landry, 2017)." Excited by "discovering" Taos Pueblo, Alvarado's group initiated the pueblo's first contact with Spaniards.

Beginning in July 1598, when Don Juan de Oñate Salazar, explorer and then colonial Governor of New Spain (present-



"The arrival of the Spanish in present-day New Mexico during the late 1500s towards the end of the Post-Pueblo period had ripple effects on American Indians living in the region. From their introduction of weapons, horses, and fatal diseases to their efforts to impose European government systems, religion, and language, the Spanish had pervasive and long-term impacts on the native cultures they encountered." (Crow Canyon Archaeological Center, 2014). Map by Neal Morris.



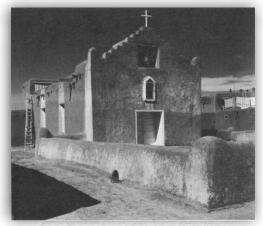
The search for the Seven Cities of Gold Photo credit: 21st Century Fox film, "Seven Cities of Gold (1955)"



San Geronimo de Taos Mission circa 1881



San Geronimo de Taos Mission circa 1920s



San Geronimo de Taos Mission circa 1939



San Geronimo de Taos Mission today

day Mexico), came to Taos, the ongoing presence of the Spanish in the region ushered in conflicts between Taos Pueblo value systems and those of the Spanish; challenges that shaped the Pueblo's history moving forward and which continue to influence Taos Pueblo leaders' decision-making in the present. After his visit to the area, Salazar assigned Fray Francisco de Zamora to serve the Taos and Picuris Pueblos in September 1598. With Taos Puebloan's labor, a Spanish-Franciscan mission was built in about 1619, and called San Geronimo de Taos (Weiser, 2017).

More Spaniards settled in the area, drawn by the available water supply, game, timber, the mission, and the Pueblo's existing trading networks. As Ilona Spruce, Taos Pueblo Tourism Director, details, "The Spanish forcibly introduced Christianity to the pueblo. Pueblo Indians converted to Christianity or were killed... The Spanish brought the church and a new way of thinking. They didn't come with women of their own, so they started having children with Taos women... The Spanish changed the dynamics within the pueblo; they introduced violence (Landry, 2017)." Cultural tensions were exacerbated in Taos Pueblo, as well as in native communities across the Southwest, with the increasing Spanish presence and their authoritarian ways (National Park Service, 2019). By 1640, Taos Pueblo tribal leaders sent the Mexican Inquisition an official complaint about the immorality of the priest they had been assigned (National Park Service, 2015).

In 1680, pueblo people in the area formed an alliance in answer to a regional call to expel the Spanish. Held at Taos Pueblo, months of secret meetings resulted in the August Pueblo Revolt of 1680. This coordinated attack by a coalition of 8,000 pueblo warriors was made on several Spanish settlements, and drove approximately 1,000 settlers out of the region (Weiser, 2017). Unfortunately, the mission - rebuilt after Governor Lopez de Mendizabal persuaded the Franciscans to return to the Pueblo - was again demolished during the uprising. Taos Pueblo enjoyed a twelve-year return to traditional practices, and respite from the imposition of Spanish institutions, until the 1692 Reconquista led by Don Diego de Vargas (National Park Service, 2015).

De Vargas raided the Pueblo in 1694, when residents

refused to provide his starving Santa Fe settlers with corn. In 1695, Taos Pueblo briefly submitted, but then rebelled again in 1696 before finally yielding. Later in 1696, in utter ruin, the mission was being used as a stable. The Franciscans returned in 1706, at which time records indicate that Fray Juan Álvarez began to rebuild the church. The adobe San Geronimo Mission was completed in 1726, and remained standing until 1846 (National Park Service, 2015).

Taos Pueblo peoples and the Spanish collaborated for a time to resist area invasions by the Comanche and Ute tribes. Nonetheless, the rejection of Catholicism and Spanish cultural mores continued, and the relative peace between the two communities was tested during the Mexican-American War, when U.S. troops under the command of General Stephen Kearney occupied the province of New Mexico in 1846 (Weiser, 2017). Together, Pablo Montoya, a Hispano, and Tomás Romero, a Taos Pueblo leader (aka Tomasito), led a force of Taos Puebloans and Hispanos who had no desire to see their lands become part of the United States. After marching on Santa Fe, the group sought refuge within the San Geronimo Mission. Learning of the stronghold's whereabouts, American troops subdued the rebels by bombarding and raising the mission, then capturing or killing those they found inside. The ruins of this mission are still standing on the village's west side to this day, and a third mission church was constructed near the pueblo wall's west gate around 1850 (National Park Service, 2015).

In time, the Taos Pueblo people adopted and balanced Spanish Catholicism, as well as Spanish governmental systems with their traditional ways. This delicate balancing act is evident today with the presence of the kivas and the rebuilt San Geronimo Mission, a mission that blends syncretic practices such that a calendar of festivals is observed throughout the year. For example, dances that celebrate the buffalo, turtle, and deer are interspersed with dances honoring the Virgin Mary and the patron saints, Jerome and Anthony (Power, 2008).

With the 1848 cessation of the Mexican-American War and the Treaty of Guadalupe Hidalgo, Taos Pueblo became part of the Territory of New Mexico, and thus, also part of the



The bell tower ruins of San Geronimo Mission today

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Treaty of Guadalupe Hidalgo (Wikipedia, 2017)



Train travel to the Santa Fe territory was promoted via station and depot upgrades for which American art pieces, like Walter Ufer's "Taos Girls," were commissioned in an effort to attract passengers to the scenic wonders of the Southwest railroad's heritage (BNSF Railway, 2014).



Sun-dried adobe bricks readied for the annual maintenance of the pueblo walls.

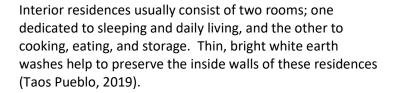
United States. In 1878, the Atchison, Topeka, and Santa Fe Railroad (the Santa Fe) entered New Mexico over the Raton Pass bringing changes to traditional native economies and increased tourism. When the newly incorporated New Mexico and Arizona Railroad line met in 1882 with the Atchison, Topeka, and Santa Fe Railroad line, the Santa Fe became the longest rail line under single management in the world, and made Santa Fe, New Mexico the trade center of the Southwest (BNSF Railway, 2014).

Nonetheless, as the northernmost of New Mexico's Rio Grande pueblos, Taos Pueblo's inaccessibility allowed for its historic ability to preserve its ancient ways in the face of Spanish, and later, Anglo-American, influences. It is thought that Taos Puebloans' strong sense of community, fiery independence, and early taboos against marrying outside the Pueblo helped Taos Pueblo people uphold their cultural integrity (Liguori, 2019).

The incredible preservation of the Pueblo's iconic structures across the generations directly reflects this cultural integrity. In fact, Hlauuma (the northern house) is renowned for being one of the most painted and photographed buildings in North America (New World Encyclopedia, 2015). A blend of earth mixed with water and straw, the adobe forming Hlauuma and Hlaukwima (the southern house), is poured either into forms or baked into the sun-dried bricks that comprise the structures' several feet thick walls (Taos Pueblo, 2019). According to Tourism Director, Ilona Spruce, "Upkeep happens every year, at least. Because it is so iconic, tribal members redo the walls, make the mud mixture and pack on the adobe. This means the walls are several feet thick sometimes, and we have to knock down previous layers before packing more on" (Landry, 2017).

Hlauuma and Hlaukwima's roofs can be as many as five stories high, with supports comprised of vigas acquired from the surrounding mountain forests, then covered by adobe plaster topped with up to 18" of loose insulating soil. Aspen or pine latillas placed side-by-side atop the vigas provide structural strength along with the soil layer (Wikipedia, 2019).

When originally built, and through approximately 1900, access to the rooms of the residences' lower floors was exclusively via ladders to the rooftops and the use of ladders down into the interiors. In the case of an attack, the ladders could be pulled into the residences eliminating the possibility of entry. Even though doors, windows, and fireplaces have been installed for use today, tribal traditions prohibit the installation of running water or electricity (New World Encyclopedia, 2015). Together with kerosene lamps, the skylights that replaced some of the original ladderaccessed rooftop entries are used for contemporary lighting (Landry, 2017).



Inheritance of the homes is typically generational with the eldest son usually being the sole homeowner. Many tribal members opt to reside on Taos Pueblo in modern homes outside the old pueblo wall that symbolically continues to enclose the village, while others owning pueblo residences may prefer to live near the fields that they work on Taos Pueblo land. Some of the tribal members who live off the Pueblo return only seasonally to enjoy ceremonial functions (Taos Pueblo, 2019).

Coal-heated, domed horno ovens - capable of baking as many as 30 loaves simultaneously - continue to dot the residential landscape. The presence of several round religious and ceremonial kivas, Cornfield Taos' sacred ruins, a ceremonial racetrack, and massive, ancient, and the repeatedly rebuilt San Geronimo Mission are unique additional features of this spectacular pueblo (National Park Service, 2019).

Despite the Pueblo's organization as a sovereign nation under the Indian Reorganization Act, Taos Pueblo's government is a traditional form, which derives in part from ancient pueblo leadership traditions and those assumed from the Spanish. Therefore, there is no constitution. An assembly of approximately 50 male tribal elders, Taos Pueblo's Tribal Council, handles government obligations



Taos Pueblo by Georgia O'Keefe, 1929



A pair of horno ovens found on the Taos Day School campus



Taos Pueblo ceremonial race, circa 1893 Photo credit: Denver Public Library

through consensus votes during monthly Council meetings. The Pueblo's Tribal Council annually appoints the Governor, War Chief, and staff for the two. Business and civil concerns within the Pueblo and maintenance of relationships with non-Native society are under the purview of the Governor and his staff. The War Chief and his staff focus on maintaining the security of the Pueblo itself, the mountains, and Pueblo properties outside the perimeter of the Pueblo's walls (Taos Pueblo, 2019).

To insure that the Pueblo continues to have stronger and more independent control over its own priorities and goal setting, in 2007, the Tribal Council took steps toward self-governance. As Shawn Duran, Taos Pueblo's Tribal Programs Administrator, described in 2014, "We've taken on even more responsibility and are taking on the programs, functions, and services to serve our people. We're finding solutions that we're familiar with and turning that into programs that work for our people (Robert Wood Johnson Foundation, 2014)."

Seasonal cycles and today's harvests of blue, white, and sweet corn, miscellaneous squashes, dry beans, pumpkins, tomatoes, spices, wild onions, garlic, and a multitude of other fruits and vegetables continue to be celebrated by Taos people just as they have been for generations. Feast Days gather Pueblo community members to honor the Creator's gifts with prayer, song, and dance. The dances connect present day pueblo residents with their ancestors, home community, and traditions, while ensuring the continuance of the pueblo cultural belief system and way of life. Dances held on Feast Days also may commemorate an important date in the life of one of the Pueblo's patron saints or a special ceremonial day. Within the pueblo communities, the dance areas are called plazas and are open air central gathering spaces built between housing structures that allow pueblo dancers to commune with nature and the Creator during Feast Days (Indian Pueblo Cultural Center, 2017).

Taos Puebloans are recognized for their fine skill at pole climbing, an event featured during some of the Feast Days, along with the aforementioned centuries-old trade fair and War Dances (Liguori, 2019). The Pueblo enjoys as many as 10,000 visitors on its annual September 30 San Geronimo

Taos Pueblo Dances, Feast Days & Ceremonies

January 1- Turtle Dance January 6 - Deer or Buffalo Dance May 3 - Santa Cruz Feast Day June 13 - San Antonio Feast Day June 24 – San Juan Feast Day 2nd Weekend of July - Annual Taos Pueblo Pow-Wow July 25 - Santiago Feast Day July 26 - Santa Ana Feast Day September 29 - San Geronimo **Eve Vespers** September 30 - San Geronimo Day December 24 - Procession of the Virgin Mary

December 25 - Deer or

Matachinas Dance

Day. The Tourism Director, Ilona Spruce, describes San Geronimo Day as follows, "On Feast Day, we have foot races, traditional clowns that run along the rooftops, and vending in the courtyard. We also have generations of shop owners and artisans who sell from their homes. That is our time to show off our traditions, who we are (Landry, 2017)."

Talented in leatherworking, Taos Pueblo craftspeople fashion boots, moccasins, various garments, and drum skins from the abundant buffalo, elk, and deer hides to which they have access from their hunts in the Sangre de Cristo mountains and the plains beyond (Taos Pueblo, 2019). However, because Taos Pueblo pottery is fired from clay derived of decayed pre-Cambrian schist and filled with abundant flecks of mica, the Pueblo's pottery traditions vary considerably from those of other pueblos and garner more attention than the local leatherwork. In fact, these utilitarian ceramic wares more closely resemble those crafted by nearby Apache tribal members in that the pieces tend to remain unpolished, unpainted, and - if decorated at all - display simple sculptural features like ribbons, knobs, or punches (ClayHound Web, n.d.).

Hand-rolled coils that are smoothed and sanded define Taos Puebloan pots, as opposed to thrown pottery from ceramicists' wheels. Using wood bark or dry cedar, the artisan fires their pieces in an outside pit; thus, each piece exhibits a unique design of fire clouds from that firing. During the 18th and 19th centuries, these vessels' unpolished surfaces often were intentionally roughened with combings or other striations. For instance, some pieces were decorated by pressing the clay into baskets to produce a surface appearing as if a corncob had been rolled over it (Liguori, 2019).

Traditionally, Taos Pueblo residents retained seven years of food storage to sustain the community in the event of prolonged drought or other unplanned food supply disruptions. Self-sufficiency is an important goal for the Pueblo, as was indicated by Shawn Duran's aforementioned quote. With that in mind, the Red Willow Community Growers Cooperative is revitalizing the Pueblo's agricultural heritage; including, but not limited to: year-round food production in gardens, raised beds, fields, and wood-



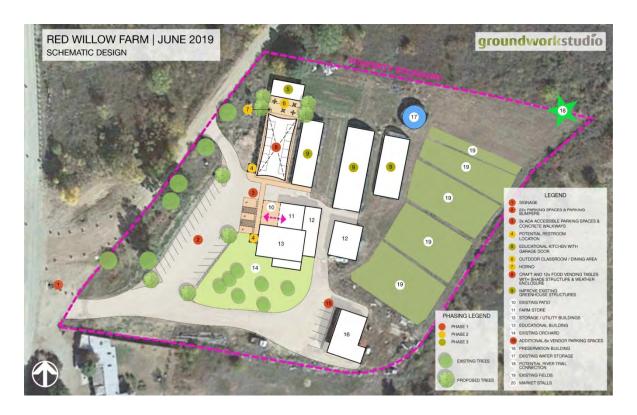
Traditional Taos Pueblo pottery tends to remain unpolished and unpainted with a unique design of fire clouds from their firing. Photo credit: Tim Ligouri, ClayHound Web



George Gonzales Vase (1); unsigned bear effigy (2); Angie Yazzie Vase (3); unsigned bowl (4); unsigned plate (5); and unsigned bird effigy (6). Note the fire clouds in pieces 3 and 4. Photo credit: Tim Ligouri, ClayHound Web



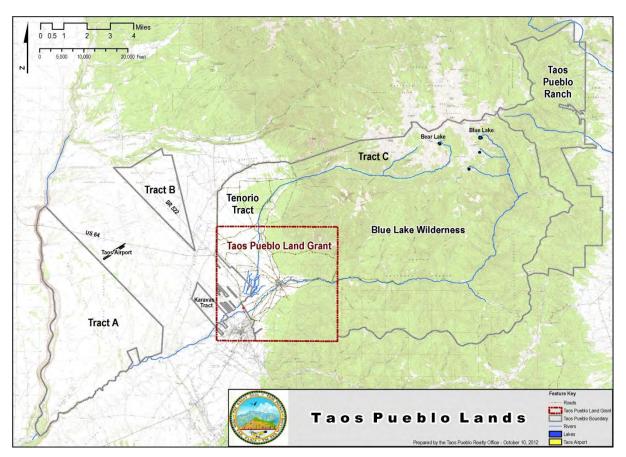
Contemporary Taos Pueblo pottery





furnace-heated greenhouses; the promotion of grassroots economic development through the Red Willow Farmers Market; and the education of secondary students about seasonal planting cycles, field preparation, and the art of growing produce to supply local markets (Robert Wood Johnson Foundation, 2014). The Co-op and the Red Willow Center distribute their fresh, organic fruits and vegetables to community families, senior citizens, and local schools as a means of strengthening Pueblo sovereignty through agriculture. Additionally, in 2016, Red Willow Farm began an annual seed exchange to acquire and preserve seeds.

The 2002 sustainable agriculture initiative that was approved by Taos Pueblo's tribal administration directly led to the successful creation of the Co-op, Red Willow Farm and Farmer's Market, and the numerous programs operating under the Co-op's umbrella. Today, there is ongoing support for existing farmers and technical assistance provision to train new farmers to provide for long-term food storage, insure regional food security, health, and economic well-being (Red Willow Farm, 2018).



Taos Pueblo is comprised of 111,378.99 acres within the southcentral portion of Taos County, and is typically defined by the following land holdings (see Taos Pueblo Lands map above):

- the Taos Pueblo Land Grant with a gross area acreage of 17,390.13 acres;
- the 5,695.92-acre **Tenorio Tract Purchase**;
- the **Karavas Purchases**, 618.801 acres of which are located outside of the **Taos Pueblo Land Grant**;
- the Antonio Martinez Grant, which includes acreage separated into three tracts:
 - Tract A is a 16,692.10-acre triangle of land west of the Taos Pueblo Land Grant, which extends east from the Rio Grande, and is the Pueblo's westernmost holding.
 - Tract B: is also triangular in shape; lies northwest of the Taos Pueblo Land Grant; spans both sides of New Mexico 522 (NM522); and contains 3,796.48 acres.

- Northeast of the other two parcels and the Taos Pueblo Land Grant, Tract C adjoins the Tenorio Tract Purchase, and encompasses 5,749 acres.
- A gift deed in the form of a 0.25-acre lots within the Carson Estates Subdivision as well as a second gift deed of the 43.77-acre Ponce de Leon Hot Springs parcel; and
- Another 15,281.48 acres in other land purchases (Taos Pueblo Realty Office, 2016).

Part and parcel of Taos Pueblo land holdings is the Blue Lake Wilderness, the complete restoration of which was the result of a 64-year struggle by the Taos Pueblo people. Despite Blue Lake being a sacred space that is understood to be the place where the ancestors live and from which the ancestors originated; in 1906, President Theodore Roosevelt authorized that the lake and its surrounding acreage be protected as the Carson National Forest under the purview of the United States Forest Service. Effectively, the federal government completed a 48,000-acre land grab of pristine mountain territory without paying a cent. Later when the Pueblo Lands Board offered to pay the 1906 valuation of the land, Taos Pueblo leadership rejected the offer insisting instead that they receive a clear title to the property, and thus began their lengthy battle to regain possession of the precious watershed.

The spiritual home and center of Taos Puebloan religion for seven centuries, Blue Lake is not only a hallowed religious site, but its watershed provides the headwaters for Taos Pueblo's single water source, Red Willow Creek. Its desecration represented an attack on pueblo members' spiritual and cultural health as well as a violation of religious freedom that formed the legal foundation for the decadeslong battles for its return. As Gilbert Suazo tells it, "In the 1920s, we started fighting for our religious rights. The government was trying to suppress our rights, and it took decades to get the land back (Landry, 2017)." On December 15, 1970, Public Law 91-550 placed the original 48,000 acres into trust status for Taos Pueblo when President Richard Nixon signed the legislation. Twenty-six years later, on November 12, 1996, President Bill Clinton signed Public Law 104-333 restoring 711.80 acres known as the "Path of Life" (Bottleneck) area to Taos Pueblo capping off what by then



Historic meeting of Taos Pueblo delegation with President Richard M. Nixon on July 8, 1970 in the Cabinet Room of the White House's West Wing. In the State Dining Room on December 15, 1970, Nixon signed Public Law 91-550, which officially returned the Blue Lake Wilderness Area to Taos Pueblo.

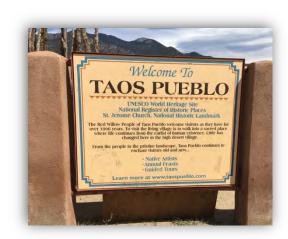
Photo credit: Oliver F. Atkins

had been a tenacious 90-year effort to defend the Pueblo's tribal sovereignty, welfare, water supply, natural and domestic resources, and the most revered of its ritual sites (Taos Pueblo Realty Office, 2016). Today, Blue Lake and the nearby mountains are off-limits to all but members of Taos Pueblo.

Traveling generally east to west, US64 provides the primary access to Taos Pueblo from the Town of Taos and the rest of the State of New Mexico. New Mexico 68 (NM68) intersects U.S. 64 southwest of the Taos Pueblo Land Grant tract within the Town of Taos then continues south to Espanola. New Mexico 518 (NM518) runs south from NM64 providing the region's connection to Las Vegas, New Mexico, and NM522 splits the Pueblo's Tract B heading north to Colorado. Per the September 2018 Taos Pueblo Road Inventory Update, the Pueblo's official road inventory consists of 132.9 miles, which can be broken down as follows:

- 123.9 miles of BIA roads
- 8.6 miles of State roads, and
- .4 miles of County roads.

Taos Pueblo's Köppen-Geiger climate classification is Dfb; i.e., it has a warm summer continental or hemiboreal climate (Climate-data.org, 2019). One of New Mexico's coldest locations, Taos Pueblo typically has 8.2 days annually when nighttime lows drop below zero, and temperatures can range from a minimum of 12°F in January to a high of 86°F in July (Sperling's Best Places, 2019). For about 3.6 months from May 29 to September 17, Taos Pueblo experiences its warm season with average daily highs over 73°F. The Fourth of July is reported to be the hottest day of the year, averaging a high of 82°F and low of 49°F. November 22 to February 25 is considered to be the Pueblo's cold season reporting average daily highs below 47°F. The coldest day of the year is January 7 averaging a low of 11°F and a high of 38°F. Annual average precipitation is 12.30" with ranges from 0.58" of rain in January to 1.90" in August (Taos Pueblo, NM Weather, 2019). While 28" is the average annual snowfall for the United States, Taos Pueblo averages 37" of snowfall annually. The Pueblo's climate affords residents and visitors numerous opportunities to enjoy the outdoors year-round.





The Rio Grande Gorge Bridge, a steel deck arch bridge, known to locals as the "Gorge Bridge" or the "High Bridge" traverses Rio Grande Gorge.



Taos Day School on Taos Pueblo



Enos Garcia Elementary School in the Town of Taos

In addition to the stunning beauty in the region, Taos Pueblo tourists are attracted to the Rio Grande Gorge Bridge, Taos Pueblo Powwow, San Geronimo de Taos, the Pueblo's open markets, and guided tours.

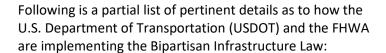
Located slightly southeast of Hlaukwima (south house), Taos Day School serves kindergarten through eighth grade students. Enrollment at the school was 83 students for the 2018 - 2019 school year and increased to 96 students for the 2019 - 2020 school year. On Taos Pueblo, some of the students live within the residential boundaries of approximately 19 acres. Thus, a few students occasionally walk to/from the school; one student regularly bicycles from just across the street; and nine students bicycle when the weather is accommodating. Outside of the Pueblo, students live well beyond the walk or bicycle zones within housing projects or residential neighborhoods. In fact, the school bus route is 54-miles in length each way with students being picked up from Llano Quemado at the bus route's south end; from out east of Taos Pueblo about five or six miles: and from the intersection of State Routes 68 and 230 at the blinking light intersection. In general, parents, of students who do not ride the school bus, drive cars and trucks when dropping off/picking up their children.

Many of Taos Pueblo's elementary school aged children attend school within the Town of Taos at Enos Garcia Elementary School. Enos Garcia enrolls students from prekindergarten through fifth grade, and had an enrollment of 506 during the 2018 - 2019 school year. For the 2019 - 2020 school year, enrollment decreased to 467 students. Taos Pueblo children that attend the school either take the school bus or receive rides from their parents - particularly if their parents work in the Town of Taos. Since Enos Garcia students live a distance of one or more miles away from school, and the school location lies in the midst of active Taos traffic, there are no walkers or bicyclists.

Taos Pueblo high school students attend Taos High School. Also located within the Town of Taos, the high schoolers ride the school bus, drive their own vehicles, or get dropped off/picked up by their parents. Currently, the school's enrollment is 749 students, which represents a decrease from the 2018 - 2019 school year enrollment of 765 students.

Why Complete a Tribal Safety Plan?

On December 4, 2015, then president, Obama, signed the Fixing America's Surface Transportation (FAST) Act into law, replacing the previous two-year transportation reauthorization bill, Moving Ahead for Progress in the 21st Century, with transportation funding through 2020. Then, on November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA). The largest long-term infrastructure investment in our country's history, the IIJA, also known as the Bipartisan Infrastructure Law (BIL), provides \$550 billion in new federal funds for roads, bridges, mass transit, water infrastructure, and broadband through 2026. The IIJA maintains all FAST Act highway programs, focuses on safety, bridges, climate change, and resilience, while continuing efforts to streamline project delivery, and dedicating funding for over a dozen new highway programs (FHWA, 2022).



- Fiscal year 2022 (FY22) allocations increase Tribal
 Transportation Program funding by 15 percent over
 2020 funding levels. Over the Bipartisan
 Infrastructure Law's full term (FY22 FY26), the law
 provides more than \$3 billion for the program
 (FHWA, 2022);
- Tribal Transit Program funding remains \$35 million in FY22 for the formula component of the program; then increases to \$36 million in FY23, \$37 million for FY24 FY25, and \$38 million in FY26. Nine million dollars per year is available from FY22 FY25, then \$10 million is dedicated in FY26 for Section 5311 competitive transit grants (Federal Transit Administration, 2021);
- The BIL increases FY22 "...funding for the construction, reconstruction, and rehabilitation of nationally-significant projects on Federal or tribal lands" to \$130 million, and continues annual funding levels at \$55 million per year from FY23 -FY26;



Photo credit: Mandel Ngan

"The National Roadway Safety Strategy

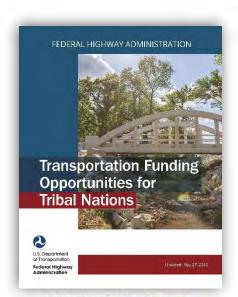
[emphasis added] ... commits the DOT and FHWA to respond to the current crisis in traffic fatalities by 'taking substantial, comprehensive action to significantly reduce serious and fatal injuries on the Nation's roadways,' in pursuit of the goal of achieving zero highway deaths. FHWA recognizes that zero is the only acceptable number of deaths on our roads and achieving that is our safety goal. FHWA therefore encourages Tribes and other funding recipients to prioritize safety in all Federal highway investments and in all appropriate projects, using relevant funding, including funds from TTPSF" (Federal Highway Administration, 2022).

2021 Infrastructure Legislation Tribal Safety Highlights

- · Increased funding for Tribal Transportation Program Safety Fund
- · Streamlined environmental process for safety projects
- Report to Congress: Best Practices in Tribal Crash Reporting
- . BIA Law Enforcement required to use state crash reports
- · Tribes eligible for new safety funding programs

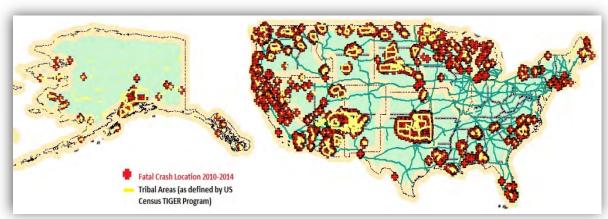


Above: The <u>Tribal Crash Reporting Toolkit</u> provides seven tools to help tribes collect, manage, and analyze crash data.



Above: FHWA's 36-page guidebook provides briefs about existing and new BIL funding programs for tribes.

- The Tribal Transportation Bridge Program receives a \$1 billion influx of funding between fiscal year 2022 and fiscal year 2026 through set-asides from the new Bridge Investment Program and Bridge Formula Programs (FHWA, 2022);
- There is a focus on best practices for compiling, analyzing, and sharing crash data for crashes occurring in Indian Country communities, which requires consultation;
- The BIL requires expedited review under NEPA of tribal transportation safety projects and sets forth deadlines for decisions by federal agencies on permits for these projects;
- Further, under programmatic agreements with the Secretaries of Interior and Transportation, tribes with established efficient administrative procedures for carrying out transportation project environmental reviews - can self-determine whether a project is categorically excluded under NEPA (Senate Committee on Indian Affairs, 2021);
- As a set-aside sub-program of the Surface
 Transportation Program, the Transportation
 Alternatives Program (TAP) continues to allow Safe
 Routes to School, bicycling, and walking projects as
 eligible activities, and adds activities relating to
 vulnerable road user safety assessments;
- Additionally, the TAP: provides for a federal share up to 80 percent (with flexibility for higher shares); allows HSIP funds to be used toward the nonfederal share; and allows the non-federal share requirements to be met on an aggregate basis instead of by project (FHWA, 2022);
- While the Tribal Transportation Self-Governance Program (TTSGP) was included in the final FAST Act bill on December 4, 2015, and was a win for Indian Country; on October 2, 2019, USDOT published a Federal Register "Notice of proposed rulemaking" seeking comments by December 2, 2019 on the proposed rule to establish and implement the TTSGP. USDOT received 22 comments, including a three-page letter from Taos Pueblo. On June 1, 2020, USDOT published the final rule, and indicated that USDOT Office of Self-Governance program administration will commence on October 1, 2020.

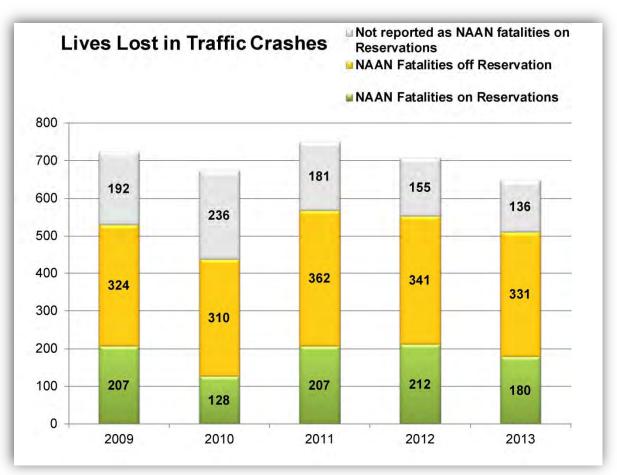


Sources: Fatality Analysis and Reporting System (FARS), NHTSA 2016 and Topologically Integrated Geographic Encoding and Referencing (TIGER), US Census 2016

Within the BIL's Tribal Transportation Program (TTP), the annual TTP set-aside increased to 4% to address transportation safety issues in Indian Country. According to the FY22 - FY26 TTPSF Grants.gov Notice of Funding Opportunity, "...an applicant must be a federally recognized Indian Tribe and the project must be an eligible project, as defined in 23 U.S.C. § 148(a)(4)(B)... Eligible projects are those described in 23 U.S.C. § 148(a)(4), which include strategies, activities, and projects on a public road that are consistent with a transportation safety plan and (i) correct or improve a hazardous road location or feature, or (ii) address a highway safety problem" (Federal Highway Administration, 2022).

Said projects may include, but are not limited to "...four award categories: (1) safety plans; (2) data assessment, improvement, and analysis activities; (3) systemic roadway departure countermeasures; and (4) infrastructure improvements and other eligible activities as listed in 23 U.S.C. 148(a)(4)." For a proposed TTPSF infrastructure project to be ranked as "highly qualified," it must meet the following criteria: 1) identified in a current State SHSP tribe's transportation safety plan, RSA, or other safety engineering study that is five years old or newer; 2) application includes data that directly demonstrates the need for the project; 3) project is located on a BIA or tribal facility; 4) the tribe has not received funding for a TTPSF transportation safety construction project in more than five years; and 5) the project is part of a comprehensive approach to safety which includes other safety efforts

"For a proposed TTPSF infrastructure project to be ranked as "highly qualified," it must reference '... evidence (such as information from FHWA's proven safety countermeasures initiative or the Crash Modification Factors Clearinghouse) that demonstrates the proposed project is likely to reduce crash frequency and/or severity'" (Federal Highway Administration, 2022).



Source: What Congress Wants to Know About Tribes & Safety Data, Adam Larsen, 2016



Source: Bureau of Indian Affairs Indian Highway Safety Program FY2014 Highway Safety Plan

(Federal Highway Administration, 2022).

Nonetheless, the pursuit of funding is only a small part of Taos Pueblo's motivation and reasoning for completing the strategic *Tribal Transportation Safety Plan* herein. The 1992 *Taos Pueblo Long Range Transportation Plan (LRTP)* completed by A/E Group, Inc., states, "The BIA shall carry out a transportation planning process for Indian Reservation Roads, deemed to be adequate to support their construction and improvement program. The BIA, therefore, commissioned this study with the central objective being to identify the transportation needs of the reservation [sic] and to develop a program of coordinated transportation improvements that will be consistent with the social, environmental, and economic goals and objectives of the Tribe" (A/E Group, Inc., 1992). The implication of which is that with effective Taos Pueblo

transportation planning, and improved roadway safety and public access comes greater social, environmental, and economic security for Taos Pueblo tribal members.

As the map on the preceding page indicates, between 2003 - 2007 New Mexico motor-vehicle-related deaths per 100,000 population for American Indian/Alaskan Natives (AI/AN) aged 1 - 44 years of age numbered 30.22 - 82.03. According to the Federal Highway Administration (FHWA), from 1975 - 2002, Native American and Alaska Native fatal crashes in the United States increased 53%, although fatal crashes across the U.S. in general declined 2.2%. Fatality Analysis Reporting Systems (FARS) out of the National Center for Statistics and Analysis reported that from 2007 - 2011, there were 2,752 Native American fatalities. Thus, motor vehicles are the leading cause of death for Native Americans and Alaska Natives aged 1 - 44 (BIA, 2014).

In 2005, federally recognized tribes, the FHWA, and the BIA collaborated to draft the *Strategic Highway Safety Plan for Indian Lands* in an effort to reduce crashes in tribal communities by providing Indian Country with direction and safety emphasis areas to address. The *Tribal Safety Management System Implementation Plan* was developed in August 2008, then updated in March 2011, to improve tribal safety and meet the emphasis areas identified in the *Strategic Highway Safety Plan for Indian Lands*:

- Decision-making Process
- Data Collection
- Run Off the Road Crashes
- Occupant Protection/Child Restraint
- Alcohol/Drug-impaired Driving
- Other Driver Behavior and Awareness
- Drivers under the Age of 35
- Pedestrian Safety.

The emphasis areas outlined in Section 8 of this *Tribal Transportation Safety Plan* align with those identified above, and the Taos Pueblo plan was drafted in recognition of the statement made on page two of the 2011 *Tribal Safety Management System Implementation Plan*, "Tribal Safety Plans are an essential component of Tribal Highway Safety Improvement Plans (HSIPs), as well as an effective

The main goal of this Taos Pueblo Tribal
Transportation Safety Plan is to improve the
overall safety of the Taos Pueblo area
transportation system, while also
decreasing the risk of fatalities and serious
injuries resulting from incidents on or
adjacent to the transportation system.



planning tool for prioritizing and implementing safety solutions" (FHWA, Tribal Safety Management System Implementation Plan, 2011).

The development of this Taos Pueblo *Tribal Transportation Safety Plan* was funded by a FY16 FHWA TTPSF grant under its "safety plans and safety planning activities" category. TTPSF project categories echo the *Strategic Highway Safety Plan for Indian Lands*' mission to, "Implement effective transportation safety programs to save lives while respecting Native American culture and tradition by fostering communication, coordination, collaboration, and cooperation" (FHWA, Strategic Highway Safety Plan for Indian Lands, 2008).

A famous quote attributed to the late Sir Winston Churchill is, "He who fails to plan is planning to fail." Despite this quote commonly being heard within the transportation-planning field, Janette Sadik-Kahn, former New York City Department of Transportation Commissioner, reminds readers in her book <u>Streetfight: Handbook for an Urban Revolution</u>, "A century-old, fundamental traffic principle of transportation planners, is that you get what you build for" (Sadik-Kahn & Solomonow, 2016).

Although this plan's original concept focused on transportation, public input suggested that this document will be utilized as more than just a *Tribal Transportation Safety Plan*, potentially also providing future support as a Safety Action Plan. Since this *Tribal Transportation Safety Plan's* main goal is to improve the overall safety of the Taos Pueblo-area transportation system, while also decreasing the risk of fatalities and serious injuries resulting from incidents on or adjacent to the transportation system, the plan will indeed assist the Pueblo in achieving the safety results for which it builds.

Taos Pueblo proactively exercises its sovereignty in controlling transportation project programming on its land holdings. Harvard University's Urban Planning and Design professor, Jerold Kayden, may have most concisely summarized the critical importance of planning when he stated, "To plan is human, to implement, divine."

Process

The Taos Pueblo retained M.G. Tech-Writing, LLC (MGT) to develop its 2020 Tribal Transportation Safety Plan (TTSP). Both the FHWA Developing Safety Plans: A Manual for Local Rural Road Owners and Strategic Transportation Safety Plan Template directed Taos Pueblo plan development. This plan's creation employed the ongoing six-step planning process recommended by the FHWA and pictured to the right. Utilizing this planning process, the Pueblo can remain current on data gathering and analysis, emphasis area implementation, strategy and project prioritization, and periodic evaluation of the plan's success, while also referencing this plan's proposed timeline for regular plan updates. Please note that the Tribal Transportation Program Safety Fund considers Tribal Safety Plans to be outdated after five years (Federal Highway Administration, 2022).

To obtain essential information for the *Taos Pueblo TTSP*, MGT spent several days touring the Taos Pueblo area. The site visit incorporated a review of the transportation infrastructure in and around Taos Pueblo, the Town of Taos, and at the Rio Grande Gorge Bridge. Observations of morning drop-off dynamics at and around Taos Day School as well as at Enos Garcia Elementary Schools, along with assessments of the school zones, and the immediate areas adjacent to the campuses also provided critical information that informed this plan's completion.

Following the FHWA's Tribal Safety Plan development guidance, while incorporating Sadik-Khan's wisdom that, "...the streets of a city contain the seeds for renewal, and it is local residents who will ultimately lead the way" (Sadik-Kahn & Solomonow, 2016), the Pueblo sought to involve essential Taos Pueblo, Town of Taos, Taos County, and Northern Pueblos Agency safety stakeholders, health and human service agencies, tribal members, and local residents in this plan's creation. Hence, on March 23, 2018, the Taos Pueblo hosted a 4 1/2-hour Tribal Transportation Safety Plan Meeting to solicit public input in the plan. Nineteen meeting attendees together drafted the plan's vision statement: "A healthy Taos Pueblo community depends on a safe multimodal transportation system. Through valueadded engineering, transportation education, and firm enforcement, Taos Pueblo will achieve a healthy multimodal





Some of the 19 attendees to the March 23, 2018 Taos Pueblo Tribal Transportation Safety Plan Meeting Photo credit: Leslie Keahbone

Process

The Five "E's" of SRTS

Successful SRTS program design incorporates a comprehensive "Five E" approach that includes the following elements:

Education - Pedestrian and bicycle safety training for children and parents, and driver education targeting parents, neighbors and others in the community

Encouragement - Fun, educational and motivational activities that promote walking and bicycling

Enforcement - Legal enforcement of traffic laws and activities that help change unsafe behaviors of drivers, bicyclists, and pedestrians

Engineering - Infrastructure improvements to the built environment surrounding the school that support walking and bicycling via speed reduction, review of school siting issues, and the installation of sidewalks, safer crosswalks and pathways

Evaluation - On-going information gathering to assess current conditions and / or SRTS program design and effectiveness

transportation system. This will be accomplished through shared responsibility by tribal leadership, tribal entities, and community." Additionally, a brief distillation of information gathered from preliminary *Taos Pueblo Transportation Safety Survey* responses was shared; existing safety partners, safety efforts, and safety problems were listed; and the group identified the plan's emphasis areas, goals, strategies, and implementation champions. Next, using markers and labels with vehicle, bicycle, and pedestrian crash symbols, speeding and signage markings, meeting attendees assembled around five 24 x 36" Taos Pueblo aerial maps to indicate crash locations and area trouble spots, and to inform the consultant as to the most worrisome safety concerns.

In attendance were representatives from Taos Pueblo's tribal administration, Tribal Council, staff, and Department of Public Safety along with a North Central Regional Transit District representative. The Appendix provides a meeting flyer, agenda, and sign-in sheet copies from the March 23, 2018 meeting (please see pp. 141 - 144).

As stated in the Tribal Safety Management System Implementation Plan, "Reducing highway fatalities and serious injuries with any sustained success requires that all four elements of highway safety be addressed **e**ngineering, **e**nforcement, **e**ducation, and **e**mergency services. A Tribal Safety Program, whether large or small, should work to address the 4E's, and its foundation, data. Data collection and analysis provide technical staff and decision makers the ability to identify and prioritize safety needs. Crash data, roadway data, and citation information will provide a basis for developing safety plans, proposing countermeasures, and developing needed education programs on tribal lands" (FHWA, Tribal Safety Management System Implementation Plan, 2011). The information, strategies, and emphasis areas detailed in this Tribal Transportation Safety Plan will support Taos Pueblo's efforts to continue proactive administration and development of its safety and transportation programs.

Recognizing that engineering, enforcement, education, and safety strategies, which target children and school zones will benefit a community's entire population, this Taos

Process

Pueblo Tribal Transportation Safety Plan also will address Safe Routes to School (SRTS) program development. Effective SRTS program designs integrate safety, health and wellness, fitness, traffic calming, and environmental preservation into a single program. These programs increase students' daily physical activity by encouraging them to walk or bicycle to school, while simultaneously eliminating the impediments of unsafe walking and bicycling conditions. Successful SRTS programs incorporate a comprehensive "Five E" approach that includes education, encouragement, enforcement, engineering, and evaluation as detailed in the text box on the previous page. Obviously, three of those E's recall three of highway safety's 4E's; yet, SRTS expands on those elements to include encouragement, and reinforces highway safety's data collection emphasis with evaluation as a driving principle. Thus, the following Taos Pueblo Tribal Transportation Safety Plan is a comprehensive document that relies on 6E's to ensure "...a safe multi-modal transportation system," which is the plan's overall vision.

During this plan's preparation, MGT requested historical crash data going back to January 2015 from the Taos Pueblo Department of Public Safety and the New Mexico Department of Transportation. To obtain additional anecdotal crash data from Taos Pueblo staff, local safety advocates, and community members, MGT drafted the *Taos Pueblo Transportation Safety Survey* (see Appendix pp. 145 - 151 for the blank survey and *Taos Pueblo Crash Data Compilation*). Survey maps indicated accident locations, and detailed safety issues that the TTSP Meeting did not cover. Respondents also were asked to:

- identify Taos Pueblo locations that they feel are risky, but that have not had crashes;
- detail safety improvements they felt would make the roads feel safer; and
- comment on and/or list any other areas of concern.

...the following Taos Pueblo Tribal
Transportation Safety Plan is a
comprehensive document that relies on 6E's
to ensure "...a safe multi-modal
transportation system."

Safety Partners



Taos Pueblo Department of Public Safety







Lifequard Air Emergency Services

To achieve the goals within the emphasis areas of this plan, Taos Pueblo envisions ongoing cooperation with numerous tribal, federal, state, local, and private entities; i.e., safety partners, which represent enforcement, education, engineering, and emergency medical services. Maintaining relationships with these agencies and organizations will help ensure long-term sustained efforts to improve safety in and around the Taos Pueblo area.

