

# 2015 TRIBAL TRANSPORTATION PROGRAM ROADWAY INVENTORY UPDATE & LONG RANGE TRANSPORTATION PLAN

Squaxin Island Tribe



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## **INTRODUCTION**

### **I-1 ORGANIZATION OF THE STUDY**

The LRTP is presented in five distinct parts designed specifically to communicate clear concise information pertaining to the Tribal Transportation Program (TTP) inventory and planning process. The parts are:

- The **INTRODUCTION** of the report is designed to educate the reader on the TTP inventory and planning process, the project scope of work, and the regulation governing the project deliverables and funding. Later in the section we introduce the reader to the Tribe in order to provide a background setting for the plan. The introduction includes information pertaining to the Tribe's:
  - History and Culture
  - Physical Location Description
  - Land Ownership Identification
  - Demographics
  - Existing and Proposed Land Uses
  - Other Transportation Related Information
- **PART ONE - EXISTING TTP INVENTORY** is the section of the report dedicated to the description of what is currently defined as the Tribe's "Official" TTP Inventory.
- **PART TWO - RECOMMENDED TTP INVENTORY** is the section of the report dedicated to detailing the TTP Inventory Update data collection process and information. This section will clearly identify all components of the TTP Inventory that were collected as part of the current TTP Inventory Update. Current roadway condition analysis and GIS mapping provide the backbone to this part of the report. In addition, we will identify proposed roads in which the Tribe is considering constructing to support future development and the improvement of their transportation network.
- **PART THREE – COMMUNITY INVOLVEMENT (PUBLIC SURVEY)** is the section of the report where we document the public's participation in the planning process. As part of the 2015 LRTP effort, the Planning Department conducted a public survey to gather the perspective of the public on all things transportation in and around the Squaxin Island Transportation Network. This section will summarize the finding which

will be used to assist in the identification of current issues, future projects, and the prioritization of those future project efforts.

- **PART FOUR – THE TRANSPORTATION PLAN** is the section that is dedicated to presenting the population, housing, and traffic projection analyzed for the specific 20-year horizon date identified in the scope of work. This section of the report is the conceptual traffic impact analysis of specific future development plans, forecasted land use changes, and population growth. Trip generation analysis in conjunction with traffic modeling, combine in their simplest form, to provide a basic understanding of how and where the existing transportation system will need future roadway and intersection improvements. This analysis provides another level of transportation planning analysis that will assist the Tribe in prioritizing its future expenditures on roadway TTP preplanning and construction. Combined with the future projection other transportation components need to be considered for future funding and improvement. This section will also include transportation emphasis areas such as tribal transit and maintenance conditions.
- **PART FIVE – TRIBAL TRANSPORTATION IMPROVEMENT PROGRAM (TTIP)** is the section of the report dedicated to presenting and supporting the future roadway development plans of the Tribe. Most importantly, the section presents the tribal prioritized project listing (TPPL) in text format which details the future transportation improvements planned by the Tribe. Following the TPPL, Red Plains Professional has generated conceptual engineer's estimates detailing anticipated construction costs for each project identified for future construction activity. Combining the written TPPL with the engineer's cost estimates, we then move forward in the attempt to forecast the Tribe's future TTP project plans in a fiscally responsible table detailing future expenditures anticipated over the next three (3) to five (5) years. It is this table that represents the deliverable to the Tribe's Bureau of Indian Affairs or Federal Highway Administration's Regional Office as the documented TTIP. The TTIP provides the program specific information required to initiate future contracts required to utilize the TTP funding.
- **APPENDICES** will be provided at the end of the written document and referenced specifically throughout the text. They will provide supporting documentation, exhibits, and maps that will support the plan and findings. Several appendices may be in the form of additional report volumes depending on the size and nature of the data within.

## **I-2 TRANSPORTATION PLANNING**

Transportation planning is the process of identifying the transportation facilities utilized by a community to get from place to place, analyzing the social and behavioral transportation tendencies of a community, and then designing and implementing a transportation system that meets the needs/goals of the community effectively and efficiently. Transportation plans are the professional platform designed specifically to enable communication and coordination from one service area to another. Planning transportation networks in today's political and financial environment presents many challenges as service areas are becoming more compartmentalized and specialized. While unique and specialized transportation plans are developed specifically to meet the needs of the community or specific funding source, effective transportation planning must incorporate surrounding transportation networks and cross jurisdictional boundaries to encompass a broader spectrum of need.

## **I-3 TRIBAL TRANSPORTATION PLANNING**

The tribal transportation planning market presents additional layers of complication as each tribal entity is a separate sovereign nation within the United States. There are currently 566 federally recognized tribes in the United States. Tribes across the country have varying levels of success creating and maintaining working relationships with those jurisdictions around them for various reasons. In the past several decades many cooperative relationships have been forged and it is becoming more and more common to have tribal representation within regional transportation stakeholder planning organizations. Where these cooperative relationships have formed both the Tribe and the outside jurisdictions have seen mutually beneficial improvements to the transportation facilities. Typically the more transportation stakeholders you can incorporate into your regional transportation planning organizations the better. One of the main benefits realized by forming these relationships is the expanded resume of potential funding opportunities for your transportation facilities.

## **I-4 GOVERNING REGULATIONS AND FUNDING SOURCE**

The 2015 Long Range Transportation Plan (LRTP) is being funded by the Squaxin Island Tribe and their continued involvement in the TTP. Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21) was signed into law on June 29, 2012. The Indian Reservation Roads Program (IRR) was renamed to the Tribal Transportation Program (TTP) and is now governed by regulations set forth in MAP-21, Section 1119, Federal Lands and Transportation Programs. MAP-21 revises the Tribal Transportation Allocation Methodology percentages and specifies a six year transition between the old funding formula and the new one. MAP-21 is currently established as a twenty-seven month bill expiring September 30, 2014. The regulation still requires the update of Tribal LRTP's every five years. While establishing regulations for inventory updates, the inventory, as it pertains to contributing to the annual tribal allocation, is frozen for the life of

the twenty-seven month law. Federal Highway Administration and the Bureau of Indian Affairs are strongly recommending that tribes continue to update their inventory during the funding freeze. Therefore, during the established regulations life, the tribes' inventory may be updated; however, it will not impact the annual tribal allocation from the TTP Program at the current time. At the time of this LRTP, The Federal Register 25CFR, Part 170, is in the process of being revised and is in draft format.

Historically, the Bureau of Indian Affairs (BIA), in accordance with the 1983 Memorandum of Agreement (MOA) between the BIA and Federal Highway Administration, requires transportation plans to identify and meet transportation needs of Indian tribes nationwide. The MOA and subsequent updates state that the BIA shall carry out a transportation planning process for TTP to support its road construction and improvement program. Current regulations pertaining to the TTP are contained in 25 CFR Part 170. The Safe, Accountable, Flexible, Efficient Transportation Equity Act for the 21st Century – A Legacy for Users (SAFETEA-LU) continued the authorization of Highway Trust Funds (HTF) to be made available each fiscal year under the TTP for obligation to transportation planning.