The Taos Pueblo Tribal Transportation Safety Plan Meeting and *Transportation Safety Survey* identified the following list of safety partners, which may grow over time with the resolution of area safety needs and challenges and/or the rise of new areas of concern and focus:

- Taos Pueblo Municipal Services Division
- Taos Pueblo Realty
- Taos Pueblo Tribal Programs Administrator
- Taos Pueblo Tribal Leadership
- Taos Pueblo Roads Department
- Taos Pueblo Department of Public Safety
- Taos Pueblo Community Development
- Taos Pueblo Tribal Council
- Taos County Emergency Management
 Services/Emergency Management Technicians
- Taos Pueblo Utility Service
- Town of Taos
- Taos County Driving Under the Influence Council
- Taos Pueblo Department of Natural Resources
- Taos Day School
- Enos Garcia Elementary School
- Taos Municipal Schools
- Taos Pueblo Head Start and Early Head Start
- New Mexico State Police (NMSP)
- New Mexico Department of Public Safety (NMDPS)
- Taos County Sheriff's Office (TCSO)
- Town of Taos Volunteer Fire Department (TVFD)
- New Mexico Department of Transportation (NMDOT)
- NMDOT Tribal Liaison, Ron Shutiva
- Bureau of Indian Affairs
- Bureau of Land Management
- University of New Mexico Hospital's Lifeguard Air Emergency Services

Section

Safety Partners

- Taos Pueblo Health and Community Services
- Taos Pueblo Senior Citizen Center
- Safer New Mexico Now
- Federal Highway Administration
- U.S. Army Corps of Engineers (USACE)
- KTAO Solar Radio
- Kit Carson Electric Cooperative, Inc. (KCES)
- Taos Pueblo Risk Management
- Indian Health Service
- Taos/Picuris Service Unit
- North Central Regional Transit District
- Chile Line Red
- Northern Pueblos Regional Transportation Planning Organization (NPRTPO) and Paul Sittig





Section

Existing Safety Efforts









In addition to reviewing the Taos Pueblo safety partners, who support the *Tribal Transportation Safety Plan* and provide critical safety services to preserve Taos Pueblo area residents' well-being, Tribal Transportation Safety Plan Meeting attendees listed the following existing Taos Pueblo safety measures - categorized using the 6E's:

Education

- Taos High School Driver's Education elective course
- Taos Pueblo Community Health Representative (CHR) Emergency Preparedness events
- Education on medical evacuation
- Indoor Air Quality and Asthma information provision
- Taos Pueblo First Aid/CPR classes
- Parental safety education
- Gearing Up Bicycle Shop's bike safety lessons, helmet fittings, and helmet giveaways
- Team F.I.Taos mountain biking trips for Taos Day School fourth through eighth graders
- Taos Day School safety courses
- Safer New Mexico Now and CHR seat belt and car seat safety certification

Encouragement

- Annual Taos Pueblo health and wellness awareness events and activities; e.g., Annual Pueblo 5K Fun Run/Walk
- Taos Pueblo Social Services Community Family Services Program
- Taos Pueblo Tribal Prevention Program

Enforcement

- Ongoing DUI and speeding enforcement; especially along Rotten Tree Road
- DUI ordinance passage
- Taos Pueblo DPS Saturation Patrols
- DUI/DWI roadblocks
- Increased New Mexico State Police presence
- Taos Central Dispatch
- Local enforcement agency training collaboration

EMS

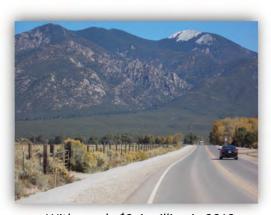
- New Mexico Department of Homeland Security and Emergency Management's OnlineCERT: Online Community Emergency Response Team (CERT) training
- Frequent EMS training
- Emergency Medical Services
 - o First Aid Kits
- Taos County Local Emergency Planning Committee
- Taos Central Dispatch
- Visible GIS home site address system development
- Tech Subcommittee to support technology advancement

Evaluation

- In 2018, Taos Pueblo updated its list of existing inventory roads, as well as those for which the community agreed there is a future need.
- Taos Pueblo Tribal Transportation Improvement Program and NPRTPO planning process, public participation, and project prioritization; including environmental survey completion
- NPRTPO traffic counts

Engineering

- Taos Pueblo transportation infrastructure; e.g.:
 - Design and redesign work
 - o High-visibility crosswalks
 - ADA compliance improvements
 - Commitment to Complete Streets installation
 - Flood mitigation
- Taos Pueblo Tribal Transportation Improvement Program planning process, public participation, and project prioritization
- Ongoing Taos Pueblo Roads Department maintenance efforts; e.g., consistent roadway grading, fire upgrades, culvert maintenance and improvements (e.g., 2.1 miles of culvert installed along Goat Springs Road [NP706] and Veterans Highway [NP701]).

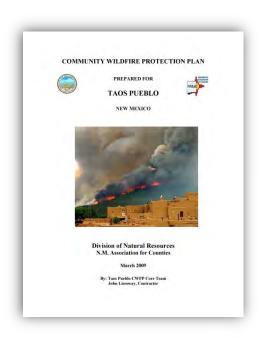


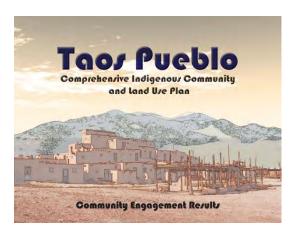
With nearly \$3.4 million in 2013 Transportation Investment Generating Economic Recovery (TIGER) grant funds, Taos Pueblo completely reconstructed Veterans Highway and added the multiuse path pictured above. Further, the project improved motorists' lines of sight at Goat Springs Road and Hail Creek Road intersections, as well as at the Star Road and Veterans Highway junction shown below, where a new retention pond with drop in was installed and the former right of way was removed along the road edge to maintain the pond. One of only eight tribes to receive TIGER funds in the first three program cycles, the Pueblo's project improves the irrigation system, which enhances water flow to Buffalo Pasture, a 600-acre wetland.











- Taos Pueblo Tribal Transportation Program funding and relationship development with appropriate agencies and funders
- The 1986 Town of Taos Comprehensive Plan identified, "A strong need for infrastructure improvements, including water and sewer...," which led to the Town of Taos' "...infrastructure planning achieved in the early 1990's" (Town of Taos, 1999). Said planning efforts would have been impossible without Taos Pueblo's coordination/collaboration.
- Cooperative planning between the Town and the Pueblo resulted in completion of the 1999 - 2001 improvements to the US64/Taos Pueblo entrance intersection.
- The 2009 Taos Pueblo Community Wildfire
 Protection Plan (CWPP) outlined hazards of wildland
 fire throughout the Pueblo and adjacent lands, and
 gave fuels reduction project recommendations
 (including road edge brush removal from each of
 the four high-risk areas identified in the CWPP),
 public outreach and education, structural
 ignitability reduction, and wildland fire response
 preparedness.
- 2010 creation of the New Mexico Silver Jackets, "a Natural Hazard Mitigation Team," sought to increase coordination efficiency "...between the State, Tribal, and Federal governments in developing comprehensive and sustainable solutions to flood risk assessment and management in the State of New Mexico..." (New Mexico Silver Jackets, 2010).
- Receipt of 2011 New Mexico Finance Authority
 Public Project Revolving Fund monies for roads.
- The 2014 Taos Pueblo Comprehensive Indigenous Community and Land Use Plan states that the Pueblo's "...goals are to revitalize agriculture, increase housing choices, improve utilities and roads [emphasis added], and protect our cultural assets...." The plan also indicates that the Pueblo strives, "...to build a safe and healthy environment by improving tribal programs and schools, expanding economic development" (Indigenous Design and Planning Institute, 2014).
- Completion of a Taos Pueblo Americans with Disabilities Act (ADA) Transition Plan.

- In 2014 16, Mr. Vernon Lujan, Taos Pueblo's Tribal Transportation Director and Transportation Planner, participated in the drafting of the Northern Pueblos Regional Transportation Planning Organization's 2015 Northern Pueblos Regional Transportation Plan.
- An April 2018 NMDOT Highway Safety Improvement Program application seeking a Road Safety Assessment of NM150 from mile marker 1.00 to 5.00 due to rollover crashes at the horizontal curve near the Piñon Road junction and water that periodically overtops the roadway in this state route section.
- Completion in 2019 of the Rio Lucero Road portion of the Five Roads Project, intended to install sidewalk, curb, and gutter along Rotten Tree, Rio Lucero, Little Deer Horn, Spider Rock, and Star roads.
- Current research into various dust abatement strategies to diminish the constant lofting of the fine dust topping Taos Pueblo gravel streets in dry weather conditions.

The Taos Pueblo Tribal Transportation Program is making wide-ranging progress within the community and larger area as the result of the constant and proactive attention being paid to local and region-wide safety improvement via the completion of essential transportation plans and projects; including, but not limited to:

- the 1992 Taos Pueblo Long Range Transportation Plan's analysis of the Pueblo's existing and future transportation goals, prioritization of projects that would have the greatest community benefit, and update to the list of inventory roads for which the community feels a need looking forward twenty+ years; and
- the Taos Pueblo *Tribal Transportation Safety Plan* contained herein.

The table on the following page summarizes completed projects that were recommended within the 1992 *Taos Pueblo Long Range Transportation Plan*:



Caused by a lightning strike, the 5,300+acre Encebado Fire in 2003 came within .25 mile of Taos Pueblo's community center, and adversely impacted Rio Pueblo water quality and drainage with sediment, ash, and other debris. Described as "an attention getter" in the Pueblo's 2009 CWPP, the Tribal Transportation Program doubled down on its brush thinning, and Taos Pueblo's Watershed Program Manager became a 2016 Taos County Community Wildfire Protection Plan Core Team member to ensure that the Pueblo's interests in reducing wildfire risk, restoring streams, and improving Pueblo watershed health had representation in the plan. Photo credit: Rick Romancito

Clearly, numerous Taos Pueblo safety efforts are in place and operating effectively. The Pueblo's strong interagency cooperation addresses critical safety challenges, while positively impacting Pueblo safety, health, and wellness.



COMPLETED LONG RANGE TRANSPORTATION PLAN RECOMMENDATIONS			
Recommended Improvement	Improvement Status		
SHORT TERM			
NP706 (Clinic Access)	Pave from US64 to new clinic site - DONE		
NP705 - Gravel from NP706 north to central	No right of way. Applied millings in 2017		
Pueblo			
NP701 - Install pavement markings along entire	- Partially completed via TIGER grant		
route section			
- at Rio Pueblo - Replace culvert bridge	- DONE		
- at NP702 - Realign intersection and sign	- Junction aligned to 90° and signage added		
- at US64 - realign intersection and sign	- NMDOT Project Number: CN5100750		
- Pedestrian/Bicycle Way - Provide paved	- Partially completed via TIGER grant		
shoulder or new separate facility			
Safety Studies	Signage Inventory of Taos Pueblo still needed		
NP 700 - Stabilize surface of road encircling	Applied Millings in 2017		
central plaza in Pueblo from NP709 to NP716			
All BIA Roads - Replace missing traffic and	Ongoing work continues to fulfill this		
bridge signs. Post street names and route	recommendation		
numbers.			
MEDIUM TERM			
NP703 - Provide all-weather gravel surfacing	Applied Millings in 2017		
from central Pueblo to NP704			
NP704 - Provide all-weather gravel surfacing	Applied Millings in 2017		
from NP 703 to US64			
NP708 - Pave from Pueblo to NP734 and gravel	An all-weather gravel road with no current plans		
from NP734 north to NM150	for paving		
NP734 - Gravel from NP708 to NM150	Graveled due to transfer station		
NP709 - Provide culverts and upgrade to all-	Upgraded to all-weather road. Applied Millings		
weather road	for .25 miles in 2017		
NP710 - Upgrade to all-weather road	DONE		
	TERM		
NP716 - Provide all-weather surfacing	Applied Millings for .75 miles in 2017		
NP705 - Provide Pedestrian/Bicycle Way	Applied Millings in 2017		
between Pueblo and Taos	Not in NTTFI - Maintained as earth roads with bar		
Farm Roads - Construct, grade, and drain roads;			
add to BIA system (T1, T2, T3, T4, T5, T6, and T7) Other Access - Provide additional access as	ditches for drainage and occasional grading		
required to future enterprises	- Convenience store planned at intersection of Hail Creek Road (NP702) and US64. In 2019,		
required to ruture enterprises	negotiations began with NMDOT.		
	- In April 2018, an NMDOT Highway Safety		
	Improvement Program application for a Road		
	Safety Assessment (RSA) of intersection drainage		
	and safety conditions at Piñon Road and NM150		
	was submitted.		
	Tab babiliteed.		

Guided again by the 6E's, Taos Pueblo Tribal Transportation Safety Plan Meeting attendees categorized Pueblo safety challenges. Please note that the challenges, which align with multiple categories and repeat, are marked with an asterisk (*). The numerals that appear after the safety challenges denote the number of times the issue was checked on the *Taos Pueblo Transportation Safety Survey*.

Education

- Lack of seat belt education and use* (9)
- Lack of car seat education and use*
- Young drivers not knowing rules of road* (7)
- Driver education* (7)
- Need "Community Safety Meetings"*
- Continued alcohol and substance abuse education for residents and students*
- Unsafe driving in reduced speed areas; e.g., school zone, Taos Pueblo parking lots, and Plaza area
- Taos Day School has a challenging traffic flow plan, and needs a formal drop-off and pick-up orientation for parents. (See photos at right.)
- Drivers uneducated about passing/stopping for school buses and their rights of way
- Talking on phone or texting while driving* (12)
- Talking on phone or texting while walking* (9)
- Pedestrian visibility and reflectivity* (8)
- Lack of helmet use on ATV, bike or motorcycle* (10)
- Too few Taos Pueblo-area bicycle and pedestrian safety events* (12)
- Tribal ordinance education via flyers, radio, and social media
- Following are two Taos Pueblo community members' responses to Question 7 on the Taos Pueblo Transportation Safety Survey, "Other areas of safety concern or comments?":
 - "People (drivers) need to yield to oncoming traffic."
 - "Tourist/non-tribal education to better understand/comply with laws/rules."

Encouragement

Pedestrian visibility and reflectivity* (8)



When parent vehicles stage two-deep in the drop-off queue, students face safety risks crossing behind backing vehicles.



Head Start traffic flow pattern requires parents and students to cross in front of and behind vehicle traffic.



During daylight hours, pedestrians may be easily seen, but need increased visibility and reflectivity at night.



Pueblo stakeholders expressed a need for "Community Safety Meetings."

Following are two Taos Pueblo community members' responses to Question 6 on the Taos Pueblo Transportation Safety Survey, "What would make the roads feel safer to you?":

- o "ATV use is high with no helmet use and high speed"
- o "And alcohol use and drugs are the factors of crash"
- o "Need... more enforcement.

- Young drivers not knowing rules of road* (7)
- Too few Taos Pueblo bicycle and pedestrian trainings* (12)
- Lack of ATV, bike, or motorcycle helmet use* (10)
- Lack of seat belt education and use* (9)
- Lack of car seat education and use*
- Taos Day School has a challenging traffic flow plan, and needs a formal drop-off and pick-up orientation for parents.*
- Need "Community Safety Meetings"*
- Unsafe driving in reduced speed areas; e.g., school zone, Taos Pueblo parking lots, and Plaza area*
- Driver education* (7)

Enforcement

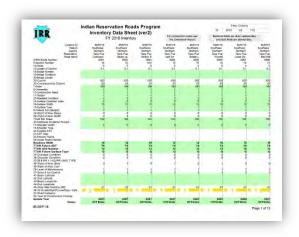
- Excessive driving speeds* (13)
- Limited funding and resources
- High level of employee turnover
- Talking on phone or texting while driving* (12)
- Talking on phone or texting while walking* (9)
- Intersection safety* (11)
- Lack of ATV, bike, or motorcycle helmet use* (10)
- Lack of seat belt education and use* (9)
- Lack of car seat education and use*
- Young drivers not knowing rules of road * (7)
- · Data management needs improvement
- Driving while intoxicated* (12)
- Taos Pueblo Tribal Council and Tribal Court consideration of drafting/implementing tribal ordinances regulating:
 - o cellular phone usage while driving
 - all-terrain vehicle (ATV) usage; e.g., helmets required, limited to persons over 14, and to a driver and single passenger
- Following are two Taos Pueblo community members' responses to Question 6 on the Taos Pueblo Transportation Safety Survey, "What would make the roads feel safer to you?":
 - "ATV use is high with no helmet use and high speed"
 - "And alcohol use and drugs are the factors of crash"
 - "Need... more enforcement"

EMS

- Slower than desirable response times; e.g., ambulance drivers' inaccurate usage of trash middens as community landmarks
- Limitations to agency coordination and communication*
- Inefficient communication chain; e.g., 911 > local FMS
- · Lack of emergency shelters
- Limited funding to remedy safety issues
- Continuing to improve the accuracy of the Taos
 Pueblo roadway inventory, so that E911 and Google
 maps are also current and accurate
- Critical service provision for elders and youth
- Support for the wellness and continuity of the Incident Command System
- Developing awareness of potential future-related threats and preparedness for those situations
- Continued implementation of/regular updates to Taos Pueblo's Emergency Preparedness Plan
- Review/consideration of proposed draft Taos Pueblo Point of Distribution and Emergency Ambulance Response plans

Evaluation

- Utilize community surveys to obtain critical crash data and local safety information from the public; e.g., the Head Start Community Assessment
- Work with the Tribal Council and Planning
 Department partners to review and address
 transportation safety related issues (e.g., six-month
 evaluations) and assist with crash data reporting to
 the State of New Mexico.
- Monitor effectiveness of annual dust abatement strategies
- Use Public Safety Announcements (PSAs) to share public transportation safety information.
- Maintain consistent safety reporting.
- Collaborate with the FHWA to encourage state Departments of Transportation to work more closely with tribes across the United States.
- Consider submission of a FY 22 FY 26 Tribal









Pueblo Street where it becomes Rio Lucero Road is very narrow.



Depending on the warrants
determined during a school zone
RSA, a similar type of solarpowered, programmable,
flashing school zone sign could
be placed at each end of the
Taos Day School and Taos
Pueblo Head Start school zones.

Transportation Program Safety Funds grant to the FHWA to conduct a Road Safety Assessment (RSA) of Taos Pueblo community roadways with review of:

- roadways with a higher incidence of traffic accidents or speeding;
- roadway widths and shoulders;
- intersection sight lines and design;
- o existing signage;
- o local trails and desire lines; and
- the school zone adjacent to Taos Day School.

Engineering

- Road dust (11)
- Intersection safety* (11)
- Local roadways lack shoulders.
- Lack of school crossing(s) (10)
- Proper lifts and water drainages to reduce puddling on roads
- Lack of pedestrian or bike infrastructure (12)
- Unsafe, unmaintained roads (9)
- Lack of trail markings (5)
- Consider roundabout installation at the complex junction of Buffalo Pasture Road, Pueblo Street, and Veterans Highway and/or where the current triangular patch of land sits at the intersection of Rio Lucero Road, Pueblo Street, and Pueblo Canyon Road.
- Excessive driving speeds* (13)
- Lack of emergency shelters* (5)
- Lack of programmable, flashing signage within the school zone for Taos Day School
- Missing or inadequate road signage (12)
- Roadwork or road damage (9)
- A couple of engineering-related responses to Question 6 on the Taos Pueblo Transportation Safety Survey, "What would make the roads feels safer to you?" included:
 - "Wider roads, too narrow, and this [sic] are just old wagon roads."
 - o "Improved separation between vehicles and other modes (ped, bike, equestrian)."

After Taos Pueblo Tribal Transportation Safety Plan Meeting participants listed the safety challenges they observed in the community, they were asked to identify:

- the training needs within the "Education" category;
- specific "Enforcement" strategies that are necessary;
- "EMS" needs; and
- "Engineering" and infrastructure improvements needed in and around Taos Pueblo.

The *Taos Pueblo Transportation Safety Survey* suggested additional needs, which may not have been mentioned during the Taos Pueblo Tribal Transportation Safety Plan Meeting.

Education

Tribal Transportation Safety Plan Meeting attendees described the need for educational training as follows:

- Increased transportation safety education is needed for all age groups (parents, adults, kids, and community leaders) with a special focus on comprehension of roadway signage and striping, the rules of the road associated with local signage, and the proper passing of motor graders, school buses, and traffic.
- Investigate funding opportunities or identify partners that can assist with implementation of an education campaign to inform community members of the rules and regulations for driving; i.e., as a collaborative effort with Taos Municipal Schools, etc.
- 3. Offer training in safe ATV operation and helmet usage.
- 4. Provide education about the dangers of excessive speed along with texting and driving distractions especially to Taos Pueblo area high school students.
- 5. Provide information as to why Safe Routes to School (SRTS) are important and <u>how to do SRTS</u> program development.
- Develop a Taos Day School Safe Routes to School Program with bicycle and pedestrian safety education components, program information, and





The late Tim Rowe, former Nevada State SRTS Coordinator, does a helmet fitting at the June 2015 Duckwater Shoshone Bike Safety Skills class.



- 7. Provide bicycle helmet usage programs; e.g., the Helmet Your Head program.
- 8. Have the Taos Pueblo Department of Public Safety staff help host ATV and vehicle Driver's Education training with helmet giveaways and other incentives to increase youth attendance.
- Educate Taos Pueblo residents about helmet use, care, and the frequency with which they should be replaced.
- 10. Train ATV drivers to use GPS equipment.
- 11. Instruct Taos Day School staff in being safe, effective Crossing Guards.
- 12. Expand existing alcohol and substance abuse education for local students and Taos Pueblo residents.
- 13. Broadcast radio Public Service Announcements, publish newspaper press releases, and post information about safety issues and new Taos Pueblo ordinances on social media as well as in the local utility bills and/or on local marguees.
- 14. Institute a formal parent pick-up and drop-off procedure to improve student safety at both Taos Day School and Enos Garcia Elementary School.

Encouragement

As stated above, the following list was developed from distillation of the information provided on the *Taos Pueblo Transportation Safety Survey* and "Encouragement" ideas suggested by Taos Pueblo Tribal Transportation Safety Plan Meeting participants:

- Host a jointly sponsored Taos Pueblo bike rodeo with helmet, headlight, and taillight giveaways, and a bike raffle.
- 2. Host a monthly fun run and walk event to promote healthy and active living and pedestrian facility use.
- 3. Incorporate reflective wear giveaways into other health and wellness-related events.
- 4. Purchase retroreflective vests and stop paddles for Taos Day School Crossing Guard safety.
- Taos Day School could expand on the bike safety lessons, helmet fittings, and helmet giveaways,





2010 International Walk to School

Day in Tuba City

on the Navajo Nation

- which Gearing Up Bicycle Shop provides through a 21st Century Community Learning Centers grant, and offer ongoing after-school programs to provide bicycle and pedestrian safety education.
- 6. In addition to the mountain biking that F.I.Taos leads with fourth, fifth, and sixth graders, Taos Day School could start a <u>bike club for students in that</u> age group.
- 7. Have Taos Day School offer SRTS activities like remote park and walk, <u>International Walk and Bike</u> to School Day, bike trains, and bike rodeos.
- 8. Issue punch cards to incentivize students walking/biking on campus and/or at sponsored SRTS activities/events within Taos Pueblo. Full punch cards could win a prize like a healthy beverage or meal from the Tiwa Kitchen or Allsup's Convenience Store.
- 9. Provide walking and bicycling activities for all ages on existing Taos Pueblo trails.
- 10. Engage Taos Pueblo businesses to sponsor various SRTS, walking, and biking events.
- 11. Encourage the use of reflectors on coats and backpacks during the winter and at night via Taos Day School reflector distributions.
- 12. Start a <u>Student Safety Patrol Program</u> to encourage leadership development and enhance drop-off and pick-up safety supervision.

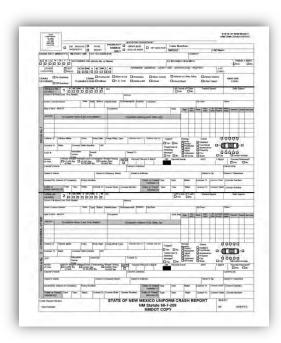
As the NMDOT has eliminated its Safe Routes to School Program Office, Taos Pueblo Tribal Transportation Program staff will contact NMDOT about funding the development of a Taos Day School SRTS School Route/Travel Plan through a potential New Mexico Transportation Alternatives Program grant. Completion of a SRTS School Route/Travel Plan will help address several of the concerns Taos Pueblo community members expressed under two of the nine elements identified within the 2014 Taos Pueblo Comprehensive Indigenous Community and Land Use Plan. For example, community recommendations within the "Healthy Community" element include, "Provision of... programs for recreation and exercise... Opportunities for walking related to the settlement pattern and streets networks." The "Transportation" element suggestions focus on, "Road network, bicycling, walking, transit, paved roads, unpaved roads, maintenance... slow down traffic that



Using older students on Student
Safety Patrols can aid in
enforcement of drop-off and pick-up
procedures and gently enforce safe
bicycling and walking behavior of
younger students.









Traffic and Criminal Software (TraCS) is a statewide traffic data collection software that streamlines the electronic data transfer of New Mexico enforcement officers' crash reports and other forms.

otherwise would move too fast."

Enforcement

Participants in the Taos Tribal Transportation Safety Plan Meeting identified specific "Enforcement" strategies they feel are necessary to improve safety in Taos Pueblo:

- 1. Roadside stops for DUI.
- 2. A graduated ticketing system, which progresses from warnings to citations for repeat offenses, for:
 - unlicensed youth drivers;
 - drivers failing to obey speed, yield signs, or stop signs - including those extended by school buses;
 - o drivers neglecting seat belt usage; and
 - o parents failing to use child safety seats when required.
- 3. Increased use of police Saturation Patrols and speed monitoring.
- 4. Taos Pueblo's Department of Public Safety needs to provide ATV training to residents, teens, and students via collaboration with local schools and adult community members.
- Research funding opportunities and/or identify partners that may assist with implementation of a safety campaign to address driver behavior issues.
- 6. Collaborate with NMDOT, and research funding, to install Off-Highway Vehicle (OHV) signage to enable Taos Pueblo DPS to enforce the OHV ordinance.
- Increase enforcement at Taos Pueblo transit bus stops, as well as near and adjacent to the Governor's Office.
- Improved crash reporting and data gathering systems; including, the institution of anonymous self-reporting regarding accidents using the <u>State of</u> <u>New Mexico Uniform Crash Report Form SH 10074</u>.
- Increased attention to the timely and accurate submission of State of New Mexico Uniform Crash Report Form, SH 10074 (see the middle image at the left) to the New Mexico Department of Transportation Traffic Safety Division.

The 1992 Taos Pueblo Long Range Transportation Plan (LRTP) echoed Taos Pueblo Tribal Transportation Safety Plan Meeting participants' anxieties about the need for additional signage in Chapter II, "Existing Transportation Systems and Services." Section E, "Traffic Regulation," concludes with the statement, "On BIA and other local roads... most traffic signs are missing." Within the LRTP's Section C list of "Safety Needs," line item 3 states that, "Traffic signs and pavement markings are inadequate...;" while line item 5 suggests, "A reservation-wide sign improvement program is needed to replace missing signs, to verify the proper application and necessity for signs, and to determine the need for additional street signs and route designation signs."

EMS

Meeting attendees also listed the following needs for Taos Pueblo EMS:

- 1. Improved crash data sharing between EMS, health facilities, and transportation.
- Meet with potential champions on the topic of Emergency Management Services, and create a Taos Pueblo Emergency Management Team.
- Increase number of annual meetings between EMS, local enforcement, Taos-Picuris Service Unit, Town of Taos Volunteer Fire Department, and other local stakeholders from once annually to quarterly to help resolve jurisdictional and other EMS issues.
- 4. Decrease EMS response time especially when negotiating the ingress to the dam area.
- 5. Improve Holy Cross access for EMS.
- 6. Meeting/collaboration with other EMS, local enforcement, dispatchers, etc. to continue coordinating area E-911 system development.
- Maintain efforts to have Taos Pueblo Geographic Information Systems (GIS) staff standardize Taos Pueblo house numbers, addresses, and street names.
- 8. Support for the wellness and continuity of the Incident Command System.
- Awareness of/preparedness for potential futurerelated threats.



Above and below: A Taos Pueblo Road Safety Assessment can evaluate, inventory, and map all of the existing signage within the Pueblo.





Evaluation

- 1. Complete and distill the results of the Head Start Community Assessment.
- Establish a Transportation Safety Committee, which would meet bi-annually, to review and address transportation safety related issues and assist with data reporting to the State of New Mexico.
- Using the Taos Pueblo TTSP, work with the community to develop/implement realistic, measurable, and observable safety goals and action steps.
- 4. Host annual Taos Pueblo Tribal Transportation Safety Plan meetings.
- 5. Perform an annual review and any potential modifications to the 1992 LRTP's prioritized list of road improvement/construction projects.
- 6. Update the Taos Pueblo Long Range Transportation Plan in 2021 2022, then every five to seven years thereafter, and continue updating the Roads Inventory with the BIA as needed.
- 7. Annually rate Taos Pueblo area road quality utilizing scoring sheets.
- 8. Continue collaborating with the North Central New Mexico Economic Development District and Northern Pueblos Regional Transportation Planning Organization to obtain traffic monitoring data, current conditions analyses, and traffic forecasts of future conditions that will assist Taos Pueblo's transportation program development and funding.
- 9. Consider submission of a FY22 FY26 Tribal Transportation Program Safety Fund grant to the FHWA to conduct a Road Safety Assessment of Taos Pueblo community roadways with review of:
 - a. roadways with a higher incidence of traffic accidents or speeding;
 - b. roadway widths and shoulders;
 - c. intersection sight lines and design;
 - d. existing signage;
 - e. local trails and desire lines; and
 - f. the school zone adjacent to Taos Day School and Head Start campus (see photo at left).
- 10. Maintain consistent safety crash reporting with reports of area crash data to the New Mexico

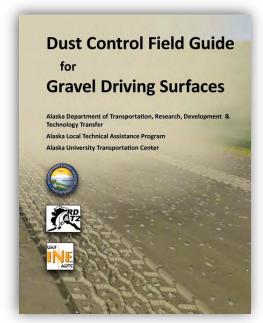


- Department of Transportation.
- 11. Collaborate with the FHWA to encourage state Departments of Transportation to work more closely with tribes across the United States.
- 12. Collect essential data needed for annual submission of Tribal Transportation Program Safety Fund grants to the FHWA to achieve various Taos Pueblo Tribal Transportation Program goals.

Engineering

Taos Pueblo Tribal Transportation Safety Plan Meeting discussions of specific strategies needed to increase Taos Pueblo safety concluded by listing critical improvements to and/or installation of new or existing infrastructure with attention to the following:

- Improve Holy Cross access
- 2. Ongoing dust abatement for all community streets
- 3. Review existing Taos Pueblo roadway capacities.
- 4. Inquire as to whether the Center for Tribal Transportation can sponsor Taos Pueblo or regional dust abatement training; including, dust control, palliative cost, and palliative application information.
- Identify potential Center for Tribal Transportation grading and drainage improvement training opportunities.
- 6. Upgrade roadways, local trail markings, and drainage.
- 7. Complete essential Taos Pueblo street improvement projects; e.g., alignment, widening, grading, brush thinning, and signage upgrades/replacement approved for use by the NMDOT Signing and Striping Manual.
- Implement a Taos Pueblo roadway maintenance schedule for both in-house and outside maintenance crews; e.g., draft/sign a Memorandum of Understanding/Agreement or an Intergovernmental Agreement (IGA) between Taos Pueblo, the State of New Mexico, BIA, and/or Town of Taos depending on roadway ownership (see sample MOA on Appendix pp. 185 - 186).
- Include green infrastructure maintenance in formal



The Dust Control Field Guide is an excellent dust abatement reference tool for learning how best to combat dust on rural roads.

INDUM OF AGREEMENT (MOA) BETWEEN THE TRIBAL GOVERNMENT THE CITY OF ___

THEREFORE, in consideration of the above premises, the parties have agreed to the fo

inistration of MOA Jointly Shared:

All administration and operational activities shall occur when the Tribe
the appropriate city representative have communicated and collaborated
maintenance needs of all community streets.

- Gwichyaa Zhee Gwich'in Tribal Government:

 1. Maintain all community streets that are listed in the Native Village of ______'s Nation.

 Tribal Transportation System Inventory as Public and owned and maintained by the City of
- 2. Provide funding when available for year-round community streets maintenance that includes
- Provide training for qualified operators through the education/employment departmen
 Provide maintenance and repair of any city equipment while in use by the Tribe maintenance.
- staff.

 5. Develop Material Sales Agreements (MSA) and provide a mining plan with Doyon Inc. and Village Corporation.

 6. Assist city in the development of a annual community streets maintenance plan.

Install LED lighting with "...a color temperature of no greater than 3000 Kelvin (K)..." (Stevens, 2016) at area bus stops, as needed within the residential areas, and along the darkest areas of Taos Pueblo roadways to improve drivers', cyclists', and pedestrians' visibility in low-light and dark conditions.





- Taos Pueblo maintenance schedules, MOUs, MOAs, or IGAs.
- 10. Install LED lighting with "...a color temperature of no greater than 3000 Kelvin (K)..." (Stevens, 2016) at area bus stops, as needed within the residential areas, and along the darkest areas of Taos Pueblo roadways to improve drivers', cyclists', and pedestrians' visibility in low-light and dark conditions.
- 11. Research grants to install local and area emergency shelters, as well as bus shelters.
- 12. Consult Part 7, "Traffic Control for School Areas," of the 2009 Edition of the MUTCD for guidelines on New Mexico school zone demarcation to improve school zone safety along Rotten Tree Road adjacent to Taos Day School as well as along both Shadow Lane and White Road adjacent to the Taos Pueblo Head Start. For example, via a Taos Pueblo Road Safety Assessment, an RSA team could review the warrants for potential installation of School Speed Limit Assemblies at opposing ends of both the Taos Day School and Head Start school zones. Said assemblies could be equipped with S5-1 "School -Speed Limit 20 When Flashing" signs that include solar-powered Speed Limit Sign Beacons programmed to flash during morning drop-off and afternoon pick-up hours.
- 13. Pursue an RSA of community roads focusing on residential roads and including, but not limited to: intersections, surface conditions; lighting, signage, and school zone demarcation; crash, speeding, and potential sidewalk locations; local desire lines and trail markings.
- 14. Submit a Central Federal Lands Highway Division (CFLHD) Tribal Request for Services Form (see Appendix pp. 187 - 191) that includes a parcel map showing the Taos Pueblo routes needing RSA review.
- 15. Participate in/host joint community meetings on the potential for Central Federal Lands Highway projects.
- 16. Improve brush control by adding periodic seasonal mowing to the maintenance schedule and increasing coordination between the Pueblo, BIA, NMDOT, and Town of Taos.

- 17. Host community meetings to address preferences relevant to community lighting, and to introduce community members to the potential benefits of LED lighting installation (where appropriate and least impactful to Taos Pueblo's cultural and historic ambience).
- 18. Review roadway standards, and update BIA to those, which are more current.
- 19. Pursue Northern Pueblos maintenance funding.
- 20. Consider zoning relevant to future infrastructure development - particularly regarding "Green and Complete Streets."
- 21. Initiate a Taos Pueblo Green and Complete Streets Committee to help research examples of Green and Complete Streets ordinances and policies from communities of similar size/setting.
- 22. Develop a Taos Pueblo Green and Complete Streets Committee to write a Green and Complete Streets ordinance using the Taos Pueblo Comprehensive Indigenous Community and Land Use Plan as a foundation upon which to base green and Complete Streets policy elements so that they complement the Land Use Plan and are respectful of the community's history and culture.
- 23. Incorporate green and Complete Streets elements into all subsequent Taos Pueblo roadway design and improvement projects.
- 24. Retrofit green roadside infrastructure elements with the help of local youth groups to reduce stormwater runoff volume, and serve as a pilot project to further educate tribal members on how green infrastructure can be incorporated into the Pueblo's streets.
- 25. Pursue the funding required to implement the WH Pacific "Veterans Highway Plan and Profile"; including, but not limited to, expansion and enhancement of the existing equestrian trail/multiuse path along the north side of Veterans Highway to shore up the crumbling edges with asphalt, and extend it to a new terminus about 300' east of Badger Road.
- 26. Contemplate completion of a formal Taos Pueblo Trails Plan.
- 27. Continue local transit program development via collaboration and coordination with existing area



Cochiti Street on the Pueblo de Cochiti is a unique example of a green and complete streets project with xeriscaping.

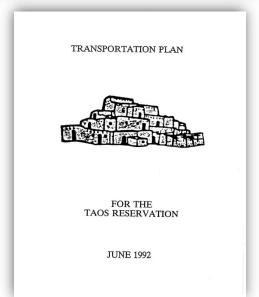
Develop a Taos Pueblo Green and Complete Streets Committee to write a Green and Complete Streets ordinance using the Taos Pueblo Comprehensive Indigenous Community and Land Use Plan as a foundation upon which to base green and Complete Streets policy elements so that they complement the Land Use Plan and are respectful of the community's history and culture.





Roundabouts at the above Buffalo Pasture Road, Pueblo Street, and Veterans Highway junction and/or at the Rio Lucero Road, Pueblo Street, and Pueblo Canyon Road junction below could improve safety and traffic flow.





- transit systems; e.g., NCRTD's Chile Line Red, etc.

 28. Draft a formal Taos Pueblo foliage ordinance in collaboration with the Town of Taos so that residential foliage does not impede the line of sight at local intersections.
- 29. Consider the addition of sidewalk infrastructure constructed of materials that preserve the historic and cultural aesthetic of the Pueblo as part of both the Five Roads Project and future roadway projects.
- 30. Complete a traffic study on the proposed construction of two roundabouts at the complex junction of Buffalo Pasture Road, Pueblo Street, and Veterans Highway and/or where the current triangular patch of land sits at the intersection of Rio Lucero Road, Pueblo Street, and Pueblo Canyon Road. Since these intersections are narrow and have poor sight lines, a traffic study can: determine if the intersections will require a complete redesign, assess current traffic patterns and crash data, then determine whether roundabout installation might improve driving safety.

The transportation needs in this section originated in part from goals and information detailed in:

- the 1992 Taos Pueblo Long Range Transportation Plan;
- input obtained from Taos Pueblo's Tribal
 Transportation Director and Transportation Planner
 as well as at the Taos Pueblo Tribal Transportation
 Safety Plan Meeting;
- safety concerns the general public shared via the Taos Pueblo Transportation Safety Survey; and
- the 2014 Taos Pueblo Comprehensive Indigenous Community and Land Use Plan.

The 1992 Taos Pueblo Long Range Transportation Plan's Study Purpose and Scope states, "...the central objective [is] to identify the transportation needs of the reservation and to develop a program of coordinated transportation improvements that will be consistent with the social, environmental, and economic goals and objectives of the Tribe." Specifically, the study purpose was to "...cater to the [Pueblo's] transportation needs... over a 20-year period."

The 1992 LRTP's methodology included four main components:

- 1. Review of existing information:
 - Pueblo goals, objectives, priorities, and thoughts about land use, and economic development; plus, road inventory and maps;
 - average daily traffic volumes and other relevant information from the New Mexico Department of Transportation; and
 - o crash data, etc.
- 2. Field data collection
 - Assessment of roadway surface and drainage conditions along with their usage levels
- 3. Comprehensive analyses
 - o Distillation of field and documentary data
 - Socioeconomic status and forecasting
 - o Traffic projections; and
 - Travel demand analysis and determination of transportation needs.
- 4. A "transportation plan" comprised of a prioritized listing of recommended road improvement and construction projects for use by the Pueblo and BIA in implementing a construction program to meet current and projected (20-year) transportation needs. Quoting the 1992 LRTP, "the Transportation needs identified for the reservation relate to the following:
 - Highway improvements determined as necessary to ensure a comprehensive system;
 - The establishment of a basic network of allweather roads;
 - Ensuring a high level of road maintenance;
 - Ensuring a high level of safety on reservation roads; and
 - Reservation wide signing improvement (A/E Group, Inc., 1992)."

The *LRTP's* Transportation Plan Summary expands on the above bullet points and projects forward well into the future with recognition of the need to provide better mobility in areas, and to promote increased opportunities for alternative modes of transportation; e.g., Taos Pueblo transit, bicycle, pedestrian, and equestrian project

Quoting the 1992 LRTP, "the Transportation needs identified for the reservation relate to the following:

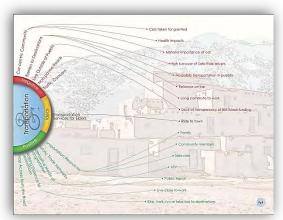
- o Highway improvements determined as necessary to ensure a comprehensive system;
- o The establishment of a basic network of all-weather roads;
- o Ensuring a high level of road maintenance;
- o Ensuring a high level of safety on reservations roads; and
- o Reservation wide signing improvement."



Part of the Five Roads Project: Spider Rock Road (NP705) looking west from the Taos-Picuris Service Unit parcel



Existing Taos Smoke Shop parking lot



Transportation element from the
Taos Pueblo Comprehensive
Indigenous Community and Land Use Plan

development over the next 20 years.

Completing the Five Roads Project is Taos Pueblo's highest priority. As aforementioned, this project will install sidewalk, curb, and gutter along Rotten Tree, Rio Lucero, Little Deer Horn, Spider Rock, and Star roads. Spider Rock Road (NP705) is the emergency vehicle access route to the Taos-Picuris Service Unit of the Indian Health Service, so not only will the roadway improvements help reduce local emergency response times, the Pueblo will address the 1992 LRTP's safety concern about pedestrian and cyclists navigating this road without infrastructure support. With the exception of Rio Lucero Road, which is a principal route to agricultural parcels and firewood, the other four roads are school bus routes. Thus, the installation of sidewalk infrastructure will encourage safe multimodal connectivity to residential areas where students live, while also providing the indirect benefit of encouraging healthy and active lifestyles for all Taos Pueblo community members as well as potential visitors and tourists.

The construction of a future convenience store at the corner of US64 and Hail Creek Road (NP702) will necessitate numerous improvements and the installation of a significant amount of new infrastructure. The existing Taos Smoke Shop parking lot has an earthen and gravel surface with a single egress up an incline of 20°+ to a paved driveway apron with limited visibility east and west along Hail Creek Road. This project is the second priority on the list of projects to complete, because of its location at a busy fourway intersection that is a major gateway into and out of the Pueblo, and because of the economic return the community will realize once this enterprise is open. Negotiations with NMDOT about the project design, which includes formal driveway egresses onto US64 and Hail Creek Road along with the installation of additional sidewalk infrastructure began in 2019.

Within the *Taos Pueblo Comprehensive Indigenous Community and Land Use Plan,* the "Healthy Community,"
"Transportation," "Land Use," and "Housing" elements each reference the need to develop multimodal transportation opportunities for the community (the Pueblo's third transportation safety project priority). Taos Pueblo's

current and future efforts to promote pedestrian and bicycle-friendly development will improve the generational transference of language, history, and culture between elders, children, and family members that walk and/or bike together, while also encouraging Pueblo residents' access to facilities for healthy and active living. Thus, multimodal infrastructure installation will directly address the negative "Land Use" element, "No intergenerational knowledge transfer" in a highly effective manner, and will achieve the positive "Housing" element goal, "Bike, walk, run to destinations." Additionally, the negative health impact of "Diabetes from lack of exercise" (and from existing transportation "barriers to destinations") can be overcome with sidewalk and bike lane construction that connects the Pueblo's trip generators, which are generally found within walking and cycling distance of Pueblo residences, buildings, and complexes.

The 1992 Taos Pueblo Long Range Transportation Plan specifically suggested in Section V, "Transportation Needs," Subsection C, "Safety Needs," Number 4, "Pedestrian and Bicyclist Safety": "Considerable numbers of people could be observed walking or cycling between Taos Pueblo and the Town of Taos without proper facilities. These pedestrians and bicyclists are exposed to considerable hazards due to their mix with motor vehicles. There are no special facilities such as bike paths, pedestrian walkways or shoulder areas along the route to accommodate these modes of travel. A detailed engineering analysis is required to determine the appropriate design and alignment for a pedestrian/bikeway along the corridor of NP701 and NP705" (A/E Group, Inc., 1992).

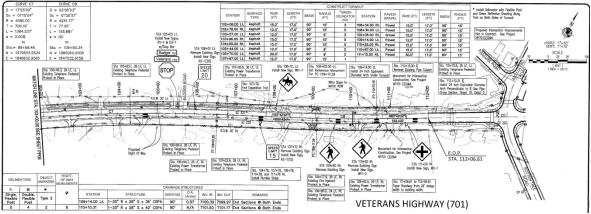
In 2017, the aforementioned TIGER Project constructed a multiuse path 7/8s of a mile in length from the Pueblo village area to a terminus near the Hail Creek Road (NP702) intersection. However, this "special pedestrian/equestrian facility" did not extend from this endpoint toward the Town of Taos boundary. Although reflective marker and retroreflective paint installation along the full length of NP701 sought to designate a combination pedestrian and equestrian facility, said delineation does not fully address safety measures needed to accommodate bicycle and pedestrian traffic adjacent to this route (see photo at right).



The Five Roads Project to install sidewalk, curb, and gutter - like that adjacent to the Governor's Office - will encourage healthy and active living, and address the 1992 LRTP concerns expressed below.

"Considerable numbers of people could be observed walking or cycling between Taos Pueblo and the Town of Taos without proper facilities. These pedestrians and bicyclists are exposed to considerable hazards due to their mix with motor vehicles. There are no special facilities such as bike paths, pedestrian walkways or shoulder areas along the route to accommodate these modes of travel." -- 1992 LRTP (A/E Group, Inc., 1992)



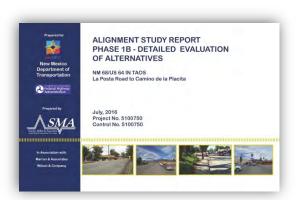


Above source: WH Pacific Veterans Highway Plan and Profile (Page 9)

The 1992 LRTP's suggestion of "...a pedestrian/bikeway along the corridor of ... NP705" is being achieved by the construction of bicycle and pedestrian facilities alongside the full length of Spider Rock Road (NP705) as part of the Five Roads Project.



The above portion of the WH Pacific *Veteran's Highway Plan and Profile* shows the proposed extension and formalization of the existing multiuse path, which will: extend the facility to a new terminus 200-feet east of Badger Road, formalize its length with asphalt to shore up the crumbling edges, and install signage (see photo at left) to better demarcate its start and endpoints. Enhancing the NP701 multiuse path is the fourth priority on the list of projects to complete.



The "Major Intersections Re-alignments" section of the 2016 NMDOT Alignment Study Report describes the primary challenges at the complex Paseo del Pueblo Norte/US64, Camino del Paseo Pueblo Norte (aka Veterans Highway), and Montecito Lane junction as follows: "...side street stop control, ADA, clear zone, sight distance, and intersection delineation. Intersection alternatives included minor and major re-alignments of both US64 and Camino del Paseo Pueblo Norte, as well as signalization. A major realignment of this intersection is recommended as it improves sight distance and better controls traffic movements. A gateway treatment for the turnoff to Taos Pueblo is also recommended." Thus, the fifth priority on Taos Pueblo's project list is support for NMDOT Project Number CN5100750. The final project will include a signalized intersection, acceleration/deceleration lanes for merging on



to US64, bicycle and pedestrian facilities, signage, access to Montecito Road, and paving of a 250-foot stretch of roadway outfitted with curb, gutter, and sidewalks.

Above: The Paseo del Pueblo Norte/US64, Veteran's Highway, and Montecito Lane junction

The Pueblo's sixth priority is to perform critical maintenance on all Taos Pueblo roadways where it is required.

The 2014 Taos Pueblo Comprehensive Indigenous Community and Land Use Plan identified ten hazards under the "Hazard Mitigation/Climate Preparedness" element as having the potential for the most serious impact to Taos Pueblo, and thus were determined to be risks. Broken into the categories of "Natural Hazards" and "Human-Caused Hazards," they are listed as follows:

Natural Hazards

- 1. Drought
- 2. Extreme Temperature Variations*
- 3. Wildfires*
- 4. Floods*
- 5. Snow storms*
- 6. Scarcity of water

Human-Caused Hazards

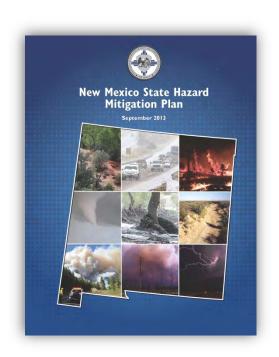
- 7. Utility Failure*
- 8. Communication Failure*
- 9. Trash
- 10. Non-point source pollution
- *Denotes possible risks to transportation safety

Relevant to flooding, it is well-understood that, "Flooding



2003 Encebado Fire
Photo credit: Ignacio Peralta,
U.S. Forest Service

"Erosion can play a large role in flash floods due to the extensive damage that can occur with the addition of eroded material into the stormwater runoff... Erosion, when combined with eroded sediment and debris, results in the disruption of road access, driving hazards, drainage facility damage and blocking, and sedimentation" (High Water Mark, LLC, 2014).



primarily occurs when a river, stream, or lake overflows its banks due to an excessive accumulation of surface water... there are two types of flooding that occur in the region, riverine flooding and flash flooding... Although the... Pueblo experiences riverine flooding, flash flooding is a more common and more destructive type of flooding... Flash floods are... frequent in New Mexico, and subsequently, New Mexico has the ninth highest flash flood fatality rate in the nation... Erosion can play a large role in flash floods due to the extensive damage that can occur with the addition of eroded material into the stormwater runoff... Erosion, when combined with eroded sediment and debris, results in the disruption of road access, driving hazards, drainage facility damage and blocking, and sedimentation" (High Water Mark, LLC, 2014).

In alignment with the State of New Mexico Hazard Mitigation Plan, several commonsense goals - intended to save lives, reduce injuries, property damage, and recovery times - can be drawn from the *Comprehensive Indigenous Community and Land Use Plan*. Listed on the following page, these several goals also will improve Taos Pueblo's roadway safety, and closely reflect many of the previously cited transportation safety concerns:

- 1. Reduce the number of injuries due to natural hazards:
- 1. Reduce the number of fatalities from natural hazards:
- 2. Reduce the amount of property damage, both public and private, from natural hazards;
- 3. Shorten recovery times after natural hazard events;
- Improve communication, collaboration and integration among state, local, and tribal emergency management agencies; and
- Increase awareness and understanding of risks and opportunities for mitigation among the citizens and elected officials of the region.

The mitigation actions that closely reflect the Taos Pueblo transportation safety needs described above, and that further the Pueblo's Emphasis Area implementation will be introduced with those Emphasis Areas in Section 8.

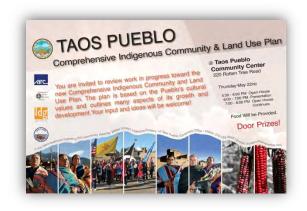
Between April 2013 and September 2014, Taos Pueblo elders, youth, vocational education and post-secondary education students, community boards, entrepreneurial organizations; health, education, safety, enforcement, and judicial service providers; land management staff, and community farmers participated in the public and leadership meetings held to draft the Pueblo's *Comprehensive Indigenous Community and Land Use Plan*. Through these meetings, economic priorities and implementation strategies were identified for the Pueblo and became the basis of the plan's Economic Development element. Those implementation strategies are summarized below:

Strategy I: Develop economic initiatives consistent with core values that do not compromise more land

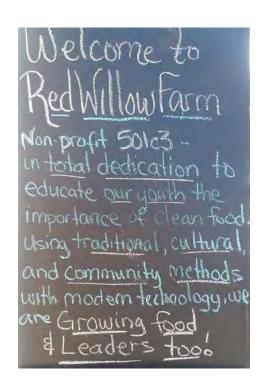
- Business incubator, startup, private businesses, and cooperatives
- 2. Develop tourist activities on existing Taos Pueblo land that has been developed; e.g.,
 - a. Taos Pueblo Tourism Department
 - b. Taos Mountain Casino
 - c. Taos Pueblo Convenience Store and Smoke Shop
 - d. Hunting
 - e. Arts and crafts
 - f. Coordinated events for outsiders
 - g. Tour guides in Old Village UNESCO site
 - h. Social media promoting Taos Pueblo
- Develop agricultural initiatives that will provide food for community members, local communities, businesses, and tourists; e.g., Red Willow Farmer's Market, Red Willow Community Growers Cooperative, and community garden

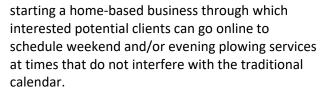
Strategy II: Create jobs for Taos Puebloans

- Assess current and future employment and economic trends, along with the Pueblo's income and wealth gaps to identify the types of jobs needed by the community
- 2. Identify ways tribal members can balance the traditional calendar with full-time work; e.g.,









3. Develop plan for education of community members to obtain skill sets needed to support future growth

Strategy III: Further develop existing or underdeveloped initiatives

- 1. Expand production of existing tribal enterprises
- 2. Develop new tribal enterprises; e.g.,
 - a. Youth business ventures
 - b. Rehabilitation center for prisoners
 - c. Clothing design
 - d. Candy and/or curio shops
 - e. Jewelry making
- 3. Consider industrial development initiatives
- 4. Financially incentivize new business ventures
- 5. Proposed new development with single-family housing, apartments, an administrative-judicial complex, a commercial area, and parks

Safe, efficient Taos Pueblo roadways can help achieve these economic development goals while working in a variety of ways to address Section 6's comprehensive list of "What's Needed?"



This Taos Pueblo data summary is a compilation of data gathered from the New Mexico Department of Transportation, the Taos Pueblo Transportation Safety Survey, and the Taos Pueblo Department of Public Safety (TPDPS). The crash information distilled from the *Taos Pueblo Transportation Safety Survey* represents incidents from as early as 1988 through early 2018, while the crash data obtained from NMDOT and Taos Pueblo DPS includes incident records reported across the Pueblo from 2011 through 2018.

As one reviews the crash data within this Data Summary section, it is important to note that the incident reports span a large period. Thus, the reader will wish to consider that there may have been significant changes and/or improvements on Taos Pueblo roadways during this lengthy crash history. Further, because much of the crash data acquired was anecdotal or incomplete, it is impossible to classify all the crashes with complete detail. Where it is useful to review the "Unknown" data fields, the information has been analyzed and presented herein. Therefore, the detail within certain tables, graphs, and pie charts appearing within this "Data Summary" chapter may include a data field entitled "Unknown" for crashes about which the information was unavailable.

Crash Severity

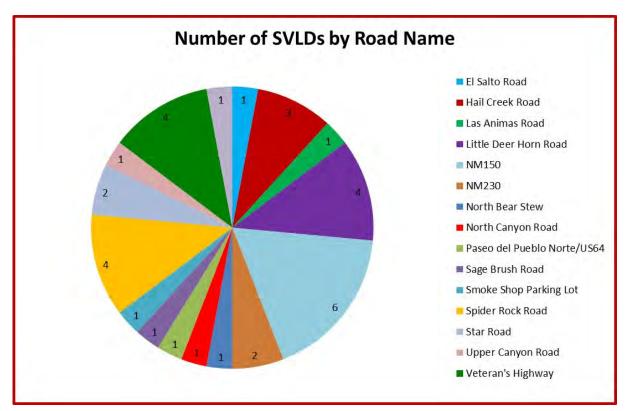
From 1988 - 2018, there were 83 total crashes in and around Taos Pueblo. Seven of those crashes involved fatalities. Four crashes resulted in serious injuries; nine resulted in minor injuries, and sixty-three crashes involved property damage only (PDO).

Crash Locations

Please see Appendix pp. 147 - 151 for the *Taos Pueblo Crash Data Compilation* developed from the *Taos Pueblo Transportation Safety Survey*. The six pages of Taos Pueblo aerial maps (Appendix pp. 152 - 157) attached to that compilation offer a visual look at where many of the area crashes are occurring, as well as describing some troublesome roadway sections. However, the aerial maps that originated from the Safety Plan Meeting frequently

Year	Fatality	Serious Injury	Minor Injury	Property Damage Only	Total
1988	1				1
1992			1		1
2000	1				1
2002	1				1
2003	1	1			2
2006		1			1
2009				1	1
2010			1	6	7
2011			1	4	5
2012		1		3	4
2013				2	2
2014	1				1
2015			1	1	2
2016		1	1	22	24
2017	1		1	23	25
2018	1		3	1	5
Grand Total	7	4	9	63	83

Number of Crashes by Year Taos Pueblo, New Mexico, 1998 - 2018



Above pie chart sources: NMDOT, Taos Pueblo Department of Public Services, and the Taos Pueblo Transportation Safety Survey

depict crash locations for which there are no known specifics beyond those represented by the stickers applied to the maps. Within this "Data Summary," references will be made only to numbered crashes (i.e., Crashes 1 - 21) displayed on the aerial maps and/or those with detailed particulars.

Number of Vehicles Involved in Taos Pueblo Accidents					
# of Vehicles	Fatal & Serious Injury	All Severity			
1	8	29			
2	3	43			
TOTAL	11	72			

In addition, the "Location of All Severity Crashes 1988 - 2018" table on page 54 informs the location synopsis below. In brief, of the 83 total crashes, one property damage only event occurred on an "Unknown" roadway. NM150 had one fatality, one minor injury, and ten PDO crashes, and Veterans Highway had a fatality, a serious injury, and a minor injury crash, as well as seven PDO incidents. Paseo del Pueblo Norte/US64 also experienced ten crashes: two fatalities, a single minor injury, and seven PDOs, i.e., the same number observed on Veterans Highway. Hail Creek Road had six PDO crashes (including Crashes 18 and 20). The six collisions on Spider Rock Road included a single minor injury, a single serious injury, and four PDO crashes. Little Deer Horn Road had one fatality and a single serious injury crash, but no reported minor injury accidents. Four

Location of All Severity Crashes 1988 - 2018					
Road Name	Fatality	Minor Injury	PDO	Serious Injury	Grand Total
Casino Parking Lot			1		1
El Salto Road			1		1
Hail Creek Road			6		6
Head Start Parking Lot		1			1
La Placitas Road			1		1
Las Animas Road			1		1
Little Deer Horn Road	1		2	1	4
Main TP Village Parking Lot			1		1
NM150	1	1	10		12
NM230		2	2		4
North Bear Stew				1	1
North Canyon Road			1		1
Paseo del Pueblo Norte/US64	2	1	7		10
Paseo del Pueblo Sur/NM68			1		1
Buffalo Pasture Road			2		2
Pow Wow Grounds			1		1
Rio Lucero Road			4		4
Rotten Tree Road		1			1
Sagebrush Road			1		1
Senior Citizen's Center Parking Lot			1		1
Smoke Shop Parking Lot			2		2
South Side Kiva			1		1
Spider Rock Road		1	4	1	6
Star Road	2		1		3
Taos Day School Parking Lot			1		1
TP Tourism Dept Parking Lot			1		1
Unknown			1		1
Upper Canyon Road		1			1
Veterans Highway	1	1	7	1	10
White Road			2		2
Grand Total	7	9	63	4	83

crashes took place on NM230 and Rio Lucero Road respectively; two of those on NM230 were minor injury crashes and two were PDOs, but all four of those on Rio Lucero Road were PDOs.

Star Road witnessed two fatalities and one property damage only crash. Buffalo Pasture Road and White Road each experienced two property damage only accidents, but had no reports of either serious injuries or fatalities. Taos Smoke Shop parking lot was the scene of two property damage only crashes as were the main Taos Pueblo village parking lot and the lots at Taos Day School, the Senior Citizen's Center, the Tourism Department, and Head Start. Except for the Head Start parking lot, each of the previously



The point at which Star Road narrows significantly from pavement to gravel presents navigational challenges to drivers.

mentioned parking lots had a single PDO crash. The Head Start parking lot was the scene of a minor injury crash. Apart from North Bear Stew, Rotten Tree, and Upper Canyon roads, every other location on the preceding table had only one PDO crash. A serious injury crash (Crash 9) was recorded on North Bear Stew, while single minor injury crashes (Crashes 2 and 15 respectively) were recorded on both Rotten Tree and Upper Canyon roads.

The following crash location information was gleaned from the *Taos Pueblo Crash Data Compilation* (on pp. 147 - 151 of the Appendix) that was developed from the *Taos Pueblo Transportation Safety Survey* (see Appendix pp. 145 - 146). All 21 of the crashes reported on the survey gave locations; however, said locations often were limited only to the road name where the incident occurred.

Quartering Taos Pueblo by direction, the *Taos Pueblo Transportation Safety Survey* divides north from south along Beaver Pond Road, and east from west where One Tree Road meets Spider Rock Road. Both the crash data distillation and Taos Pueblo TTSP Meeting attendees' aerial map reviews indicate that there tend to be an equal number of crashes in the north and west sections of the Pueblo (see the "Safety Survey Crash Locations" table at left). Most of these crashes are PDOs (16 in the north and 18 in the west) and minor injuries (eight in the north and two in the west). One of the Pueblo's seven fatalities was in the north portion of the community and two were in the west. Nonetheless, four serious injuries and three fatalities happened in the Pueblo's southern section.

Interestingly, between 1988 and 2009, five crashes were in the southern region of the Pueblo with a single crash being recorded in the other three quadrants. Beginning in 2010, more crashes were recorded in the north, while in 2016, a higher percentage of crashes were noted in the western section of the Pueblo. The most likely reasons for the predominance of collisions in the community's southern area have to do with the higher posted speed limits on Veterans Highway, and drivers' tendencies to achieve higher speeds along roadways in the less populated south area of the Pueblo. The aerial map markups that Taos Pueblo TTSP Meeting attendees completed confirm that Star Road, Spider Rock Road, and Little Deer Horn Road

Safety Survey Crash Locations					
Year	East	North	South	West	TOTAL
1988				1	1
1992		1			1
2000			1		1
2002			1		1
2003			2		2
2006			1		1
2009	1				1
2010		7			7
2011		4	1		5
2012		4			4
2013	2				2
2014				1	1
2015	1	1			2
2016	8	3	5	8	24
2017	8	1	6	10	25
2018		2		3	5
TOTAL	20	23	17	23	83



Above: Looking north down NM150 from the Piñon Road junction at milepost 3.5: the location of four of the five rollover crashes that occurred between mileposts 3.0 and 4.0.

experience high levels of speeding (please see Appendix page 157).

Additionally, many of these roadways can be characterized as lacking pavement but possessing hazardous reverse and compound curves and/or road edges that may be less defined between periodic maintenance gradings. Since the greatest proportion of the local population resides in the north and east quadrants, there is a high percentage of traffic in these areas with numerous drivers commuting both to Pueblo locations for work as well as to Taos Day School or the Head Start to drop off and pick up their children.

A closer review of the 12 crashes reported on NM150 suggests causal factors for why this stretch of roadway has had more incidents than any others within the data set. Originating at the junction of US64 and NM522 then terminating at Taos Ski Valley, NM150 is a winding twolane major collector that runs north then east delineating a portion of the Pueblo's western and northern peripheries. Defined by extremely narrow shoulders, inadequate clear zones, and short straight tangents connecting numerous reverse curves, reverse turns, and horizontal curves with roads intersecting from both the east and west, one might assume that roadway speed and traffic volume are contributing factors to these crashes. In fact, excessive speed was a factor in four of the five rollover crashes and one of the PDOs on this state route. However, the posted speed varies from only 45 mph heading north



2010 - 2017 NM150 crashes between US64 and NM522 junction northeast to Arroyo Seco. Aerial map credit: SOA DCCED DCRA | NMDOT, Planning, GIS, Mandli | Earthstar Geographics | New Mexico State University, ESRI



Above: In many locations between milepost 1.0 and 5.0, asphalt overlays have been NMDOT's preferred maintenance approach for temporary improvement of ongoing NM150 degradation due to poor drainage and water overtopping the roadway.



from milepost 3.0 down to 35 mph, then 20 mph through the community of Arroyo Seco. In 2020, NMDOT recorded an annual average daily traffic (AADT) count of 5,550 down from 2019's AADT of 6,072 (likely due to the Covid-19 pandemic), and 2015's AADT of 6,054.

Weather may have played a role in one of the five overturn crashes, which occurred at 7:32 a.m. in mid-February on a wet and snowy surface. Rainy, wet road conditions were a factor in two of the seven PDOs, and a wet, snowy road surface was evident in a third PDO determined to have been the result of excessive speed. One of the crashes in the rain was caused by a fallen tree with no driver error. The other wet, rainy crash resulted from driver inattention and the sideswiping of an oncoming vehicle. Further, asphalt overlays provide evidence of consistent roadway drainage challenges and water overtopping during spring runoff and monsoon seasons (see photo above and on page 56).

Alcohol or substance impairment was observed as a factor in only two of the five rollovers; however, one of these crashes catastrophically resulted in a fatality and the other caused a minor injury. Impairment was suspected, but not tested for, during the NM150 PDO in which an unknown fixed object was hit in a curve on grade .10 of a mile north of milepost 3.1.

All five overturn events happened at level curves with visibility as a potentially mitigating factor in that three of the five rollovers took place in "dark - not lighted" conditions, while the other two crashes took place during early morning or afternoon hours on Sundays in the winter months of mid-February and early March. Notably, the junction of Piñon Road and NM150 at milepost 3.5 was the scene of four of the five overturn incidents, and milepost 4.0 was the location of the mid-February crash.

None of the crash data obtained from NMDOT, the *Taos Pueblo Transportation Safety Survey*, or the Taos Pueblo Department of Public Safety indicates the type of vehicles involved in the several documented rollover crashes.

Nevertheless, according to the National Highway Traffic Safety Administration, "A rollover crash is far more likely to result in fatalities than are non-rollover crashes... [and] the increases in fatal light truck fatalities, driven by SUV crashes, have been offsetting the decreases in both fatal passenger car crashes and rollover crashes" (National Highway Traffic Safety Administration, 2002).

Analysis of the seven PDO crashes on NM150 indicated that four occurred at level curves; two took place at curves on grade; and the crash of two vehicles caused when one backed from a blind driveway access happened at a curve with a dip. Visibility undoubtedly was a concern, because every PDO transpired between 12:00 p.m. in the afternoon and 8:15 p.m. in the evening or overnight at 4:24 a.m. Miraculously, neither the two crashes with oncoming vehicles nor the four crashes with fixed objects like fences resulted in injuries and were limited to property damage only.

Ten Veterans Highway crashes are detailed within the data set; several of which received comments within the *Taos Pueblo Transportation Safety Survey*. For example, "The bridge on Veterans Highway lacks room for pedestrians to cross safely," and "Speeding as cars approach Old Pueblo (especially Veterans Highway intersection)." Respondents to the *Transportation Safety Survey* also cited the collisions with animals happening on the "...Main Highway - government offices to Central Management System (CMS)" due to local livestock wandering beyond their enclosures

"A rollover crash is far more likely to result in fatalities than are non-rollover crashes...
[and] the increases in fatal light truck fatalities, driven by SUV crashes, have been offsetting the decreases in both fatal passenger car crashes and rollover crashes" (National Highway Traffic Safety Administration, 2002).



At right above: the Hail Creek side of the Y-intersection of Hail Creek Road and Veterans Highway near Taos Mountain Casino.



The installation of turn lanes on both Hail Creek Road and Veterans Highway at their Y-intersection would improve Chile Line and tourist buses' turning radii.



Crash 19 occurred at the Taos Mountain Casino egress onto Veterans Highway.

and fence lines.

On the Taos Pueblo Crash Data Compilation, of particular concern is Crash 1, an evening hit and run that took the life of a pedestrian along the Hail Creek side of the Y-intersection of Hail Creek Road and Veterans Highway in 1988 near the present location of Taos Mountain Casino. Improvements have been made to intersection signage and configuration since that time. Yet, this Taos Pueblo Transportation Safety Survey response appears in answer to survey Question 3 about risky locations, "Veterans Highway and Hail Creek Road: need to make a turning lane for buses... widen turning radius."

Crash 13 at noon during the summer of 2016 is the only serious injury crash on Veterans Highway within the data set. Like Crash 1, an imprecise crash location was given. Thus, the crash location depicted on the aerial map on Appendix page 154 also is inexact. However, the incident apparently was the consequence of a speeding car overturning and required that EMTs be called to the scene. At 6:30 p.m. in January 2018, an inattentive male driver T-boned a passing car as he exited the Casino's Veterans Highway egress resulting in Crash 19's minor injury.

Four of the seven Veterans Highway PDOs took place between 12:32 and 3:54 p.m. on Wednesday afternoons, and all seven were caused by driver errors; e.g., driving left of center, excessive speed, failure to yield, improper backing, and/or driver inattention. Single vehicle lane departures describe the two PDOs with fixed objects; one of which was the result of a driver under the influence speeding in wet, snowy conditions, and the other of which occurred at 10:15 p.m. due to improper driving and backing.

As aforementioned, Paseo del Pueblo Norte/US64 was the location of ten crashes: two fatalities, a single minor injury, and seven PDOs. Driver inattention and/or various types of driver errors were the root cause of each of the seven PDOs. The first fatality occurred early at 2:36 a.m. on March 2, 2014, when a 1997 Chevrolet Tahoe speeding south through El Prado made a single vehicle lane departure at US64 and Cardenas Lane, where it initially collided with a telephone pole support wire, then the Taos Crating



Company's business sign. Still in motion southbound, the sport utility vehicle (SUV) next struck a cement culvert support and a ditch causing the vehicle to become airborne after which it hit a cottonwood tree, flipped in the opposite direction, and came to rest on the driver's side. The rollover crash resulted in one fatality, one ejection with serious injuries, one passenger leaving the scene, and the driver escaping the incident physically unscathed.

At the intersection of Ben Romero Road and Paseo del Pueblo Norte/US64 on July 11, 2016, at 8:30 p.m., an evening crash between a car and motorcycle resulted in the minor injury of the 26-year-old male motorcyclist. Despite clear and dry roadway conditions and both drivers' sobriety, the 63-year-old female car driver was cited for failure to yield at the Ben Romero Road stop sign, and was described in the Taos Pueblo DPS crash report as being "inattentive" when she drove through the stop sign to make her left turn.

On June 23, 2017, at 11:34 a.m. approximately 150' north of Brooks Street, a Picuris Pueblo tribal elder 82 years of age was hit and killed by a 58-year-old woman driving north on Paseo del Pueblo Norte/US64 to the Taos-Picuris Service Unit of the Indian Health Service in her 2003 Ford pickup. Attempting to cross the roadway from west to east at a fast pace, the hearing-impaired victim only checked the southbound traffic lane to his left before walking into the northbound lane directly in front of the pickup never having checked for northbound traffic. Unfortunately, just south of the US64 and Brooks Street intersection, there exists a continental crosswalk, although it is not well-aligned with

Above: Paseo del Pueblo Norte/US64, where a pedestrian tragically lost their life.



Above: The continental crosswalk just south of the US64 and Brooks Street intersection it is not well-aligned with the roadway corners and is unsupported by north-south crosswalks along US64 at the complicated offset intersection of Sunset Lane, Brooks Street, and Paseo del Pueblo Norte/US64.



Above: US64 and Hail Creek Road March 22, 2018



Above: Quoting a Taos Pueblo Transportation
Safety Survey respondent, "Hail Creek Road
has no shoulder if you go off the right side
of the road."



Above: The junction of Spider Rock Road (NP705) and White Road where Crash 14 occurred.

the roadway corners and remains unsupported by northsouth crosswalks along US64 at the complicated offset intersection of Sunset Lane, Brooks Street, and Paseo del Pueblo Norte/US64.

Even though the *Taos Pueblo Transportation Safety Survey* listed the junction of US64 and Hail Creek Road as one of several locations that survey respondents feel is risky, the six crashes at or approaching the intersection all resulted from some type of driver error. Given that three of the six crashes (including Crashes 18 and 20) were single vehicle lane departures resulting in collisions with fixed objects, consideration of the survey comment, "Hail Creek Road has no shoulder if you go off the right side of the road" is warranted as future assessments of the roadway are completed (see photos at top and middle left).

The Taos Pueblo Transportation Safety Survey description for Crash 6 is somewhat detailed. Nonetheless, it indicates only that the 2003 evening rollover of a car driven by a 33-year-old female occurred on Spider Rock Road without offering an exact location. Survey respondents suggested that driving under the influence, excessive speed, and the lack of seatbelt use were likely factors in this serious injury crash in which the driver suffered from several broken bones or may even have lost her life.

Locations have been identified for each of the property damage only crashes on Spider Rock Road; including, but not limited to Crashes 10 and 11 from the Safety Survey, the two PDOs originating from the Taos Pueblo DPS crash data, and the Crash 14 PDO at Spider Rock and White Roads (which appears as one of two White Road PDOs on the page 54 "Location of All Severity Crashes 1988 - 2018" table). The driver's excessive speed on Spider Rock Road 400' south of Rotten Tree Road was to blame for this 45-year-old male's Crash 10 impact with boulders found just off the road edge in this area. On a different morning in 2013, a female pickup driver of unknown age rolled her truck during Crash 11 just south of 750 Spider Rock Road due in part to excessive speed and road condition according to survey respondents. Crash 14 involved an intoxicated 70-year-old female pickup driver who failed to negotiate the high-speed turn she attempted at Spider Rock and White roads. Her

truck was damaged after hitting some trees, a corner post, and a section of fence. The two PDOs at #495 and #425 Spider Rock Road incorporated into the data set from Taos Pueblo DPS crash records were both caused by 61 and 60-year-old-males respectively because of driver error.

Described as taking place "near the junction of Spider Rock and Goat Spring roads," Crash 21 in March 2018 was the minor injury crash of an intoxicated 35-year-old male pickup driver who received a head injury and cuts when thrown from his speeding vehicle.

On a 2002 evening, a car traveling at a high rate of speed rolled and slid during Crash 4 about a quarter mile from Tony Reyna's on Star Road. The intoxicated 20-year-old driver survived the crash with broken bones, but the passenger was killed as neither party were wearing seat belts.

Crash 5 on a 2003 evening resulted in a second Star Road rollover fatality. A lethal combination of intoxication, speed, lack of seatbelt use, and a recently graveled road factored into the male pickup driver's loss of control and overturn at an indeterminate location.

Taos Pueblo TTSP Meeting attendees also suggested that the combination of drivers' tendency to speed, a sharp curve (see photo at middle right), and narrow culvert on Little Deer Horn is dangerous due to limited visibility and potential for winter snow build up. In fact, this curve is the location provided for Crash 16 on the Safety Survey. A PDO, this crash resulted from road condition (brush and snow in the curve), speed, driver inattention, and a lack of driving skills. The Safety Survey also described Crashes 3, 7, and 17 as having occurred on Little Deer Horn. Of those three incidents, the location details were provided only for Crash 17, which took place "near 550 Little Deer Horn." Nonetheless, both Crashes 3 and 7 involved ATVs. Tragically, the 13-year-old ATV rider lacking a helmet in Crash 3 was killed when hit by a drunk driver whose vision was adversely impacted by road dust. Six years later, a serious injury crash on Little Deer Horn between an intoxicated car driver and an ATV caused the ATV rider to suffer several broken bones. Speed and road conditions



Above: Classified as a minor injury incident, Crash 21 took place near the intersection of Spider Rock and Goat Springs roads.



The Google Earth aerial map above depicts
Crashes 3 and 16 along with several of
Little Deer Horn Road's curves.

Taos Pueblo Tribal Transportation Safety
Plan meeting attendees... suggested that
the combination of drivers' tendency to
speed, a sharp curve, and narrow culvert on
Little Deer Horn is dangerous due to limited
visibility and potential for winter snow build
up.

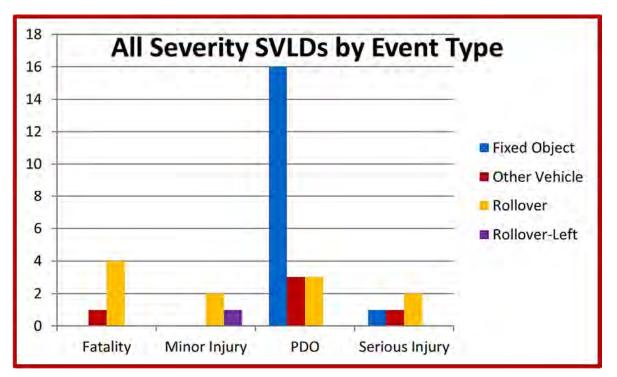
were cited again as mitigating factors in the crash.

Even though only one minor injury occurred within the data set due to improper backing or a crash with a parked vehicle, Crash 12 in October 2015 or 2016 within the Head Start parking lot during afternoon dismissal pinned a pedestrian between two vehicles and could have seriously injured or killed a student. On December 15, 2009, Crash 8 in the Taos Day School parking lot between a backing and parked car resulted in a hit and run, suggesting a disturbing level of disregard by the driver in a location where so many students and pedestrians are present. Further, 12 crashes with parked vehicles are noted within the data set, an indication that design review is needed of the many community parking lots and structures - particularly for their narrow configurations and driveway egresses. Some of the parking lot conflicts might be eliminated with "No Parking," "Employee Parking Only," and "Truck Parking Only" signage and zones along with the stenciling of ideal traffic flow patterns in paved lots. Additionally, the signed designation of separate ingresses and egresses in lots with narrow or unsafe entrances or exits also could decrease vehicle conflicts. In some cases, the installation of planters and/or parking blocks could better delineate parking spaces or help to separate parking areas for trucks and SUVs versus car parking areas. Reducing Taos Pueblo parking lot crashes will require close collaboration between Pueblo business owners and the Taos Pueblo DPS, so that enforcement can occur after the installation of appropriate parking restriction signage or other safety interventions.

Appendix pp. 156 and 195 include aerial maps developed by Tribal Transportation Safety Plan Meeting attendees and include locations for numerous different bicycle crashes. Since there are no known specifics other than those represented by the stickers applied to the maps, the "Data Summary" chapter will not attempt to explain the circumstances represented by the crashes indicated. Tribal Transportation Program staff might still take the time to review the locations depicted for roadway design features, as said on-site and aerial map analysis may help eliminate any potentially hazardous conditions for bicyclists.

Taos Pueblo crash statistics also listed three pedestrian

"...12 crashes with parked vehicles are noted within the data set, an indication that design review is needed of the many community parking lots and structures particularly for their narrow configurations and driveway egresses. Some of the parking lot conflicts might be eliminated with "No Parking," "Employee Parking Only," and "Truck Parking Only" signage and zones along with the stenciling of ideal traffic flow patterns in paved lots. Additionally, the signed designation of separate ingresses and egresses in lots with narrow or unsafe entrances or exits also could decrease vehicle conflicts. In some cases, the installation of planters and/or parking blocks could better delineate parking spaces or help to separate parking areas for trucks and SUVs versus car parking areas. Reducing Taos Pueblo parking lot crashes will require close collaboration between Pueblo business owners and the Taos Pueblo DPS, so that enforcement can occur after the installation of appropriate parking restriction signage or other safety interventions."



Above bar graph sources: New Mexico Department of Transportation, the Taos Pueblo Department of Public Safety, and the Taos Pueblo Transportation Safety Survey.

crashes, all of which have been explained above. The pedestrian crashes and maps suggesting multiple bicycle crashes coupled with information shared by both Dr. Gladys Herrera-Gurule, the former Enos Garcia Elementary School Principal, and Mr. Andrew Haimowitz, former Taos Day School Principal, pedestrian and bicycle safety education and enforcement are ongoing needs for area residents and drivers - with special focus needed on education for parents and students utilizing Taos Day School and Enos Garcia Elementary school zones. In fact, annual education, encouragement, and enforcement strategies focusing on bicycle and pedestrian safety could help prevent any additional pedestrian or potential bicycle incidents.

"Single Vehicle Lane Departures" represent 41% of the total number of Taos Pueblo crashes...

Crash Type

Please note that the following conclusions about crash types were drawn from the *Taos Pueblo Transportation Safety Survey* and crash data obtained from both the Taos Pueblo Department of Public Safety and NMDOT.



The impaired driving records within the data set suggest that Taos Pueblo DPS and local education agencies partnered with the behavioral health wing of the Taos-Picuris Service Unit (and/or other appropriate Taos Pueblo organizations) could "communicate, coordinate, and collaborate" to decrease the number of local drivers getting behind the wheel while under the influence.

- "Single Vehicle Lane Departures" represent 41% of the total number of Taos Pueblo crashes.
- Centerline crossing contributed to at least eight Single Vehicle Lane Departures (SVLDs).
- 50% of the accidents involved light trucks, 25% involved passenger cars, and 25% involved sport utility vehicle (SUVs); and
- Nearly 80% of the accidents were PDO.

Single Vehicle Lane Departures

"Single Vehicle Lane Departures" are defined as "...crashes that involve only one vehicle leaving its lane and resulting in a collision." This crash type then can be broken down further into the following crash event types:

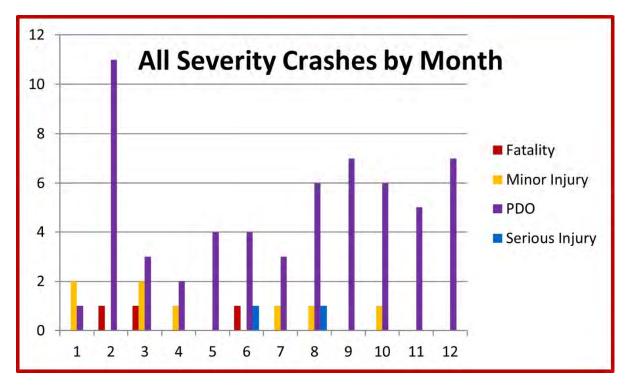
- Animal
- Cross Median/Centerline
- Parked Vehicle
- Other Vehicle*
- Fence/Fence Post
- Culvert*
- Curb/Wall*
- Ditch*
- Embankment
- Other Fixed Object*
- Overturn/Rollover*
- Ran Off Road*
- Sign*
- Tree/Fallen Tree

*Indicates fatal and/or serious injury crashes of this event type in and around Taos Pueblo.

Alcohol/Drug Impairment

Alcohol or drug impairment was reported in 20 (or 24%) of the 83 total Taos Pueblo crash events. Driving Under the Influence (DUI) was a contributing factor in nine of these crashes, while Taos Pueblo Department of Public Safety indicated the issuance of three Driving While Intoxicated (DWI) citations within the data set. One of the DWIs also received reckless driving and criminal property damage citations for the aforementioned fatality crash on

Data Summary



The bar graph above details crashes between 1988 - 2018 by month. (Note that four fatalities within the data set are not incorporated into the graph, because the months of their occurrences are "Unknown." Sources: New Mexico Department of Transportation, the Taos Pueblo Department of Public Safety, and the Taos Pueblo Transportation Safety Survey.

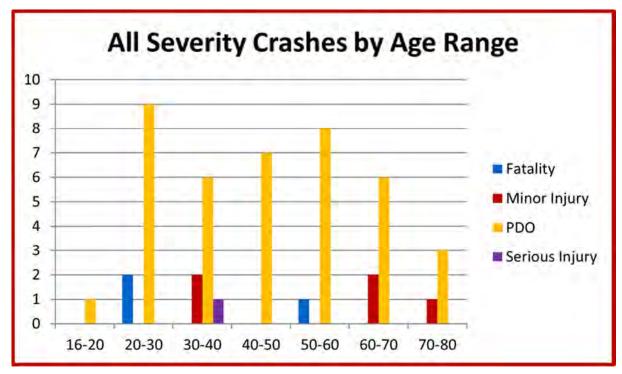
Paseo del Pueblo Norte/US64 at Cardenas Lane. The second and third DWIs were both PDO crashes along NM150 at mileposts 3.0 and 3.1 respectively. The single aggravated DUI arrest made for the PDO crash on La Placitas Road at Ranchitos Road included additional citations for leaving the scene of an accident, reckless driving, and possession of an open container.

Although the crash report omits the specific charge, Taos Pueblo DPS crash records also detail the booking of a 61-year-old impaired male whose foot dropped off the brake while he waited for the light at Paseo del Pueblo Norte/US64 and Civic Plaza Drive causing him to hit an SUV.

Safety Equipment Used

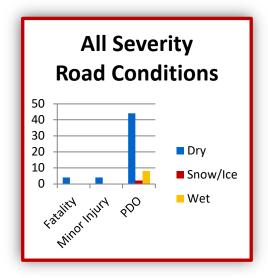
Of the 83 total Taos Pueblo crashes summarized within this chapter, safety equipment usage was described for only 48 of those incidents. Further analysis of those 48 reports





The bar graph above details 1988 - 2018 Taos Pueblo crashes by the age of the driver. Sources: NMDOT, Taos Pueblo Department of Public Safety, and the Taos Pueblo Transportation Safety Survey

indicates safety equipment usage was reported for only:



- four of the seven fatality crashes within the data set, but safety equipment was not used during three of those crashes.
- five of the nine minor injury crashes within the data set, but safety equipment was not used during three of those crashes.
- five of the 63 property damage only crashes within the data set; however, safety equipment was not used during two of those crashes.
- one of the four serious injury crashes, and *no safety* equipment was used during that crash.

Distillation of the Above Crash Data Suggests:

- Two minor injury and six PDO crashes resulted from a "Failure to yield."
- Eighteen PDO crashes and one minor injury crash resulted from "Improper backing."
- In order by roadway from the highest number of

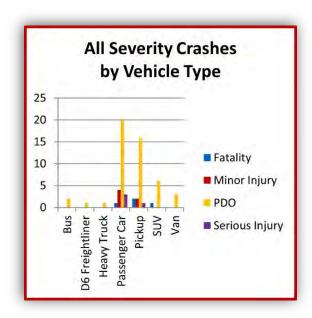
Data Summary

fatality crashes are Paseo del Pueblo Norte/US64, Star Road, Little Deer Horn Road, NM150, and Veterans Highway.

- Surprisingly, road surface conditions contributed to only 12% of all accident types with adverse conditions influencing PDO crashes only.
- Road character data for Taos Pueblo indicates 20 of the 75 crashes, for which road character was recorded, occurred in curves. Fifteen transpired at level curves; three took place at a curve with grade; and one each happened in a curve on a hillcrest and at a curve with a dip.
- Fatalities occurred in February, March, and June.
 Serious injury crashes were recorded in June and August, while January and March had the highest number of minor injury crashes; and February,
 September, and December experienced the highest number of PDO crashes.
- Although only two ATV crashes appear within the data set, both were caused by impaired drivers.
 Crash 3 resulted in the fatality of a 13-year-old who was not wearing a helmet, and Crash 7 resulted in the serious injury of a rider of unknown age. The data suggests there is a need for zero tolerance of impaired driving and for local ATV riders to receive safety training.

Data Analysis Outcome - American Indian Trauma in New Mexico:

- Accident victims with severe traumas from accidents require air evacuations to hospitals in Santa Fe and/or Albuquerque.
- Higher trauma rates occur in rural areas for American Indian populations.
- Per the Health Indicator Report of Injury for Motor Vehicle Traffic Crash Deaths generated by New Mexico's Indicator-Based Information System (IBIS), "Motor vehicle traffic-related injuries are the leading cause of injury death for people 1 to 24 years of age... Youth and young adults ages 15 to 24 years and American Indians have the highest motor vehicle traffic-related death rate."



Section 7

Data Summary

Distillation of *Taos Pueblo Transportation Safety Survey* and Taos Pueblo DPS crash data gathered, along with the aerial map review by Taos Pueblo Tribal Transportation Safety Plan Meeting attendees, revealed the roadways along which drivers tend to speed:

- Veterans Highway
- Rotten Tree Road
- Star Road
- Spider Rock Road
- Little Deer Horn Road.

Thus, these locations could be targeted for future enforcement efforts and/or a mobile radar speed trailer could be placed at these locations (after acquisition through a Fiscal Year 2023 NMDOT Transportation Alternatives Program grant for Safe Routes to School or a FY22 - FY26 FHWA Tribal Transportation Program Safety Fund grant focusing on speed management strategies.

The preceding Data Summary suggests attention to the eight Emphasis Areas detailed within Section 8 along with "Intersection Configuration/Design," "Transportation and Active Transportation Safety Management/Committee Development," "Crash Data Gathering/Analysis," "Complete Streets Policy Passage," and "Vision Zero Policy Passage" as additional emphasis areas. Proactive work to address those five emphasis areas, plus the eight emphasis areas within the next section, will help Taos Pueblo target specific crash areas and causes for correction and improvement.

One strategy that Taos Pueblo might consider implementing under the proposed additional emphasis area, "Crash Data Gathering/Analysis," is to employ college students as summer interns to assist Taos Pueblo's Department of Public Safety with crash data gathering, data entry, distillation, and reporting to improve the Pueblo's ready access to crash data for transportation and safety planning, decision making, and grant writing, and help Taos Pueblo DPS streamline its data gathering effectiveness and processes

The emphasis areas selected for this *Taos Pueblo Tribal Transportation Safety Plan* originated from comprehensive review of the crash data obtained; the consensus of Taos Pueblo Tribal Transportation Safety Plan Meeting attendees and *Transportation Safety Survey* respondents; discussions with Mr. Vernon Lujan, Tribal Transportation Director and Transportation Planner; and the March 2018 site visit completed by MGT. Those emphasis areas are:

- 1. Enforcement/Emergency Management Services
- 2. Impaired Driving, Alcohol and Substance Abuse
- 3. Driver's Education/Defensive Driving
- 4. Roadway Maintenance
- 5. Road Safety Assessment
- 6. Roadway Safety Improvements
- 7. Safety Communication Enhancement
- 8. Safe Routes to School (SRTS)

It is anticipated that if critical effort is focused on these eight safety concerns in both the short and long-term, Taos Pueblo's overall transportation system safety will improve, while the risk of fatalities and serious injuries resulting from incidents on or adjacent to the transportation system will decrease. Thus, this plan's main goal and vision statement will be achieved.