## **I-5 PROJECT SCOPE OF WORK**

The Squaxin Island Tribe is characterized as a progressive Indian community as it pertains to the betterment of its community. They are always looking for ways to enhance their tribal communities, increase educational opportunities, support tribal enterprises, improve the safety of travelers on their transportation network, and efficiently program their limited TTP funds to accomplish as much as possible. Planning for future developments requiring new construction, while planning improvements to existing transportation facilities, both have been main goals of the Tribe. This specific LRTP project was initiated to meet the requirements of the TTP as detailed in MAP-21 and ultimately support the long overdue update to the TTP-National Tribal Transportation Program Facility Inventory (NTTFI). The Tribe selected Red Plains Professional, Inc. (RPP) as the most qualified candidate to work with and complete the project. The project scope of work includes three main components of a comprehensive tribal planning project: TTP Inventory Update, LRTP, and Tribal Transportation Improvement Program (TTIP). The regulation excerpts governing the project as identified in 25CFR, Part 170 are identified below in italics:



## **I-5.1 IRR INVENTORY UPDATE**

### **25 CFR Part 170.442 What is the IRR Inventory?**

*(a) The IRR Inventory is a comprehensive database of all transportation facilities eligible for IRR Program funding by tribe, reservation, BIA agency and region, Congressional district, State, and county. Other specific information collected and maintained under the IRR Program includes classification, route number, bridge number, current and future traffic volumes, maintenance responsibility, and ownership.*

*(b) Elements of the inventory are used in the Relative Need Distribution Factor. BIA or tribes can also use the inventory to assist in transportation and project planning, justify expenditures, identify transportation needs, maintain existing IRR transportation facilities, and develop management systems.*

## **I-5.2 LONG RANGE TRANSPORTATION PLAN**

### **25 CFR Part 170.410 What is the purpose of tribal long-range transportation planning?**

*(a) The purpose of long-range transportation planning is to clearly demonstrate a tribe's transportation needs and to fulfill tribal goals by developing strategies to meet these needs. These strategies should address future land use, economic development, traffic demand, public safety, and health and social needs.*

*(b) The time horizon for long-range transportation planning should be 20 years to match state transportation planning horizons. A tribe may develop a long-range transportation plan under ISDEAA or may ask BIA to develop the plan on the tribe's behalf.*

### **170.411 What may a long-range transportation plan include?**

*A comprehensive long-range transportation plan may include:*

- (a) An evaluation of a full range of transportation modes and connections between modes such as highway, rail, air, and water, to meet transportation needs;*
- (b) Trip generation studies, including determination of traffic generators due to land use;*
- (c) Social and economic development planning to identify transportation improvements or needs to accommodate existing and proposed land use in a safe and economical fashion;*
- (d) Measures that address health and safety concerns relating to transportation improvements;*
- (e) A review of the existing and proposed transportation system to identify the relationships between transportation and the environment;*
- (f) Cultural preservation planning to identify important issues and develop a transportation plan that is sensitive to tribal cultural preservation;*
- (g) Scenic byway and tourism plans;*
- (h) Measures that address energy conservation considerations;*
- (i) A prioritized list of short and long-term transportation needs; and*

*(j) An analysis of funding alternatives to implement plan recommendations.*

**170.412 How is the tribal IRR long-range transportation plan developed and approved?**

*(a) The tribal IRR long-range transportation plan is developed by:*

- (1) A tribe working through a self-determination contract or self-governance agreement or other funding sources; or*
- (2) BIA upon request of, and in consultation with, a tribe. The tribe and BIA need to agree on the methodology and elements included in development of the IRR long-range transportation plan along with time frames before work begins.*

*(b) During the development of the IRR long-range transportation plan, the tribe and BIA should jointly conduct a midpoint review.*

*(c) The public reviews a draft IRR long-range transportation plan as required by §170.413. The plan is further refined to address any issues identified during the public review process. The tribe then approves the IRR long-range transportation plan.*

**170.413 What is the public role in developing the long-range transportation plan?**

*BIA or the tribe must solicit public involvement. If there are no tribal policies regarding public involvement, a tribe must use the procedures shown below. Public involvement begins at the same time long-range transportation planning begins and covers the range of users, from stakeholders and private citizens to major public and private entities. Public involvement may be handled in either of the following two ways:*

*(a) For public meetings, BIA or a tribe must:*

- (1) Advertise each public meeting in local public newspapers at least 15 days before the meeting date. In the absence of local public newspapers, BIA or the tribe may post notices under local acceptable practices;*
- (2) Provide at the meeting copies of the draft long-range transportation plan;*
- (3) Provide information on funding and the planning process; and*
- (4) Provide the public the opportunity to comment, either orally or in writing.*

*(b) For public notices, BIA or a tribe must:*

- (1) Publish a notice in the local and tribal newspapers when the draft long-range transportation plan is complete. In the absence of local public newspapers, BIA or the tribe may post notices under local acceptable practices; and*
- (2) State in the notice that the long-range transportation plan is available for review, where a copy can be obtained, whom to contact for questions, where comments may be submitted, and the deadline for submitting comments (normally 30 days).*

**170.414 How is the tribal long-range transportation plan used and updated?**

*The tribal government uses its IRR long-range transportation plan in its development of a tribal priority list or TTIP. To be consistent with State and MPO planning practices, the tribe or BIA (for direct service tribes) should:*

- (a) Review the IRR long-range transportation plan annually; and*
- (b) Update the plan every 5 years.*

**170.415 What is pre-project planning?**

*(a) Pre-project planning is part of overall transportation planning and includes the activities conducted before final project approval on the IRR Transportation Improvement Program (IRRTIP). These activities include;*

- (1) Preliminary project cost estimates;*
- (2) Certification of public involvement;*
- (3) Consultation and coordination with States and/or MPO's for a regionally significant projects;*
- (4) Preliminary needs assessments; and*
- (5) Preliminary environmental and archeological reviews.*

*(b) The BIA regional office must work cooperatively with tribal, state, regional, and metropolitan transportation planning organizations concerning the leveraging of funds from non-IRR Program sources and identification of other funding sources to expedite the planning, design, and construction of projects on the IRRTIP.*

**I-5.3 TRIBAL TRANSPORTATION IMPROVEMENT PROGRAM**

**170.420 What is the tribal priority list?**

*The tribal priority list is a list of all transportation projects that the tribe wants funded. The list:*

- (a) May or may not identify projects in order of priority;*
- (b) Is not financially constrained; and*
- (c) Is provided to BIA by official tribal action, unless the tribal government submits a Tribal Transportation Improvement Program (TTIP).*

**170.421 What is the Tribal Transportation Improvement Program (TTIP)?**

*The TTIP:*

- (a) Must be consistent with the tribal long-range transportation plan;*
- (b) Must contain all IRR Program funded projects programmed for construction in the next 3 to 5 years;*

- (c) Must identify the implementation year of each project scheduled to begin within the next 3 to 5 years;
- (d) May include other Federal, State, county, and municipal, transportation projects initiated by or developed in cooperation with the tribal government;
- (e) Will be reviewed and updated as necessary by the tribal government;
- (f) Can be changed only by the tribal government; and
- (g) Must be forwarded to BIA by resolution or by tribally authorized government action for inclusion into the IRR TIP.

**170.422 What is the IRR Transportation Improvement Program (IRRTIP)?**

*The IRRTIP:*

- (a) Is financially constrained;
- (b) Must include eligible projects from tribal TTIPs;
- (c) Is selected by tribal governments from TTIPs or other tribal actions;
- (d) Is organized by year, State, and tribe; and
- (e) May include non-IRR projects for inclusion into the State Transportation Improvement Program (STIP).