The table below classifies each emphasis area by the respective "E's" with which it can be identified.

"Through value-added engineering, transportation education, and firm enforcement, Taos Pueblo will achieve a healthy, multimodal transportation system. This will be accomplished through the shared responsibility of the community" is the Taos Pueblo Tribal Transportation Safety Plan vision statement.

Emphasis Areas Categorized by the 6E's					
Education	Encouragement	Enforcement	Engineering	EMS	Evaluation
Enforcement/EMS		Enforcement/EMS		Enforcement/EMS	Enforcement/EMS
Impaired Driving,	Impaired Driving,	Impaired Driving,		Impaired Driving,	Impaired Driving,
Alcohol and	Alcohol and	Alcohol and		Alcohol and	Alcohol and
Substance Abuse	Substance Abuse	Substance Abuse		Substance Abuse	Substance Abuse
Driver's Education	Driver's Education	Driver's Education		Driver's Education	Driver's Education
Defensive Driving	Defensive Driving	Defensive Driving		Defensive Driving	Defensive Driving
	Roadway		Roadway		Roadway
	Maintenance		Maintenance		Maintenance
Road Safety		Road Safety	Road Safety	Road Safety	Road Safety
Assessment		Assessment	Assessment	Assessment	Assessment
Roadway Safety	Roadway Safety	Roadway Safety	Roadway Safety		Roadway Safety
Improvements	Improvements	Improvements	Improvements		Improvements
Safety		Safety		Safety	Safety
Communication		Communication		Communication	Communication
SRTS	SRTS	SRTS	SRTS		SRTS

Section 8

Emphasis Areas

Each of the above emphasis areas is described in detail below with a specific goal. Additionally, specific strategies and/or activities, along with the naming of a champion, or team of champions, assigned to lead goal and strategy implementation is displayed in table format for easy review.

Enforcement/Emergency Management Services ranked as the most urgent emphasis area for this plan's focus. Thus, it will be addressed first. Since Impaired Driving, Alcohol and Substance Abuse; Driver's Education/Defensive Driving; Roadway Maintenance; and Road Safety Assessment were ranked as having the same level of urgency, the plan will cover those areas in order. Information about Roadway Safety Improvements, Safety Communication Enhancement, and Safe Routes to School then will close out Section 8.

Enforcement/Emergency Management Services

The "Existing Safety Efforts," "Existing Safety Challenges," and "What's Needed?" sections of this plan on pp. 25 - 26, 31 - 32, and 37 - 38 offer a comprehensive look at Taos Pueblo EMS and enforcement successes and topics of concern. Thus, the focus of this Emphasis Area will be on the strategies proposed to address the most critical of those issues.

Several themes were revisited during the Taos Pueblo Tribal Safety Plan Meeting discussion. These themes also appear within the *Transportation Safety Survey* as well as within both the enforcement and EMS portions of the Safety Plan sections cited above: 1) insufficient funding; 2) critical need for a safety education campaign for local drivers, students, and community members; 3) improved crash reporting, data gathering, and data sharing between Taos Pueblo DPS, EMS, health and wellness, transportation, and state agencies; 4) implementation of standardized crash data gathering and reporting strategies coupled with effective training and oversight of the new strategies; 5) increased attention to emergency preparedness; 6) drafting/passage of vehicular-safety-related ordinances; 7) enhanced focus on several of the most successful enforcement methods; and 8) more frequent cross-jurisdictional and interdepartmental meetings between local and regional enforcement and EMS staff, transportation, health and

"As far back as 1967, President Lyndon Johnson's Commission on Law Enforcement noted that, 'in emergency situations that require mutual support, neighboring police departments cannot communicate because their radios operate on different frequencies'" (Sasso, 2015).

wellness personnel.

The goal established for this emphasis area is to increase Taos Pueblo-area EMS and enforcement training and support with particular focus on incident response consistency/efficiency, recruitment, and retention.

ENFORCEMENT/EMERGENG	CY MANAGEMENT SERVICES
Strategy	Champion(s) or Lead Department
-	Recommended
Increase use of Saturation Patrols - especially	Taos Pueblo DPS, Taos Volunteer Fire
within the school zone of Taos Day School and in	Department (TVFD), EMS, Taos County Sheriff's
high-risk areas	Office (TCSO), NMDPS, Tribal Court & Taos
	Pueblo Governor's Office
Increase number of annual EMS/enforcement	Taos Pueblo DPS, TVFD, EMS, Taos Pueblo
agency meetings from once annually to quarterly	Transportation, Northern Pueblos Agency Justice
to help resolve jurisdictional & other issues	Services (NPOJS), TCSO, NMDPS, Tribal Court,
	Taos Pueblo Governor's Office & Taos Pueblo
	Health & Community Services (TPHCS)
Improve crash reporting, data gathering/sharing	Taos Pueblo DPS, EMS, TVFD, NPOJS, Taos
systems; including, the use of anonymous self-	Pueblo Transportation, Tribal Court, Taos Pueblo
reporting via the <u>State of New Mexico Uniform</u>	Governor's Office, NMDOT, Taos-Picuris Service
<u>Crash Report Form SH 10074</u>	Unit (TPIHS) & TPHCS
Local enforcement and EMS collaborate to	Taos Pueblo DPS, EMS, TVFD, NPOJS, Taos
research potential to purchase, install &	Pueblo Transportation, TCSO, NMDPS, Tribal
implement <u>Traffic and Criminal Software (TraCS)</u>	Court, Taos Pueblo Governor's Office & NMDOT
Taos Pueblo DPS considers implementing a	Taos Pueblo DPS, Taos Pueblo Transportation,
graduated ticketing system, which progresses	TCSO, NMDPS, Tribal Court & Taos Pueblo
from warnings to citations	Governor's Office
Improve EMS service provision via: improved	EMS, Taos Pueblo Emergency Management
hiring & retention program, increased volunteer	Team, TVFD, TPIHS, TPHCS, Taos Pueblo Human
recruitment, tracking of incident management	Resources, Taos Pueblo Transportation & Taos
performance measure data, annual EMS scenario	Pueblo Governor's Office
practice & an EMS vehicle garage	
Work with Taos-Picuris Service Unit,	TPHCS, TPIHS, EMS, Taos Pueblo Emergency
Albuquerque Area Southwest Tribal	Management Team, TVFD, Taos Pueblo DPS,
Epidemiology Center (AASTEC) & NMDOH to	AASTEC, NMDOH, Taos Pueblo Transportation &
update annual injury & fatal crash statistics	Taos Pueblo Governor's Office
Improve daily enforcement/EMS coverage with	EMS, Taos Pueblo DPS, NPOJS, TCSO, NMDPS,
more systematized & coordinated scheduling	Taos Pueblo Transportation, TPIHS, TPCHS &
	Taos Pueblo Governor's Office
Update Taos Pueblo Traffic Code language & fine	Tribal Court, Taos Pueblo DPS, NPOJS, Taos
amounts to discourage inappropriate driving	Pueblo Governor's Office & Taos Pueblo Tribal
behaviors	Council

ENFORCEMENT/EMERGENCY MANAGEMENT SERVICES			
Strategy	Champion(s) or Lead Department Recommended		
Taos Pueblo Geographic Information Systems	Taos Pueblo GIS Technician, BIA, EMS, Taos Pueblo		
staff standardize Taos Pueblo house numbers,	Emergency Management Team, TVFD, Taos Pueblo		
addresses & street names	DPS, Taos Pueblo Transportation, Taos Pueblo		
	Governor's Office, TPIHS & TPCHS		
Utilize <u>HAZUS</u> (as well as <u>NMEMSTARS</u>) and	Taos Pueblo DPS, TVFD, EMS, Taos Pueblo		
train EMS staff in their use	Emergency Management Team, TPIHS & TPCHS		
Create a centralized filing system of all	EMS, Taos Pueblo Emergency Management Team,		
Emergency Management operations	BIA, Taos Pueblo DPS, TCSO, NMDPS, Taos Pueblo		
	Governor's Office, TPIHS & TPCHS		
Seek grants & other funding to implement	EMS, Taos Pueblo Emergency Management Team,		
above strategies	Taos Pueblo DPS, TVFD, Taos Pueblo		
	Transportation, Tribal Court, Taos Pueblo		
	Governor's Office, TPIHS & TPCHS		

Impaired Driving, Alcohol and Substance Abuse

As cited above, the *Taos Pueblo Transportation Safety Survey* crash data indicated alcohol and/or drug impairment in 20 (or 24%) of the 83 total Taos Pueblo crash events (please see Appendix pp. 170 - 173 and page 182). Alcohol was a contributing factor in five of the seven Pueblo fatalities. Further, alcohol or drug impairment was reported in 56% of "Single Vehicle Lane Departure - All Severity" accident event types, and in 14% of "Single Vehicle Lane Departure - Fatal and Serious Injury Only" accident event types.

A distillation of Taos Pueblo Department of Public Services, New Mexico Department of Transportation, and *Taos Pueblo Transportation Safety Survey* crash reports show that between 2008 and March 2018, three DUI arrests were made, and five DWI citations were issued. While these numbers may seem insignificant to some, they certainly had grave impact on those individuals who were directly or indirectly impacted by the fatal or serious injury crashes in which intoxicated drivers were to blame.

The goal determined for the Impaired Driving, Alcohol and Substance Abuse emphasis area is zero tolerance of impaired driving, and further, to educate Taos Pueblo-area community members of all ages on the safety hazards resulting from impaired driving.

PERCENTAGE OF ADULTS WHO REPORT DRIVING AFTER DRINKING TOO MUCH

In the Past 30 Da

1.7%

1.0%

Source: Behavioral Risk Factor Surve Illance System (BRFSS), 2018

IMPAIRED DRIVING, ALCOHO	OL AND SUBSTANCE ABUSE
Strategy	Champion(s) or Lead Department
	Recommended
Periodic presentations on DUI facts & statistics to	TPHCS, TPIHS, Taos Pueblo Behavioral Health,
Taos Pueblo Tribal Council, school boards & other	Taos Pueblo DPS, <u>Taos Alive</u> , Taos Day School
meetings of local leadership	(TDS), Enos Garcia Elementary School (EGES),
	Taos High School (THS), Tribal Court & Taos
	Pueblo Governor's Office
Distribute Mothers Against Drunk Driving	Local MADD Representatives, TPHCS, TPIHS,
Program (MADD) information	Taos Pueblo Behavioral Health, TDS, EGES & THS
Develop an educational media campaign on	TPHCS, TPIHS, Taos Pueblo Behavioral Health,
impaired driving risks using billboards, kiosks, TV,	Taos Alive, TDS, EGES, THS, Taos Pueblo DPS,
radio, web, and/or information at Taos Pueblo	Tribal Court & Taos Pueblo Governor's Office
Increase/publicize DUI/DWI, seat belt, child	Taos Pueblo DPS, TCSO & NMDPS
safety seat, and elderly license checkpoints, stops	
& Saturation Patrols	
Expand Taos Pueblo Behavioral Health treatment	TPHCS, TPIHS, Taos Pueblo Behavioral Health,
programs for alcohol & drug abuse; e.g.,	Taos Alive, EMS, Tribal Court, TDS, EGES, THS &
screening & brief interventions	School Nurses
Implement a teen & adult mock crash education	Taos Pueblo DPS, TCSO & NMDPS, TDS, EGES &
program similar to the "Every 15-Minutes"	THS
Program	
Consult CDC <u>Impaired Driving Resources</u> &	TPHCS, TPIHS, Taos Pueblo Behavioral Health,
Roadway to Safer Tribal Communities Toolkit	Taos Pueblo DPS, EMS, Tribal Court, TDS, EGES
	& THS
Encourage community members to use transit	North Central Regional Transit District (NCRTD),
when consuming alcohol	Taos Alive, TPHCS, TPIHS, Taos Pueblo
	Behavioral Health, Taos Pueblo DPS, EMS, Taos
	Pueblo Transportation & Tribal Court

Driver's Education/Defensive Driving

The need for Driver's Education has been cited several times within this plan. Recognition was given to the Taos High School Driver's Education elective course as a successful education approach within the "Existing Safety Efforts" section of this plan. "Have the Taos Pueblo Department of Public Safety staff help host ATV and vehicle Driver's Education training with helmet giveaways and other incentives to increase youth attendance" was listed among the "What's Needed?" strategies recorded by Taos Pueblo Tribal Transportation Safety Plan Meeting attendees.





Seven survey respondents checked "Young drivers not knowing rules of road" as their answer to Question 5 on the *Taos Pueblo Transportation Safety Survey,* "Which of the following are transportation safety concerns to you?" Seven survey respondents also checked "Driver education" in answer to Question 5.

The goal set for this emphasis area is to teach responsible driving habits and consideration for others on the road.

DRIVER'S EDUCATION/DEFENSIVE DRIVING			
Strategy	Champion(s) or Lead Department Recommended		
Pass a Public Safety ordinance supporting Driver's Education	Taos Pueblo DPS, Taos Pueblo Education and Training Division, Taos Pueblo Municipal Service Division (MSD), Taos Pueblo Transportation, TPHCS, Tribal Court, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, TCSO, THS & NMDPS		
Complete funding, program development and curriculum research to develop a Taos Pueblo Driver's Education program, purchase a driver training vehicle & fund a certified instructor.	Taos Pueblo DPS, Taos Pueblo Education and Training Division, Taos Pueblo Transportation, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, TCSO, THS & NMDPS		
Research the Rio Grande Driving School and other service providers, plus their pricing.	Taos Pueblo DPS, Taos Pueblo Education and Training Division, Taos Pueblo Transportation, TCSO, THS & NMDPS		
Implement a multimodal Driver's Education curriculum (including safe driving in proximity to cyclists & pedestrians) for Taos Pueblo-area high school students & adults	Taos Pueblo DPS, Taos Pueblo Education and Training Division, Taos Pueblo Transportation, TCSO, THS & NMDPS		
Educate local drivers & teens to receive their Driver's Licenses & teach them about proper signaling, traffic signage, vehicle passing, stopping for school buses, various hazardous driver behaviors, as well as the dangers of texting and driving	Taos Pueblo DPS, Taos Pueblo Education and Training Division, Taos Pueblo Transportation, TCSO, THS & NMDPS		
Educate Taos Pueblo drivers & parents about the proper use & installation of child safety seats via TPHCS & TPIHS newsletters, websites & the continuance of local inspection & training events through Taos Pueblo DPS, TCSO, THS, NMDPS & Taos Pueblo Education and Training Division	Taos Pueblo DPS, Taos Pueblo Education and Training Division, TPHCS, TPIHS, Taos Pueblo Transportation, TCSO, THS & NMDPS		

DRIVER'S EDUCATIO	N/DEFENSIVE DRIVING
Strategy	Champion(s) or Lead Department Recommended
Pursue funding for Taos Pueblo to purchase	Taos Pueblo DPS, Taos Pueblo Education and
child safety seats both for giveaway & training	Training Division, Taos Pueblo Governor's Office,
purposes	Taos Pueblo Tribal Council, TCSO, AASTEC & NMDPS
Collaborate with enforcement to incorporate	Taos Pueblo DPS, Taos Pueblo Governor's Office,
child safety seat checks into Saturation Patrol	Taos Pueblo Tribal Council, TCSO & NMDPS
stops	
Educate local drivers, parents & teens that	Taos Pueblo DPS, Taos Pueblo Education and
seek Driver's Licenses about driving in school	Training Division, Taos Pueblo Transportation,
zones	TDS, EGES, THS, TCSO & NMDPS
Consider implementing a Commercial Driver's	Taos Pueblo Governor's Office, Taos Pueblo
License (CDL) training & refresher program,	Tribal Council, Taos Pueblo Education and
along with New Mexico Division of Motor	Training Division, Taos Pueblo Transportation,
Vehicle (NMDMV) testing services.	THS, TCSO, NMDPS & NMDMV
Consult CDC <u>Teen Driving Resources</u> &	Taos Pueblo Education and Training Division,
reference National Highway Traffic Safety	Taos Pueblo Transportation, THS, TCSO, NMDPS,
Administration (NHTSA) <u>Countermeasures</u>	NMDMV, Taos Pueblo Governor's Office & Taos
<u>that Work</u> for teen driving program	Pueblo Tribal Council
development	

Roadway Maintenance

The goal identified for this emphasis area is to work with local partners to prioritize road projects that are the most critical to Taos Pueblo-area safety, and develop both a Maintenance Schedule and funding stream to complete low-cost maintenance of brush, drainage, and trails.

While the March 2018 site visit was conducted, Mr. Vernon Lujan pointed out numerous low-cost roadway maintenance needs; including, a review of areas where brush, drainage, signage, narrow roadway shoulders, unsafe parking behavior, road dust, animal corridors, and tourist traffic created safety challenges.

Within the "Engineering" segment of the "What's Needed?" portion of this plan, implementation of a Taos Pueblo roadway maintenance schedule was recommended for both in-house and outside maintenance crews. Thus, an MOU, MOA, or IGA could be drafted/signed between Taos Pueblo and both the NMDOT and BIA to formalize said



Brush and drainage control is vital to Taos Pueblo roadway safety.



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maintenance schedule, which might also incorporate green infrastructure maintenance activities (see sample MOA on Appendix page 185). The negotiation of both documents may help the Pueblo address the safety and maintenance issues presented along NM150 by the inadequate clear zones, narrow shoulders, and areas of water overtopping the roadway (see NM150 photo at left), while encouraging a stable and coordinated mowing schedule.

The "What's Needed?" Engineering segment also advocated the hosting of annual Taos Pueblo Tribal Transportation Safety Plan meetings, which would allow community members the opportunity to share their roadway maintenance needs and hear the status of current and future transportation strategies and activities. Additional suggestions might include Taos Pueblo's pursuit of Northern Pueblos Agency roadway maintenance funding and/or the development of a local youth work group to reduce stormwater runoff volume and retrofit Taos Pueblo's green roadside infrastructure elements as a pilot project to educate tribal members on the benefits of Green and Complete Streets.

Other critical low-cost transportation facility maintenance projects, which have been proposed include, but are not limited to:

- Drafting a formal Taos Pueblo-Town of Taos foliage ordinance, so that residential foliage does not impede the line of sight at local intersections.
- Controlling vegetation overgrowth along local roadways via mechanical - not chemical - means.
- Maintenance of any future trails and the aforementioned existing trail areas, which fall under Taos Pueblo's jurisdiction.
- Periodic grading, gravelling, weed whacking, and/or ditch clean up, where appropriate, along Taos
 Pueblo roadways.
- Maintenance of any future bus stops and existing bus stops under the Pueblo's jurisdiction; and
- Continuous attention to smaller local projects like those that Taos Pueblo already has completed to update/replace Pueblo signage, install additional pedestrian crossings, and potential lighting.

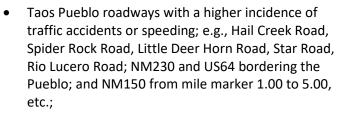
To successfully complete many essential roadway maintenance projects, Taos Pueblo must purchase a sweeper to minimize the current piling of dirt within the center of its gravel roadways due to community driving patterns. Sweeper rental is prohibitively priced and has become more difficult since the start of the Covid-19 pandemic. Therefore, the Pueblo would like to purchase a sweeper to eliminate any potential rental cost to the Tribal Transportation Program budget.

ROADWAY	//AINTENANCE
Strategy	Champion(s) or Lead Department Recommended
Continuous attention to periodic Taos Pueblo- area roadway maintenance projects; e.g., brush, foliage, grading, gravelling, drainage, trails, ditch cleanup & bus stops	Taos Pueblo Transportation, Town of Taos, NMDOT & BIA
Draft/sign roadway maintenance MOUs, MOAs, or IGAs between Taos Pueblo & BIA and between the Pueblo & NMDOT	Taos Pueblo Transportation, Town of Taos, NMDOT, BIA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Draft/implement a Taos Pueblo roadway / green infrastructure maintenance schedule for both in-house and outside maintenance crews & add to MOU, MOA or IGA with BIA & NMDOT	Taos Pueblo Transportation, Town of Taos, NMDOT, BIA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Draft collaborative Town of Taos-Taos Pueblo foliage ordinance	Taos Pueblo Transportation, Town of Taos, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Control noxious and/or invasive plants using mechanical - not chemical - means	Taos Pueblo Transportation, Town of Taos, NMDOT & BIA
Complete annual reviews of existing roadway capacities & road quality (using score sheets)	Taos Pueblo Transportation, Town of Taos, NMDOT, Northern Pueblos Regional Transportation Planning Organization (NPRTPO) & BIA
Host annual Taos Pueblo Tribal Transportation Safety Plan Meetings	Taos Pueblo Transportation, Taos Pueblo DPS, BIA, EMS, Taos Pueblo Emergency Management Team, TVFD, Taos Pueblo Education and Training Division, TPHCS, TPIHS, TDS, Tribal Court, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, TCSO & NMDPS
Perform annual review & modifications to the Taos Pueblo prioritized list of roadway improvement/construction projects	Taos Pueblo Transportation, Town of Taos, BIA, NPRTPO, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Collaborate with the Center for Tribal Transportation (CTT) to sponsor a Northern Pueblos dust abatement training with a dust control, palliative cost & palliative application curriculum	Taos Pueblo Transportation, NPRTPO, Town of Taos, NMDOT, BIA, & CTT
Ongoing dust abatement for appropriate community streets	Taos Pueblo Transportation, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Prioritize Taos Pueblo-area trails for low-cost maintenance projects	Taos Pueblo Transportation, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council

ROADWAY	MAINTENANCE
Strategy	Champion(s) or Lead Department Recommended
Start a local youth work group to retrofit Taos Pueblo's green roadside infrastructure elements	Taos Pueblo Transportation, Taos Pueblo Education and Training Division, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, TDS, EGES & THS
Review school zone at Taos Day School for potential improvements per <i>MUTCD's</i> Part 7	Taos Pueblo Transportation, Taos Pueblo Education and Training Division, TDS, BIA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Community meetings to learn community lighting needs/preferences & introduce potential LED lighting benefits.	Taos Pueblo Transportation, Taos Pueblo DPS, BIA, EMS, Taos Pueblo Emergency Management Team, TVFD, Taos Pueblo Education and Training Division, TPHCS, TPIHS, TDS, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council
Continue Taos Pueblo and collaborative funding pursuits (e.g., pursuit of Northern Pueblos' Agency maintenance and/or New Mexico Tribal Infrastructure Fund monies) to increase the local roadway maintenance budget, provide additional funds for Taos Pueblo road projects, plus bus stop & emergency shelter installation	Taos Pueblo Transportation, Taos Pueblo Municipal Service Division (MSD), NCRTD, NPRTPO, BIA, NMDOT, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council

Road Safety Assessment

Areas to review during RSA:



- Taos Pueblo intersections (e.g., US64 at Hail Creek Road; the junction of Buffalo Pasture Road, Pueblo Street, and Veterans Highway; Piñon Road at NM150; the intersection of Rio Lucero Road, Pueblo Street, and Pueblo Canyon Road; roadway design, surface, and lighting conditions; sight lines; signage and sidewalk locations;
- Rotten Tree Road, Shadow Lane, and White Road



Above: Rotten Tree Road school zone east of Taos Day School campus grounds

- leading into/out of the school zone; e.g., school zone demarcation, flashing school zone signs, vehicle traffic, roadway speeds, and other challenges that may affect students' safety;
- Veterans Highway, Hail Creek Road, and Spider Rock Road for the potential installation of bicycle infrastructure (to further Complete Streets ideology, slow driving speeds, and create visual friction along ultra-wide residential streets); and
- local trails focusing on desire lines, as well as existing trails and paths.

Road Safety Assessments typically follow a proven process to systematically analyze available information and existing site conditions to determine what elements of the remote, low-volume roadway's safety performance may present higher risks to motorists (Larsen, 2011). Therefore, the Road Safety Assessment emphasis area goal is to consider requesting the completion of one (or more) formal Taos Pueblo RSAs; including, but not limited to the review of: rights of way and jurisdictions, roadway standards, roadway widths, and shoulders along with the above areas of concern proposed for review.

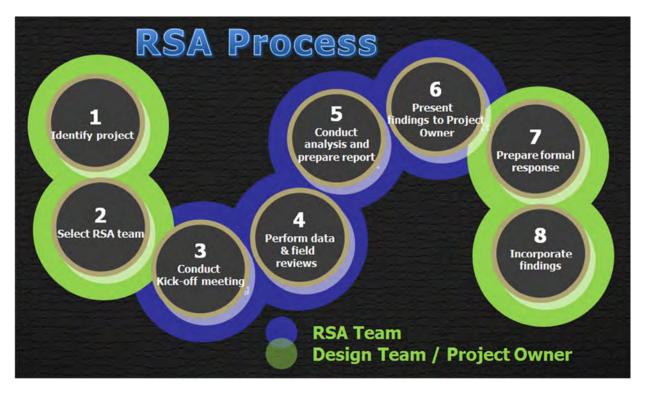
Following are the steps involved in requesting and completing a Taos Pueblo Road Safety Assessment:

- 1. Obtain the permission of roadway facility owners to conduct the RSA.
- Complete and submit the Central Federal Lands
 Highway Division (CFLHD) Tribal Request for Services
 Form to the contact person shown on the form (see
 Appendix pp. 187 191), and include a parcel map
 showing the routes needing RSA review.

(There are two primary funding sources that Taos Pueblo can pursue to pay for the completion of a local Road Safety Assessment:

 a) Apply for approximately \$10 - \$20,000 in Tribal Transportation Program Safety Fund grant monies to cover the project scope, the audit team's travel expenses, and the report writing required to complete an RSA; or There are two primary funding sources that Taos Pueblo can pursue to pay for a Road Safety Assessment to be completed locally:

- a) Apply for approximately \$10 -\$20,000 in Tribal Transportation Program Safety Funds grant monies to cover the project scope, the audit team's travel expenses, and the report writing required to complete an RSA; or
- b) Utilize Taos Pueblo Tribal
 Transportation Program funding to cover the Road Safety Assessment costs.





2011 Elliot Highway RSA Team (left to right): Byron Bluehorse, Alaska TTAP; Jeff Jeffers, AKDOT&PF; Adam Larsen, FHWA; and Chris Terry, Alaska State Troopers. Not pictured: Lawrence Bredeman, ATTS, Inc.

- b) Utilize Taos Pueblo's Tribal Transportation Program funding to cover the Road Safety Assessment costs through the Central Federal Lands Highway Division.
- 3. Form a team (e.g., Mr. Vernon Lujan, Taos Pueblo Transportation Planner; Mr. Paul Sittig, North Central New Mexico Economic Development District (NCNMEDD) Transportation Planner; Summer Mirabal, Taos Pueblo Department of Public Safety; Town of Taos representative; NMDOT District 5 staff person; New Mexico Department of Public Safety; and a Taos County Sheriff's Officer).
- 4. Collect documented crash data.
- 5. Conduct a kick-off meeting with Road Safety Assessment staff.
- Host a Taos Pueblo Road Safety Assessment Public Meeting on the Pueblo.
- 7. Conduct data and field review
 - a. Review documented crash history
 - b. Conduct a field visit to identify safety risks
- 8. Present a brief report out to NMDOT in Santa Fe.
- Prepare a final written Road Safety Assessment

- report with a complete list of findings and recommendations.
- 10. The final step in the process is for the facility owner(s) to write a response to the recommendations of the Road Safety Assessment report, and discuss any planned actions.

ROAD SAFET	Y ASSESSMENT
Strategy	Champion(s) or Lead Department Recommended
Determine the roadway areas in most critical need of an RSA	Taos Pueblo Transportation, Taos Pueblo DPS, NMDPS, TCSO, Town of Taos, NMDOT, NCNMEDD & Taos Pueblo Governor's Office
Obtain roadway owner's permission to conduct the RSA	Taos Pueblo Transportation, NMDOT, Town of Taos, CFLHD & Taos Pueblo Governor's Office
Formulate RSA team via member invitation	Taos Pueblo Transportation, Taos Pueblo DPS, NMDPS, TCSO, Town of Taos, NMDOT, NCNMEDD & Taos Pueblo Governor's Office
Develop cost estimate for RSA completion, then decide how to fund RSA completion	Taos Pueblo Transportation, NMDOT, CFLHD, FHWA Tribal Transportation Program & Taos Pueblo Governor's Office
Submit the CFLHD Request for Services Form with a parcel map, if needed	Taos Pueblo Transportation & Taos Pueblo Governor's Office
Collect documented crash data & share with RSA team at kick-off meeting	Taos Pueblo Transportation, Taos Pueblo DPS, NMDOT, Taos Pueblo Governor's Office & RSA Team
Host Taos Pueblo RSA Public Meeting	Taos Pueblo Transportation, Taos Pueblo Governor's Office, RSA Team & Taos Pueblo residents
Conduct RSA using steps 7a and 7b	Taos Pueblo Transportation, Taos Pueblo Governor's Office & RSA Team
Report out to NMDOT in Santa Fe	Taos Pueblo Transportation, Taos Pueblo Governor's Office & RSA Team
Prepare final written RSA report Solicit RSA written response from road owner(s)	Taos Pueblo Transportation backed by RSA Team Taos Pueblo Transportation, Taos Pueblo Governor's Office, NMDOT, Town of Taos & CFLHD

Roadway Safety Improvements

Pedestrian safety, signage upgrades, multiuse path, Complete Streets, and other roadway projects were listed for inclusion in this Taos Pueblo *Tribal Transportation Safety*

Rating of Services Provided by Roads - From the Taos Pueblo LRTP

Health Center (Service) - 4.8

Traffic Safety (Other) - 4.7

Pedestrian Safety (Other) - 4.7

Schools (Service) - 4.6

Large # of People (Service) - 4.5

All-Weather Access (Other) - 4.4

Equipment Development (Other) - 4.2

Pueblo Mobility (Other) - 4.1

On-Pueblo Employment (Economic Activity) - 4.0

On-Pueblo Services (Services) - 4.0

Residential Cluster (Services) - 4.0
Minimal Maint. Cost (Other) - 3.8
Tourism (Economic Activity) - 3.7
Agriculture Areas (Econ. Activity) - 3.6
Recreation (Services) - 3.6
Isolated Housing (Services) - 3.4
Stores (Services) - 3.2

Independent/Employment Area (Economic Activity) - 3.1 Timber Areas (Economic Activity) - 3.0

Mining Sites (Economic Activity) - 3.0

Off-Pueblo Services (Services) - 2.9

% Remote Areas (Other) - 2.9 Off-Pueblo Employment (Economic Activity) - 2.8

Scale = 1 (unimportant) - 5 (most important)

Plan. This plan presents those project recommendations through the lens of the overarching heading of "Roadway Safety Improvements" as a means of tying them together and aligning them with Taos Pueblo's short and long-term goals for area roadway safety. Therefore, the goal identified for this emphasis area is for Taos Pueblo to complete large-scale infrastructure projects within existing and future Taos Pueblo plans in a timely fashion.

The information in this section originated in part from: the transportation goals listed in both the 1992 *Taos Pueblo Long Range Transportation Plan* and the 2014 *Taos Pueblo Comprehensive Indigenous Community and Land Use Plan;* input obtained at the Taos Pueblo Tribal Transportation Safety Plan Meeting; and transportation safety concerns, which the general public shared via the *Taos Pueblo Transportation Safety Survey*.

Roadway safety improvement projects consolidated under the 1992 *Taos Pueblo Long Range Transportation Plan* are presented in the "Completed Long Range Transportation Recommendations" table on page 29 of this plan. Within the table, said 1992 LRTP recommendations are described utilizing two separate columns: the "Recommended Improvement" and the "Improvement Status" column where a statement of the Pueblo's progress to date on the recommendation in question is offered.

Pages 38, 43, 44, and 46 of Section 6, "What's Needed?" of this plan detail specific roadway safety improvement projects that the 1992 LRTP identified along with those supported by meetings with, and/or surveys of, Taos Pueblo community residents. Rather than repeating the LRTP information found on those pages here, it is suggested that the reader review the aforementioned Section 6 pages.

The narrative portion of the 1992 *Taos Pueblo Long Range Transportation Plan (LRTP)* concludes with the Chapter VII, "Summary." Section D, "The Transportation Plan," states, "The transportation needs identified for the reservation relate to the following:

 Highway improvements determined as necessary to ensure a comprehensive system;*

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- The establishment of a basic network of all-weather roads:*
- 3. Ensuring a high level of road maintenance;*
- 4. Ensuring a high level of safety on reservation roads;*
- 5. Reservation wide signing improvement (A/E Group, Inc., 1992)."

*Denotes projects that have been partially completed since the 1992 LRTP was finalized.

Bearing in mind that 41% of Taos Pueblo crashes involve "Single Vehicle Lane Departures," and 27% of area crashes occur in curves, it makes sense for many future Taos Pueblo roadway safety improvement projects to focus on local area roadway issues like those in the subsequent list:

- guardrails
- sight lines
- intersection configuration/design
- switchbacks
- steep embankments
- extremely curvilinear designs
- antiquated signage
- delineator, no-passing zone, and milepost marker placement, and
- narrow shoulders.

Several of the suggested strategies for roadway safety improvement projects are driven by the need to address the above roadway dynamics, as well as the need to decrease the potential for the previously-cited crash types. Taos Pueblo and local stakeholders also may wish to consult the FHWA's Making Our Roads Safer: One Countermeasure at a Time: 28 Proven Safety Countermeasures That Offer Significant and Measurable Impacts to Improving Safety for additional ideology about potential infrastructure fixes that can improve roadway characteristics, which contribute to these crashes.

"Lack of pedestrian or bike infrastructure" was cited among the "Existing Safety Challenges" recorded by meeting attendees and by numerous *Taos Pueblo Transportation Safety Survey* respondents. For example, in response to



Review of the above guidebook may suggest appropriate countermeasures to resolve safety concerns at the Veterans Highway and Hail Creek Road junction.



Above: Poor sight lines and nearly nonexistent shoulders describe Pueblo Street heading into the residential area north of the central plaza and San Geronimo Mission bell tower ruins.



Sidewalks on TDS/Head Start campus



Sidewalk at Tourism Office



Hail Creek Travel Center sidewalk ends at parking lot ingress/egress



Taos-Picuris Service Center sidewalk

Question 6 on the *Taos Pueblo Transportation Safety Survey*, "What would make the roads feel safer to you?" respondents commented:

"Pedestrian-friendly roads"

"Pedestrian-Bicycle Path"

"Pedestrian/bike/horse right-of-ways [sic]"

"Trails"

"Improved pedestrian infrastructure"

"Improved separation between vehicles and other modes (ped, bike, equestrian)"

During the consultant's vehicle tour of Taos Pueblo roadways, Mr. Vernon Lujan expressed interest in expansion and enhancement of the existing one-mile length of equestrian trail/multiuse path along the north side of Veterans Highway. Said project will shore up the existing path's crumbling edges with asphalt, and extend it south to Paseo del Pueblo Norte/US64 and to a new terminus about 200' east of Badger Road (see page 47 to view the WH Pacific Veterans Highway Plan and Profile).

Currently, there is limited sidewalk infrastructure in Taos Pueblo except for that found near government buildings; on the Taos Day School/Head Start campus; surrounding the Governor's and Tourism offices and parking lots at the junction of Veterans Highway, Buffalo Pasture Road, and Pueblo Street; or immediately adjacent to the Taos-Picuris Service Center and Hail Creek Travel Center (see photos at left.)

In addition to completion of the Five Roads Project to install sidewalk, curb, and gutter along Rotten Tree, Rio Lucero, Little Deer Horn, Spider Rock, and Star roads, it may make sense to plan further sidewalk connectivity from the end points where sidewalks currently surround local facilities and buildings. For example, extending the Hail Creek Travel Center sidewalk east-northeast from the Hail Creek Road egress to the Taos Mountain Casino and widening the

narrow shoulders mentioned by *Taos Pueblo Transportation Safety Survey* respondents (see Appendix page 151). Said sidewalk construction could be part of a larger project to widen the turning radius at the Hail Creek Road and Veterans Highway junction and create a turning lane for buses.

The following response to Question 7 on the *Taos Pueblo Transportation Safety Survey*, "Other areas of safety concern or comments," demonstrates community residents' concerns that multimodal infrastructure is needed and should be included in future Complete Streets projects and funding pursuits, "Appropriate pedestrian-bicycle lanes."

Item 9 on the "Evaluation" list within the "What's Needed?" section of this plan proposes that Taos Pueblo, "Consider submission of a FY22 - FY 26 Tribal Transportation Program Safety Fund grant to the FHWA to conduct a Road Safety Assessment of Taos Pueblo community roadways (see page 39). Because tribes are allowed to submit more than one proposal per funding cycle, the Pueblo could seek funds to complete both a Road Safety Assessment as well as one of the infrastructure projects it has prioritized based on information presented herein.

Continuing the theme of the previously cited strategies, the final two "Engineering" recommendations on page 43 in Section 6, "What's Needed?" of this plan suggest:

"Consider the addition of sidewalk infrastructure constructed of materials that preserve the historic and cultural aesthetic of the Pueblo as part of both the Five Roads Project and future roadway projects"; and

"Complete a traffic study on the proposed construction of two roundabouts at the complex junction of Buffalo Pasture Road, Pueblo Street, and Veterans Highway and/or where the current triangular patch of land sits at the intersection of Rio Lucero Road, Pueblo Street, and Pueblo Canyon Road."

Interestingly, twelve survey respondents checked "Lack of pedestrian or bike infrastructure" and twelve respondents checked "Missing or inadequate road signage" in response



Above: Roundabouts, like that at the WIS47 and Standing Pines Drive junction on Menominee Indian Tribe lands, slow vehicle speeds, reduce conflict points, and enhance traffic flow; all while lowering lifecycle costs, providing potential aesthetic or cultural enhancement, and offering safer multimodal access to pedestrians, bicyclists, and vehicles. Photo credit: WisDOT





Above: The Cochiti and Coyote streets roundabout is part of a larger Complete Streets project connecting the Cochiti Pueblo administrative complex, the Ko-Tyit' Hahn Center, clinic, and plaza area. Photo credit: Red Plains Professional, Inc.

to Question 5 on the *Taos Pueblo Transportation Safety Survey*, "Which of the following are transportation safety concerns to you?"

When Tribal Transportation Safety Plan Meeting attendees were listing Section 5's "Existing Safety Challenges," "Missing or inadequate road signage" came up under the "Engineering" category. The sixth "Enforcement" recommendation in Section 6 of this plan suggested that Taos Pueblo "Install Off-Highway Vehicle (OHV) signage to enable Taos Pueblo DPS to enforce the OHV ordinance."

In answer to Question 6 on the *Taos Pueblo Transportation Safety Survey,* "What would make the roads feel safer to you?" the responses included:

"More signage; double fine areas; designation of a safety corridor"

"More signs"

"More signage"

"Patrolling on all roads; signs, and road improvements"

"Wider roadways with proper markers/signage."

"Improved signage and information" and "Damaged road signs" were two of several answers to Question 7 on the survey, "Other areas of safety concern or comments?"

With the above comments and suggestions in mind, numerous strategies to address Taos signage were developed, and include, but are not limited to, completing an inventory of existing Taos Pueblo-area signage, updating signage where needed, and increasing local awareness of roadway signage.

The seventeenth "Engineering" suggestion made by Taos Pueblo TTSP Meeting attendees within the "What's Needed?" section stated, "Host community meetings to address preferences relevant to community lighting, and to introduce community members to the potential benefits of LED lighting installation (where appropriate and least

Signage was mentioned repeatedly throughout the process of this Tribal Transportation Safety Plan's development. When Tribal Transportation Safety Plan Meeting attendees were listing Section 5's "Existing Safety Challenges," "Missing or inadequate road signage" came up under the "Enforcement" and "Engineering" categories. During the consultant's site visit, Mr. Vernon Lujan, Taos Pueblo Deputy Tribal Programs Administrator and Transportation Planner, suggested that the installation of additional "Speed Limit" signage, where appropriate, would increase roadway safety and reduce the lofting of road dust.

impactful to Taos Pueblo's cultural and historic ambience)."

Given the attention paid to the need for local roadway lighting from all sectors of the Taos Pueblo community, one of the strategies for this Roadway Safety Improvements emphasis area is to install roadway lighting (preferably LED lighting) approved for use by the 2009 MUTCD. Per the CNN article, Doctors issue warning about LED streetlights, as well as the Council on Science and Public Health guidance report, Human and Environmental Effects of Light Emitting Diode (LED) Community Lighting, it is critical for the health of local Taos Pueblo residents and local species that the Pueblo install LED lights having the lowest emission of blue light possible (Stevens, 2016).

Although the earlier Roadway Maintenance emphasis area listed strategies for both signage and lighting installation, inclusion of these line items within the scope of future large-scale roadway projects may serve to reduce their purchase/set up costs while also enhancing the proposed traffic safety outcomes detailed in competitive grant applications.

The next six survey comments were drawn from responses to the following three-part question on the *Taos Pueblo Transportation Safety Survey* question, "Is there a location that you feel is risky, but that you are not aware has had crashes? Yes or No. If yes, please circle location on map and describe why you think it is risky."

"Little Deer Horn Road (NP703) has a sharp curve and narrow culvert (see photo at top right)."

"Sharp curve on Little Deer Horn Road has low visibility and speeding around curve"

"At the intersection of US64 & Hail Creek Road"

"The turn off at the Casino coming from the Pueblo"

"Star Road overgrowth (see photo at center right)"

"Star Road"



Reverse curve on Little Deer Horn Road



Star Road willows in the right of way



Star Road is narrow and has obstacles.



Above: The Veterans Highway bridge has narrow multimodal access.



Above: The dirt road intersection of Star and Little Deer Horn roads



Above: Some of the trees along Spider Rock Road grow in the right of way.

"The bridge on Veterans Highway lacks room for pedestrians to cross safely."

The subsequent comments were additional answers given to the sixth and seventh *Taos Pueblo Transportation Safety Survey* questions respectively:

"Road condition improvements"

"Redesigned roads"

"Lack of material on roads"

"Road next to Casino S-curve unable to make turn safely"

"Intersections on dirt roads; e.g., near Star and Little Deer Horn."

"Too much dust on the roads; hard to see"

"Better roads"

The safety improvements to drainage, roadway paving and widths, and ADA-compliant sidewalk and bicycle access will address many of the concerns survey respondents and Tribal Transportation Safety Plan Meeting attendees shared. In particular, the aforementioned safety issues cited on both Little Deer Horn and Star roads will be corrected.

Other Taos Pueblo Roadway Safety Improvement Projects

The two additional Roadway Safety Improvement Projects mentioned below are critical to ensuring Taos Pueblo *Long Range Transportation Plan* suggestions/recommendations, which came out of the Taos Pueblo Tribal Transportation Safety Plan Meeting.

- Planning and design of the Spider Rock Road extension to improve access to the Pueblo's new multipurpose building.
- Install curbs, curb ramps, gutter, signage, and pavement markings on Spider Rock Road, Grinding Stone Road, and two other local roadways to create safe access to the Na-Tehsieme' Sustainable



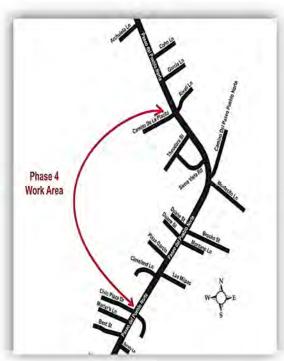
Development. Plans already have been completed for Taos Pueblo's newest subdivision, which will be built about two blocks northeast of the Taos-Picuris Service Unit immediately off Spider Rock Road's east side.

Above: Na-Tehsieme' Sustainable Development Project Location Map Photo credit: KLJ and Pyatt Studio Architecture + Planning

NMDOT Roadway Safety Improvement Projects

NM68-US64 Roadway Project

The comprehensive "Engineering" segment of the "What's Needed?" portion of this plan on pp. 47 - 48 introduces New Mexico Department of Transportation Project Number CN5100750. Outlined in the "Major Intersections Realignments" section of the 2016 NMDOT Alignment Study Report, this project will address roadway alignment and safety issues at the Taos Pueblo gateway intersection of US 64/Camino del Paseo Pueblo Norte/Montecito Lane. To improve sight distance, traffic movements, clear zone safety, side street stop control, ADA compliance, and intersection delineation, Project Number CN5100750 will include a signalized intersection, acceleration/deceleration lanes for merging onto US64, bicycle and pedestrian facilities, signage, access to Montecito Road, and paving of a 250-foot stretch of roadway outfitted with curb, gutter, and sidewalks.



Above: Phase 4 Work Area of the NM68-US64 Roadway Project Photo credit: FHWA, NMDOT, and El Terrero Construction, LLC



Above: A Chile Line Red bus crosses the Rio Grande Gorge Bridge heading east. In the foreground, is the cyclone fencing that represents one of the more recent, but sadly ineffectual, suicide deterrents that have been installed over the years.

Photo credit: Marcie Lynn

Construction on the above project (also known as the NM68-US64 Roadway Project) began on March 16, 2020, and will be completed in four phases. Phase 2 currently is underway with completion anticipated during the summer of 2022. Weather permitting, Phase 3 is slated to begin in late 2022; while Phase 4 improvements (pictured at left) from US64 at Civic Plaza Drive to just north of Camino de la Placita are scheduled to commence in 2023.

Quoting the NM68-US64 Roadway Project website, in addition to the project goals of fixing existing geometric and inadequacies, improving traffic flow, safety, and user mobility, the project also seeks to "Maintain and safely manage business, tourist, resident, and pedestrian access along the [principal north-south] corridor..." through Taos, providing access to several destinations including the Taos Plaza, Taos Historic District, and Taos Pueblo. Thus, present plans are to try to enlist local business support for tackling right of way and easement challenges within the Taos Historic District.

Rio Grande Gorge Bridge

Spanning the Rio Grande on US64, the Rio Grande Gorge Bridge (RGGB) is the seventh tallest bridge in the United States. Installation of the 1,272' by 650' facility was completed by NMDOT in 1965. In 1966, the bridge received the "Most Beautiful Steel Bridge" award from the American Institute of Steel Construction, and its stunningly picturesque location has been the setting for numerous films, photo essays, vacation stops, and even weddings.

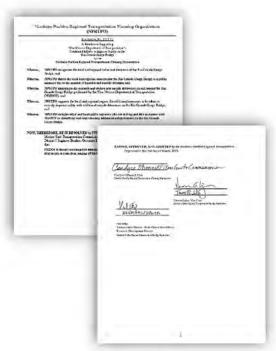
Despite its renown, the issue is that those considering suicide can walk onto the bridge and jump with limited barriers. Taos County Sheriff's Office performs most recovery efforts, and cites costs up to \$8,000 per recovery with no financial aid and frequent deputy injuries that stress local public service agency budgets and the region due to staff shortages during deputy recuperation (HDR, 2018). While the duty to respond to county suicides or suicide attempts falls to several agencies (e.g., Northern Pueblos Office of Justice Services, Taos Volunteer Fire Department, New Mexico State Police or Bureau of Land Management, Taos Search and Rescue, etc.), and is seen by many people



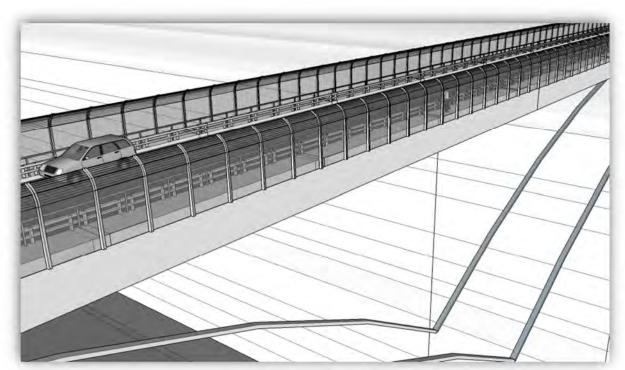
as more of an injury/suicide prevention issue than a transportation safety challenge, the funding to install suicide deterrents on, or adjacent to, the bridge flows through NMDOT. Thus, this NMDOT Roadway Safety Improvements emphasis area includes a brief review of bridge history and suicide deterrent efforts to date (see above timeline).

Tragically, the New Mexico Office of Medical Investigator (OMI) reported 44 suicides from the bridge between 1991 and 2017. Despite: NMDOT completing nine years of suicide deterrent feasibility research; the 2014 formation of the Gorge Bridge Safety Network (GBSN); and the 2015 installation of crisis phone lines along the bridge, there were 15 deaths at the bridge between 2017 and 2021 (two of which likely were juveniles). In many cases, no witnesses or suicide notes are found. Consequently, the OMI feels more people may have perished than have been documented, and that some deaths may have resulted from accidental falls over the bridge's short 47" railing, through its numerous gaps, or from malicious intent.

Community frustration rose in 2012, when - citing cost and debunked concerns about additional weight - NMDOT installed a new concrete deck surface, new sidewalks, ramps, curbs, and gutters, but omitted the frequently proposed suicide barrier(s) for which numerous agencies, residents, and local newspapers have advocated. A 2017 Swiss study concluded that barrier nets are 77.1% effective at reducing suicides, and vertical barriers (e.g., tall bars) discourage jumpers 68.7% of the time (Hemmer A, 2017). Bridges chosen by those with suicidal ideation often have symbolic significance in their lives (Rosen, 1975). Thus, when a suicide barrier makes a particular bridge impossible to jump from, "...research has shown that persons thwarted in utilizing a preferred method of suicide do not typically



Above: NPRTPO Resolution 2022-01,
"A Resolution Supporting New Mexico
Department of Transportation's
Continued Efforts to Improve Safety on
the Rio Grande Gorge Bridge."
NPRTPO's Joint Technical/Policy
Committee Vice-Chair and Taos
Pueblo's Deputy Tribal Programs
Administrator and Transportation
Planner, Vernon Lujan, is one of the
resolution's three signatories.



Above: Developed from both environmental psychology principles and the emergent field of "neuro-architecture," Gorge Bridge Safety Network members, Jerry Cannon, a bridge engineer, and Anette Meertens, a landscape architect, drafted the above <u>Jakob Webnet</u> suicide barrier design, which is augmented by a series of steel poles undergirding the bridge's length to provide structure for the screen (Kohn, 2020).

seek other approaches to killing themselves (Usner, 2019)."

"In San Francisco, the Golden Gate Bridge Highway and Transportation District - normally responsible for bus and ferry transport - is currently overseeing the construction of... suicide netting under the bridge, a massive project that, when completed..., will be the largest suicide deterrent net in the world. It'll also be one that, like in Taos, was the result of a community-led effort to petition the local government for change" (Kohn, 2020).

Although the suicide history at the bridge represents a kind of hybrid transportation safety/suicide-injury prevention concern, Taos Pueblo collaborates with Gorge Bridge Safety Network volunteers as well as Town of Taos, Taos County, and Northern Pueblos Office of Justice Services staff to maintain consistent pressure on NMDOT to advance ongoing suicide prevention efforts and countermeasures. Years of this advocacy resulted in the recent \$150,000 grant from New Mexico's Infrastructure Capital Improvement Plan to install cameras and develop a strategy for improving safety of the existing railing. Nonetheless, the above parties continue to investigate additional grant sources (e.g., Bipartisan Infrastructure Law dollars), which could provide funds for safety barriers (e.g., netting) and/or other remediation measures that will not adversely impact either bridge aesthetics, safety, or its iconic views of the Sangre de Cristo Mountains.

NM150 and Piñon Road Junction

Pages 56 - 58 of the "Data Summary" section of this Tribal Transportation Safety Plan document 12 crashes along NM150 between mile marker 1.00 and mile marker 5.00, a stretch of roadway, which has had more incidents than any others within the data set. To recap the safety issues in this area, the southbound lane of NM150 approaching the Piñon Road junction is a long stretch where drivers accelerate, then enter a horizontal curve with no knowledge of the potential danger presented by the upcoming intersection they cannot yet see. Northbound travelers come up over a rise into a blind curve that dips down at the intersection. Residents entering onto NM150 from Piñon Road have poor visibility of approaching northbound vehicles, and are unable to safely judge the speed of oncoming southbound vehicles as they ingress into the roadway. Crosses mark sites where people have lost their lives at this location. Additionally, because of the aforementioned dip in the road, Piñon Road becomes a stream of rushing water and debris during spring runoff/snow melt as well as during the summer monsoon season.

In April 2018, Taos Pueblo submitted an NMDOT Highway Safety Improvement Program (HSIP) application seeking a Road Safety Assessment of NM150 from mile marker 1.00 to 5.00 due to rollover and other crash types at or near the NM150-Piñon Road junction and due to safety concerns arising from the intersection's geometry. Unfortunately, the Pueblo was informed by NMDOT's District 5 Technical Support Engineer that: 1) NMDOT had not appropriated funds for HSIP projects; 2) the application would be accepted, but put in a "Pending" file; and 3) the application would be considered "...when funding is appropriated."

Over four years later, Taos Pueblo has yet to hear from NMDOT about said HSIP RSA application; the District 5 Technical Support Engineer has now retired; and Pueblo staff is left to think the project has been moved down on NMDOT's priority list. Nonetheless, the Pueblo remains concerned about this section of roadway and particular intersection, because of its accident history, unchanged geometry, and several mitigating factors; e.g., this segment of NM150 is on easement from the Pueblo; future

Quoting Mr. Vernon Lujan, Taos Pueblo
Deputy Tribal Programs Administrator
and Transportation Planner, "I have been
working with the NMDOT to get this area
of NM150 on their STIP for safety
improvements... This intersection and ¼mile of NM 150 is dangerous, and it is a
matter of time before the next fatality.
There has got to be some change to make
this area safer for residents and
travelers."

developments planned in the vicinity of Taos Ski Valley will increase NM150 traffic volume; bicyclists use this road despite its narrow configuration and lack of bicycle infrastructure; and the seasonal runoff overtopping the roadway contributes to its danger and continuing degradation.

ROADWAY SAFETY IMPROVEMENT PROJECTS			
Strategy	Champion(s) or Lead Department Recommended		
Upgrade Taos Pueblo area roadways, sidewalks, sight lines, signage, signage placement, trails & lighting.	Taos Pueblo Transportation, Taos Pueblo Municipal Service Division (MSD), NPRTPO, BIA, NMDOT, FHWA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Complete Five Roads Project, plus Rio Grande Gorge Bridge, NM150-Piñon Road & other critical roadway safety improvement projects.	Taos Pueblo Transportation, Taos Pueblo MSD, NPRTPO, BIA, NMDOT, FHWA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Improve Taos Pueblo area guardrails (e.g., along Upper Canyon Road)	Taos Pueblo Transportation, Taos Pueblo MSD, NPRTPO, BIA, NMDOT, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Host joint community meetings on the potential for Central Federal Lands Highway Division projects.	Taos Pueblo Transportation, Taos Pueblo MSD, NPRTPO, BIA, NMDOT, CFLHD, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council & the general public		
Complete a local crosswalk/school crossing study focusing on proper design, placement & ADA compliance.	Taos Pueblo Transportation, Taos Pueblo Education and Training Division, TDS, BIA, FHWA, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, RSA Team & the general public		
Continue Taos Pueblo & collaborative funding pursuits to increase the local roadway safety improvement budget & provide additional funds for Taos Pueblo & NMDOT road projects.	Taos Pueblo Transportation, Taos Pueblo MSD, NPRTPO, BIA, NMDOT, FHWA, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Perform speed studies where warranted.	Taos Pueblo Transportation, Taos Pueblo MSD, NPRTPO, BIA, NMDOT, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Consider formalization/required improvements to Taos Pueblo area trails, paths & desire lines.	Taos Pueblo Transportation, BIA, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, FHWA & RSA Team		
Review/redesign the complex junctions of Buffalo Pasture Road, Pueblo Street & Veterans Highway along with Rio Lucero Road, Pueblo Street & Pueblo Canyon Road intersection (and consider both "Yield" sign & roundabout installation).	Taos Pueblo Transportation, BIA, Taos Pueblo Governor's Office, Taos Pueblo Tribal Council, FHWA & RSA Team		

ROADWAY SAFETY II	MPROVEMENT PROJECTS
Strategy	Champion(s) or Lead Department
	Recommended
Implement existing transportation surveys	Taos Pueblo Transportation, Taos Pueblo MSD,
and plans	BIA, NMDOT, NCRTD, FHWA, NPRTPO, CFLHD,
	hired consultants/contractors, Taos Pueblo
	Governor's Office & Taos Pueblo Tribal Council
Implement a set of Best Management	Taos Pueblo Transportation, Taos Pueblo MSD,
Practices (BMPs) to address drainage	BIA, NMDOT, Taos Pueblo Housing, Taos Pueblo
maintenance & storm water runoff issues	Governor's Office & Taos Pueblo Tribal Council
Seek Indian Community Development Block	Taos Pueblo Transportation, Taos Pueblo MSD,
Grant, New Mexico Capital Outlay Program,	NPRTPO, BIA, NMDOT, Taos Pueblo Governor's
and/or Clean Water State Revolving Fund	Office & Taos Pueblo Tribal Council
monies to help fund critical Taos Pueblo	
roadway safety improvement & drainage	
projects; e.g., rain gardens, green streets,	
cisterns, plus infrastructure design &	
installation.	
Implement/maintain xeriscaping to assist	Taos Pueblo Transportation, Taos Pueblo MSD,
drainage after flooding & storm events	Taos Pueblo Housing & Taos Pueblo Emergency
	Management Team

Safety Communication Enhancement

The "Existing Safety Efforts," "Existing Safety Challenges," and "What's Needed?" sections of this plan on pages 25 - 26, 31 – 32, and 38 offer a comprehensive look at Taos Pueblo DPS and EMS successes and topics of concern. Thus, the focus of this Emphasis Area will be on the strategies proposed to address the most critical of those issues.

The consultant is unaware of any Taos Pueblo, Town of Taos, or Taos County data or reports, which objectively analyze the number or types of adverse impacts that phone and radio communication system dead spots (and other difficulties or failures) are creating for Taos Pueblo DPS, Northern Pueblos OJS, Taos Volunteer Fire Department, and/or area EMS dispatchers and staff as they strive to respond as promptly as possible to emergency situations on the Pueblo. Nonetheless, it was apparent from the amount of time spent and frustration expressed during the Tribal Transportation Safety Plan Meeting discussion of this topic that it is a very critical issue on which the region's various

enforcement and Emergency Management System agencies need to collaborate to address effectively and affordably.

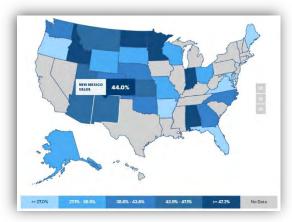
The goal identified for this emphasis area is to improve safety communication via equipment acquisition and staff training to reduce incident response time and improve coordination between first responders.

SAFETY COMMUNICATION ENHANCEMENT			
Strategy	Champion(s) or Lead Department		
	Recommended		
Align local enforcement & EMS land line & mobile radio systems into a single communication system to address existing system gaps	Taos Pueblo DPS, Taos PD, Taos Volunteer Fire Department, EMS, EMTs, Taos County Emergency Planning Committee, TCSO, NMDPS, IHS & Taos Pueblo CHR, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Meeting/collaboration with other EMS, local enforcement, dispatchers, etc. to continue coordinating area E-911 system update, so area calling coverage improves Provide paid communication systems training for EMS & Taos DPS dispatch & staff	Taos Pueblo DPS, Taos PD, Taos Volunteer Fire Department, EMS, EMTs, TCSO, NMDPS, IHS, Taos Pueblo CHR, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council Taos Pueblo DPS, Taos Volunteer Fire Department, EMS & EMTs		
Maintain efforts to have Taos Pueblo Geographic Information Systems (GIS) staff standardize Taos Pueblo house numbers, addresses & street names	Taos Pueblo DPS, Taos PD, Taos Volunteer Fire Department, EMS, EMTs, Taos County Emergency Planning Committee, TCSO, NMDPS, IHS & Taos Pueblo CHR, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Improve crash data sharing between Taos Pueblo DPS, Taos Volunteer Fire Department, EMS, Emergency Management Team, health facilities & Taos Pueblo transportation	Taos Pueblo DPS, Taos Volunteer Fire Department, EMS, EMTs, IHS, Taos Pueblo CHR, Taos Pueblo Emergency Management Team & Taos Pueblo Transportation		
Support for the wellness & continuity of the Incident Command System	Taos Pueblo DPS, Taos Volunteer Fire Department, EMS, EMTs & Taos Pueblo Emergency Management Team		
Conduct a Community Risk Assessment to prepare for grant pursuit	Taos Pueblo Emergency Management Team, Taos Pueblo Transportation, Taos Pueblo MSD, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		
Seek grants & other funding to implement above strategies	Taos Pueblo DPS, Taos Volunteer Fire Department, EMS, Taos Pueblo Emergency Management Team, IHS, Taos Pueblo CHR, Taos Pueblo Transportation, Taos Pueblo MSD, Taos Pueblo Governor's Office & Taos Pueblo Tribal Council		

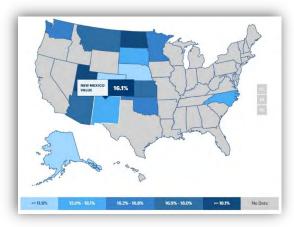
Safe Routes to School

According to the Centers for Disease Control Behavioral Risk Factor Surveillance System, in 2021: 44% of American Indian adults in New Mexico were considered obese; 16.1% of adults had been diagnosed with Diabetes Mellitus; and 30.6% of adults experienced hypertension. Conversely, per the 2019 New Mexico Youth Risk and Resiliency Survey (NM-YRRS), 42.7% of the state's American Indian high school students surveyed self-reported being overweight or obese, and 31.5% of the state's American Indian middle schoolers surveyed self-reported being overweight. Combined with an upsurge in morning rush hour traffic, parental insistence on driving their children to/from school, and neighborhood developments lacking sidewalk or other pedestrian/bicyclist support infrastructure, negative health and wellness impacts are often a result of students' inability to walk or bike to school. Fortunately, the Safe Routes to School (SRTS) program creates fun, safe, and site-specific strategies through which schools and communities can encourage children to become more physically active via improved prospects to walk/bicycle to school or within their home neighborhoods. Thus, through the inclusion of SRTS as an emphasis area within this Tribal Transportation Safety Plan, Taos Day School (TDS), Taos Pueblo Head Start (TPHS), and Enos Garcia Elementary School (EHES) students have the chance to avoid becoming numbered with the obesity and diabetes statistics so prevalent among New Mexico's adult American Indian population.

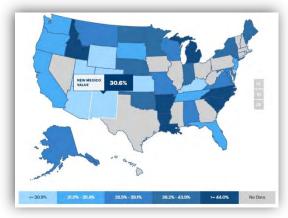
In the article, "Physical Activity and Performance at School: A Systematic Review of the Literature Including a Methodological Quality Assessment," published in the January 2012 Archives of Pediatrics & Adolescent Medicine, Dr. Amika Singh and colleagues state, "According to the best-evidence synthesis, we found strong evidence of a significant positive relationship between physical activity and academic performance. The findings... suggest that being more physically active is positively related to improved academic performance in children." The article further submits that exercise may assist cognition through increased oxygen and blood flow to the brain, along with increased levels of norepinephrine and endorphins, which decrease stress and elevate mood. With only 27.5% of New



Obesity. <u>Photo credit</u>: CDC Behavioral Risk Factor Surveillance System



Diabetes. <u>Photo credit</u>: CDC Behavioral Risk Factor Surveillance System



Hypertension. <u>Photo credit</u>: CDC Behavioral Risk Factor Surveillance System



No bicyclists were seen during the site visit observation nor were there any bicycles parked in the bike rack.

"Every \$1.00 spent on bicycling and walking trails results in a savings of \$3.00 in health care costs."

-- American Heart Association



Installation of at least three inverted U-style bike racks to augment the existing wavestyle rack would ensure enough bicycle parking, and encourage more Taos Day School students to participate in possible future bicycle rodeos, bicycle club, or bicycle education events held on the school campus.

Mexico's American Indian high school students, and only 33.9% of New Mexico's American Indian middle school students indicating on the NM-YRRS that they have "Met recommended physical activity guidelines," the potential for SRTS-related activities and exercise to elevate mood and improve academic performance in Taos Pueblo students reporting only one to three days of physical education at school per week may make it a significantly beneficial program to include in the Taos Day School, Taos Pueblo Head Start, and Enos Garcia Elementary School curricula.

Noting not only the academic, health and wellness benefits, but the safety, transportation, and economic advantages that Safe Routes to School program development might bring to Pueblo students, the goal for this emphasis area is to improve Taos Pueblo-area infrastructure and the implementation of non-infrastructure education, encouragement, enforcement, and evaluation strategies to increase the number of children walking/biking to school.

On Wednesday, March 21, 2018, Mr. Larry Apodaca of Taos Day School, and the consultant observed morning drop-off and afternoon pick-up at both the Day School and the Taos Pueblo Head Start. Upon completing the morning assessment of walking and biking conditions around the campus and school zone, the two met with then Day School Principal, Mr. Andrew Haimowitz, to obtain his responses to the *SRTS Pre-Site Visit Interview* questions (see Appendix pp. 192 - 194). Subsequently joined by Mr. Vernon Lujan, the group held a preliminary discussion about potential strategies to overcome the barriers that students face walking and biking to school.

The aforementioned strategies along with the SRTS suggestions shared at the Taos Pueblo Safety Plan Meeting and within the *Taos Pueblo Crash Data Compilation* drove the development of this SRTS emphasis area. Although a significant focus of the goal for this emphasis area is to increase the number of children walking and biking *to school*, the reality is that one TDS student, who lives across the street from the school, regularly bicycles to school, while nine other TDS students bicycle only when the weather is accommodating. No students were observed walking to school during the site visit, and Mr. Haimowitz

confirmed that there are only student cyclists.

On Taos Pueblo, the students live within the boundaries of its 19 acres. However, outside of the Pueblo, students live well beyond the walk or bicycle zones within housing projects or residential neighborhoods. The school bus route is 54-miles in length each way, as students are picked up from Llano Quemado at the route's south end; from out east of Taos Pueblo about five or six miles; and from the intersection of NM68 and NM230.

A school's "Walking/Bicycling Zone" is defined as the "...area within a school's enrollment boundary, in which students realistically can walk or bike to school because it is close enough for them to do so" (Active School Neighborhood Checklist Multi-Disciplinary Task Force, 2010). The commonly accepted maximum walking/bicycling distances for schools are: (a) ½-mile radius around school for elementary schools; (b) 1-mile radius around school for middle schools; and (c) 1½-mile radius around school for high schools. Apart from many of the students living on the Pueblo, the rest of the student body lives many miles beyond the Walking/Bicycling Zone, and likely never will be able to walk or bicycle to Taos Day School.

Nonetheless, this section includes detailed plans for how to improve student safety on both the combined Taos Day School/Head Start and Enos Garcia Elementary School campuses, as well as numerous strategies for encouraging children to safely walk or bicycle within Taos Pueblo or their home neighborhoods. Although the previously mentioned SRTS emphasis area goal is directed at school-aged children, Taos Pueblo residents of all ages also will benefit from this emphasis area's targeted approaches in the categories of:

- Education
- Encouragement
- Enforcement
- Engineering
- Evaluation.

Issues/Opportunities

The combined Taos Day School/Head Start campus complex



Taos Day School



Taos Pueblo Head Start and Early Head Start



Enos Garcia Early Childhood Building



Since Taos Day School students cannot be released from their parents' vehicles directly onto a sidewalk, they frequently must walk through drop-off/pick-up traffic and/or dodge vehicles that may back into their walking path.





Although Head Start parents walk their preschool children to/from the front doors during drop-off/pick-up periods, they often must cross the path of oncoming traffic or backing vehicles with limited pedestrian support infrastructure.

is located just off the west side of Rotten Tree Road. Curving southwest, Shadow Lane forms both the campus' northern periphery and its western border. Because the arrival of children is staggered between 7:20 to 7:40 a.m., the morning drop-off traffic flow is orderly. However, both the Day School and Head Start school drop-off and pick-up timeframes face a few safety challenges. Periodically, due to student-vehicle conflicts resulting from the existing traffic flow, driver behavior, parking lot design, and/or lack of pedestrian support infrastructure, children may be endangered as they walk up to the front entrances of their schools (see photos at top and bottom left). This section will detail the safety issues, along with the opportunities that said issues present, on the Taos Day School side of the combined campus, on the Taos Pueblo Head Start and Early Head Start side of the campus, and finally, in the Enos Garcia Elementary school zones within the Town of Taos.

On the TDS side of the campus, student pick-up and drop-off takes place across the middle of a square-shaped parking lot bordered by staff and Visitor Parking along its eastern and western sides. Ideally, during morning drop-off, parents enter the parking lot via the northern ingress from Rotten Tree Road, pull as far forward towards the school entrance as possible, release their children, then exit the lot via the southern egress back onto Rotten Tree Road. Parents with business inside the school are directed to park within the Visitor Parking stalls along the Rotten Tree Road fence line, and walk with their children into the school.

Nonetheless, when parents pull out from behind a vehicle stopped in front of them after dropping their children off in front of the school, there may be conflicts with students exiting their parents' vehicles from the driver's side further up the drop-off queue. Student-vehicle conflicts also occur when parents back from the Visitor Parking stalls on either side of the parking lot into the path of students seeking to cross the lot to access the school entrance.

During the SRTS Site Visit Interview, Mr. Haimowitz related the story of a TDS teacher who was accidentally hit when exiting a vehicle parked along the TDS parking lot's northern curb. This curb area immediately north of the parking lot's driveway ingress is designated exclusively for parking of the

Taos Pueblo War Chief's vehicle. As there is no signage or curb marking prohibiting other vehicle parking, parents sometimes utilize the parking space behind the War Chief's for Visitor Parking or drop-off/pickup. This creates student-vehicle conflicts if students exit their parents' vehicles into the path of vehicles entering through the northern driveway ingress (see photo at right). Thus, TDS school administration is considering the designation of those parking spaces as being for emergency vehicles only.

Finally, there exists a small staff parking area that lies north of the TDS building. Accessed by a single lane driveway, which connects to the northwest corner of TDS' Visitor Parking lot, parent drop-off/pick-up in this restricted lot requires them to make a tight turnaround during which they may back into the pathway of students crossing the short lot to/from TDS. Further, when there are vehicles parked on either side of the single lane driveway, drivers exiting that small staff parking lot towards Rotten Tree Road have very limited visibility as they enter TDS' Visitor Parking lot. The resulting pinch point for students that may be trying to access a parent vehicle parked in the northernmost stall in front of the school is an additional safety concern (see second and third photos at right).

Other than improper parking behaviors, the consultant observed no parent speeding or neglect of the established drop-off/pick-up traffic flow patterns. Nevertheless, when asked, "What are your concerns regarding student safety with respect to TDS traffic?" Mr. Haimowitz replied that his main concerns are "...parent speeding and their failure to consistently follow prescribed traffic flow patterns through the parking lots..." [and his] "...additional concerns include the lack of local bike lanes, and potential student conflicts with the pedestrian traffic crossing the campus to/from the Recovery Center" located south of the Taos Day School campus on Rotten Tree Road (see bottom photo at right). He also stated, "The School Board is aware of the bus and traffic flow safety challenges, the near misses between students and vehicles, and the fender benders, which have occurred, as well as the schools' various attempts to address those challenges; for example, sandwich board placement to direct traffic."







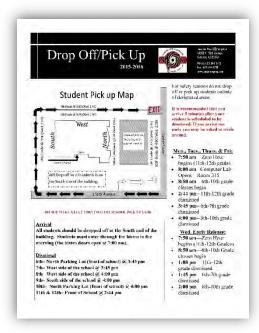


The Division of Health and Community Services facility just south of the TDS campus houses the Recovery Center.



Above and below: Curbing to the left and right of the ADA ramp adjacent to TDS' handicap parking stall causes both a pedestrian trip, and wheelchair tipping, hazard.





When asked if there have been parent complaints about the above concerns, Principal Haimowitz indicated that, "Parents who practice safe driving and parking lot habits do occasionally complain about those that speed and neglect the traffic flow patterns."

Nearing the end of the SRTS Site Visit Interview, the consultant asked, "Are there any other issues that might affect Taos Day School's ability to encourage students to walk or bike to school?" to which Mr. Haimowitz responded, "ADA compliance across the campus needs to be improved to ensure that the law is adequately met, and due to the increase in disabled student enrollment; e.g., the current student body includes a student with muscular dystrophy."

With the exception of parent driving behaviors putting them at risk, student pedestrians of all ages exhibit safe walking practices. Additionally, it is important to note that improving conditions for drivers is never the intent of SRTS program development. The narrative for this emphasis area describes the school's drop-off and pick-up characteristics, because existing conditions increase the risk of adverse student-vehicle interactions and discourage walking/biking.

The consultant suggests that a formal traffic flow pattern be established; published in the school newsletter and local newspaper as a map (like that at left and in the Appendix on page 198); posted on the TDS website; and detailed at a mandatory Parent Orientation at the beginning of the 2022 - 2023 school year. That Parent Orientation should include a PowerPoint presentation with the consultant's site visit photos, so that parents can see the safety concerns their children face when dealing with inconsistent drop-off and pick-up procedures.

The easiest and most economical way for Taos Day School to address the safety matters outlined above is to install signage and parking lot stenciling, which clearly demarcates and directs the parent drop-off/pick-up traffic flow. Thus, the school can encourage and enforce a counterclockwise traffic flow pattern that utilizes the existing half-loop through the center of the school's main parking lot as a through route. Parent drivers would enter and exit the TDS parking lot just as they do currently. Blue arrow and "Pull

Forward" stenciling on the pavement along with the installation of "Student Drop-Off and Pick-Up. Follow Blue Arrow" signage will direct parents to make the counterclockwise circuit through the parking lot (see photos at right). Parents wishing to drop-off/pick-up children and enter the school can do so from the existing Visitor Parking spaces in front of the school or from the parking spaces across the parking lot along the cyclone fencing that parallels Rotten Tree Road. In addition, installing "Emergency Vehicles Only" signage and painting the parking lot's northern curb red from the gate at the driveway ingress to the eastern border of the small staff parking lot north of TDS will prohibit parent parking and eliminate student-vehicle interactions as well as conflicts with the War Chief's vehicle.

The TDS administration, TDS School Board, and Taos Pueblo Transportation Planner, Mr. Vernon Lujan, may together wish to consider converting the existing parking stalls in front of the cyclone fence along the eastern perimeter of the Visitor Parking area to back-in angle parking between the ingress and egress. A single parking space between the parking lot's entrance and exit might need to be sacrificed to allow for the repainting of angled parking spaces, but this small change to the parking lot layout could reduce the current student-vehicle encounters when drivers back into the path of students. At present, four head-in angle parking stalls already exist within the Visitor Parking lot to the south of the school entrance (see photo at right). These four stalls either could be converted to back-in angle parking or left as they are, since they currently provide for safer backing than the existing standard parking stalls.

Back-in angle parking increases the sight lines of drivers, allowing them to make eye contact with oncoming traffic when exiting their parking spot and to have better visibility of pedestrians and bicyclists in their midst. Pedestrians and bicyclists also can make eye contact with drivers to ensure they are seen. Signage instructing drivers would be essential (see sign image at right), and parking blocks might be needed to prevent pickup trucks from backing into the fence. Consideration also would need to be given to the potential for temporary slowing of the traffic queue while drivers are backing into the parking stalls. Drivers will







Existing TDS head-in angle parking spaces



Prior to installation, the change should be publicized and explained, so that parents understand and accept the change.



Above and below: Blocking the singlelane driveway access (pictured above at lower right) to the small staff parking lot north of TDS with a sandwich board like that pictured below will ensure that students can safely access parent pickup vehicles in the northernmost parking spot in front of the school and safely cross each parking lot. The sign can easily be removed when staff vehicles enter/exit this small parking lot.





experience a learning curve, so parking a vehicle in one of the spaces each morning can help drivers understand the new parking configuration.

Enhancing driver compliance within the school zone and on the TDS campus begins with critical review of the visibility and effectiveness of existing signage. For example, motorists tend to ignore signage that is overly restrictive or confuses them with too much information (see bottom image at left). Reducing the number of signs at TDS' driveway ingress as follows may increase both driver attentiveness to the stated regulations and Taos Pueblo DPS' ability to enforce those regulations:

- Move the "No parking" sign further south between the TDS ingress and egress along Rotten Tree Road.
- Mount the "Tobacco-Free Zone..." sign to the right or left of the school's front entrance on the building's façade.
- Commission the sign company, which made the "Taos Day School. Enter Only" sign to make one that reads "Enter Only. No through traffic." Thus, two signs may be combined into one with no redundancy of the existing "Taos Day School Bureau of Indian Affairs" sign.

Rotten Tree Road has an established 15 m.p.h. school zone demarcated by posted speed limit, S1-1 and S4-3P school zone signs in addition to S2-1 school crossing signs. Yet, shadows cast by the tree canopy limit driver visibility of this signage during the early morning drop-off hours and often during the afternoon pick-up hours - particularly during the winter months. The suggestion was made on page 41 that TDS and Taos Pueblo Transportation staff consult Part 7, "Traffic Control for School Areas," of the 2009 Edition of the MUTCD for guidelines on New Mexico school zone demarcation to improve school zone safety along Rotten Tree Road adjacent to Taos Day School as well as along both White Road and the Shadow Lane driveway to/from Taos Pueblo Head Start. As aforementioned, an RSA team could review the warrants for potential installation of School Speed Limit Assemblies at opposing ends of the Rotten Tree Road school zone. Said assemblies could be equipped with S5-1 "School - Speed Limit 15 When Flashing" signs that

include Speed Limit Sign Beacons programmed to flash during morning drop-off and afternoon pick-up hours. Along with the more visible School Speed Limit Assemblies, the installation of highly reflective florescent yellow-green "School" post cover signage will make the current school zone signs more visible (see images at right).

Taos Pueblo has made a commitment to Complete Streets design with the development of the Five Roads Project to install sidewalk, curb, and gutter along Rotten Tree, Rio Lucero, Little Deer Horn, Spider Rock, and Star roads. When completed, this project will eliminate several of the current barriers to TDS students walking and biking to school; e.g., trip hazards that are presently found at the road edge along Rotten Tree Road (see second and third photos at right). If not yet part of the Rotten Tree Road design, Taos Pueblo Transportation staff may wish to consider the inclusion of two ladder-style crosswalks to improve student safety when crossing the TDS driveway egress and ingress (said installation may require some reconsideration of the ongoing need for the cattle guard across the TDS ingress or the potential for it to be shifted slightly).

Issues/Opportunities - Taos Pueblo Head Start and Early Head Start

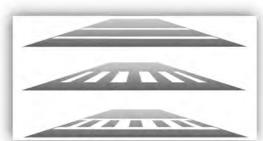
The Taos Pueblo Head Start and Early Head Start facility sits slightly north and immediately west of TDS. The building lies parallel to Shadow Lane, which is the only authorized vehicle ingress onto the Head Start side of the combined TDS/Head Start campus from Rotten Tree Road (see aerial map image on page 107). Mr. Andrew Haimowitz stated the following several safety concerns relevant to Shadow Lane during the SRTS Pre-Site Visit Interview, "Shadow Lane requires considerable attention to maintain its safety. Because of the roadway's slope, runoff drains onto Indian Service Route 700 year-round and accumulates as ice in shadowed areas when there are freezing temperatures. Thus, salt and snow removal are required after snowstorms and at times during the winter months. Further, additional signage (e.g., "Watch for Children" signage) is needed to demarcate the roadway and culvert, and to warn drivers that students who are hard to see beyond the foliage may suddenly be present in the intersection with Service Route











Ladder-style crosswalks are visible from a greater distance than parallel line or other crosswalk markings.



Rotten Tree Road east-west, then northsouth to the TDS/Head Start campus



Above and below: Desire line from Rotten Tree Road to Shadow Lane



700 [also known as NP700 and Rotten Tree Road]."

Although Taos Pueblo Head Start and Early Head Start serve preschool children, there are clearly TDS elementary and middle school students accessing the property by cutting through the wooded area between the Head Start parking lot and Rotten Tree Road where it heads east-west along the southern perimeter of the Hlaukwima (south house) parcel. Students and community members use an earthen desire line, which runs south from the one found along Rotten Tree Road's south side directly across from the Hlaukwima trash middens. Connecting to the northern side of Shadow Lane across from the Head Start parking lot, this walking path allows students and community residents to walk to the Head Start and TDS campuses without having to traverse along Rotten Tree Road's edge (see photos at left). Nevertheless, just as the visibility of students walking Shadow Lane to its junction with Rotten Tree Road can be poor, drivers are unable to readily see, or anticipate, the sudden presence of these students coming out of the woods onto Shadow Lane when they are entering the Head Start parking lot for morning drop-off.

The Head Start parking lot itself is shaped like a scalene triangle with the base paralleling Rotten Tree Road half a block east, and the western tip rounding off slightly to the south where it connects to a driveway that accesses several outbuildings west of the school and the soccer field/track behind the building. Drop-off, pick-up, and through traffic flows from/to Shadow Lane in a counterclockwise direction around and between two large landscape islands built within the parking lot. To the west is the smaller of the landscape islands. Comprised of four staff parking stalls, this landscape island is C-shaped and angled such that its top and bottom help define the through traffic flow around it. Rhombus-shaped with four landscape bulb outs at each corner is the larger of the two landscape islands, which consumes most of the parking lot footprint east of the Cshaped landscape island. The bulb outs frame: five parking spaces along its western side; seven parking stalls (including a handicap accessible parking stall) along its eastern side; five parking spaces along its northern perimeter; and four parking spots (including a second handicap accessible space) designated for Visitor Parking along its southern

edge in front of the school (see aerial map image on p. 107).

Because the school serves one to four-year-old preschoolers, drop-off requires that all parents pull in, park, and escort their children into the school in the morning. During afternoon dismissal, parents park, enter the school to pick-up their children, and walk with them back to their vehicles. Thus, the drop-off and pick-up flow is relatively orderly. Nonetheless, as was described in both the Section 7, Data Summary, on page 63 and within the *Taos Pueblo* Crash Data Compilation (please see Appendix pp. 147 -151), Crash 12 in October 2015 or 2016 occurred within the Head Start parking lot during afternoon dismissal, pinned a pedestrian between two vehicles, and resulted in a minor injury. Though this incident was a case of an elderly driver being distracted by the children in her charge while backing, the potential risk that a Head Start student could have been hurt remains.

Most parents enter/depart the campus per the suggested traffic flow pattern detailed above. However, the most dangerous vehicle-pedestrian conflicts result from parents completing three different drop-off and pick-up maneuvers, instead of following the same flow. For example, during morning drop-off, pinch points were noted when two vehicles would attempt to back from parking stalls between the C-shaped and rhombus-shaped landscape islands simultaneously. Conflicts also result when parent drivers enter the traffic queue from between the two landscape islands as well as from the west behind the C-shaped landscape island, then meet up with drivers backing out of the Visitor Parking stalls into the traffic flow.

When possible, the safest traffic flow pattern on any school campus follows two basic rules: 1) parent and local vehicle traffic flow should be separated from that of the school bus(es); and 2) students should be released from the passenger side of their parents' vehicles into a pedestrian-friendly area from which they can walk to their school's front door. With that in mind, the consultant recommends the following potential infrastructure and traffic flow improvements to the parking lot, rhombus-shaped landscape island, school bus drop-off, and Staff Parking to reduce student-vehicle interactions and increase students'



When possible, the safest traffic flow pattern on any school campus follows two basic rules: 1) parent and local vehicle traffic flow should be separated from that of the school bus(es); and 2) students should be released from the passenger side of their parents' vehicles into a pedestrian-friendly area from which they can walk to their school's front door.

BUSES ONLY NO STUDENT DROP-OFF





School Crosswalk Warning Assembly



and parent pedestrians' safety:

- 1. Switch the school bus drop-off and pick-up location from the ADA-ramp in front of the Head Start entrance to the western ADA-ramp to prevent any school bus-vehicle conflicts. Students still will be released onto the sidewalk, and can be met at the bus by a Head Start staff person to be walked to the front door.
- 2. Install "Buses Only. No Student Drop-Off" signs along the northern portion of the C-shaped landscape island and along the curb edge north of the Head Start parking lot immediately across from the sign on the landscape island to restrict traffic flow to just the school bus.
- 3. Install "Staff Parking Only" signs to demarcate the four parking stalls within the C-shaped landscape island, and to eliminate the current backing conflict between parent vehicles.
- 4. Install a rhombus-shaped asphalt walking path around the perimeter of the large landscape island. Thus, rather than entering the traffic queue behind their vehicles with their children to walk them to the school's front door, parents can walk their children forward when they dismount from their vehicle, and walk safely along the path towards the school's front entrance.
- 5. Install a ladder-style crosswalk between the ADAramp in front of the school's entrance and the center of the southeast bulb out on the rhombusshaped landscape island, and demarcate this crossing with:
 - a. a "Stop when children in crosswalk" sign placed where most visible to motorists;
 - b. two S1-1 school crossing signs; and
 - c. a W-16-7pL and W-16-7pR downwardfacing arrow sign under the S1-1 signs on either side of the crosswalk.
- 6. Consider installation of a ladder-style crosswalk, with the above list of appropriate support signage to connect the desire line north of the Head Start parking lot across Shadow Lane to the eastern tip of the northeast bulb out on the rhombus-shaped landscape island.

- 7. Until such time as funding becomes available to complete the Rotten Tree Road improvements outlined in the Five Roads Project for the existing school zone, review and consider formalizing the most direct of the desire lines between Rotten Tree Road (where it runs east-west just south of the trash middens) and Shadow Lane. In this way, safety can be increased for students and community members that already are utilizing this route as part of the Pueblo's existing trail system to avoid walking along the Rotten Tree Road edge to/from the TDS/Head Start combined campus (see top photo at right).
- 8. Purchase/install two "Watch for children" signs along Shadow Lane near the Rotten Tree Road ingress and just beyond the Head Start parking egress for drivers exiting the campus.
- Taos Pueblo Head Start and Taos Pueblo
 Transportation administration can collaborate to
 pursue both <u>NMDOT Transportation Alternatives</u>
 <u>Program</u> and/or <u>FHWA Safe Streets and Roads for</u>
 <u>All (SS4A)</u> SRTS funding to complete several of the
 required safety improvements to Shadow Lane.

The proposed changes to the current traffic flow pattern will eliminate the three previously cited points of student-vehicle conflict. The Taos Pueblo Head Start and Early Head Start administration, together with Taos Pueblo's Transportation staff, also will want to decide, prior to the next school year, to continue the existing traffic flow pattern or to promote and support the proposed pattern via the addition of critical signage, school staff support, as well as vehicle driving restrictions.

Parents still will need to be educated (and reminded) not to release their children from the driver's side of their vehicles. Further, as was suggested on page 103 for Taos Day School, a formal traffic flow map should be drafted; published in the school newsletter and local newspaper as a map; posted on the Head Start website; and detailed at a mandatory Parent Orientation at the beginning of the 2022 - 2023 school year.

Unfortunately, both Taos Pueblo Head Start and Taos Day









Staff performing crossing guard duty should be outfitted with retroreflective vests and stop paddles to protect their safety and that of the children in their charge.

Safe Routes to School programs can instill a lifelong habit of healthy and active living beginning with children at a young age. Thus, the implementation of SRTS programming on Taos Pueblo will align well with the goals espoused in the following statement taken from the "Recreation" page of Taos Day School's website, "Data from the Taos Picuris Service Unit of Indian Health Services [sic] showed that 56% of youth at Taos Pueblo ages 6 - 15 were obese/overweight in 2010, and 53% in 2012. We are pleased that obesity has decreased by 3%, and know that it is extremely important to continue combating obesity among Taos Pueblo youth; however, 53% is still an alarming number. Our goal is to continue to reduce obesity by providing Taos Native youth with opportunities to participation in: team sports; recreation clubs; opportunities to be active after school and during the summer; and healthy eating habits.

School lack official school crossing guards. Quoting the Safe Routes Partnerships' <u>Safe Routes to School Policy</u> <u>Workbook</u>, "Crossing guards and student safety patrols can improve safety conditions and increase families' comfort with their children walking or bicycling to school... Crossing guard programs are run by local police departments or... [local] agencies, and other times they are run by school districts. Effective crossing guard policies and programs provide a system for hiring, funding, training, locating, supervising, and properly equipping crossing guards and student safety patrols (ChangeLab Solutions, 2019)."

Should school staff decide to become trained school crossing guards, they will need to be furnished with retroreflective vests and "Stop" paddles to help enforce traffic flow (see images on p. 110). The <u>formal training</u> and proper accessorizing of staff, volunteers, or <u>student safety patrols</u> to assist in this capacity could improve student safety - particularly when students cross the TDS and Head Start Visitor Parking areas in the mornings or afternoons.

Relevant to the TDS student population, since so few students walk or bicycle regularly from their homes to school, TDS and Taos Pueblo staff may want to consider incentivizing walking and biking by allowing those students who walk or bike to school to be dismissed five minutes earlier than students that are bussed or driven by parents. This allows those students to be safely on their way when the afternoon bus and parent pick-up begins.