**170.423 How are projects placed on the IRRTIP?**

- (a) BIA selects projects from the TTIP or tribal priority list for inclusion on the IRRTIP as follows:
  - (1) The tribal government develops a list of detailed tasks and information for each project from the tribal priority list or TTIP;
  - (2) BIA includes this project information in its region-wide control schedule without change, unless the funding required exceeds the amount available to the tribe;
  - (3) BIA must include projects that are scheduled in the next 3 to 5 years; and
  - (4) BIA develops the IRRTIP after consulting with the tribes and taking their priorities into account.
- (b) A tribe that does not generate enough annual funding under the IRR Program funding formula to complete a project may either:
  - (1) Submit its tribal priority list to the appropriate BIA Region, which will develop the region-wide control schedule after consulting with the tribe and taking its priorities into account; or
  - (2) Enter a consortium of tribes and delegate authority to the consortium to develop the TTIP and tribal control schedule;
  - (3) Enter into agreement with other tribes to permit completion of the project; or
  - (4) Apply for IRRHPP funding under subpart C.
- (c) In order to get a project on the IRRTIP, tribes may seek flexible financing alternatives as described in subpart C.

**170.424 How does the public participate in developing the IRRTIP?**

*Public involvement is required in the development of the IRRTIP.*

*(a) BIA or the tribe must publish a notice in local and tribal newspapers when the draft tribal or IRRTIP is complete. In the absence of local public newspapers, the tribe or BIA may post notices under local acceptable practices. The notice must indicate where a copy can be obtained, contact person for questions, where comments may be submitted, and the deadline for submitting comments.*

*(b) BIA or the tribe may hold public meetings at which the public may comment orally or in writing.*

*(c) BIA, the tribe, the State transportation agency or MPO may conduct public involvement activities.*

**170.425 How does BIA update the IRRTIP?**

*The IRRTIP annual update allows incorporation of transportation projects planned for the next 3 to 5 years. Each BIA regional office updates the IRRTIP for each State in its service area to reflect changes in the TTIPs or tribal project listings.*

*(a) During the first quarter of the fiscal year each BIA Regional Office notifies tribes of the update and provides projected IRR Program funding amounts and a copy of the previous year's regional IRRTIP.*

*(b) The tribe reviews any new transportation planning information, priority lists, and TTIP and forwards an updated TTIP or project listing to BIA Regional Office on or before July 15.*

*(c) The BIA regional office reviews all submitted information with the tribes. BIA adds agreed-upon updates, including previously approved amendments (see §170.427), to the IRRTIP so that the Secretaries can approve the new updated IRRTIP before the start of the next fiscal year.*

**170.426 What is the approval process for the IRRTIP?**

*The approval process for the IRRTIP is:*

*(a) The BIA Regional Office forwards the IRRTIP to the Secretaries for review and approval;*

*(b) Federal Lands Highway Office will provide copies of the approved IRRTIP to the FHWA division office for transmittal to the State transportation agency for inclusion in the State Transportation Improvement Program (STIP). The approved IRRTIP will be returned to BIA;*

*(c) BIA sends copies of the approved IRRTIP to BIA Regional Offices and tribal governments; and*

*(d) Within 10 working days of receiving the approved IRRTIP and IRR Program funds, BIA enters the projects into the Federal finance system.*

**170.427 How may an IRRTIP be amended?**

*(a) A tribe may amend the IRR TIP by changing its TTIP on or before July 15 and submitting the changed TTIP to BIA for inclusion in the IRR TIP. BIA's regional office will review all submitted information with the tribe and provide a written response (approving, denying, or requesting additional information) within 45 days. If the proposed IRR TIP amendment contains a project not listed on the current approved IRR TIP, BIA must submit the proposed amendment to FHWA for final approval.*

*(b) BIA may amend the IRR TIP:*

*(1) To add or delete projects or reflect significant changes in scope at any time if requested by the tribe; and*

*(2) To reduce funding or reschedule a project after consulting with the affected tribe and obtaining its consent, if practical.*

*(c) The Secretary may not reduce funding for or reschedule a project that is the subject of a negotiated agreement, except under the terms of the agreement.*

*(d) BIA amends the IRR TIP using the same public involvement process used to develop the original IRR TIP.*

**170.428 How is the State Transportation Improvement Program related to the IRR TIP?**

*The annual update of the IRR TIP for each State in a BIA regional office's service area should be coordinated with the State transportation agencies. This will ensure that approved IRR TIP updates and amendments are included with the STIP.*

## **I-6 THE SQUAXIN ISLAND TRIBE**

Today's Squaxin Island Tribal members are direct descendants of seven bands of maritime people who, for many centuries, lived and prospered along the shores of the southernmost inlets of what is now Washington's Salish Sea. These bands coexisted with other Salish peoples in the region for thousands of years, sharing natural resources and respecting mutually agreed upon geographic boundaries. Because of their strong cultural connection with the water, they are also known as "The People of the Water."

The Treaty of Medicine Creek, signed on December 26, 1854, between the United States government and the Squaxin Island, Nisqually, and Puyallup Tribes, was the first in Washington Territory and included approximately 4,000 square miles of land, or 2,560,000 acres, which was ceded to the US Government. The negotiations were done in the Chinook Jargon, a simplified language developed as a means of communication between two or more groups that do not have a language in common. Unfortunately, the language was inadequate in that it failed to inform the Indians of the complex issues of treaty making and the impact of this Treaty. Of the 4,000 square miles, one small island, named after the people of Case Inlet and what later became known as Squaxin Island, was 4.5 miles long by 0.5 miles wide, and reserved as the main area for the all of their people to live. The Island is centered near the entrances to the seven inlets of southern Puget Sound and overtime became the very soul of the Tribe. Once the impact of the Treaty was realized, the signatories fought to gain back a more livable homeland in the Indian War of 1856-57.

Near the turn of the century there was an Indian basket collecting fad which came to be very profitable. On Saturdays, steamer ships would draw near the Island on what became known as "Indian Day" where they would pick up the Squaxin Island women and take them to Olympia to sell their hand made goods which included baskets and cedar dolls.

The sea or "heart of the earth" providing such delicacies as clams, oysters, herring, smelt, and salmon offered both physical nourishment



ABOVE - Theresa Nason - On Squaxin Island grew up shortly after the turn of the century during the height of "Indian Day".

BELOW - Theresa's daughter and Tribal Elder, Barb Henry, carries on the basket making tradition.



<http://squaxinislndmuseum.org/exhibits/basketry/>



as well as spiritual sustenance for the Squaxin Island people. Always committed to the honoring of Mother Earth, everything from sea life to cedar was highly respected and appreciated. Although they were forced at times to settle in one place and try to raise crops, this proved to be unsuccessful for a people who were oriented to the rich resources of the land and sea. Due to the lack of any fresh water source the Squaxin Island people gradually left the island to take up permanent residence near their original homes along the inlets and returned to their traditional way of life harvesting berries and roots in the summer, and salmon runs in the fall.