Although the students enrolled at Taos Pueblo Head Start and Early Head Start are much too young to walk or bicycle to school, Taos Day School students do walk and bicycle through the Head Start campus grounds. Several of the suggested SRTS education and encouragement strategies with which this SRTS emphasis closes would accommodate interested Head Start students and their parents.

Issues/Opportunities - Enos Garcia Elementary School

As with nearly every school and student population, Enos Garcia Elementary School (EGES) students would benefit from Safe Routes to School pedestrian and bicycle safety education, encouragement programming, events, and

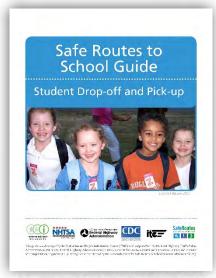
activities. Nevertheless, in responding to the SRTS Pre-Site Visit Interview questions, former Principal, Dr. Gladys Herrera-Gurule, indicated that despite most EGES students living "...a distance of one or more miles away from school," "zero" students walk or bike to the school. Instead, students that live within the EGES boundaries (which includes Taos Pueblo) arrive at/depart from school via a school bus or parent pick up/drop off, and the school bus is the only form of transportation for several EGES students.

When asked "Are there... issues... that might affect Enos Garcia Elementary School's ability to encourage students to walk or bike to school?" Dr. Herrera-Gurule suggested, "Due to distance from home and active traffic, walking and riding a bicycle could become a safety issue." She then elaborated by stating that her primary concern regarding student safety with respect to traffic was, "[Students] waiting on line [sic] for pick up."

On Thursday, March 22, 2018, the consultant observed the morning drop-off dynamics at Enos Garcia Elementary School and the Enos Garcia Early Childhood Building. Additionally, assessment was completed of the existing walking and biking conditions around the two facilities, school zones, and adjacent neighborhoods.

Walking distance from Taos Plaza, the Enos Garcia Elementary School campus consumes a city block on the north side of Don Fernando Street in the heart of the Town of Taos. The school campus is bordered by Manzanares Street, a two-lane, one-way collector to the east, and Saavedra Street, a local road to the west. The student population is divided by preschool and kindergarten students housed in the Early Childhood Building facing Manzanares Street immediately north of the elementary facility's bus drop-off/pick-up zone and school gymnasium. First through fifth grade students are taught in the school building on Don Fernando Street.

EGES and Early Childhood Building students arrive during a 50 - 70-minute span of time between 7:10 - 8:30 a.m. for morning drop-off. Afternoon pick-up takes place in approximately 20 - 25-minutes from 3:30 - 3:55 p.m. Monday through Thursday and 1:30 - 1:55 p.m. on Fridays



Above and below: Both the SRTS

National Center's Guide for

Student Drop-off and Pick-up and
their Safety-based prioritization of
schools for Safe Routes to School
infrastructure projects: A process
for transportation professionals
are helpful tools for assessing dropoff and pick-up flow safety along





Enos Garcia Elementary School's designated drop-off/pick-up through lane



Early Childhood Building students using the ladder-style crosswalk from the dirt Visitor Parking lot pictured at left.



Regular review of EGES' school zone infrastructure will identify maintenance issues and ensure ongoing student safety.

with students being dismissed to their assigned pick-up areas; e.g., to the school bus zone or to the special 250' through lane pull out along the west side of Manzanares Street.

The drop-off and pick-up design for the two facilities is safe, highly conducive to expediting vehicle flow, and observes the two primary rules of: 1) releasing children from the passenger side of their parents' vehicles to a safe sidewalk area, and 2) separating parent pick-up/drop-off from that of the school buses. As detailed above, EGES parent drop-off and pick-up employs the pull out adjacent to Manzanares Street, while parents wishing to enter the school park in the Visitor Parking lot across Don Fernando Street from the school's front entrance. Bus drop-off and pick-up takes place utilizing a through lane around the outer perimeter of an oval bus parking lot northwest of the elementary school facility.

The Early Childhood Building has a long C-shaped driveway in front of its entrance that is accessed from Manzanares Street. However, due to their young age, most preschool and kindergarten parents park in the dirt lot across Manzanares Street directly north of the ladder-style crosswalk that aligns with the C-shaped sidewalk to the Early Childhood Building's front entrance.

Advancing in a counterclockwise direction through the Manzanares Street school zone from its southern endpoint at Don Fernando Street, then completing a long circuit west on Town Hall Drive, south on Valverde and Saavedra streets, then back to Manzanares Street via Don Fernando Street, the following student-vehicle interactions, safety, and infrastructure concerns were noted:

• The programmable, flashing school zone beacon at the western end of the school zone on Don Fernando Street was not working. As this device helps notify drivers, who have just advanced over the hill and exited a somewhat blind curve, that they are entering a school zone and approaching a school crossing, its reliable function is a serious safety issue. Although this is a maintenance issue for the Town of Taos' Public Works Department to

- fix; periodic review of the function of these devices by school staff will ensure that problems are resolved quickly.
- Parents that are running late break two cardinal drop-off rules by: 1) attempting to pass those vehicles which are still off-loading students in the Manzanares drop-off queue; and 2) using the Don Fernando Street Visitor Parking lot for drop-off, but then failing as visitors to accompany their children through the school crossing into the school. Since these parents are parking in various locations across that lot or stopping temporarily in the through lanes within the parking lot, their vehicle flow is erratic and putting the children, staff, and parents traversing the lot at risk.
- There is inconsistent parking and drop-off behavior within the dirt lot across Manzanares Street from the Early Childhood Building. While most of the parents parked in an orderly configuration, their entrance and exit from that lot was unpredictable with some using the northern ingress to enter the lot, then using the southern egress to exit or vice versa. Thus, it is dangerous for the parents and students navigating the lot to know how the drivers entering/exiting are going to behave/maneuver.
- A young gentleman was seen sleeping in the vacant lot directly west of Saavedra Street after school had commenced on the Enos Garcia and Early Childhood campuses. Though he likely was a backpacking tourist, who will not choose that location to pass the night again, school staff may wish to make occasional walks of the EGES campus perimeter to ensure that this is not a frequent location where adults unknown to school staff pass their time. Town Hall staff might be able to help EGES administration research, and communicate with, the lot owner to initiate the potential installation of "Private property. No trespassing or loitering" signage to discourage loitering so close to the schools.

Implementation of various education, encouragement, enforcement, engineering, and evaluation strategies suggested in this section (and in table format on pp. 118 - 120) for the Enos Garcia Elementary School campus and



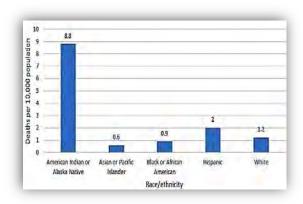
Periodic enforcement can increase driver compliance with safety restrictions in the school zone and Visitor Parking lot.

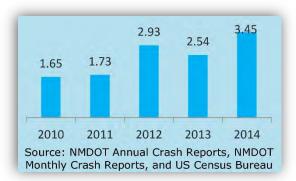


Above and below: Installing "Entrance only" and "Exit only" signs at the ingress and egress of the dirt Visitor Parking lot on Manzanares Street will help reduce student-vehicle conflicts.

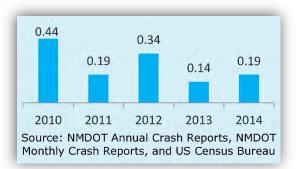


"Exit only" signage will minimize traffic flow turning towards or into pedestrians heading to/from the Manzanares Street crosswalk.





Using the statewide, rural, and urban pedestrian (above) and cyclist (below) fatality (per 100,000 population) and serious injury data as its performance measure, NMDOT will analyze Goal 2 Multi-Modal Transportation Plan crash trends over time.



student population will help address the previously-cited safety concerns as well as others, which may arise in the future.

In the January 2015 New Mexico Epidemiology article, "Pedestrian and Pedal Cycle Deaths and Injuries in New Mexico," research completed by the New Mexico Department of Health's (NMDOH's) Epidemiology and Response Division found that "American Indians or Alaskan Natives (AIAN) had the highest MVT [motor vehicle traffic] death rate during 2009 - 2013 (see table at left). They had the highest MVT pedestrian death rate among all age groups except those aged >65 years... [Additionally], the MVT death rate for rural counties was 10% higher than the rate for urban counties (Bernalillo, Dona Ana, Sandoval, San Juan, Santa Fe, Torrance and Valencia) during 2009 - 2013" (Glenda Hubbard, Pedestrian and Pedal Cycle Deaths and Injuries in New Mexico, 2015). The article goes on to state that in both New Mexico and across the United States, American Indians or Alaskan Natives have the highest MVT pedestrian death rate, and that Native communities should consider effecting "...pedestrian safety interventions that are tailored specifically to their community, including education and traffic engineering improvements."

Because New Mexico had the highest pedestrian fatality rate per capita of all 50 states in 2014, and in 2015, continued to rank in the highest six states, the FHWA designated New Mexico a Pedestrian Safety Focus State (New Mexico Department of Transportation, 2017). Recognizing these trends, in September 2015, NMDOT published *The New Mexico 2040 Plan: NMDOT's Long Range, Multi-Modal Transportation Plan.* Goal 2 of the plan seeks to "improve safety for all system users" with the objective of reducing "...collision-related fatalities and serious injuries for all modes through data-driven, innovative, and proactive processes." (See tables at left.) The fourth goal of the plan is to "provide multimodal access and connectivity for community prosperity."

Seeing SRTS programming as a method through which to achieve both goals 2 and 4, page 54 of the plan includes a bullet-point list with NMDOT's "Criteria for Implementing Complete Streets" that specifically mentions Safe Routes to School plans in addition to bicycle and pedestrian counts,

bicycle and pedestrian crash history or risk, and other items.

"Every year, Smart Growth America, "a national organization dedicated to researching, advocating for, and leading coalitions to bring better development to more communities nationwide," publishes its *Dangerous by Design* report, which provides an assessment of "... the preventable epidemic of people struck and killed while walking." Based predominantly on Fatality Analysis Reporting Systems (FARS) data, this year's report ranks the most dangerous urban communities and states in the United States based on traffic fatality data from 2016 through 2020.

States are ranked in order per their Pedestrian Danger Index (PDI), an equation that considers deaths per population and walking rates derived from U.S. Census data on the share of people walking to work. Appallingly, the <u>2022 Dangerous by Design</u> report ranks the State of New Mexico as "the most dangerous state for pedestrians" with 394 pedestrian deaths having occurred between 2016 and 2020. The 2022 report also ranks Albuquerque as the second most dangerous metro area for pedestrians in the United States with 192 deaths between 2016 and 2020 (Smart Growth America, 2022).

According to the 2020 - 2045 Northern Pueblos Regional Transportation Plan (made public as an "unfinished draft" on March 3, 2021), "...despite NM ranking 8th in the nation for car dependency and being largely rural and sparsely populated compared to other states, it still outpaces the national average for pedestrian fatalities and points to a pressing need to confront pedestrian and bicycle roadside safety, implement "complete street" design principles and safety improvements, and increase law enforcement along identified corridors." To address the "pressing need to confront pedestrian and bicycle roadside safety," Goals 2 and 4 listed within the Northern Pueblos Regional Transportation Plan under Section 3.3, "Goals, Priorities, and Strategies," are to "improve safety and public health for all system users," and "enhance multimodal mobility, connectivity, and accessibility" both of which echo goals 2 and 4 of NMDOT's Multi-Modal Transportation Plan.

Two of the seven NPRTPO priorities for Goal 2 are:

According to the 2020 - 2045 Northern Pueblos Regional Transportation Plan (made public as an "unfinished draft" on March 3, 2021), "...despite NM ranking 8th in the nation for car dependency and being largely rural and sparsely populated compared to other states, it still outpaces the national average for pedestrian fatalities and points to a pressing need to confront pedestrian and bicycle roadside safety, implement "complete street" design principles and safety improvements, and increase law enforcement along identified corridors.

Section 8

Emphasis Areas

 "Take a proactive approach to public health to promote physical activity (create a transportation plan that promotes healthy lifestyles in our transportation system).

 Address the dangers in using right-of-way for multimodal use along roadways" (NPRTPO, 2021).

Three of the five NPRTPO Goal 4 priorities are as follows, and align with Safe Routes to School *and* Complete Streets ideology:

- "Promote the adoption of complete streets policies at the local and tribal level (road system that improves safety and accessibility for all users) ...
- Promote local government ADA compliance (ADA transition plan/ Title VI) as a requirement for federal funding.
- Encourage tribal entities to adopt an ADA transition plan (not required)" (NPRTPO, 2021).

Clearly, excellent regional and state level support exists for Safe Routes to School Program development with the opportunity for local benefits to all ages. Guided by the 2020 - 2045 Northern Pueblos Regional Transportation Plan, The New Mexico 2040 Plan: NMDOT's Long Range, Multi-Modal Transportation Plan, and the ongoing collaboration of NPRTPO, Taos Municipal Schools, Enos Garcia Elementary School, and Taos Day School, Taos Pueblo will achieve NPRTPO and NMDOT plan goals along with those within this Tribal Transportation Safety Plan.

This SRTS emphasis area concludes on the following pages with proposed strategies and/or activities categorized by the five Safe Routes to School "E's" of education, encouragement, enforcement, engineering, and evaluation in table format. Many of the education and encouragement strategies suggested in the subsequent tables are intended to incentivize the walking and bicycling of Taos Day School and Enos Garcia Elementary School students that live within the walk and bike zones of their respective schools (where it is safe to do so). Additional education and encouragement strategies that are detailed below will provide opportunities for students that cannot walk or bike to school due either to their young age or due to safety concerns within the built environment to learn safe pedestrian and bicycle practices.

Upon the groundbreaking of the Five Roads Project, Taos Pueblo will join several unique tribal communities (e.g., Pueblo of Zuni, Shoalwater Bay Tribe, Sault Ste. Marie Tribe of Chippewa Indians, Kalispel Tribe, and the Pyramid Lake Paiute Tribe) now realizing the benefits of Complete Streets and/or Safe Routes to School implementation. "Bringing Complete Streets and Placemaking initiatives to Indian reservations has the capacity to reduce fatalities and serious pedestrian injuries, decrease rates of obesity and related diseases, and provide culturally appropriate economic development to depressed areas. This can be accomplished in a fashion that is revenue neutral, or quite likely money saving for the agencies" (Bonarek, 2016).

SAFE ROUTES TO SCHOOL	
Strategy	Champion(s) or Lead Department
	Recommended
Educ	ation
Pre-K-12 and parent pedestrian and bicycle	Taos Day School (TDS), Taos Pueblo Head
safety education working with Gearing Up	Start (TPHS), Enos Garcia Elementary School
Bicycle Shop, NM Pedestrian & Bicycle Safety	(EGES), Taos Municipal Schools (TMS), Gearing
Initiative, NMDPS & including texting while	Up Bicycle Shop, Taos Pueblo DPS, NMDPS,
walking/driving curricula	IHS, Taos Pueblo Transportation & EMS
Educate the local community about the need	TDS, EGES, Taos Pueblo DPS, NMDPS, IHS,
to walk facing traffic when sidewalk	Taos Pueblo CHR, Taos Pueblo Transportation,
infrastructure is lacking	Town of Taos & EMS
Consider requesting SRTS training support	Taos Pueblo Governor's Office & Taos Pueblo
through CFLHD	Transportation
Post SRTS-related information in Taos Pueblo	TDS, EGES, TPHS, TMS, Taos Pueblo
& Town of Taos locations & on school hallway	Governor's Office & Town of Taos
bulletin boards	
Provide bicycle helmet fitting & usage	TDS, EGES, TPHS, TMS, Gearing Up Bicycle
programs with helmet giveaways; e.g., the	Shop, TPDPS, Taos Pueblo Transportation,
Helmet Your Head program	Taos Pueblo CHR & EMS
Institute SRTS activities at Taos Day School,	TDS, TDS PTO, EGES, EGES Parent Teacher
Taos Pueblo Head Start, Enos Garcia	Volunteer Committee (PTVC), TPHS, TMS,
Elementary School; e.g., remote park & walk	TPDPS, NMDPS, Gearing Up Bicycle Shop, Taos
events, Walking School Bus Programs,	Pueblo Fitness Program, Taos Pueblo Youth
International Walk & Bike to School Day, bike	Outreach Program, Taos Pueblo Awareness
trains, bike rodeos & bike clubs with	Coalition Team, Taos Pueblo Transportation,
walking/biking mileage tracked like books	Taos Pueblo CHR & EMS
read.	
Host several Taos Pueblo "Drop & Walk"	TDS, TDS PTO, EGES, EGES PTVC, TPHS, TPDPS,
events with parents/chaperones meeting at	TCSO, NMDPS, Gearing Up Bicycle Shop, Taos
the parking lot across from Taos Pueblo	Pueblo Fitness Program, Taos Pueblo Youth
Tourism to walk with the students to the	Outreach Program, Taos Pueblo Awareness
combined TDS/TPHS campus or meet at Taos'	Coalition Team, Taos Pueblo Transportation,
Sunset Park to walk with the students to EGES	Taos Pueblo CHR & EMS
Draft traffic flow pattern map & present it to	TDS, EGES, TPHS, TMS, Taos Pueblo
Parent Orientation at start of SY22 - 23.	Transportation & Town of Taos Public Works
Encoura	ngement
Annual school participation in International	TDS, TDS PTO, EGES, EGES PTVC, TPHS, TPDPS,
Walk & Bike to School Day & a May Bike	TCSO, NMDPS, Gearing Up Bicycle Shop, Taos
Month bike rodeo. Create relevant activities	Pueblo Transportation, Taos Pueblo CHR,
for students with disabilities.	TVFD, EMS, Town of Taos, Taos Pueblo Fitness
	Program, Taos Pueblo Youth Outreach
	Program, Taos Pueblo Awareness Coalition
	Team & local businesses

SAFE ROUTES TO SCHOOL		
Strategy	Champion(s) or Lead Department Recommended	
Encourage		
Issue punch cards to incentivize students' participation in Pueblo walking/biking events. Hail Creek Travel Center & Tiwa Kitchen could provide food prizes. Engage Taos Pueblo & Town of Taos businesses to sponsor various SRTS, walking and biking	TDS, EGES, Taos Pueblo Transportation, Taos Pueblo CHR, Town of Taos, Hail Creek Travel Center & Tiwa Kitchen Taos Pueblo & Town of Taos businesses; e.g., Gearing Up Bicycle Shop	
events		
Start Taos Pueblo & EGES SRTS Teams with education, enforcement, health & wellness, recreation & local businesses/churches representatives Publish a TDS & EGES Safest Routes to Walk/Bike map to encourage students to walk/bike the safest Taos Pueblo & Taos roadways with the slowest speeds	TDS, EGES, TMS, TCSO, TPDPS, NMDPS, Taos Pueblo Transportation, Taos Pueblo CHR, Town of Taos, TVFD, EMS & local businesses/churches TDS, EGES, TMS, TPDPS, NMDPS, TCSO, Taos Pueblo Transportation & Town of Taos Public Works	
Host Walk/Bike Taos Pueblo & Taos Trails Days	TDS, TDS PTO, EGES, EGES PTVC, TPDPS, TCSO, NMDPS, Gearing Up Bicycle Shop, Taos Pueblo Transportation, TVFD, EMS, Town of Taos, Taos Pueblo Fitness Program, Taos Pueblo Youth Outreach Program, Taos Pueblo Awareness Coalition Team & local businesses	
Enforcen	nent	
Increase periodic school zone speed, parking & signage enforcement; including use of a mobile radar speed trailer	TPDPS, TCSO & NMDPS	
Provide an annual Taos Day School, Taos Pueblo Head Start, Enos Garcia Elementary School bike rodeo event during National Bike Month in May	TDS, EGES, TPHS, TMS, TPDPS, TVFD, TCSO, NMDPS, Gearing Up Bicycle Shop, Taos Pueblo Transportation, Taos Pueblo CHR, TVFD, EMS, Town of Taos, Taos Pueblo Fitness Program, Taos Pueblo Youth Outreach Program, Taos Pueblo Awareness Coalition Team & local businesses	
Train school staff and/or community volunteers to be school crossing guards & order retroreflective vests and stop paddles for them from Amazon	TDS, TDS PTO, EGES, EGES PTVC, TPHS & TMS	
Pursue FY2022 - 2026 Tribal Transportation Program Safety Fund for Taos Pueblo DPS crash data assessment, improvement & analysis	Taos Pueblo DPS & Taos Pueblo Transportation	

SAFE ROUTES TO SCHOOL	
Strategy	Champion(s) or Lead Department
	Recommended
Enfor	cement
Pursue NMDOT Transportation Alternatives	TDS, EGES, TPHS, TMS, Taos Pueblo
Program grant funds to purchase mobile	Transportation & Town of Taos Public Works
radar speed trailers for use within a two-mile	
radius around each of the two school zones.	
Engir	eering
Install suggested traffic flow signage,	TDS, EGES, TPHS, TMS, Taos Pueblo
stenciling & three inverted U style bike racks	Transportation & Town of Taos Public Works
on Taos Day School, Taos Pueblo Head Start,	
Enos Garcia Elementary School campuses	
Install suggested school zone signage per the	TDS, EGES, TPHS, TMS, Taos Pueblo
2009 MUTCD	Transportation & Town of Taos Public Works,
	NMDOT & Taos Pueblo RSA Team
Replace dysfunctional flashing EGES school	EGES, TMS & Town of Taos Public Works
zone lighting - if still required.	
Extend existing Veterans Highway equestrian	Taos Pueblo Transportation & FHWA
trail/multiuse path	
Improve local trails, desire lines & pathways	Taos Pueblo Governor's Office, Taos Pueblo
	Transportation & RSA Team
Identify SRTS & Complete Streets overlaps to	Taos Pueblo Governor's Office, Taos Pueblo
maximize multimodal infrastructure	Transportation, NPRTPO & Town of Taos
opportunities	Planning & Public Works
Complete the Five Roads Project to aid	Taos Pueblo Transportation, USDOT, FHWA,
Pueblo students in safely walking & biking to	NPRTPO, TDS, TPHS & Taos Pueblo Governor's
school from their homes.	Office
Complete an RSA of the Taos Day School &	TDS, TPHS, Taos Pueblo Transportation,
Taos Pueblo Head Start school zone & access	NPRTPO, NMDOT & RSA Team
roads	
Review Appendix aerial maps to learn where	TDS, TPHS, Taos Pueblo Transportation,
to consider additional pedestrian	NPRTPO, NMDOT & RSA Team
infrastructure support along with the	
locations where Taos Pueblo Safety Plan	
meeting attendees reported pedestrian &	
bicycle crashes that lacked enough	
information to be included in the Data	
Summary section.	<u> </u>
	uation
Conduct SRTS School Arrival & Departure	TDS, TDS PTO, EGES, EGES PTVC, TMS & Taos
Tally Sheets in school classrooms	Pueblo Transportation
Conduct SRTS Parent Surveys	TDS, EGES, TMS & Taos Pueblo Transportation

Other Safety Areas

Several additional safety areas were discussed and reviewed during this *TTSP's* development; however, meeting and survey participants opted not to include them as priority emphasis areas at this time. In six months (e.g., January 2023), the Taos Pueblo Tribal Council, Transportation Planner, and other local stakeholders can revisit the progress being made on implementing the suggested strategies and activities listed for each respective emphasis area. At that time, the topic areas listed below can be reexamined for possible inclusion in a future or updated plan.

Intersection Configuration/Design: Within the "Existing Safety Challenges" and "What's Needed?" sections of this plan, during the Taos Pueblo Tribal Transportation Safety Plan Meeting, and on the Taos Pueblo Transportation Safety Survey, concerns about intersections were mentioned repeatedly. For example, in response to Question 5 on the Safety Survey "Which of the following are transportation safety concerns to you?" eleven respondents checked "Intersection safety." Without being specific, one comment in reaction to Question 6, "What would make our roads safer?" was very telling:

"Redesigned roads."

Two replies to Question 7, "Other areas of safety concern or comments" referenced intersections:

"Road next to Casino S-curve unable to make turn safely."

"Intersections on dirt roads; e.g., near Star and Little Deer Horn."

Transportation and Active Transportation Safety
Management/Committee Development: Taos Pueblo does
not have a committee dedicated solely to addressing
transportation safety and/or active transportation issues.
There are several local transportation-related entities with
common purposes that could benefit from increased
communication and coordination. Thus, the goal for this
emphasis area (if added to future emphasis area lists) is to

In six months (e.g., January 2023), the Taos Pueblo Tribal Council, Tribal Community Planner, and other local stakeholders can revisit the progress being made on implementing the suggested strategies and activities listed for each respective emphasis area. At that time, the topic areas listed below can be reexamined for possible inclusion in a future or updated plan.

develop a formal Transportation and Active Transportation Safety Management/Committee that will meet regularly to identify the Pueblo's transportation safety and active transportation implementation matters, and develop strategies for addressing them through education programs, transportation and safety planning, and active transportation safety activities and events.

Implementation strategies include: (1) Committee creation; (2) development/passage of a Taos Pueblo Tribal Council resolution supporting the Committee; and (3) the realization of local safety goals via assignment of safety campaign topics and activities to the appropriate local champions.

Taos Pueblo Traffic Law and Order Code: Taos Pueblo may wish to consider the drafting and passage of a traffic law and order code. Until such time as a traffic law and order code is passed, the Pueblo has less control over area transportation safety than it could. Potential drafts of the Taos Pueblo traffic law and order code may wish to reference the New Mexico Administrative Code, Title 10, Public Safety and Law Enforcement, as well as applicable New Mexico Statutes and the OHV Vehicles in New Mexico document found on the New Mexico Department of Game and Fish's website.

Wayfinding: Crash Locating and Trail Marking: Assessment of the presence, visibility, and condition of existing trail markings could be added to an RSA completed for the Pueblo. Otherwise, a formal request for trail marking improvements also can be made to any potential trail property owners located outside of the Taos Pueblo perimeter.

Complete Streets Policy Passage: As previously stated, Taos Pueblo has made a commitment to Complete Streets design with the development of the Five Roads Project to install sidewalk, curb, and gutter along Rotten Tree, Rio Lucero, Little Deer Horn, Spider Rock, and Star roads. Passage of a formal Complete Streets policy will ensure that every future Pueblo infrastructure project has the goal to provide "safe, connected, and equitable" transportation for Pueblo roadways users all ages and abilities.

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Implementation & Evaluation

Implementation

Of the eight emphasis areas detailed above, there are only a few with which Taos Pueblo may have limited involvement. The Pueblo certainly can focus on and assist its home community and the Town of Taos through education, engineering, planning, and grant writing support. The emphasis areas will ensure that, "Through value-added engineering, transportation education, and firm enforcement, Taos Pueblo will achieve a healthy, multimodal transportation system... accomplished through the shared responsibility of the community" if community members, as well as the "Champion(s) or Lead Department(s) Recommended" communicate, coordinate, and collaborate to implement the strategies outlined.

This plan makes no attempt to dictate that area departments, organizations, or agencies must implement projects for which they may not have budgeted, or have limited resources. Nonetheless, the plan offers guidance for activity and project planning. Of course, all Taos Pueblo plans require approval by the Taos Pueblo Tribal Council prior to implementation.

In terms of the above Taos Pueblo-specific strategies, in many cases, the Pueblo is currently in various stages of project planning/development. In fact, several of the projects listed on Taos Pueblo's FHWA TIP may include the very engineering improvements suggested within this plan. Transportation Improvement Program (TIP) projects frequently are driven by safety considerations.

Through this *TTSP's* creation, the plan development participants and consultant strove to align the emphasis areas, strategies, and activities with the 2016 *New Mexico Strategic Highway Safety Plan*, other local, regional, and Taos Pueblo plans. The plan development process made clear that all the stakeholders involved have similar goals and visions for Taos Pueblo, the Town of Taos, and the area. Again, although this document repeatedly is identified as a *Tribal Transportation Safety Plan*, it is truly more of a Comprehensive Safety Action Plan, as its focus is on the entire Taos Pueblo community and area with strategies and intentions that reach far beyond the limits of transportation

This plan makes no attempt to dictate that area departments, organizations, or agencies must implement projects for which they may not have budgeted, or have limited resources.

Nonetheless, the plan offers guidance for activity and project planning.

Implementation & Evaluation

improvement or an exclusively tribal-centered agenda.

One of the several eligibility requirements, which tribal governments need to meet to apply for the new Bipartisan Infrastructure Law's Safe Streets and Roads for All (SS4A) Implementation Grants, is to have a Comprehensive Safety Action Plan in place. Quoting the FY22 SS4A Notice of Funding Opportunity Amendment 1, "The SS4A program provides funding for two types of grants: Action Plan Grants (for comprehensive safety action plans) and Implementation Grants. Action Plan Grants are used to develop, complete, or supplement a comprehensive safety action plan. To apply for an Implementation Grant, an eligible applicant must have a qualifying Action Plan. Implementation Grants are available to implement strategies or projects that are consistent with an existing Action Plan. Applicants for Implementation Grants can selfcertify that they have in place one or more plans that together are substantially similar to and meet the eligibility requirements for an Action Plan [emphasis added]" (USDOT, 2022).

Taos Pueblo self-certifies that this *Tribal Transportation Safety Plan* meets the SS4A eligibility requirements for an Action Plan in that it addresses the subsequent list of Comprehensive Safety Action Plan components:

Leadership Commitment and Goal Setting

Please see the fully-executed Taos Pueblo Tribal Council resolution officially approving this *Tribal Transportation Safety Plan* just inside the plan's front cover, because it states the Pueblo's eventual goal of zero roadway fatalities and serious injuries. Note that the resolution states, "Whereas, Taos Pueblo is striving to reduce roadway fatalities and serious injuries by 50% within ten years (or by the end of calendar year 2032) with an eventual goal of eliminating roadway fatalities and serious injuries."

Planning Structure

Until such time as Taos Pueblo can develop a formal Transportation and Active Transportation Safety Management/Committee, the Transportation Department and/or current Emergency Management Team may

Applicants for Implementation Grants can self-certify that they have in place one or more plans that together are substantially similar to and meet the eligibility requirements for an Action Plan [emphasis added]" (USDOT, 2022).

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Implementation & Evaluation

temporarily assume the task of oversight of the Action Plan development, implementation, and monitoring.

Safety Analysis

Please see Section 7, "Data Summary," on pp. 52 - 69 to view an analysis of existing conditions and historical trends, which provides a baseline level of crashes involving fatalities and serious injuries across the Taos Pueblo region. Said analysis, plus aerial maps within the Appendix (see pp. 147 - 155), detail crash locations and the severity of the crashes along with contributing factors and crash types by relevant road users.

Engagement and Collaboration

Pages 20 - 21 of this plan offer the particulars as to how the relevant engagement with the public, critical stakeholders, private sector and community groups, and representatives from overlapping jurisdictions was conducted for this document. References exist throughout this plan to the information received from public engagement and collaboration efforts as well as to Action Plan alignment with other governmental plans.

Equity Considerations

Inclusive and representative processes were utilized during this Action Plan's development. Nonetheless, for the purposes of substantiating that all comprehensive Taos Pueblo planning efforts are inclusive and representative, please note that the Pueblo meets the definition of an "underserved community" per the Office of Management and Budget's Interim Guidance for the Justice40 Initiative and the Historically Disadvantaged Community designation, which includes *any tribal land* (USDOT, 2022). Further, Taos Pueblo's population is defined by relatively homogeneous income levels; and the predominance of future infrastructure projects will be Complete Street projects seeking to increase existing multimodal equity for all roadway users across the community.

Policy and Process Changes

This Action Plan details existing Taos Pueblo and local policies, plans, ordinances, guidelines, and/or standards,

"...tribal governments may apply [for] projects eligible under the Highway Safety Improvement Program... Projects... may include strategies, activities, or projects on a public road that are included in a State Strategic Highway Safety Plan (SHSP) and correct or improve a hazardous road location or feature, or address a highway safety problem. This includes infrastructure and non-infrastructure strategies, activities or projects including education activities... Additionally, to be eligible for TTPSF, infrastructure projects must be included in the tribe's National Tribal Transportation Facility Inventory, as well as its Transportation Improvement Program (TIP)."

Implementation & Evaluation

then recommends various strategies that will improve how processes prioritize transportation safety. Additionally, the Action Plan discusses implementation through the adoption of revised or new policies, ordinances, guidelines, and/or standards, as appropriate (see pp. 25, 30 - 31, 35, 37, 42 - 43, 71, 75, 77 - 78, 87, and 122).

Strategy and Project Selections

Utilizing crash data, evidence-based strategies, best practices, stakeholder feedback, and equity considerations, this Action Plan identifies and prioritizes a wide-ranging set of projects, strategies, and activities to address Taos Pueblo roadway safety problems. Said strategies, multidisciplinary activities, and countermeasures are guided by the SafeSystem Approach, and focus on infrastructure, behavioral, and/or operational safety. Crash data limitations are spelled out and mitigated to the extent possible within the Section 7, Data Summary, on pp. 52 - 69.

Progress and Transparency

The narrative for this Action Plan's "Evaluation" follows in the next paragraph. Thus, the methods by which to measure plan progress and to update vital data over time may be easily implemented. Recommendations have been made throughout the plan as to the frequency of meetings with Pueblo residents and other relevant stakeholders to ensure ongoing transparency with the safety planning process. The Taos Pueblo Transportation Department will post this Action Plan online, and is committed to the provision of accessible reporting - via a variety of media platforms - on the Pueblo's progress towards achievement of this plan's vision statement, "Through value-added engineering, transportation education, and firm enforcement, Taos Pueblo will achieve a healthy, multimodal transportation system. This will be accomplished through the shared responsibility of the community."

Evaluation

The preceding pages summarize strategies, which will allow the Pueblo and its many safety partners to improve and/or positively impact safety in each area of concern. Perhaps



Implementation & Evaluation

This Tribal Transportation Safety Plan helps answer one of the Pueblo's central questions, "How can the sovereign nation of Taos Pueblo 'build a safe and healthy environment' while also striving to preserve ancient traditions as modernization continually encroaches?" The local phrase "we are in one nest" sums up the deep feeling of belonging, which has bound the Taos people together for generations. The ideas that community members should cooperate and never allow their personal desires to be destructive of the community's interest echo this Safety Plan's overarching goal to improve the overall safety of the Taos Pueblo-area transportation system, while also decreasing the risk of fatalities and serious injuries resulting from incidents on or adjacent to the transportation system (New World Encyclopedia, 2015).

one of the best ways to evaluate the effectiveness of the strategies and activities implemented through this plan is to consider how well they align with the Taos Pueblo worldview. As was stated in the Community Engagement Results of the Taos Pueblo *Comprehensive Indigenous Community and Land Use Plan, "*Our collective vision is to preserve and protect the land, traditions and families, by creating a strong, healthy, and happy community that thrives for many generations to come.

We face unprecedented threats to our peoples' health, cultural practices, and natural resources. Despite the challenges our community faces, we strive to prepare the next generation to assume their roles in maintaining and caring for all living and spiritual entities that reside on our land.

Our goals are to revitalize agriculture, increase housing choices, improve utilities and roads, and protect our cultural assets. We strive to build a safe and healthy environment by improving tribal programs and schools, expanding economic development opportunities for our people, and reaffirming the role that our youth and families have in maintaining a cohesive community (Indigenous Design and Planning Institute, 2014)."

This *Tribal Transportation Safety Plan* helps answer one of the Pueblo's central questions, "How can the sovereign nation of Taos Pueblo 'build a safe and healthy environment' while also striving to preserve ancient traditions as modernization continually encroaches?" The local phrase "we are in one nest" sums up the deep feeling of belonging, which has bound the Taos people together for generations. The ideas that community members should cooperate and never allow their personal desires to be destructive of the community's interest echo this *Tribal Transportation Safety Plan's* overarching goal to improve the overall safety of the Taos Pueblo-area transportation system, while also decreasing the risk of fatalities and serious injuries resulting from incidents on or adjacent to the transportation system (New World Encyclopedia, 2015).

As was recommended earlier in this "Implementation and Evaluation" section, these strategies and activities should

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Implementation & Evaluation

drive a Comprehensive Safety Action Plan for Taos Pueblo that is regularly evaluated and updated as conditions change over time. Even though the Tribal Transportation Program Safety Fund considers Tribal Safety Plans to be outdated after five years, the consultant recommends that progress on the implementation of the emphasis area strategies be reviewed at least every six months with an annual review of the plan in its entirety being undertaken at least once a year (Federal Highway Administration, 2022).

Next Steps



High-Priority Emphasis Areas	Priority Emphasis Areas
Road Departure	Older Drivers
Distracted Driving	Bicycles
Impaired Driving	Heavy Vehicles
Speeding/Aggressive Driving	Inclement Weather
Use of Safety Restraints	Emergency Medical Services
Motorcycles	Sleepy/Fatigued Driving
Pedestrians	Work Zones
Tribal Lands	Rail (Train-Vehicle)
Young Drivers	Transit/Buses
Intersections	Wildlife/Animals

Next Steps

Safety remains a vital factor when Taos Pueblo evaluates potential projects for inclusion in its Transportation Improvement Plan. The Pueblo's transportation and safety project planning is guided by available crash data; projects recommended in the 1992 Taos Pueblo Long Range Transportation Plan; Taos Pueblo Tribal Council recommendations, public input regarding community needs; as well as Pueblo and local area transportation and safety-related planning documents like this Tribal Transportation Safety Plan.

Although grant funding is becoming ever more limited and competitive, the Federal Highway Administration's Tribal Transportation Program Safety Fund grants are a good source of dollars for completion of several Taos Pueblo safety projects. As was detailed in this plan's "Introduction," one of the eligibility criteria for these funds is that a tribe has a safety plan in place.

Very similar to the process followed for Taos Pueblo's *Tribal* Transportation Safety Plan development and the determination of its emphasis areas, the 2016 New Mexico Strategic Highway Safety Plan, "... entailed a data-driven process that identified critical safety needs on all public roads and focused on the most severe crashes because these have the greatest potential to improve traffic safety. The SHSP identifies safety emphasis areas and safety strategies that consider safety effectiveness, cost to implement, and time to implement to effectively focus funding within the highway safety program... The analysis of New Mexico's fatal and serious (incapacitating) injury crashes and consideration of stakeholder input resulted in the designation of 20 safety emphasis areas and two levels of priority [pictured in the table at left]" (New Mexico Department of Transportation, 2017).

The NMDOT SHSP high-priority and priority emphasis areas and safety strategies that most closely align with the Taos Pueblo's Tribal Transportation Safety Plan are:

- 1. Impaired driving
- 2. Pedestrians

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Next Steps

- 3. Tribal Lands
- 4. Young Drivers
- 5. Bicycles
- 6. Emergency Medical Services

This Taos Pueblo Tribal Transportation Safety Plan's emphasis areas and its respective implementation strategies directly address all ten of the NMDOT SHSP's high-priority emphasis areas and no less than six of the SHSP's ten priority areas. NMDOT's SHSP "Pedestrians" and "Bicycle" emphasis areas will be covered by Taos Pueblo's "Safe Routes to School" and "Roadway Safety Improvements" emphasis areas, while the Taos Pueblo TTSP's "Enforcement/Emergency Management Services," "Driver's Education/Defensive Driving," "Road Safety Assessment," and "Roadway Maintenance" emphasis areas will cover the remaining high-priority emphasis areas. In some cases, the strategies outlined within this TTSP's pages are nearly identical to those suggested within the SHSP. For example, the "Tribal Lands" section of the NMDOT SHSP states, "To better equip tribes with the ability to more efficiently collect and report data, analyze crash causation factors, and identify effective safety strategies and their implementation, the NMDOT is encouraging tribal enforcement agencies to use the nationally deployed TraCS for the electronic capture and submission of crash reports." In addition, five of the NMDOT SHSP's "Tribal Lands" priority safety strategies closely echo recommendations cited within this TTSP:

- "Facilitate procedures, systems, and policies to support collection, sharing, and use of crash, citation, and EMS data among state, local, and tribal governments.
- Provide opportunities for tribal identification of safety issues and education of NMDOT on these issues.
- Incorporate tribal data in the statewide databases.
- NMDOT to work closely with tribal governments to educate and provide outreach relating to safety opportunities.
- Encourage better coordination between tribal entities and adjacent nontribal communities - law

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Next Steps

enforcement, EMS, etc." (New Mexico Department of Transportation, 2017).

Further, three of the *NMDOT SHSP's* "Emergency Management Services" priority safety strategies align with those noted within this *TTSP*:

- "Increase EMS training for rural EMS/fire personnel to include courses on leadership/management as well as incident/scene management, by developing in-person and online regional training curriculum.
- Educate EMS personnel in contacting NMDOT
 Districts to initiate traffic control activities to assist in the prevention of secondary crashes.
- Improved data collection and analysis capabilities related to NMEMSTARS" (New Mexico Department of Transportation, 2017).

The alignment of the following *Taos Pueblo Tribal Transportation Safety Plan* emphasis areas with those of the NMDOT SHSP presents many opportunities for the Pueblo and NMDOT to increase their future collaboration:

- Enforcement/Emergency Management Services
- Impaired Driving, Alcohol and Substance Abuse
- Driver's Education/Defensive Driving
- Roadway Maintenance
- Road Safety Assessment
- Roadway Safety Improvements
- Safety Communication Enhancement
- Safe Routes to School (SRTS)

Taos Pueblo's completion of the 1992 *Taos Pueblo Long Range Transportation Plan* updated its Road Inventory List. Presently, Taos Pueblo is interested in taking the following "Next Steps":

- Submit one or more Fiscal Year 2022 Fiscal Year 2026 (FY22 - FY26) grant applications for FHWA Tribal Transportation Program Safety Funds.
- 2. Submit one or more Fiscal Year 2023 (FY23) <u>Safe</u> Streets and Roads for All grant applications.
- 3. Submit a Fiscal Year 2023 Transportation Alternatives Program grant for Safe Routes to

"...emphasis areas...in the Strategic Highway Safety Plan for Indian Lands:

- Decision-making Process
- Data Collection
- Run Off the Road Crashes
- Occupant Protection/Child Restraint
- Alcohol/Drug-impaired Driving
- Other Driver Behavior and Awareness
- Drivers under the Age of 35
- Pedestrian Safety.

The emphasis areas outlined in Section 8 of this Tribal Transportation Safety Plan align with those identified above."

Next Steps

- School infrastructure improvements.
- Submit one or more Fiscal Year 2023 (FY23) grant applications to the <u>BIA Indian Highway Safety</u> <u>Program</u>; and
- 5. Research and submit various grants for vital roadway safety improvements in and around Taos Pueblo.

With formal adoption and effort towards implementation of the Taos Pueblo *Tribal Transportation Safety Plan*, the Pueblo will be more competitive in its upcoming safety-related funding pursuits. Local area enforcement and Emergency Management Services, the Town of Taos, Taos Day School, Enos Garcia Elementary School, Taos-Picuris Indian Health Center, and other local agencies may find elements of this *Tribal Transportation Safety Plan* useful for their future funding pursuits as well.

Of course, all Taos Pueblo plans require approval by the Taos Pueblo Tribal Council prior to implementation.

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Section 11

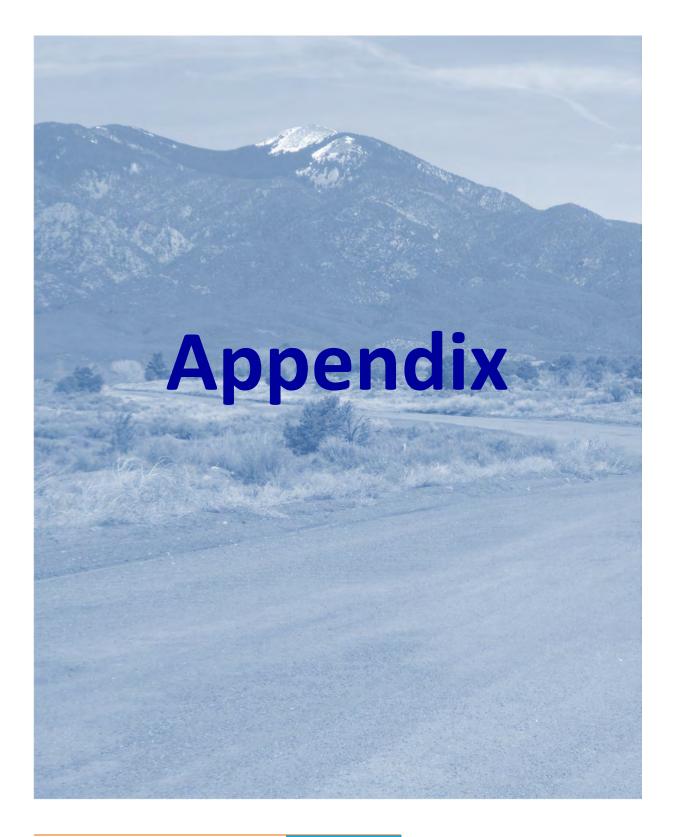
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Appendix





Taos
Pueblo
Tribal
Transportation
Safety Plan
Meeting

Taos Pueblo received a
FHWA grant to
write a Tribal Transportation
Safety Plan.

Join us for the Tribal
Transportation Safety Plan
Meeting to discuss Taos Pueblo
safety concerns & your ideas for
future roadway safety.



Develop Taos Pueblo's safety vision!

WHEN: Friday, March 23, 2018

10:00 a.m.- 2:30 p.m.

WHERE: Pueblo DNR Conference Room

1005 Spider Rock Road Taos, New Mexico 87072

Contact Person: Vernon Lujan, Director & Transportation Planner For More Information: vlujan@taospueblo.com or 575-758-8626, extension 101

Agenda Topics:

- Local Safety Challenges
- Existing Safety Partners
- Aerial Map Crash Review
- Safety Survey
- Safety Emphasis Areas, etc.

Food & beverages provided!

Enter raffle to win some

free fuel!



Taos Pueblo Tribal Transportation Safety Plan Meeting

AGENDA

Department of Natural Resources (DNR) Conference Room 1005 Spider Rock Road, Taos, NM 87571

March 23, 2018

10:00 a.m.	Welcome and Introductions Taos Pueblo Director and Transportation Planner, Vernon Lujan
10:05 a.m.	Defining Tribal Transportation Safety Plans Complete Taos Pueblo Transportation Safety Survey
10:45 a.m.	Map Spot & Mark-Up of Taos Pueblo & School Area Aerial Maps
11:15 a.m.	Draft Vision Statement for Taos Pueblo Tribal Safety Plan Taos Pueblo Existing Safety Partners & Safety Approaches
	(These are the partners or practices that Taos Pueblo is utilizing to address transportation safety; e.g., public education, crash reporting/processes and evaluation, emergency management, or engineering projects.)
Noon	Blessing and Lunch

12:30 p.m. **Development of Taos Pueblo Tribal Transportation Safety Plan**

Identification/discussion of safety issues and concerns Safety approaches to include; i.e., the "Emphasis Areas" Safety approaches to develop

- Education
 - Encouragement
 - Enforcement
 - Engineering
 - Evaluation
 - EMS

1:30 p.m. Emphasis Area Implementation Steps

Identification of implementation steps List goals, responsible parties/champions, and strategies for specific emphasis areas

- 2:20 p.m. Questions & Completion of Transportation Safety Surveys/Easel Pages
- 2:30 p.m. Adjourn



Taos Pueblo

Tribal Safety Plan Meeting Sign-in Sheet DNR Conference Room



Name (Print)	Job Title	Phone	Email Address
STACOS MEGURE	PROJECTS & GRANTS NEE	505.629.4704	Staceymancortd.org
Gentle	COP	7588645	3
Tona anya	Admin DRS		
Larry Apollace	TDS	575-770-1645	lary, apolica@ 6; e. edv
Rick Medina	TPD5	758-8645	
Summon onon	TBA	7410208	Solupul Taospreblo.com
Ran Surro	TP Rolly	758-8626 × 103	
Frederick Lujano	Council	758-0956	
Certis Syrulound	TPRONUS put		CSANdon LA Troc Pueblo, con
John C Ranco	Eguepmet Operator	741-0042	TPRonds @ tras Ruesto. Com
Estrelle Archulets	Assitant Program Manage Taos Senior Genta	779-0950	earchileta @ taos pueblo. com
amanday Montoga	Community Development	575-758-8626 X110	amontoja Daspresso con
David Trigllog	Chief, Taos PD.	575-770-6110	dtrujillo@taosgov.com
Quino Morting	WARchest	575-224-7378	V
Wilbert Concha	War Chief	675)776-4620	



Taos Pueblo

Tribal Safety Plan Meeting Sign-in Sheet DNR Conference Room



Name (Print)	Job Title	Phone	Email Address
heslie Keapsone	USD Admin/Enrollment	758 8lezle	Likeahbone@taospueblo
HUNEVEE Lyan	TRUS DIRECTOR	758-7767	11 yan@ tasspueblo.
Henrietta Gomez	Comm. Mem ber	224-77-15	
Reclient Architect	Comm. Member SC mgr.	741-1482	rarchaloto C foospreblo, com

Taos Pueblo Transportation Safety Survey

<u>Please email a scan of your completed survey and maps to: VLujan@taospueblo.com</u> with a "cc" to <u>mgtecwta@gmail.com</u> by Friday, February 16, 2018.

Taos Pueblo is collecting data for our Tribal Safety Plan. The completed plan will help us identify problem areas, and develop a way to fix them. It also will help us to apply for funding for safety improvements within the Taos Pueblo community. Please help us by doing the following:

- 1) Using a colored marker or pen, place numbers 1 5 on the map locations where you know crashes have occurred.
- 2) Using the numbers you put on the map, please answer the following questions about each crash by checking the boxes that apply.

	APPROXIMATE CRASH DATE: APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F)
	APPROXIMATE CRASH LOCATION: (Include Mile Marker, if known)
-	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN □ Property Damage □ Injury □ Death
	Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.):
1	
Crash 1	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Other
	LIKELY FACTOR(S) IN CRASH: Alcohol Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Dust Weather Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	Other
	APPROXIMATE CRASH DATE: APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN Property Damage Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.):
h 2	
Crash	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Other
	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: (Include Mile Marker, if known)
	THIS CRASH INVOLVED □Truck □Car □ATV □Pedestrian □Bicycle □Animal
	DID THE CRASH RESULT IN Property Damage Dinjury Death
	Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.):
h 3	
Crash	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Other
	LIKELY FACTOR(S) IN CRASH:
	Other

	APPROXIMATE CRASH DATE: APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: (Include Mile Marker, if known)
-	THIS CRASH INVOLVED
4	DID THE CRASH RESULT IN Property Damage Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.):
Crash	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Other
-	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: (Include Mile Marker, if known)
	THIS CRASH INVOLVED
5	DID THE CRASH RESULT IN Property Damage Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.):
Crash	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Other
-	LIKELY FACTOR(S) IN CRASH:
3)	Is there a location that you feel is risky, but that you are not aware has had crashes? Yes No If yes, please circle location on map and describe why you think it is risky.
4)	Are there other crash locations or accident incidents involving boats not shown on the map? Yes No If yes, please describe location and incident.
5)	Which of the following are transportation safety concerns to you? (Please check all that apply.)
	Unsafe, unmaintained roads □ Lack of school crossing(s) □ Talking on phone or texting while driving □ Talking on phone or texting while walking □ Talking on phone or texting while walking □ Driving while interviented
	☐ Talking on phone or texting while walking ☐ Driving while intoxicated ☐ Roadwork or road damage
	Lack of trail marking(s) Pedestrian or bicycle safety
	Lack of pedestrian or bike infrastructure Lack of seatbelt use Pedestrian visibility and reflectivity Road dust
	Lack of emergency shelters Driver education
	Intersection safety
6)	What would make the roads feel safer to you?
7)	Other areas of safety concern or comments:

Taos Pueblo Transportation Safety Survey

<u>Please email a scan of your completed survey and maps to: VLujan@taospueblo.com</u> with a "cc" to <u>matecwta@amail.com</u> by Friday, March 16, 2018.

Taos Pueblo is collecting data for our Tribal Safety Plan. The completed plan will help us identify problem areas, and develop a way to fix them. It also will help us to apply for funding for safety improvements within the Taos Pueblo community. Please help us by doing the following:

- 1) Using a colored marker or pen, place numbers 1 5 on the map locations where you know crashes have occurred.
- 2) Using the numbers you put on the map, please answer the following questions about each crash by checking the boxes that apply.

	APPROXIMATE CRASH DATE: 1988 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Veteran's Highway - By Casino Location (Include Mile Marker, if known)
Crash 1	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal ☐Unknown
	DID THE CRASH RESULT IN Property Damage Serious Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Hit and run resulted in a pedestrian's' death
0	CAN BEST BE DESCRIBED AS: ☐Rollover ☐Pedestrian was hit ☐Bicyclist was hit ☐Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: 1992 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 65 DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Upper Canyon Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 2	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Truck totaled
	CAN BEST BE DESCRIBED AS: Pedestrian was hit Stationary object was hit (e.g., power pole) Vehicle rolled down embankment into the river
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	APPROXIMATE CRASH DATE: 2000 APPROXIMATE TIME OF DAY: DRIVER'S AGE: 13 DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Little Deer Horn Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 3	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Broken bones; major injury
Ö	CAN BEST BE DESCRIBED AS:
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	APPROXIMATE CRASH DATE: 2002 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 20 DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: ¼-mile from Tony Reyna - Star Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 4	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): At high rate of speed, car overturned and slid. Passenger died. Driver had broken bones.
	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting

Crash 5	APPROXIMATE CRASH DATE: 2003 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: DRIVER'S GENDER (Circle [M] or F) APPROXIMATE CRASH LOCATION: Star Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death
	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH:
Crash 6	APPROXIMATE CRASH DATE: 2003 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 33 DRIVER'S GENDER (Circle M or [F]) APPROXIMATE CRASH LOCATION: Spider Rock Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Broken bones/possible fatality
	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	APPROXIMATE CRASH DATE: June 2006 APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Little Deer Horn (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 7	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Broken bones
Ö	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Unknown
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	APPROXIMATE CRASH DATE: 12/15/09 APPROXIMATE TIME OF DAY: Morning DRIVER'S AGE: DRIVER'S GENDER (Circle M or [F]) APPROXIMATE CRASH LOCATION: Taos Day School Parking Lot (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 8	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Hit and run. Backed into car.
Cra	CAN BEST BE DESCRIBED AS:
	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: 2012 APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: North Bear Stew – 1 mile from Rio Lucero Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
sh 9	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death
Crash	CAN BEST BE DESCRIBED AS: Pedestrian was hit Stationary object was hit (e.g., power pole) Truck hit a tree at a high rate of speed
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting

	APPROXIMATE CRASH DATE: 2013 APPROXIMATE TIME OF DAY: Morning DRIVER'S AGE: 45 DRIVER'S GENDER (Circle[M] or F) APPROXIMATE CRASH LOCATION: On Spider Rock Road 400' south of Rotten Tree Road (Include Mile Marker, if known)
Crash 10	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Just car damage due to car hitting boulders
	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Boulders hit on the side
	LIKELY FACTOR(S) IN CRASH:
1	APPROXIMATE CRASH DATE: 2013 APPROXIMATE TIME OF DAY: Morning DRIVER'S AGE: DRIVER'S GENDER (Circle M or [F]) APPROXIMATE CRASH LOCATION: Spider Rock Road South of 750 Spider Rock Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED Truck Car ATV Pedestrian Bicycle Animal
Crash 11	DID THE CRASH RESULT IN □Property Damage □Serious Injury □Minor Injury □Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Just truck damage
Cra	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: 2015 or October 2016? APPROXIMATE TIME OF DAY: 2-3p DRIVER'S AGE:70 DRIVER'S GENDER: (Circle M or [F]) APPROXIMATE CRASH LOCATION: Head Start Parking Lot (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 12	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Pedestrian was pinned between two vehicles
Cra	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole) Driver backed into pedestrian
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting Not paying attention. Driver too busy with kids in car.
	APPROXIMATE CRASH DATE: Summer 2016 APPROXIMATE TIME OF DAY: Noon DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Veteran's Highway (Include Mile Marker, if known)
3	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 13	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): EMTs were called
0	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH:
	APPROXIMATE CRASH DATE: 2016 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 70 DRIVER'S GENDER (Circle M or [F]) APPROXIMATE CRASH LOCATION: White Lane and Spider Rock Road (Include Mile Marker, if known)
14	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
Crash 1	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Trees, corner post, and section of fence
	CAN BEST BE DESCRIBED AS:
	Seatbelt Use
	APPROXIMATE CRASH DATE: Summer 2017 APPROXIMATE TIME OF DAY: DRIVER'S AGE: 35 DRIVER'S GENDER (Circle [M] or F) APPROXIMATE CRASH LOCATION: Rotten Tree Road (Include Mile Marker, if known)
τί	THIS CRASH INVOLVED
Crash 15	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Scratches
	CAN BEST BE DESCRIBED AS:
	Seatbelt Use ☐ Lack of Driving Skills ☐ Underage Driver ☐ Vehicle Malfunction ☐ No Helmet ☐ Cellular Phone Use/Texting
	Other: Altercation with partner, which ends up being part of the distraction.

	APPROXIMATE CRASH DATE: December 2017 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 35 DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Hail Creek Road across from the Smoke Shop (Include Mile Marker, if known)
Crash 16	THIS CRASH INVOLVED □Truck □Car □ATV □Pedestrian □Bicycle □Animal
	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Hit and run - 30' of fence
	CAN BEST BE DESCRIBED AS:
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting Other: Driver inattention; however, the road lacks a shoulder, therefore drivers must have 100% attention along roadway.
Crash 17	APPROXIMATE CRASH DATE: 2017 APPROXIMATE TIME OF DAY: DRIVER'S AGE: DRIVER'S GENDER (Circle M or F) APPROXIMATE CRASH LOCATION: Curve just .25 mile north of CMS on Little Deer Horn Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐Car ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Vehicle damage
۲	CAN BEST BE DESCRIBED AS:
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting Other: Driver inattention plus brush and snow on the curve
	APPROXIMATE CRASH DATE: 2017 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: DRIVER'S GENDER (Circle [M] or F) APPROXIMATE CRASH LOCATION: Near 550 Little Deer Horn (Include Mile Marker, if known)
∞	THIS CRASH INVOLVED
Crash 18	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.): Vehicle took out barbed wire fence
	CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting
	APPROXIMATE CRASH DATE: January 2018 APPROXIMATE TIME OF DAY: 18:30 DRIVER'S AGE: DRIVER'S GENDER (Circle [M] or F) APPROXIMATE CRASH LOCATION: Veteran's Highway and Casino Entrance (Include Mile Marker, if known)
	THIS CRASH INVOLVED ☐Truck ☐2Cars ☐ATV ☐Pedestrian ☐Bicycle ☐Animal
119	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death
Crash 19	Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.) CAN BEST BE DESCRIBED AS: □Rollover □Pedestrian was hit □Bicyclist was hit □Stationary object was hit (e.g., power pole)
٥	Driver exiting the Casino's Veteran's Highway egress T-boned a passing car
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of Seatbelt Use Lack of Driving Skills Underage Driver Vehicle Malfunction No Helmet Cellular Phone Use/Texting Other: Driver inattention and failure to yield
	APPROXIMATE CRASH DATE: February 2018 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: DRIVER'S GENDER (Circle M or [F]) APPROXIMATE CRASH LOCATION: Hail Creek Road (Include Mile Marker, if known)
	THIS CRASH INVOLVED
20	DID THE CRASH RESULT IN Property Damage Serious Injury Minor Injury Death
Crash 20	Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.) CAN BEST BE DESCRIBED AS: Rollover Pedestrian was hit Bicyclist was hit Stationary object was hit (e.g., power pole)
J	Vehicle roadway departure to the east & car hit fence
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of
	Seatbelt Use
	APPROXIMATE CRASH DATE: March 2018 APPROXIMATE TIME OF DAY: Evening DRIVER'S AGE: 35 DRIVER'S GENDER (Circle [M] or F) APPROXIMATE CRASH LOCATION: Near intersection of Spider Rock and Goat Springs roads (Include Mile Marker, if known)
21	THIS CRASH INVOLVED □Truck □Car □ATV □Pedestrian □Bicycle □Animal
Crash 21	DID THE CRASH RESULT IN ☐ Property Damage ☐ Serious Injury ☐ Minor Injury ☐ Death
٥	Please describe the damage or injuries (e.g., broken bones, head injury, cuts, etc.) Head injury and cuts – thrown from vehicle
	LIKELY FACTOR(S) IN CRASH: Driving Under the Influence Excessive Speeds Road Condition Dust Weather Lack of

- 3) Is there a location that you feel is risky, but that you are not aware has had crashes? Yes IIIII IIII No If yes, please circle location on map and describe why you think it is risky. Little Deer Horn Road (NP703) has a sharp curve and narrow culvert. All locations are risky! Sharp curve on Little Deer Horn Road has low visibility and speeding around curve. At the intersection of US64 & Hail Creek Road. Speeding as cars approach Old Pueblo (especially Veteran's Highway intersection). Star Road overgrowth. Veteran's Highway and Hail Creek Road: need to make a turning lane for buses, CMV, widen turning radius. The bridge on Veteran's Highway lacks room for pedestrians to cross safely. Parking lot at Head Start. Star Road. Veteran's Highway. All roads are at risk to the community. All Pueblo roads are risky. The turn off at the Casino coming from the Pueblo.
- 4) Are there other crash locations or accident incidents involving animals not shown on the map?

 Yes II

 No I
 If yes, please describe location and incident. Main Highway government offices to Central Management System (CMS).
 NM522 Taos Pueblo Tract B. Almost all roads have experienced accidents with horses, cows, and dogs. All risky areas that are sharp curves to be corrected. Veteran's Highway.
- 5) Which of the following are transportation safety concerns to you? (Please check *all that apply*.) One respondent checked each category below relevant to NP411.

Nusafe, unmaintained roads IIIII IIII	Missing or inadequate road signage
Lack of school crossing(s)	☐ Lack of helmet use on ATV, bike or motorcycle IIIII
Talking on phone or texting while driving	IIII
Talking on phone or texting while walking	Excessive driving speeds
Young drivers not knowing rules of road IIIII II	Driving while intoxicated
Lack of trail marking(s)	Roadwork or road damage
☐ Lack of pedestrian or bike infrastructure	Pedestrian or bicycle safety
Pedestrian visibility and reflectivity	☐ Lack of seatbelt use IIIII IIII
☐ Lack of emergency shelters IIIII	Road dust
Intersection safety	Driver education

6) What would make our roads safer?

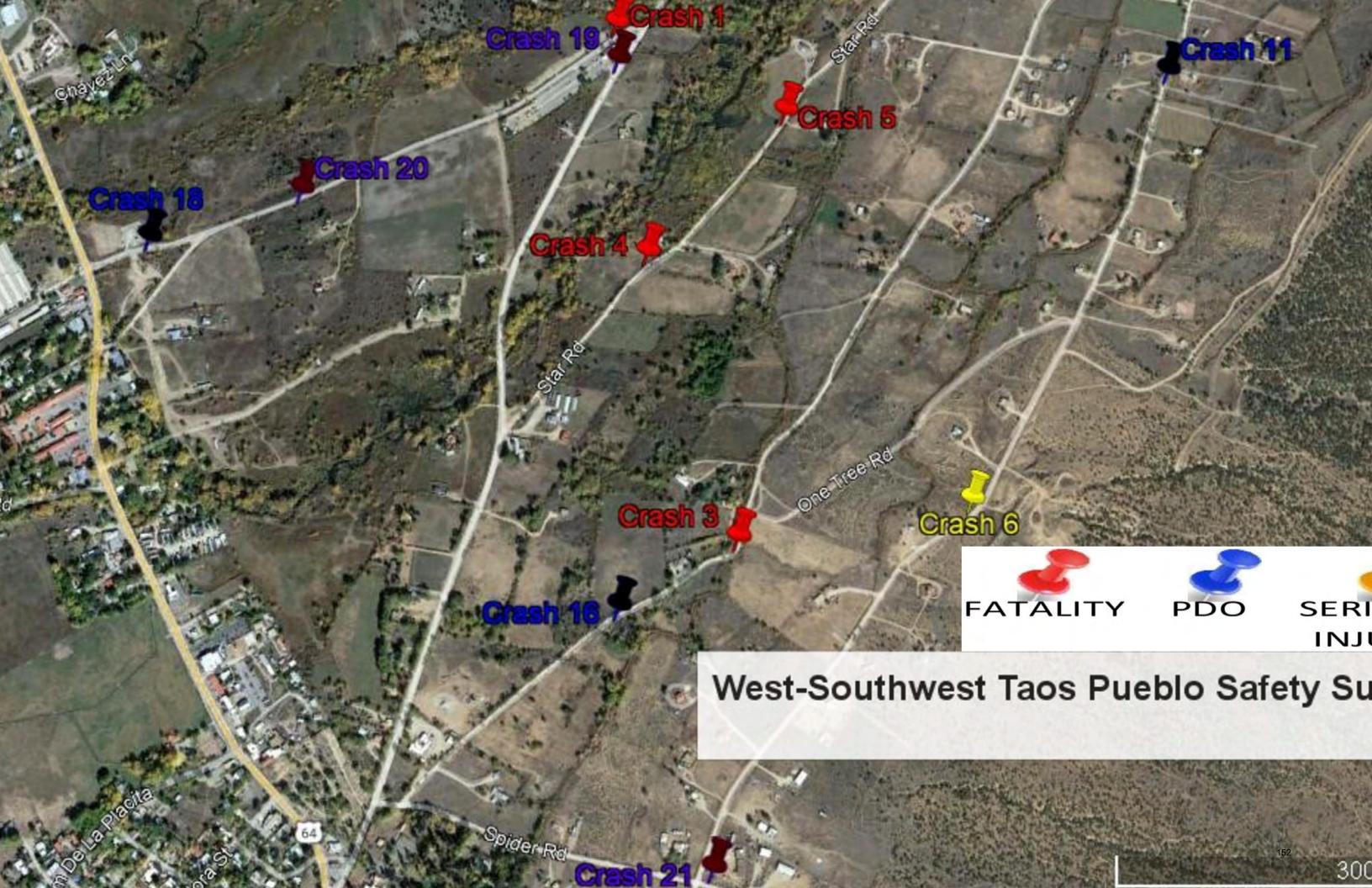
Need speed humps; Community Safety Meetings; more enforcement; more signage; double fine areas; designation of a safety corridor. Enforce speeding; more signs; improve roads; wider roads. Patrolling on all roads; signs, and road improvements. Well-graveled roads; proper lifts and water drainages to reduce puddling on roads. Road condition improvements. Pedestrian-friendly roads. Pedestrian-Bicycle Path. ATV use is high with no helmet use and high speed. Pedestrian/bike/horse right-of-ways. Trails. Better enforcement of speeders. Wider roadways with proper markers/signage. Wider roads, too narrow, and this [sic] are just old wagon roads. And alcohol use and drugs are the factors of crash. Redesigned roads. Funds to remedy safety issues. All those listed above. Better maintenance. Improved pedestrian infrastructure. Improved separation between vehicles and other modes (ped, bike, equestrian). Speed bumps.

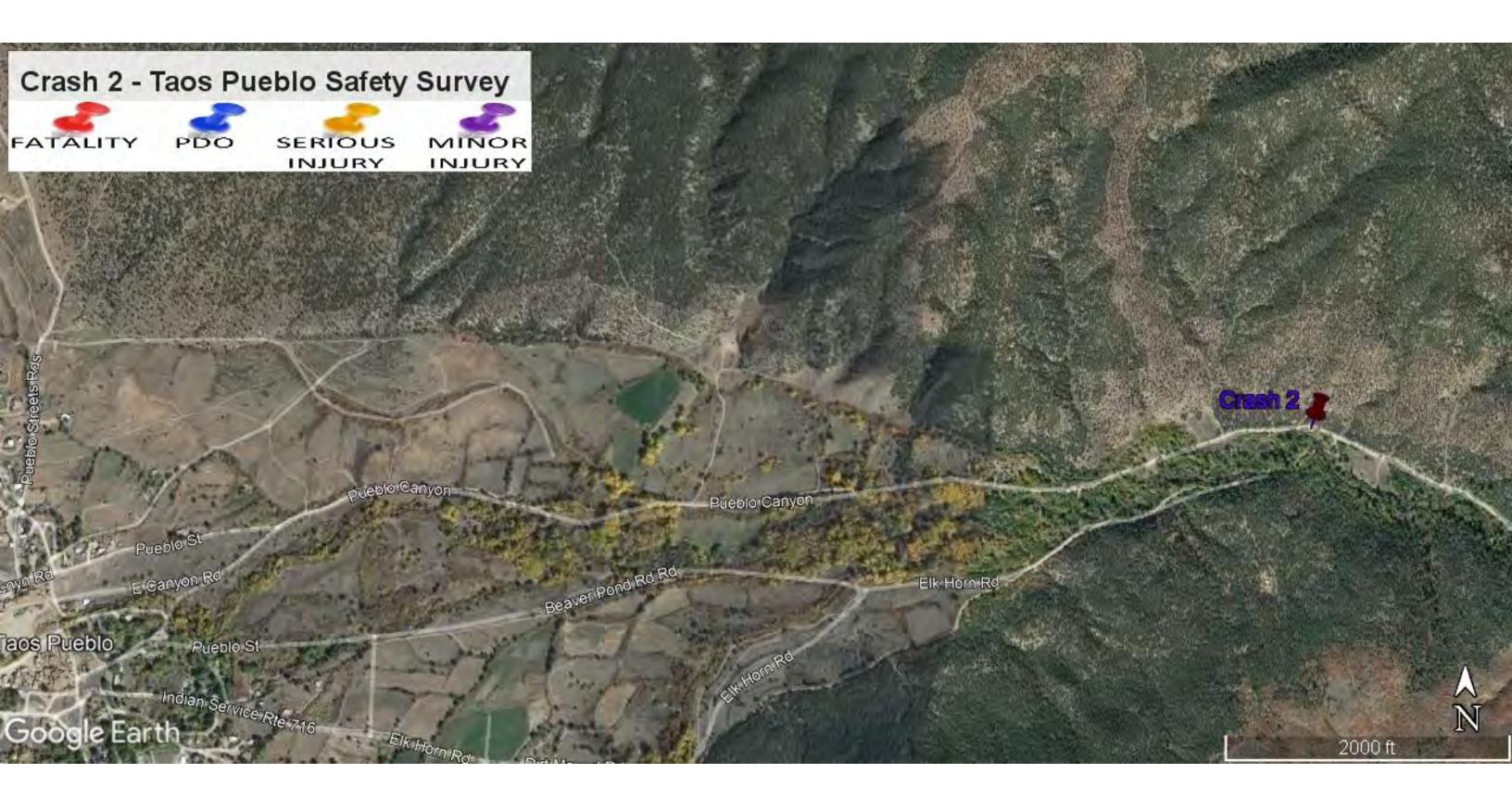
7) Other areas of safety concern or comments:

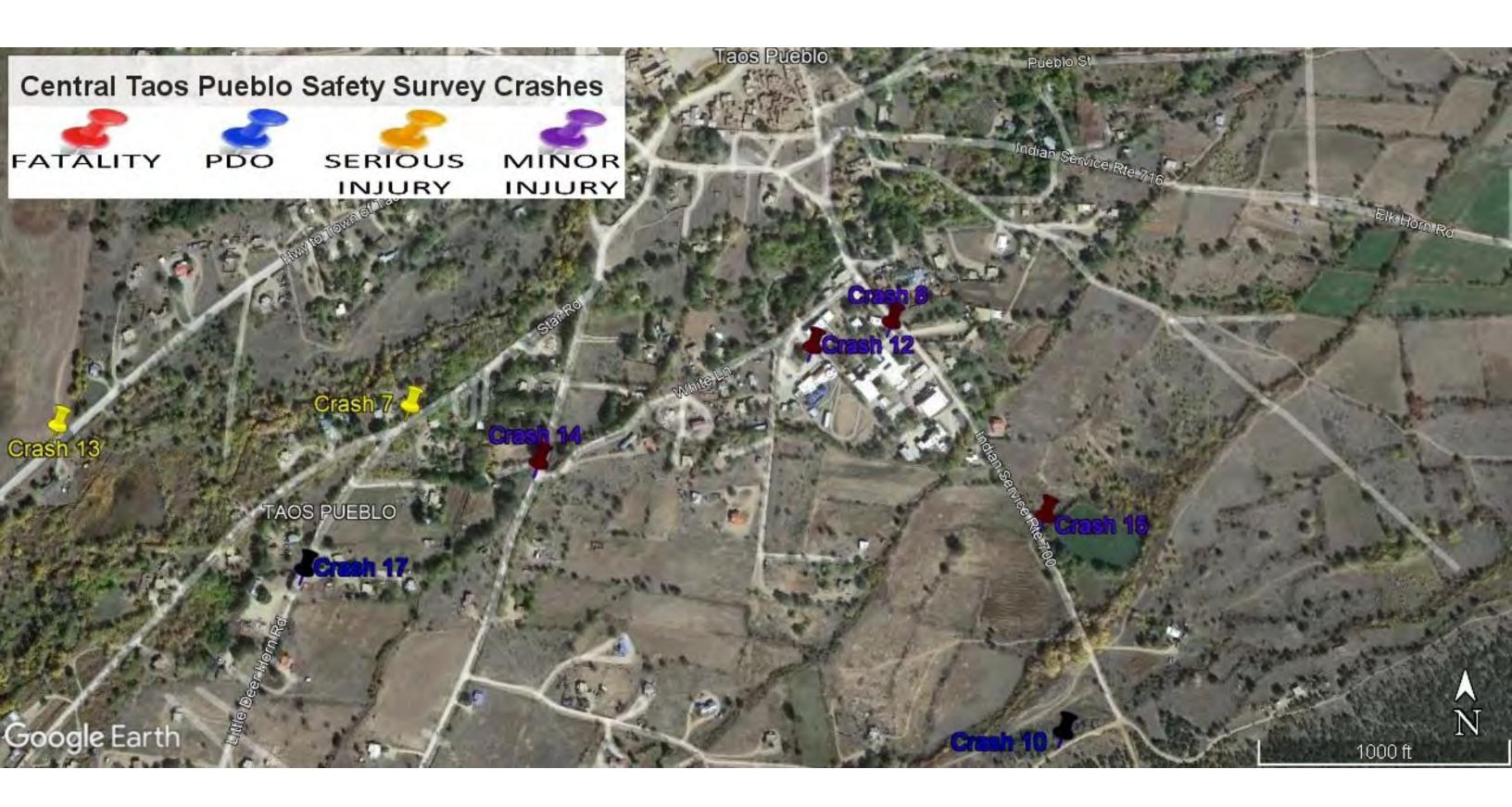
People (drivers) need to yield to oncoming traffic. The roadway between Bud Mirabal's residence and the Governor's Office must be a tribal-wide effort. ATV enforcement; night patrolling; lack of material on roads. Gravel all major roads that are needed. Hail Creek Road has no shoulder if you go off the right side of the road. School parking and drop-off. Road next to Casino S-curve unable to make turn safely. Intersections on dirt roads; e.g., near Star and Little Deer Horn. Appropriate pedestrian-bicycle lanes. More police officers to patrol the roads. Traffic control. This [sic] officers are not visible in the Rez to reduce speed. People driving too fast on the back roads; too much dust on the roads; hard to see. Improved signage and information. Tourist/non-tribal education to better understand/comply with laws/rules. Improved accuracy of roadway inventory, so E911/Google is current and accurate. Better roads. Damaged road signs.

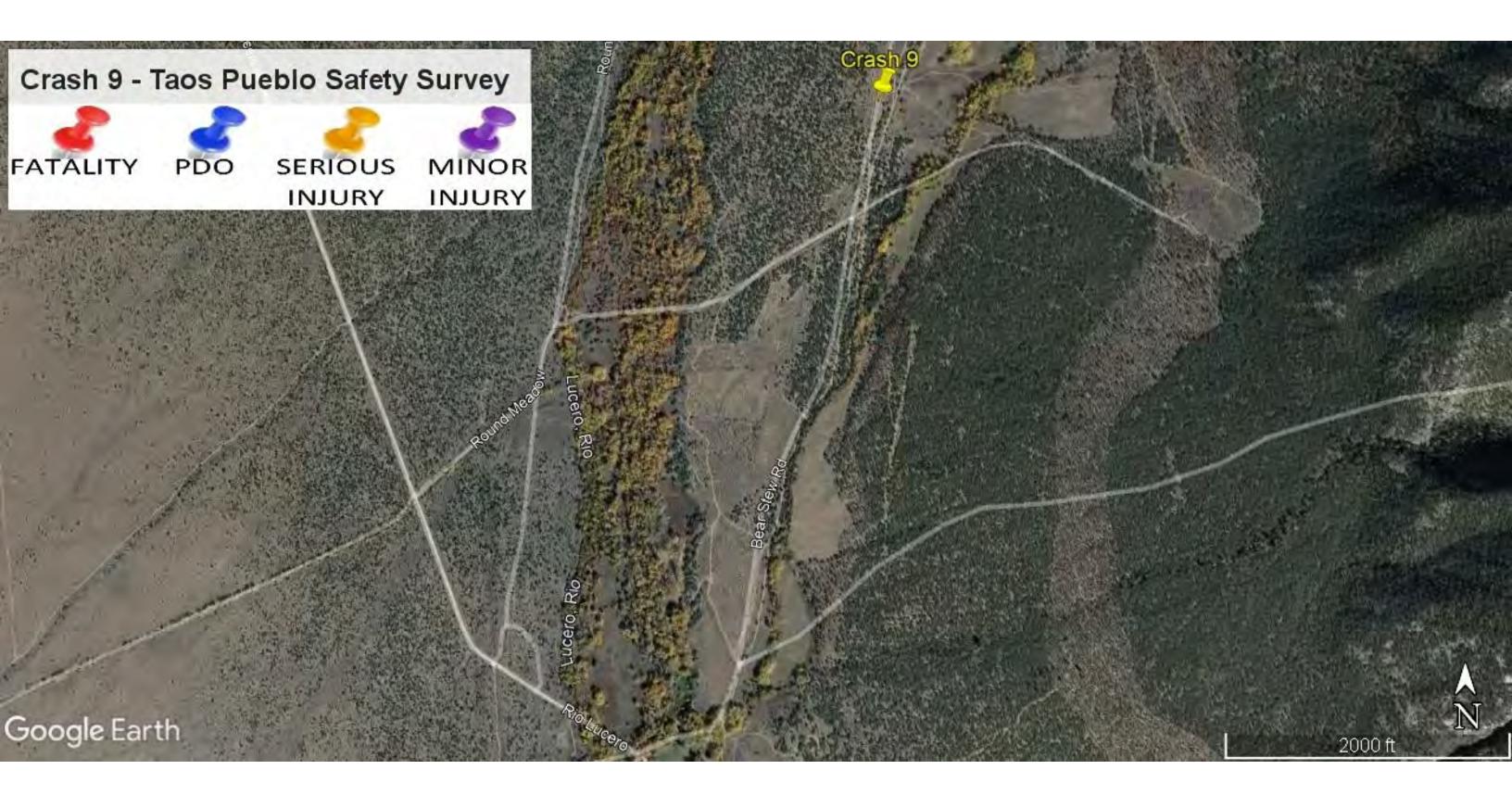
Thank you for helping to make Taos Pueblo safer!

Please contact Vernon Lujan, Director and Transportation Planner, if you have questions: (575) 758-8626, extension 101; email: VLujan@taospueblo.com











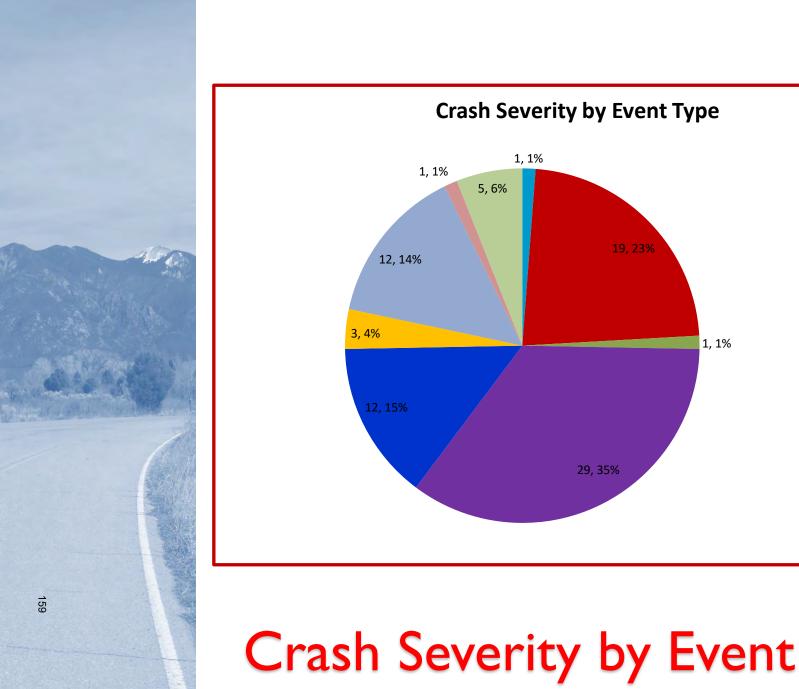




Taos Pueblo, New Mexico

Road Safety Data Analysis 1988 - 2018 Crash Data

Please Note: This is a large time period, and the user will want to keep in mind that there may have been significant changes on some roadways during this lengthy time span. Further, some data was collected anecdotally, some from Taos Pueblo PD & the bulk from the NMDOT.