By 1862 the number of island residents had dwindled to 50 and, with so few tribal members remaining on the island, the Indian agency headquarters was moved to Puyallup. By 1959 only four-year-round residents continued to live on the island. Today, although there are no year-round residents on Squaxin Island, it is looked upon as the bond that unites the past, present and future generations of the Tribe. Only Tribal members or permitted guests are allowed on the island which is used for many activities including hunting, fishing, and camping.

## TRADITIONAL CULTURE

The culture and traditions of the Squaxin Island Tribe evolved from and were organically tied to the natural resources that surrounded them. They harvested salmon and other foods from the rivers and waterways as well as gathering wild fruits and berries from the fertile lands. In addition to the “fruits” of the land and sea, the western red cedar was an important source for the Squaxin Island people. They would steam and bend the wood into boxes, baskets, serving dishes and utensils and use the bark to make clothing, mats, furnishings and rope.



The waterways were the “highways” for the Squaxin Island People, traveling as far north as Vancouver Island and south along the Pacific Coast. They also traveled routes that ran from the Pacific Ocean, up the Chehalis River and eventually to the Budd and Eld Inlets which were extensively used for trade. They were well known for their elaborate baskets and wood carvings.

*Squaxin Island Tribe member Cecelia Bob dries shellfish in the traditional manner.*  
Photo courtesy of: <http://salishreflections.wordpress.com/page/2/>

The Squaxin Island Tribe is comprised of the Noo-Seh-Chatl of Henderson Inlet, Steh Chass of Budd Inlet, Squi-Aitl of Eld Inlet, Sawamish/T’Peeksin of Totten Inlet, Sa-Heh-Wa-Mish of Hammersley Inlet, Squawksin of Case Inlet and S’Hotle-Ma-Mish of Carr Inlet. Today, many of



these names are memorialized as road names in the modern transportation corridors that serve our community.

In 2001, the Tribe dedicated the Squaxin Island Tribe Museum Library and Research Center which offers a vast array of information and artifacts regarding the deep history and rich culture of the Tribe. The architecture of the entrance to the Museum Library and Research Center was designed to resemble a “Thunderbird” which is a favorite character in local legends. In addition to a canoe carving shed and areas for growing traditional plants for food and medicine, on display are cultural items discovered along the Northwest Coast during the excavation of “wet sites”, waterlogged archaeological sites. Careful removal and preservation is required as anything from a rare cedar bark gillnet, to bone and shell artifacts, to larger items such as canoes, clothing, woven mats and baskets might be found.



*Photo courtesy of <http://squaxinislndmuseum.org>*

#### **I-6.1 PHYSICAL DESCRIPTION**

The Squaxin Island Tribal headquarters including the Tribal Center, Health Clinic, Library and many other Tribal businesses are now located in Kamilche, between Little Skookum and Totten Inlets, approximately 20 miles NW of Olympia, in southeastern Mason County, Washington, off Highway 101. It is here where hundreds of acres of land have been purchased and a thriving community has been established. A large part of the Squaxin Island Indian Reservation is composed of Squaxin Island and although there are no year round residents on the Island the Tribe retains sole rights for recreational activities. Most of the modern day Squaxin Island Tribal members continue to reside near the seven inlets of southern Puget Sound, in Kamilche or Shelton. The reservation is comprised of approximately 2.68 square miles, or 1,715 acres.

#### **I-6.2 CLIMATE**

The temperature/climate in Shelton, WA is one that varies quite a bit throughout the year. The notoriously wet climate of the Northwest holds true as November is the wettest month with an average rainfall of 12.02 inches, however, July averages only 1.21 inches of rain. The hottest month is typically August with an average high temperature of 63.52 degrees and the coolest month is usually January with an average low temperature of 38.23 degrees. The highest chance of sunshine in this area is in July at 64.52% and drops dramatically to 18.75% in December, according to [www.homefacts.com](http://www.homefacts.com).

**FIGURE 1 – LOCATION MAP**



## I-6.3 DEMOGRAPHICS

### *Population and Housing Characteristics*

The 2010 Census reported the Squaxin Island Tribe as having 974 members, of which 456 were male and 518 were female, with a median age of 24.3. Of that, 416 were under 20 years of age, 228 were between the ages of 20 and 34, 167 were between the ages of 35 and 49, 150 were between the ages of 50 and 74, and 13 were over the age of 75. The Census also reported that there were 392 total households with an average household size of 2.72 people.

According to the 2010 Census, of the 668 people who were over the age of 25, 24 of them had less than a 9<sup>th</sup> grade education, 164 had completed somewhere between 9<sup>th</sup> and 12<sup>th</sup> grade, with no diploma, 266 had a high school diploma or the equivalency, 126 had completed some college, no degree, 8 had an Associate's degree, 9 had a Bachelor's degree and 71 had a Graduate or Professional degree.

Mason County whose population was estimated at 60,497 in 2013, based on population numbers from the 2010 Census, reported approximately 4.3% of that total were American Indian and Alaska Native.

### *Economic Conditions and Employment*

The median income as reported by the 2010 Census was \$54,853. Approximately 15% of the 392 housing units have incomes less than \$10,000, 19% have incomes between \$10,000 and \$24,999, 12% have incomes between \$25,000 and \$49,999, 25% have incomes between \$50,000 and \$74,999, 22% have incomes between \$75,000 and \$99,999, leaving the remaining 7% with incomes over \$100,000.

Today, the largest employers of Tribal citizens are within the tribal government, the tribal food and entertainment enterprises, and health and human services.

### *Economic Development*

Island Enterprises, Inc., (IEI) is the economic development arm of the Squaxin Island Tribe and their approach is clear in their vision statement: "We envision a culturally and economically strong community of self-governing, resilient people united by shared values and traditions". Some of the subsidiaries include:

Purchased in the 1970's, **Salish Seafoods** offers many fresh and frozen products; some of which can be found at the Little Creek Casino's Squaxin Island Seafood Bar and the Kamilche Trading Post.



In an effort to diversify tribal enterprises and support crucial tribal infrastructure, **Skookum Creek Tobacco**, a small tobacco manufacturing company, was formed. Ceremonial tobacco use has been around for centuries



and the lush landscape of the Pacific Northwest lends itself to assisting Skookum Creek in the growing and manufacturing of exceptional premium quality tobacco products.

Little Creek Casino Resort is owned and operated by the Squaxin Island Tribe and offers luxurious resort accommodations, state-of-the-art gaming, multiple dining options, entertainment, award winning golf and a spa.



In addition to these there is a small convenience store/gas station franchise, Kamilche Café & Espresso, Ta-Qwo-Ma Business Development Center, Island Search & Consulting, as well as the newest addition Island Enterprises Construction LLC.

## **I-7 HEALTH SERVICES AND GOVERNMENT/LAW ENFORCEMENT/FIRE**

### ***Health Services***

Under the Indian Health Service (IHS) agency, the Health and Human Services (HHS) Department located in the Squaxin Island Health Clinic sees over 9,000 patient/client contacts each year. Here eligible clients, American Indian and Alaska Natives, can be seen for medical, dental, mental health, family services, Indian Child Welfare (ICW) and community health.

In addition to services provided by HHS, the Tribe owns and operates the Northwest Indian Treatment Center, which is located in Elma, WA, between Olympia and Aberdeen, as well as a new outpatient facility located near the Reservation. The Treatment Center is a 24-bed residential drug and alcohol treatment program for Native Americans.

### ***Government***

The General Council of all members elects a seven-member council that oversees all branches of Tribal government and enterprise. Each council member serves a three-year term, of which each term is staggered to ensure continuity of leadership over time. Squaxin Island was one of the first 30 tribes in the nation to enter into the Self Governance Demonstration Project with the federal government and now the Tribe establishes its own priorities and budgets for funds previously administered by the

Bureau of Indian Affairs. The Squaxin Island Tribe exercises its inherent governmental authority, including criminal jurisdiction over all lands, individuals, and entities within its jurisdiction (the Squaxin Island Reservation).

### ***Law Enforcement***

The Squaxin Island Police Department enforces tribal laws and codes while protecting the tribal community and its natural resources. The department usually covers the reservation as well as Little Creek Casino Resort and enforces the Squaxin Drug Task Force.

### ***Fire Department***

Mason County Fire District #4 was chartered in 1950, after being a Volunteer Fire Department for 5 years. It hosts full-time, part-time and volunteer staff providing fire protection and emergency medical services to a 52 square mile area which includes the Squaxin Island Reservation.

<http://squaxinislandmuseum.org/>

<http://squaxinisland.org/info/>

[www.goia.wa.gov/tribal-information/Tribes/squaxinisland.htm](http://www.goia.wa.gov/tribal-information/Tribes/squaxinisland.htm)

<http://squaxinislandmuseum.org/culture/history/>

[http://www.npaihb.org/member\\_tribes/tribe/squaxin\\_island\\_tribe](http://www.npaihb.org/member_tribes/tribe/squaxin_island_tribe)

<http://quickfacts.census.gov/qfd/states/53/53045.html>

<http://www.homefacts.com/weather/Washington/Mason-County/Shelton.html>

<http://squaxinislandtourism.com/here-to-play/>

[http://en.wikipedia.org/wiki/Squaxin\\_Island\\_Tribe](http://en.wikipedia.org/wiki/Squaxin_Island_Tribe)



## **PART ONE – EXISTING IRR/TTP INVENTORY**

### **1-1 OFFICIAL TTP INVENTORY SUMMARY**

The Squaxin Island Tribe's Official TTP Inventory was comprehensively updated last in 2010. Small updates and additions have been processed since the 2010 update in an attempt to add project roads to the inventory. Most have been successful to date while there are still some past inventory routes and sections that are currently under the review process of the BIA-NWRO and BIA-DOT. All of the data in this section are direct exports from the Roads Inventory Field Data System (RIFDS). The RIFDS program is a program maintained at the BIA-DOT offices in Albuquerque, New Mexico. In order to obtain access into the program, the government requires a back ground check and authorized security clearance. Red Plains Professional currently has three users authorized to access the Squaxin Island Inventory Records. This section will identify only TTP's accepted in the Tribe's "Official" TTP Inventory. In Appendix C of the report you will find the inventory summary tables that have been printed directly out of the RIFDS Program on 06/24/2014. The following table indicates the route summary of the official 44 Routes, 109 Sections, and total of 105.4 miles of TTP's.



Inventory Conditions Photo - TTP Route 0115 Section 020







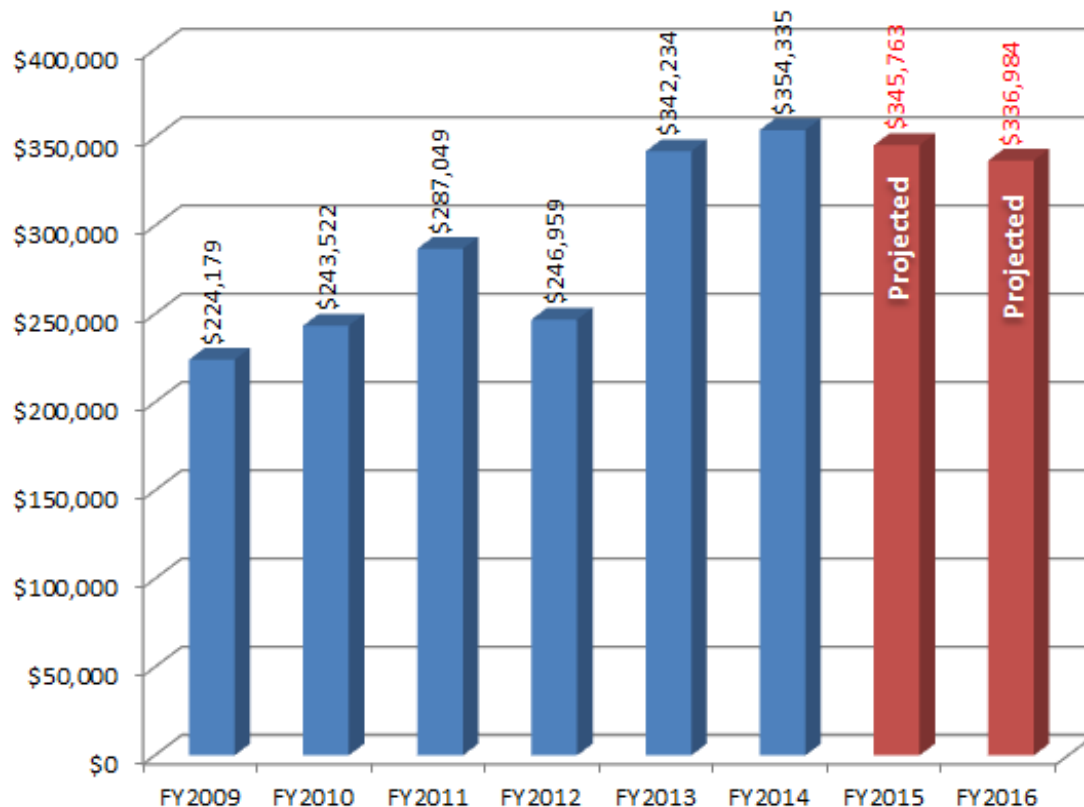


## 1-2 EXISTING TTP FUNDING

According to the latest funding tables provided to the public by the BIA, the Squaxin Island Tribe received approximately \$354,335.98 in FY 2014. The full funding report for the current fiscal year is located in Appendix D detailing the funding calculations and the many subtotal calculations that are quantified to provide this annual allocation. In the appendix we also provided historic funding tables to provide some history of the Tribe's TTP funding levels. The table below illustrates the approximate TTP annual allocations between 2009 and 2016. Two important numbers to note in your Fiscal Year (FY) 2014 calculation is your total population based on NAHASDA records is 2,090 and your total eligible TTP mileage utilized for the calculation is 5.8 miles. The table below is an excerpt from the TTAM Table discussed in this section. The Squaxin Island Tribe is highlighted in yellow.