Crash Severity by Event Type

Animal

■ Fixed Object Other Object Other Vehicle

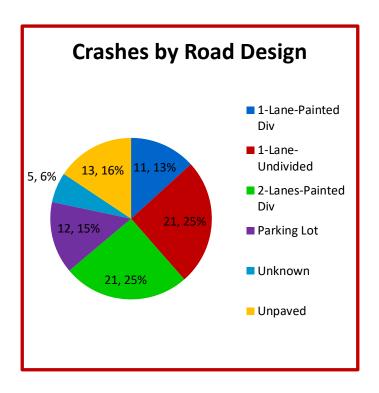
■ Parked Vehicle

Pedestrian Rollover

■ Rollover-Left Unknown

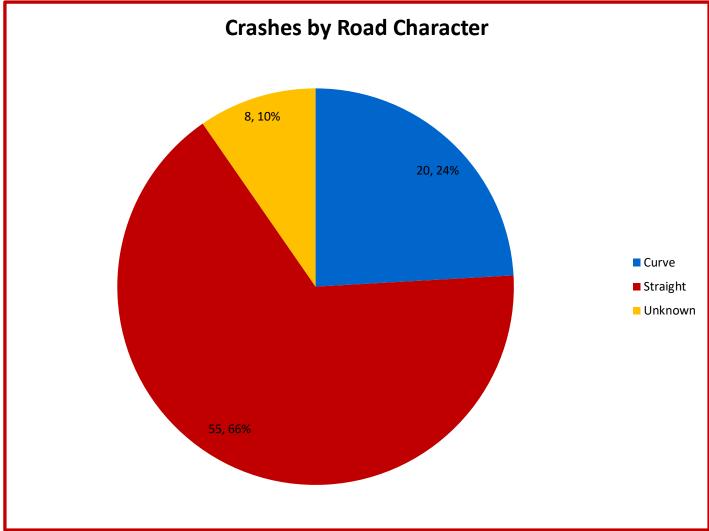


Crashes by Road Design



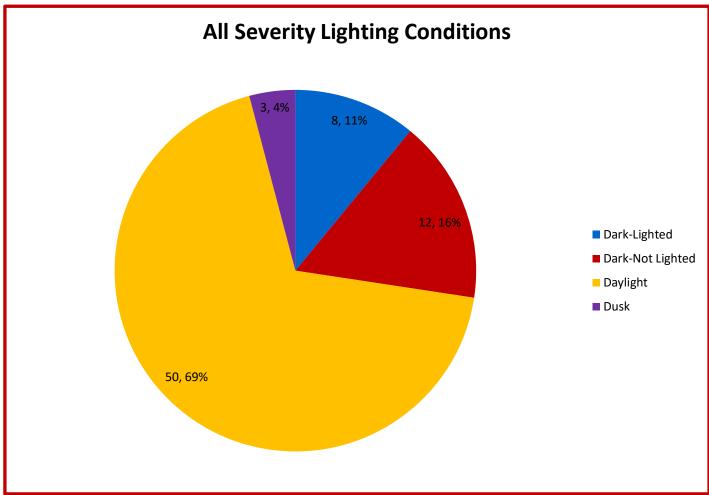


Crashes by Road Character

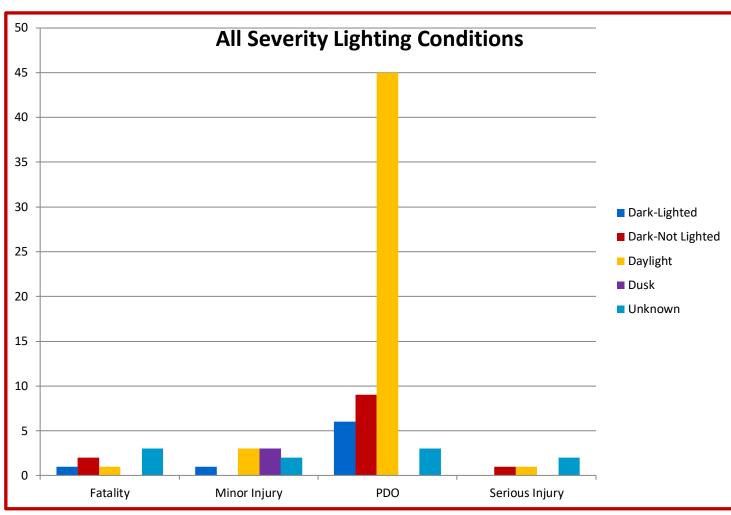




Light Conditions



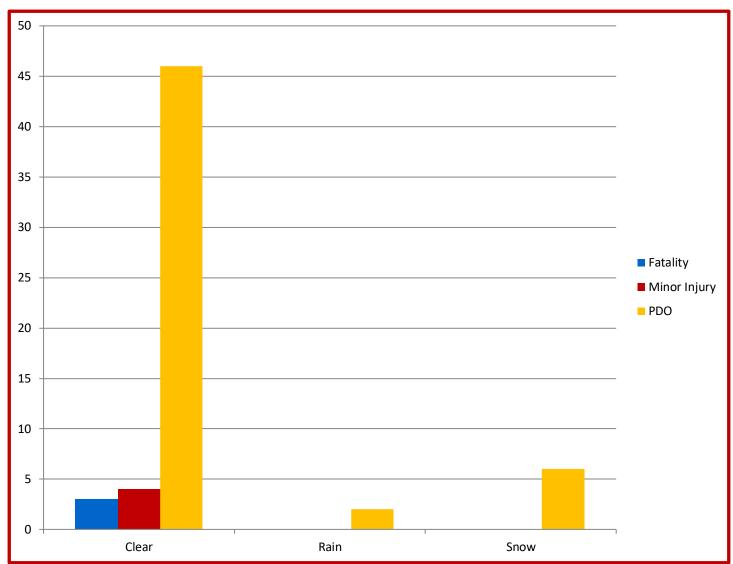




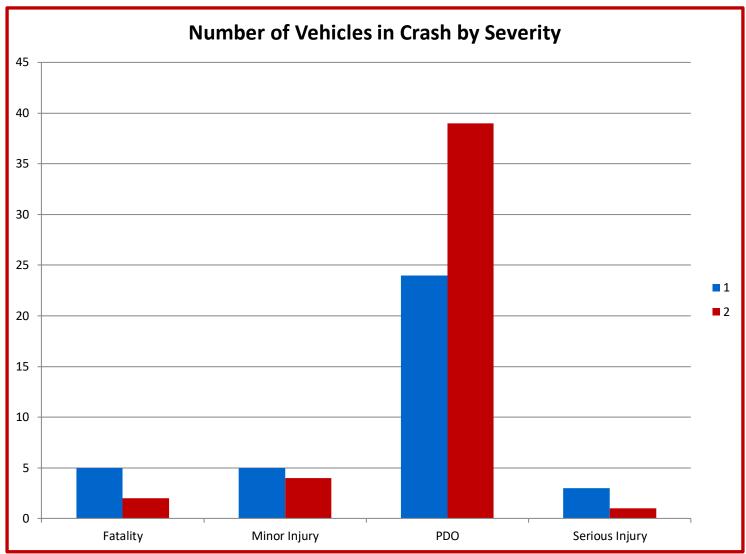


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Weather Conditions



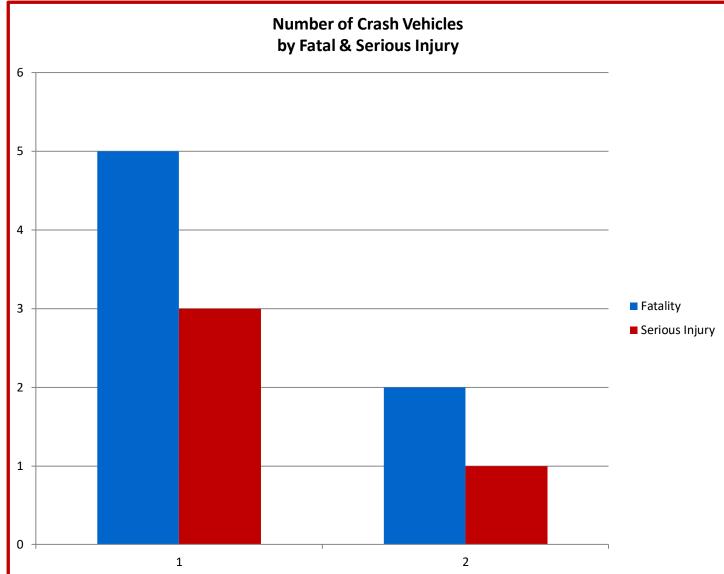






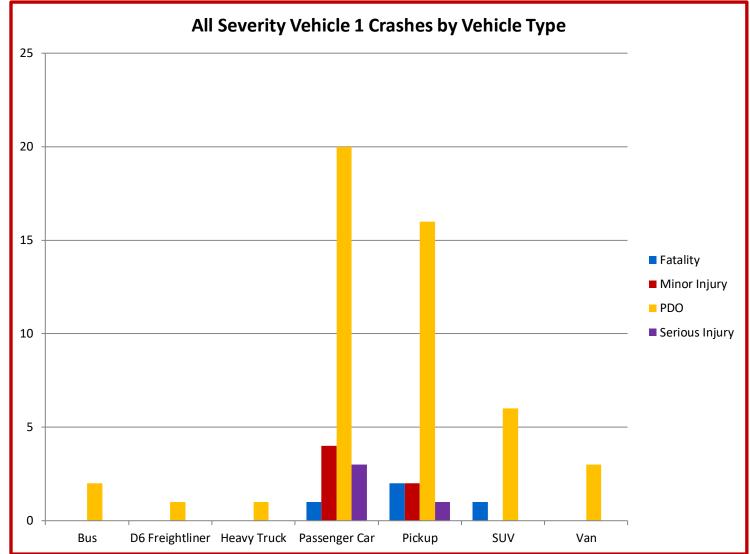


Number of Vehicles in Crash

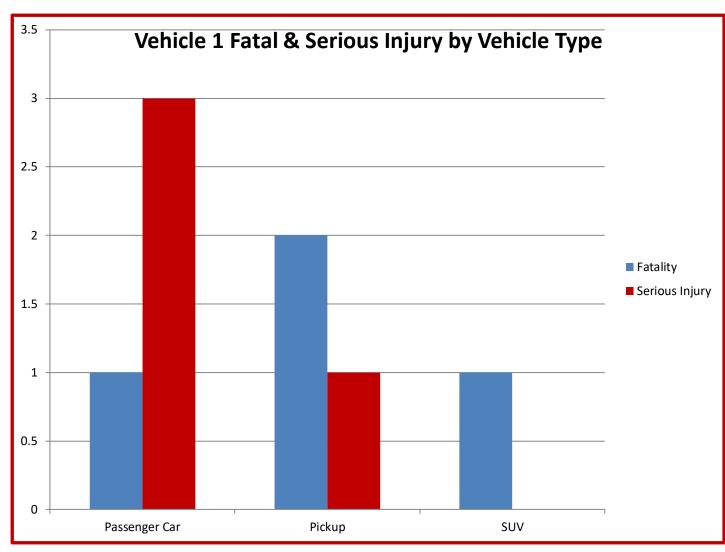




All Severity Vehicle | Crashes by Vehicle Type

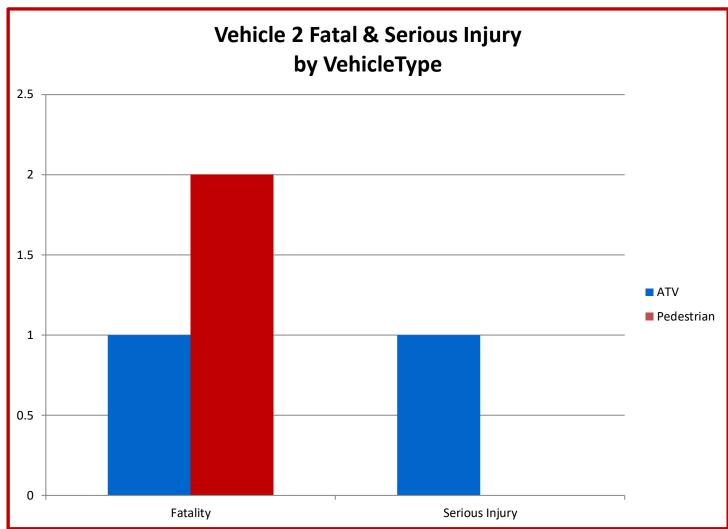


Vehicle I Fatal & Serious Injury Crashes by Vehicle Type



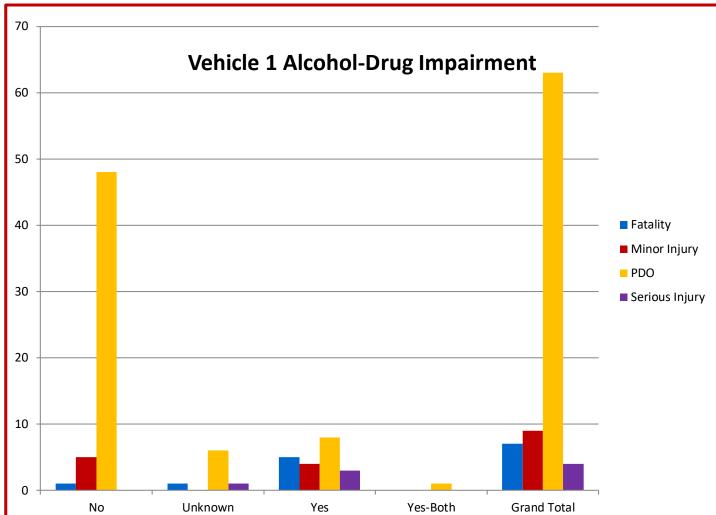


Vehicle 2 Fatal & Serious Injury Crashes by Vehicle Type



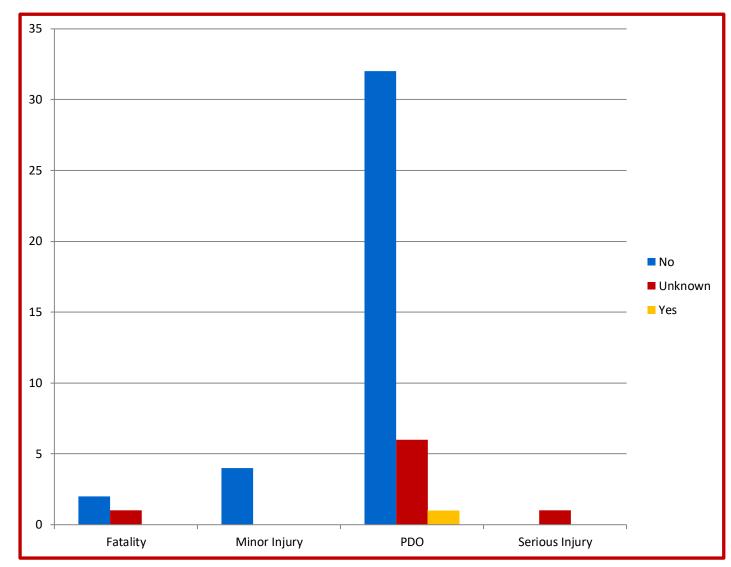


Vehicle I All Severity Alcohol/Drug Impairment



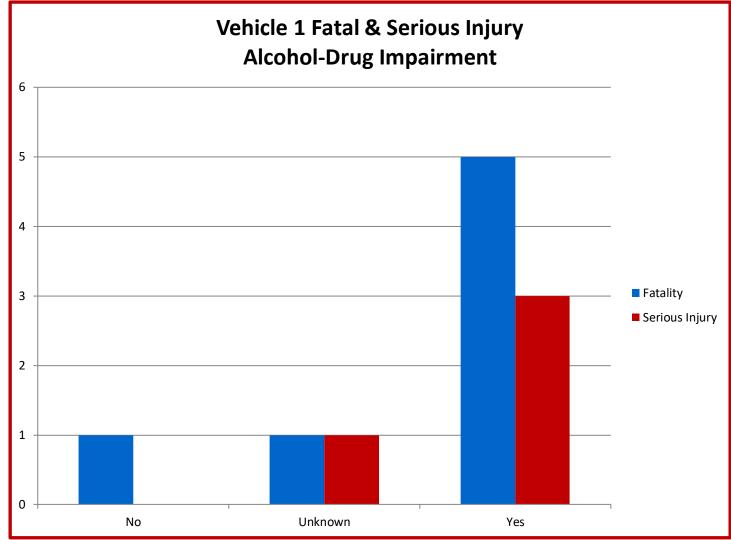


Vehicle 2 All Severity Alcohol/Drug Impairment



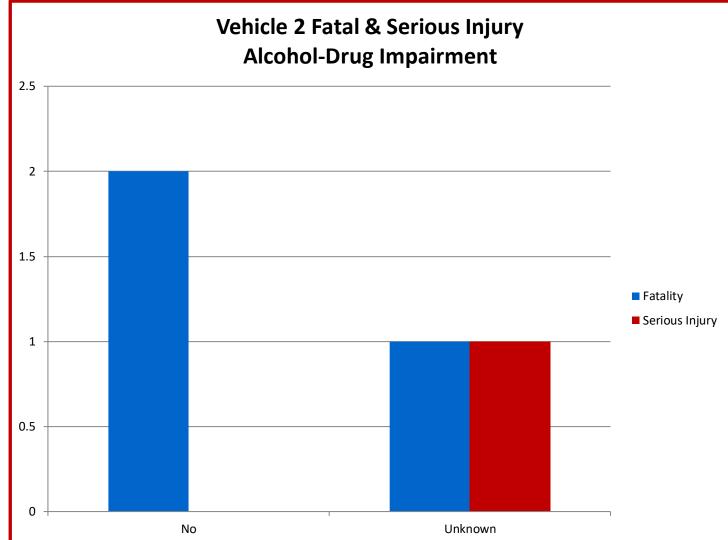


Vehicle I Fatal & Serious Injury Alcohol-Drug Impairment



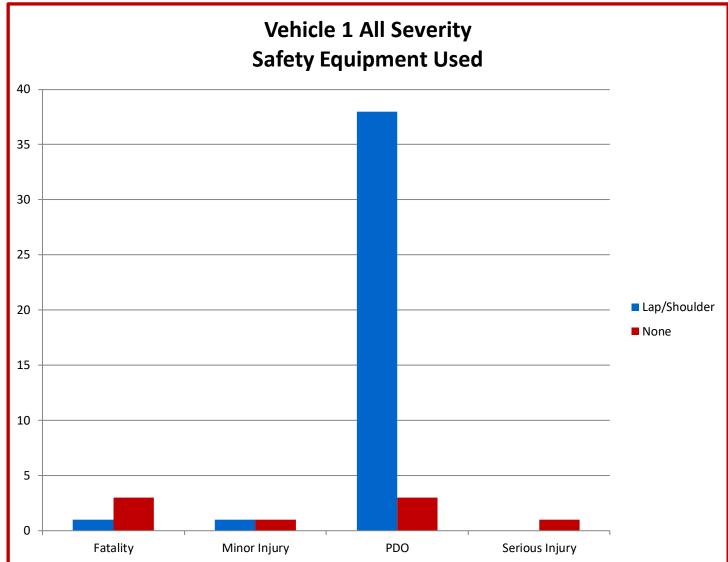


Vehicle 2 Fatal & Serious Injury Alcohol-Drug Impairment



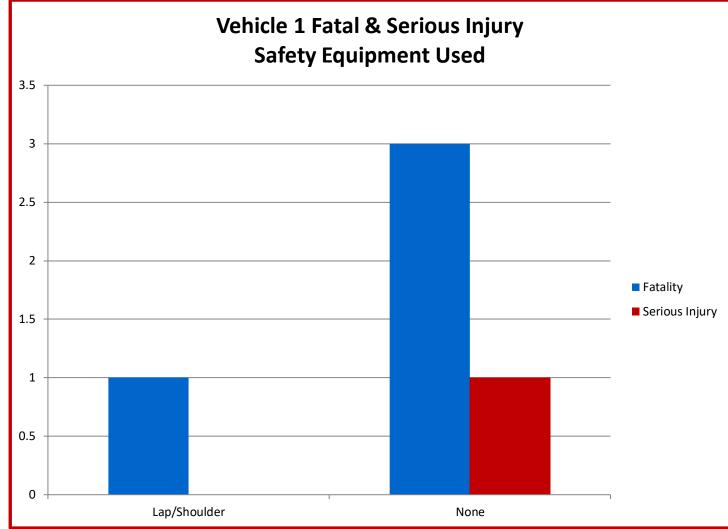


Vehicle I All Severity Lap Belt/Shoulder Harness Used



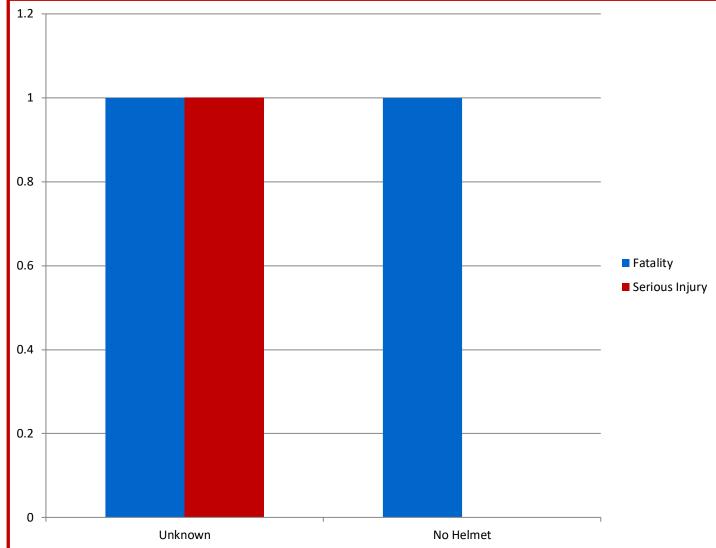


Vehicle I Fatal & Serious Injury Lap Belt/Shoulder Harness Use



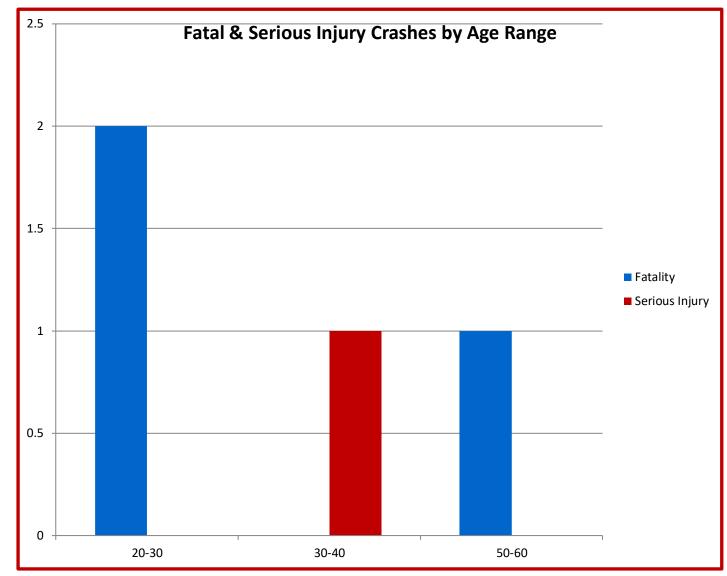


Vehicle 2 Fatal & Serious Injury Safety Equipment Use



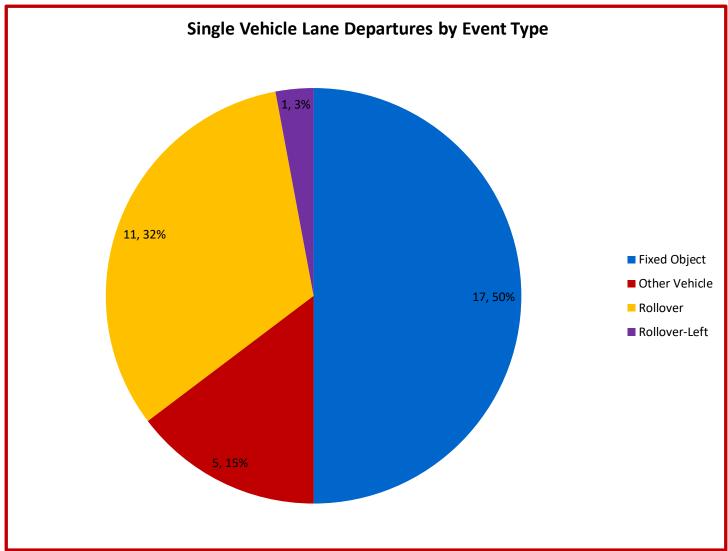


Driver Age - Fatal & Serious Injury Crashes

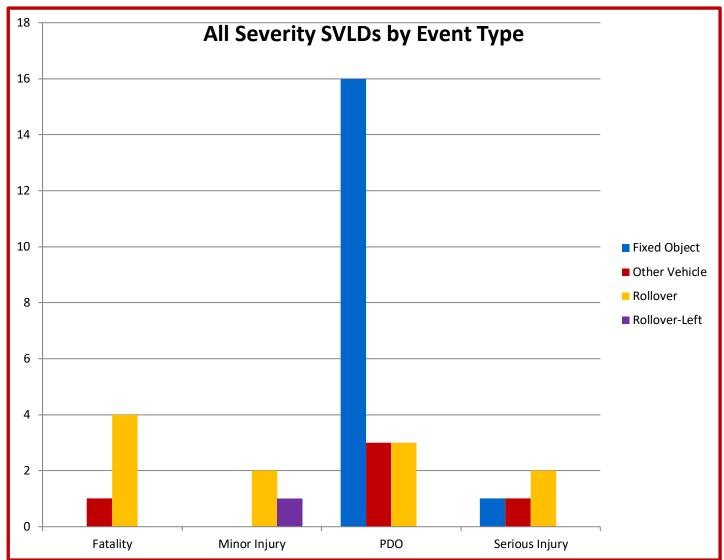




Single Vehicle Lane Departures by Event Type

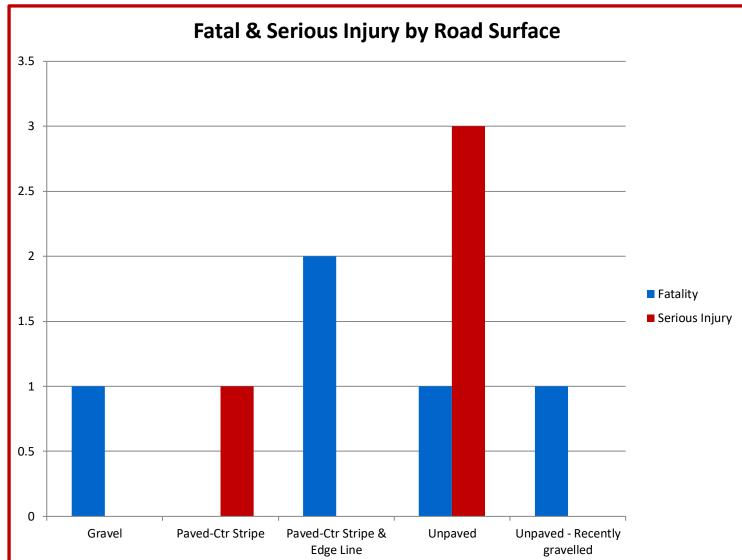


All Severity Single Vehicle Lane Departures by Event Type





Fatal & Serious Injury by Road Surface



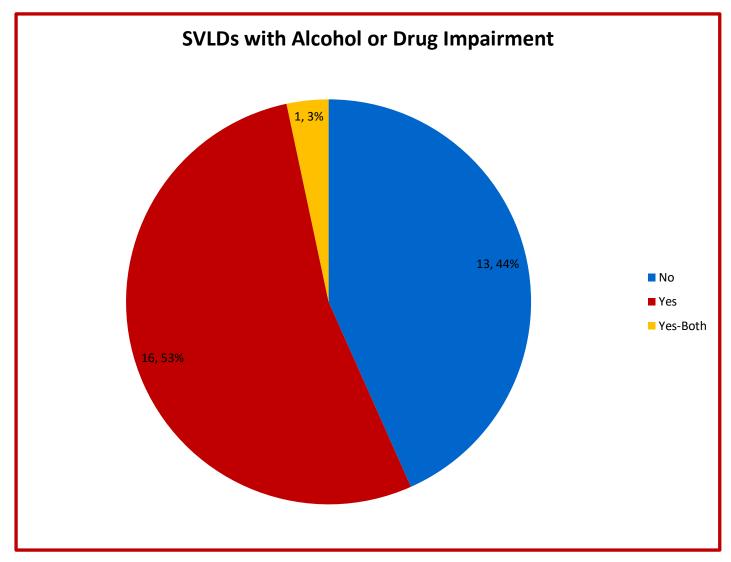


SVLDs by Road Name

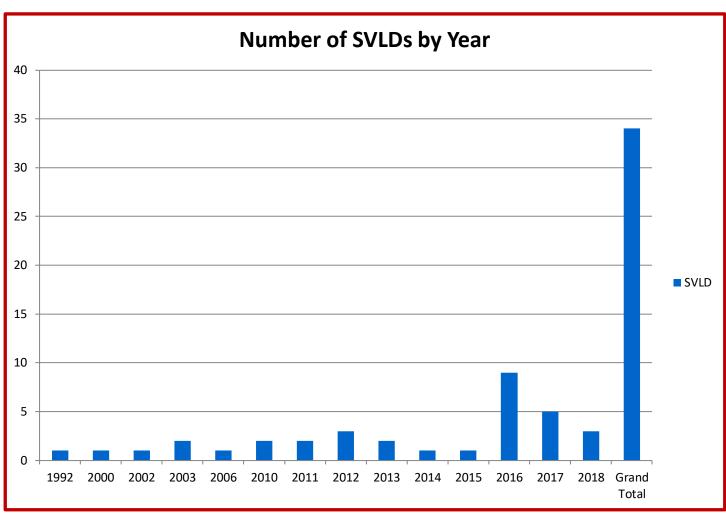
Number of SVLDs by Road Name	
Road Name	# SVLDs
El Salto Road	1
Hail Creek Road	3
Las Animas Road	1
Little Deer Horn Road	4
NM150	6
NM230	2
North Bear Stew	1
North Canyon Road	1
Paseo del Pueblo Norte/US64	1
Sage Brush Road	1
Smoke Shop Parking Lot	1
Spider Rock Road	4
Star Road	2
Upper Canyon Road	1
Veteran's Highway	4
White Road	1
Grand Total	34



Single Vehicle Lane Departure Crashes Alcohol/Drug Impairment Reported

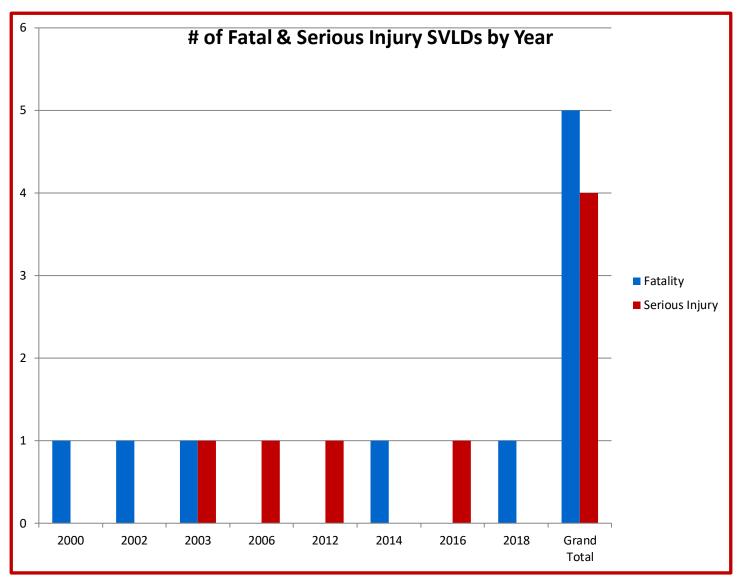


SVLDs by Year











MEMORANDUM OF AGREEMENT BETWEEN THE _____ TRIBAL GOVERNMENT AND THE TOWN OF _____.

I. Parties The parties to this Memorandum of Agreement (MOA) are the Tribe (hereafter referred to as "Tribe") and the Town of (hereafter referred to as "Town").
II. Purpose The purpose of this MOA is to develop an annual Community Streets Maintenance Plan with identified priorities for the community streets of the Tribe and Town, and to establish roles and responsibilities of the Town and the Tribe to address the unmet maintenance needs on both the Town and Tribally-owned routes.
WHEREAS, the Town of has the responsibility for the Town ofowned community routes, and may not receive adequate funding through state revenue sharing or other funding sources to address the maintenance and safety needs of the community; and
WHEREAS, the Tribe receives funding through the Tribal Transportation Program (TTP) to conduct transportation-related activities for routes that are owned by the Tribe, and regulations allow for the TTP maintenance funding to be used for maintenance of Town-owned facilities when a MOA between the entities has been executed.
THEREFORE, in consideration of the above premises, the parties have agreed to the following:
III. Responsibilities
Administration of Jointly-Shared MOA: All administration and operational activities shall occur when the Director and Transportation Planner and the appropriate Town representative have communicated and collaborated to address the ongoing maintenance needs of all community streets. Tribal Government:
1. Maintain all community streets that are listed in the Tribal Government's
National Tribal Transportation System Inventory as public and/or owned and maintained by the
Town of 2. Provide funding when available for year-round community streets maintenance that includes snow removal.
3. Provide training for qualified operators through the Personnel and Planning departments.
4. Provide maintenance and repair of any Town equipment while in use by the Tribe maintenance staff.
5. Assist the Town with the development of an annual Community Streets Maintenance Plan.

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- 1. Provide use of Town-owned maintenance equipment to provide additional support to address Tribe community streets maintenance activities.
- 2. Annual participation in the mandatory public meeting process to present Tribe's Tribal Transportation Improvement Plan (TTIP) for public review and comment.
- 3. Assist the Tribe with the development of the annual Community Streets Maintenance Plan.
- 4. Provide additional funding when available for special maintenance projects or activities.
- 5. Allow access through Town rights-of-ways and easements for tribal maintenance activities.

IV. General Principles

This MOA is neither a fiscal nor a financial document. Any endeavor involving reimbursement or contribution of funds between the parties hereto shall be handled in compliance with all applicable laws, regulations, and procedures.

Amendments or modifications to this MOA may be made upon written consent of all parties. This Memorandum shall remain in effect until terminated by either party, following a written notice submitted at least 30 days in advance.

This Memorandum of Agreement shall become effective on the date signed by both parties hereto.

Signed by:	
Governor	Date
ATTEST:	
Director and Transportation Planner	Date
Town of Title:	Date
	Date

EXHIBIT 5.1 - TRIBAL REQUEST FOR SERVICES

from:
(Insert Name of Federal agency you are requesting services from)
NOTE: Before using this form, please check with the Federal Agency you are requesting services from.
Please provide the information requested below. Be as <u>detailed and specific</u> as possible . Your answers will help determine whether we have the ability to meet your needs.
Name of Project:
Location of Project: (Please attach a map.)
State:
County/Borough/Tribal Lands:
GPS Coordinates: Latitude Longitude
Purpose, Need, and Major Objectives of Project:
What transportation need does the existing road serve?
What transportation need will the new project solve?
What type of vehicles will use this transportation project?
What is the population base or traffic volume that it will serve?
What is the desired season of use? (e.g. year round all weather, seasonal use only, etc.)
Why is this project so important?

What would result if the project does not g	get delivered?
Is this project adjacent to or associated wi	th other anticipated work?
ng Conditions: (Please attach photos.)	
What does the existing road template look condition, drainage conditions, culvert con	clike? Width, road surface type, road surface addition, slope condition, bridge condition:
of Ducinets (Attack any scane defining decu	monts l
of Project: (Attach any scope defining documents of project)	ments.)
Starting point of project:	
Ending point of project:	
Length of project:	
items of work anticipated: Check all that a	pply.
☐ reconstruct new roadway	\square recondition existing roadway
☐ spot alignment improvements	☐ bridges
☐ large culverts	☐ fish passage culverts
☐ slope stabilization	☐ retaining walls
☐ repairing frost heaves/soft spots	☐ aggregate surface
□ paved surface	☐ Other:
Is a current Right-of-Way or are Easement entire new project?	s in place for construction and maintenance of the
□ Yes □ No	
Who are the underlying landowners?	

	Do the landowners support the project?			
	Are utilities located within the roadway template that would be affected when constructing to new project?			
	Where are the closest mate	erial sources and dispose	al sites?	
	When are the typical construction months?			
	accomplished to date either work documents. Check all t		e been known pei	formed by others: (Please
	☐ scoping reports	☐ conceptual s	tudies	☐ technical reports
	☐ alternative analysis clearances	☐ environment	al studies	☐ environmental
	☐ construction permits clearance	□ plan sets		☐ right-of-way
	☐ utility relocation	☐ construction	procurement	☐ construction
eque.	sted development activities	and deliverables: (Spec	ify activities and c	objectives you want the
ques	ted Federal Agency to perfor	m. Check all that apply.)	
	☐ scoping reports	☐ conceptual s	tudies	☐ technical reports
	☐ alternative analysis clearances	☐ environment	al studies	☐ environmental
	☐ construction permits clearance	☐ design plan s	ets	☐ right-of-way
	☐ utility relocation☐ Other:	□ construction	procurement	☐ construction
ritica	delivery dates of major del	iverables listed above:		
	<u>Major Deliverable</u>	Critical Date	Reas	on for criticality
	Design plans completed			,
	Construction end			
	Construction start			

What work will you perform: (Specify	activities and objectives you will p	perform. Check all that apply.)
☐ staff ☐ technical reports studies	☐ scoping reports☐ alternative analysis	☐ conceptual studies☐ environmental
□ environmental clearances□ right-of-way clearanceprocurement□ construction	☐ construction permits☐ utility relocation	□ plan sets □ construction
Current cost estimate for this project:		
Engineering:		
Construction:		
Construction Administration: _		
What guidelines to be followed: Include regulations, MOUs with regulatory agent Low Volume Local Roads Guidelines, et	ncies, etc. Please be specific: (e.g	
Issues or unusual aspects of this project (Risks, environmental issues, public con		
Funding Information:		
Is the project approved through	federal/state/local/tribal plannii rtation Improvement Program, or	

Wha	t specific type and amount of the funds are to be used for this work?
Who	has the funds at the current time?
Is the	ere any time criteria or expiration date limit associated with the funding?
 How	will you compensate the Federal Agency performing this work (transfer funds, check, etc.)?
	formation
Cont	act for technical questions: Name:
	Phone Number:
	E-mail Address:
Auth	orized person to enter into agreement:
	Name:
	Phone Number:
	E-mail address:
bmit	ted:

Attach Additional Pages for Comments or to provide more information.

Please return completed form to the representative of the Federal agency you are requesting services from.

Interview Questions

As Taos Pueblo prepares its Tribal Transportation Safety Plan, the Taos Day School Principal (and/or other key school personnel) is uniquely qualified to provide essential information to help the consultant understand the issues that are important to the school and local community. Below are a number of questions that will give the consultant a better picture of Taos Day School's specific demographics and challenges.

School population

- How many students are enrolled at Taos Day School for SY17-18? 83
- What grades do they represent? Kindergarten through sixth grade
- How many students walk or bicycle regularly?

There is one student who regularly bicycles from across the street.

How many more walk or bike on an occasional basis?

There are nine students who bicycle when the weather is accommodating.

Is there anything the consultant needs to know about the dynamics of the school population?

The student population is 100% Native American.

Are students bused to this school from other parts of the Pueblo?

Yes. In fact, the bus route is 54-miles in length each way, as students are picked up from Llano Quemado at the route's south end; from out east of Taos Pueblo about five or six miles; and from the intersection of State Routes 68 and 230 at the blinking light intersection.

- Or, do all of them live within the immediate vicinity? NO.
- Where do most students live with respect to the school property?

On Taos Pueblo, the students live within the boundaries of its 19 acres. Outside of the Pueblo, students may live well beyond the walk or bicycle zones within housing projects or residential neighborhoods.

• Do you have a map of the school zone boundaries, and/or a map of the walk zone that you can provide electronically to the consultant? Yes, provided.

Policies and plans

- Are there any policies that the consultant needs to know about? NO.
- Are children allowed to bicycle to school? YES.
- Is there a certain road they are not allowed to cross? NO.
- Does your school hold a Walk to School Day event?

No, but we are interested in learning more about how to host a Walk to School Day event.

Interview Questions

• Is this school slated to undergo any type of major reconstruction/renovation project in the near future that might change or improve the parking and circulation pattern on the school grounds?

No, but we are reviewing the existing drop-off zones in front of the Day School and the Head Start for potential infrastructure and traffic flow improvements, which could reduce student-vehicle interactions and improve student safety. One example was changing the school bus entrance, because there were conflicts with cleaning vehicles that entered/exited the campus. Those conflicts are now resolved.

Drop-off and pick-up

- What is the span of time in which children arrive in the morning? From about 7:20 to 7:40 a.m.
- What is the span of time in which children depart? From about 3:15 to 3:25 p.m.
- Is there a departure procedure, i.e. are children who ride buses dismissed first, then walkers, then children being picked up by private vehicles?

Only to the extent that students are seated on the school bus by grade. Additionally, students are supposed to be in front of their respective schools for pick-up and drop-off.

Where can children access the school at different times of day (drop-off, pick-up, mid-day)?

Parents and students can access the schools by their front entrances only, as all other doors are kept locked during the day.

In other words, are doors locked at different times of the day? See above.

Safety

What are your concerns regarding student safety with respect to traffic?

The main concerns are parent speeding and their failure to consistently follow prescribed traffic flow patterns through the parking lots. Additional concerns include the lack of local bike lanes, and potential student conflicts with the pedestrian traffic crossing the campus to/from the Recovery Center.

The School Board is aware of the bus and traffic flow safety challenges, the near misses between students and vehicles, and the fender benders, which have occurred, as well as the schools' various attempts to address those challenges; e.g., sandwich board placement to direct traffic.

Shadow Lane requires considerable attention to maintain its safety. Because of the roadway's slope, runoff drains onto Indian Service Route 700 year round and accumulates as ice in shadowed areas when there are freezing temperatures. Thus, salt and snow removal are required after snow storms and at times during the winter months. Further, additional signage (e.g., "Watch for Children" signs) is needed to demarcate the roadway and culvert and to warn drivers that students who are hard to see beyond the foliage may suddenly be present in the intersection with Service Route 700.

Have there been parent complaints on this issue?

Parents who practice safe driving and parking lot habits do occasionally complain about those that speed and neglect the traffic flow patterns.

Interview Questions

Have there been any serious pedestrian injuries or fatalities in recent years about which we should be aware?

A teacher who was illegally parked by the War Chief's vehicle was accidentally hit. Thus, the school administration is considering the designation of that parking space as being for emergency vehicles only.

• Are you aware of any pedestrian or bicycle safety lessons that are taught at the school, either during P.E., or in the classroom?

Yes, Gearing Up Bicycle Shop provides bike safety lessons, helmet fittings, and helmet giveaways through a 21st Century Community Learning Centers grant. Fit Taos takes fourth, fifth, and sixth graders mountain biking.

- Who teaches these classes? See above.
- Do you have a Student Safety Patrol at the school (i.e. student volunteers who might stand outside the school and facilitate pick-up and drop-off)?

No, but we are interested in learning more about those kinds of programs.

Other

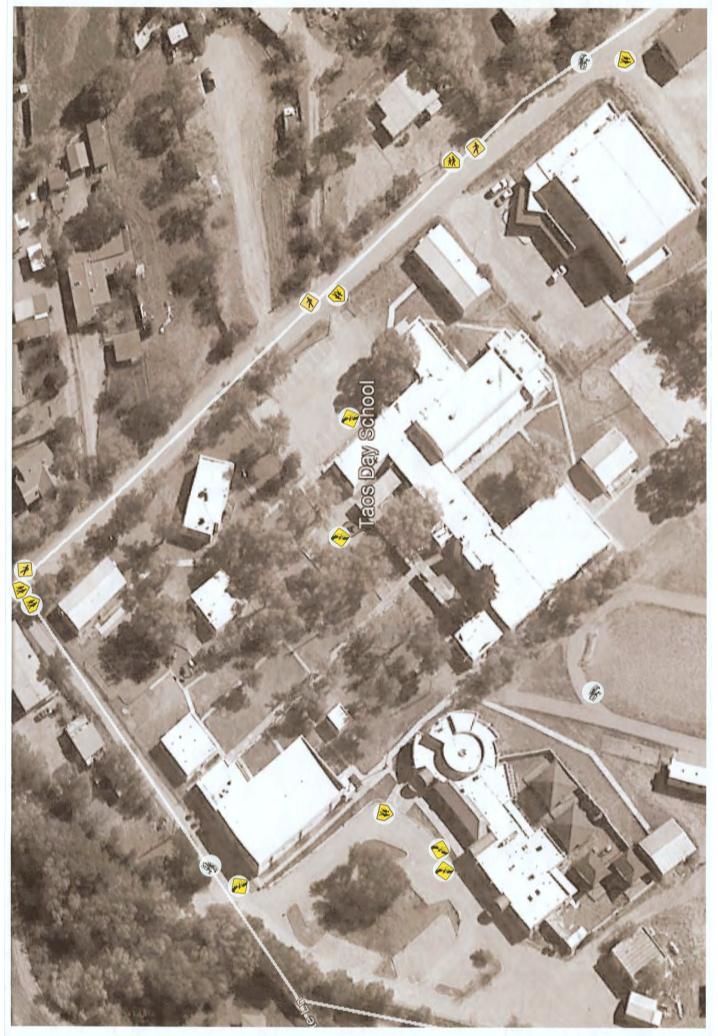
• Are there any other issues that the consultant should know about that might affect Taos Day School's ability to encourage students to walk or bike to school?

ADA compliance across the campus needs to be improved to ensure that the law is adequately met, and due to the increase in disabled student enrollment; e.g., the current student body includes a student with muscular dystrophy.

• Are the parents or PTA involved at the school?

A PTO is involved, but remains a separate organization from the school.

■ The consultant will need photographs of the students for the Tribal Transportation Safety Plan Meeting PowerPoint, as well as for the Taos Pueblo Tribal Transportation Safety Plan. The consultant will try to take photos from a distance or from behind, so that viewers can not identify the children who are in the photos. If useful photos in which the children are readily identifiable are acquired, the consultant will seek permission to utilize those photos. Please be sure to inform school staff, parents, and students that the consultant is authorized to be on site taking photos.



Interview Questions

As Taos Pueblo prepares its Tribal Transportation Safety Plan, Enos Garcia Elementary School's Principal (and/or other key school personnel) is uniquely qualified to provide essential information to help the consultant understand the issues that are important to the school and local community. Below are a number of questions that will give the consultant a better picture of Enos Garcia Elementary School's specific demographics and challenges.

School population

How many students are enrolled at Enos Garcia Elementary School for SY17-18? What grades do they represent? 506 students

Pre-Kinder: 25 Kinder: 71 First Grade: 80 Second Grade: 69 Third Grade: 69

Fourth Grade: 96 Fifth Grade: 97

How many students walk or bicycle regularly? Zero How many more walk or bike on an occasional basis?

Zero

Is there anything the consultant needs to know about the dynamics of the school population?

Our students come on the school bus and/or parent pick up/drop off. Also there are several students for whom the school bus is the only form of transportation.

Are students bused to this school from other parts of the Taos and/or Taos Pueblo community?

Students are bussed within the EGES boundaries, which also includes the Taos Pueblo.

Where do most students live with respect to the school property?

Students live a distance of one or more miles away from school.

Do you have a map of the school zone boundaries, and/or a map of the walk zone that you can provide electronically to the consultant? This information is available in the Transportation Department (575) 758-5291.

Policies and plans

- Are there any policies that the consultant needs to know about? Are children allowed to bicycle to school? Is there a certain road they are not allowed to cross? No, not to our knowledge.
- Does your school hold a Walk to School Day event? NO.
- Is this school slated to undergo any type of major reconstruction/renovation project in the near future that might change or improve the parking and circulation pattern on the school grounds? NO.

Drop-off and pick-up

What is the span of time in which children arrive in the morning? (7:20 - 8:30 a.m. - 50 - 70 minutes)

• What is the span of time in which children depart? (3:30 - 3:55 p.m. Monday through Thursday and 1:30 – 1:55 p.m. on Fridays - 20 to 25 minutes). Is there a departure procedure, i.e. are children who ride buses dismissed first, then walkers, then children being picked up by private vehicles?

Yes. Students depart to their assigned pick areas (school buses or pick up/drop off)

• Where can children access the school at different times of day (drop-off, pick-up, mid-day)? Main office. In other words, are doors locked at different times of the day? Yes.

Safety

• What are your concerns regarding student safety with respect to traffic? Have there been parent complaints on this issue? Have there been any serious pedestrian injuries or fatalities in recent years about which we should be aware?

Waiting on line for pick up.

- Are you aware of any pedestrian or bicycle safety lessons that are taught at the school, either during P.E., or in the classroom? Who teaches these classes? NO.
- Do you have a Student Safety Patrol at the school (i.e. student volunteers who might stand outside the school and facilitate pick-up and drop-off)? Town of Taos Police and staff on duty.

Other

• Are there any other issues that the consultant should know about that might affect Enos Garcia Elementary School's ability to encourage students to walk or bike to school?

Due to distance from home and active traffic, walking and riding a bicycle could become a safety issue.

Are the parents or PTA involved at the school?

Yes. We have a very strong Parent Teacher Volunteer Committee (PTVC).

• The consultant will need photographs of the students for the Tribal Transportation Safety Plan Meeting PowerPoint, as well as for the Tribal Transportation Safety Plan. The consultant will try to take photos from a distance or from behind, so that viewers can not identify the children who are in the photos. If useful photos in which the children are readily identifiable are acquired, the consultant will seek permission to utilize those photos. Please be sure to inform school staff, parents, and students that the consultant is authorized to be on site taking photos. Not a problem, we will be able to obtain a picture release form from parents.

Drop Off/Pick Up

2015-2016



Imagine Prep @ Surprise 14850 N 156th Avenue Surprise, AZ 85379

Phone: 623-344-1770 Fax: 623-344-1780 www.surpriseprep.com

Student Pick up Map 7th Grade @ 3:45 (Wed. 1:45) EXIT 8th Grade @ 4:00 (Wed. 2:00) 9th Grade @ 4:00 (Wed.2:00) L1th & 12th Grade @2:45 (Wed. 1:08) loth Grade @ 4:00 (Wed. 2:00) 5th Grade @ 3:45 (Wed. 1:45) West Custer Lane Please DO NOT use the parking lot to drop off or pick up AM Drop off for all students is on the South side of the building. 156th Avenue

DO NOT MAKE A LEFT TURN INTO THE SCHOOL PICK UP LANE

Arrival

All students should be dropped off at the South end of the building. Students must enter through the bistro in the morning (the bistro doors open at 7:00 am).

Dismissal

6th-North Parking Lot (front of school) @ 3:45 pm

7th– West side of the school @ 3:45 pm

8th– West side of the school @ 4:00 pm

9th-South side of the school @ 4:00 pm

10th- North Parking Lot (front of school) @ 4:00 pm

11th & 12th- Front of School @ 2:44 pm

For safety reasons do not drop off or pick up students outside of designated areas.

It is recommended that you arrive 5 minutes after your student is scheduled to be dismissed. If you arrive too early you may be asked to circle around.

Mon., Tues., Thurs. & Fri:

- 7:50 am—Zero Hour begins (11th-12th grade)
- **8:00 am** Computer Lab Opens—Room 315
- 8:50 am 6th-10th grade classes begin
- **2:44 pm** 11th-12th grade dismissed
- **3:45 pm** 6th-7th grade dismissed
- **4:00 pm** 8th-10th grade dismissed

Wed. Early Release:

- 7:50 am—Zero Hour begins (11th-12th Grades)
- **8:50** am—6th-10th Grade classes begin
- 1:08 pm—11th-12th grade dismissed
- 1:45 pm—6th-7th grade dismissed
- **2:00 pm**—8th-10th grade dismissed