State	Region Name	Tribe Name	Population	Population %	Formula Population \$	Total Miles	Mile %	Formula Mileage \$	Region Share %	Formula Region Share \$	FY 14 Transition Funding (60% of FY11) \$	Total Supplemental Allocation	Total Allocation	Total 2011 RNDP and PAF \$
WA	P - Northwest	Snoqualmie Tribe	724	0.000486342	\$15,857.91	2.2	3.03961E-05	\$821.60	0.004971139	\$11,775.88	\$103,008.48	\$81,298.94	\$213,362.81	\$172,880.81
WA	P - Northwest	Spokane Tribe of the Spokane Reservation	5,888	0.003763666	\$122,366.04	247.0	0.004098295	\$92,242.78	0.02546894	\$77,598.01	\$448,748.58	\$183,830.72	\$524,118.01	\$747,014.33
WA	P - Northwest	<b>Squaxin Island Tribe</b>	<b>2,090</b>	<b>0.001403942</b>	<b>\$45,777.87</b>	<b>5.8</b>	<b>9.59533E-05</b>	<b>\$2,196.03</b>	<b>0.006780949</b>	<b>\$20,824.43</b>	<b>\$172,064.79</b>	<b>\$119,503.12</b>	<b>\$354,335.98</b>	<b>\$286,774.55</b>
WA	P - Northwest	Stillaguamish Tribe	280	0.000188088	\$6,132.99	7.2	0.000119114	\$2,888.88	0.015677775	\$37,138.29	\$566,344.42	\$555,758.28	\$1,228,082.74	\$993,907.38
WA	P - Northwest	Suquamish Indian Tribe	1,726	0.001159428	\$37,804.91	0.5	8.27183E-06	\$186.73	0.000088897	\$14,448.90	\$78,396.03	\$31,667.10	\$163,501.66	\$132,326.71
WA	P - Northwest	Swinomish Indians	1,275	0.000850472	\$27,626.57	10.2	0.000168745	\$3,809.21	0.015205334	\$36,019.15	\$189,023.68	\$132,481.23	\$389,259.85	\$315,039.47
WA	P - Northwest	Tulalip Tribes	4,411	0.002953058	\$96,614.98	31.7	0.000524434	\$11,838.44	0.094831196	\$153,575.35	\$862,543.07	\$651,679.50	\$1,776,252.24	\$1,437,573.28
OR	P - Northwest	Umatilla Reservation, Confederated Tribes of the	4,085	0.002730634	\$86,036.48	106.2	0.001758937	\$36,050.95	0.041910385	\$99,278.36	\$485,862.11	\$286,737.69	\$1,000,608.32	\$806,820.18
WA	P - Northwest	Upper Skagit Indian Tribe	417	0.000280117	\$9,133.93	4.0	6.91747E-05	\$1,493.81	0.015016883	\$35,572.28	\$186,900.61	\$130,601.10	\$343,701.42	\$278,167.89
OR	P - Northwest	Warm Springs Reservation, Confederated Tribes of the	3,797	0.002550607	\$83,166.42	702.8	0.011628887	\$262,482.36	0.075502432	\$178,853.90	\$635,100.52	\$273,187.07	\$1,432,770.27	\$1,058,500.89
WA	P - Northwest	Yakama Nation, Confederated Tribes and Bands of the	15,391	0.010338793	\$337,112.04	148.7	0.002460043	\$55,532.37	0.059282851	\$140,432.15	\$857,470.18	\$375,256.93	\$1,785,803.66	\$1,429,116.94

### Approximate TTP Annual Allocation 2009-2016



## **PART TWO – RECOMMENDED TTPFI AND TRANSPORTATION NETWORK**

### **2-1 RECOMMENDED TTPFI INVENTORY SUMMARY**

This section describes the road system utilized by Squaxin Island tribal members. The focus of this section of the report is to summarize the roadway network as it has been inventoried for inclusion into the TTP Facility Inventory (TTPFI). The roads identified and discussed in this report are transportation facilities that are open to the public and provide intercommunity travel while also connecting the Tribe to important public services and goods off reservation.

Public roads providing ingress/egress and travel within the Reservation are constructed and maintained by the Tribe, BIA, local cities, Grays Harbor, Mason and Thurston Counties, and the Washington State Department of Transportation (WSDOT). The recommended inventory represents the transportation network providing primary access to the Tribal properties both Trust and Fee.

Since 2010 Red Plains Professional, Inc. has been working with the Squaxin Island Tribe to update their inventory. As part of the 2015 LRTP project Red Plains will be working to add to the inventory further as we identify proposed roads for addition to the system. These proposed transportation facilities are being recommended for addition as a result of the public survey, tribal department meetings, and the additional findings of the LRTP analysis. This inventory as entered into RIFDS is supported by the generation of a comprehensive GIS System that has been provided to the Tribe as part of the project deliverables.

As Red Plains was adding the new proposed roads and reviewing the existing inventory records it became clear that a full update was required of the historic inventory in addition to adding new roads. In December 2014, RPP GIS and inventory crews recollected all of the inventory and initiated a full effort to reconcile and correct the old inventory records that were out of date and in some cases inaccurate. This section of the report reflects the newly collected and GIS verified roadway inventory for the Squaxin Island Tribe.

As mentioned above, proposed roads are eligible for inclusion in the TTP Inventory System. More importantly these roads must be entered into the TTPFI Inventory and must be supported by a comprehensive LRTP describing how the Tribe will intend to use these future roads. It is important to note that these roads have been identified by the Tribe as future development roads and that in order for the Tribe to expend TTP funding towards the preplanning and construction of these roads, the roads must be entered into the Tribe's TTP Inventory.

In Appendix C – TTP Inventory RIFDS Reports you will find the records of RIFDS data entry which is summarized by the following table, 2015 Recommended TTP Inventory.











The 2015 Recommended TTP Inventory Table details a total of 128.0 Miles, 111 Routes, and 227 Sections which have all been entered into the RIFDS program for review and acceptance into the Official TTP Inventory. A Route Inventory Book provides all of the TTP Inventory attachments including the individual strip maps per route which identify the TTP in relation to the reservation, congressional district, county, state boundaries while showing the routes location in relation the rest of the transportation network. Sectioning is also illustrated. The complete transportation system identified in this section of the report is illustrated on Map B – Recommended TTP Inventory provided for you in Appendix F.

## 2-2 FUNCTIONAL CLASSIFICATION

Roads are classified or grouped into integrated systems by the functions they perform with regard to moving traffic and providing property access. Each road is ranked by its relative importance and the function it is intended to serve.

Within the TTP inventory process there are two resources used while identifying functional classification: State Highway Functional Classifications and BIA Functional Classifications. Both the State and the BIA use functional classification as the basis for classifying their roads. However, the criteria used to determine specific classifications differ between the two systems. There is an effort being made now to combine the State and BIA Functional Classification Definitions. The FHWA is in development of the TTP system. This effort has not been finalized at the time of this report.

### 2-2.1 DEFINITIONS

#### **Definitions**

Functional classification identifies the role each street or highway plays in channeling traffic through a rural or urban environment in a logical and efficient manner. There are three general functional classification categories: Arterials, Collectors, and Local Roads.

An arterial's function is to move through-traffic at high speeds over long distances with limited access. Local roads or streets move traffic at relatively low speeds and provide access to adjacent property.

Urban and rural areas have fundamentally different characteristics with regard to density and types of land use, density of street and highway networks, nature of travel patterns, and the way in which these elements are related. Consequently, urban and rural functional systems are classified separately. Urban systems are comprised of urban principal arterials, urban collectors, and urban local roads. Rural systems are comprised of rural principal arterials, rural minor arterials, rural collectors, and rural local roads. General definitions of the three general functional classifications, along with desirable characteristics, are given below.

#### **Arterials**

Arterials carry relatively large volumes of traffic through states and to major destinations such as work sites or commercial centers. Arterials fall into two categories: principal and minor. Principal (major) arterials include federal and interstate highways, state highways that serve urban areas with a population greater than 50,000, and state highways that serve a majority of areas with populations of 25,000 or more. Minor arterials provide interstate and inter-county service to cities and towns with populations of less than 25,000, and attractions that draw travel over long distances. Principal arterials usually have four traffic lanes (two lanes in each direction), provide left-turn lanes at most intersections, and are separated by a median or continuous left-turn lane. Minor arterials may only have two traffic lanes and generally provide left-turn lanes at major intersections. A minimum right-of-way width of 100 to 150 feet is desirable for an arterial, although wider rights-of-way are needed for arterials with more than four lanes.

### **Collectors**

Collectors generally serve intra-county and regional travel that has shorter travel distances than that supported by arterials. Collectors also provide a balance between mobility and land access by generally permitting access to all abutting properties. There are two categories of collectors: major and minor. Major collectors provide service to any county seat or community not served by an arterial road, and serve other traffic generators of intra-county importance: regional parks, consolidated schools, agricultural areas, shipping points, etc. Minor collectors are spaced at intervals consistent with population density. They collect traffic from local roads and provide access to all developed areas within a reasonable distance of a higher classified road. A minimum right-of-way width of 80 to 100 feet is desirable for a collector.

### **Local Roads**

Local roads comprise the balance of the road network and carry low volume, low-speed traffic. The primary function of a local road is to provide access to individual parcels of property. Local roads usually serve residential areas and may also serve scattered business and industrial sites that generate modest traffic. A minimum right-of-way of 60 to 80 feet is desirable for a local road.

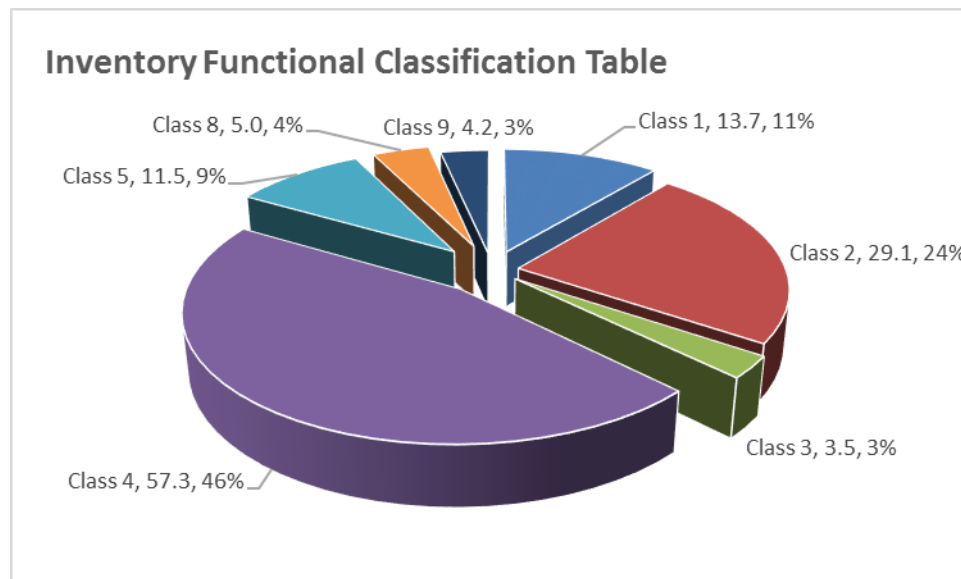
## **2-2.2 STATE FUNCTIONAL CLASSIFICATIONS**

Functional classification of roads has been used by state highway departments for many years for a variety of important highway functions: assigning jurisdictional responsibility, determining cost allocations, allocating funds to local units of government, and establishing appropriate design standards. Prior to enactment of the Inter-modal Surface Transportation Efficiency Act of 1991 (ISTEA), it became apparent that the 20-year old federally mandated functional classifications needed modification. Although routinely updated by states, functional classifications were no longer consistent among the states and it was agreed that they should be reclassified before a national highway system was established. As a result, Congress included Section 1006(c)

in ISTEA, which required states to reclassify their roads and streets, under oversight of the Federal Highway Administration, by September 30, 1996.

### 2-2.3 BIA FUNCTIONAL CLASSIFICATION SYSTEM

The BIA road system has 11 classes of routes: seven vehicular, and four non-vehicular. Functional classification is used by the BIA to group roads into a specific vehicular class based on the existing or anticipated function of the road. The road classes are then combined with the traffic characteristics of the road to select criteria and standards for the adequate design of the facility. Definitions of the eleven BIA road system classes are given below, together with the list of roads the BIA-DOT inventory includes in each class.



#### **Class 1**

These are major arterial roads that provide an integrated network to serve traffic between large population centers. They generally do not have stub connections, have more than two lanes of traffic, and carry an average traffic volume of 10,000 vehicles per day or more. There are 13.7 miles of Class 1 roads on the Tribe's TTP System.

#### **Class 2**

These roads are rural minor arterials which provide an integrated network and generally do not have stub connections. They serve traffic between large population centers and may also link smaller towns and communities to major destination areas that attract travel over long distances. They are generally designed for relatively high overall speeds with minimum interference to through-traffic, and carry less than 10,000 vehicles per day. These routes provide for at least inter-county or interstate travel and are spaced at intervals consistent with population density. There are 29.1 miles of Class 2 roads on the Tribe's TTP System.

**Class 3**

These roads are streets and roads that are located within communities and serve residential or other urban settings. These roads correspond to the Local Roads category in the state highway classification. There are 3.5 miles of Class 3 roads on the Tribe's TTP System.

**Class 4**

These roads are rural major collectors which collect traffic from rural local roads. There are 57.3 miles of Class 4 roads on the Tribe's TTP System.

**Class 5**

These are local rural roads that may include section line and stub-out roads that collect traffic for arterial-roads and make connections within the grid of the Indian Reservation Roads system. Such routes may serve areas around villages or provide access to farming areas, schools, tourist attractions or various small enterprises. This class also includes roads and vehicular trails for administering forests, grazing areas, mining and oil operations, recreation, or other purposes. There are 11.5 miles of Class 5 roads on the Tribe's TTP System.

**Class 6**

These are city minor arterial streets that are located within communities and provide access to major arterials. There are no Class 6 roads on the Tribe's TTP System.

**Class 7**

These are city collector streets that are located within communities and provide access to city local streets. There are no Class 7 roads on the Tribe's TTP System.

**Class 8**

These routes are non-road type projects such as paths, trails, walkways and other routes for public use by foot traffic, bicycles, trail bikes, snowmobiles, all-terrain vehicles, or other non-vehicular traffic. There are 5.0 miles of Class 8 roads on the Tribe's TTP System.

**Class 9**

These routes encompass other transportation facilities such as parking facilities adjacent to IRR routes and scenic byways such as rest areas, other scenic pullouts, ferry boat terminals, and transit terminals. There are 4.2 miles of Class 9 roads on the Tribe's TTP System. They total approximately 31 acres or 1,380,711 square feet.

### **Class 10**

These routes are defined as airstrips that are within the boundaries of the IRR system and are open to the public. These airstrips are included for inventory and maintenance purposes only. There are no Class 10 roads on the Tribe's TTP System.

### **Class 11**

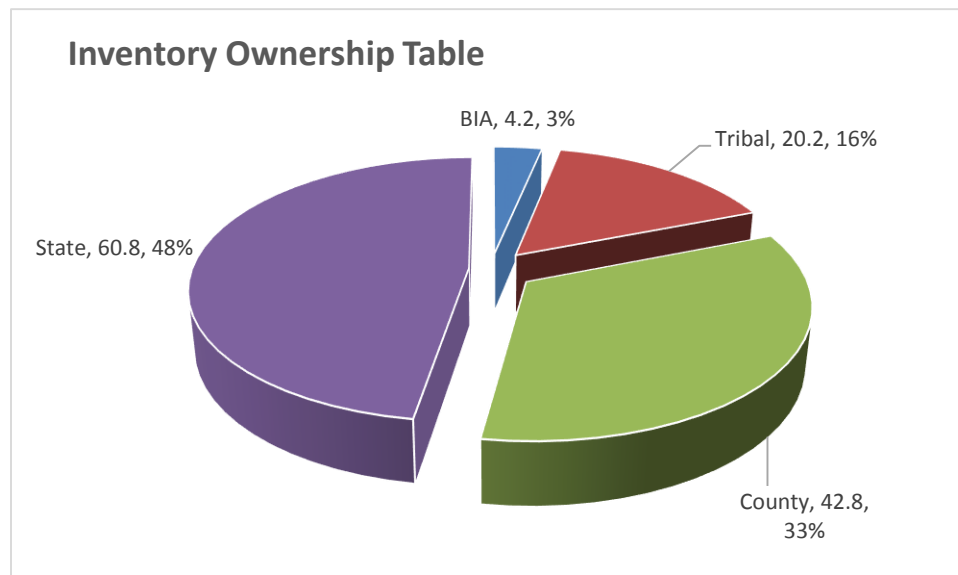
This classification indicates an overlapping of a previously inventoried section, or sections of a route, and is used to indicate that it is not to be used for accumulating needs data. This class is used for reporting and identification purposes only. There are no Class 11 roads on the Tribe's TTP System.

### **Unclassified**

There are 3.7 miles of historic grandfathered routes that do not have an assigned functional classification.

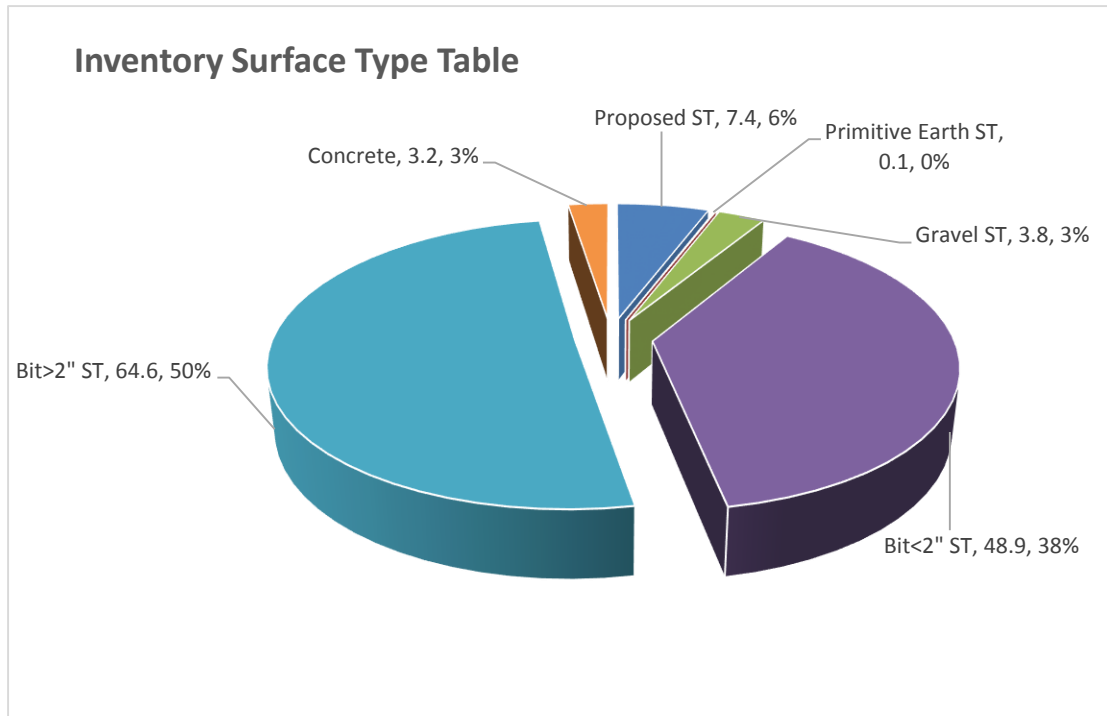
## **2-3 ROADWAY OWNERSHIP**

The TTP System is not just an inventory of BIA and tribally owned roads within the reservation boundaries. As defined in MAP-21 and the Federal Register 25 CFR, Part 170, the TTP Inventory is a comprehensive of all transportation facilities including State, County, City, and Federal roads that are within reservation boundaries and tribal properties and also those facilities/roads that provide primary access to those properties. Other jurisdictional roads are eligible for inclusion in the TTP Inventory. The Squaxin Island Tribe maintains a mutually beneficial relationship with the surrounding cities, counties, and the Washington State DOT and has worked cooperatively and collaboratively with the jurisdiction to complete this TTP Inventory. A significant component of the 2015 TTP Inventory Update is the formalization of these relationships particularly as it pertains to roadway ownership and maintenance responsibility. The Squaxin Island Tribe has entered into Memorandum of Understandings (MOU's) with the entities listed for those particular routes and sections that are not owned by the Tribe or BIA. These agreements have been finalized and are uploaded in the Tribes RIFDS records where applicable. Roadway ownership under the Squaxin Island Tribe's 2015 IRR Inventory Update is broken out as follows:



## 2-4 ROADWAY SURFACE TYPES

The 2015 TTP Inventory Update identified the surface type of the SIT's transportation network. These statistics are useful when preparing an average expected maintenance budget when using generic planning cost per mile estimates to project expected maintenance expenses. A detailed maintenance plan should be developed to accurately project future maintenance expenses given the unique character of each transportation facility. The SIT's TTP Inventory's surface type as identified in the 2015 recommended inventory are broken out as follows.



## **PART THREE – COMMUNITY INVOLVEMENT (SURVEY)**

### **3-1 PURPOSE OF THE PUBLIC SURVEY**

The Tribal Planning Staff along with Red Plains Professional initiated a Tribal Member survey provided to all Tribal Members. Public participation is a very important part of the planning process for a community. No one knows the local roadway system, its positives and negatives, better than those local users. The survey was designed to serve the following purposes:

- Provide a user-friendly, non-disclosed, non-confrontational way for the public to provide their input and feedback on the transportation network
- Gauge the tribal public opinion on critical transportation system issues and topics
- Understand the tribal public feelings on where future funding should be prioritized for the betterment of the tribal transportation system
- Meet Federal Regulations for Public Involvement in the LRTP Process
- Generate a sortable/quantifiable response spreadsheet allowing the Tribal Planning Department to access and utilize the transportation data for the LRTP and other planning projects and funding/grant applications (example: future TTPSF Application/Project or Public Outreach for the interchange improvements, or the transit program expansion)
- Avoid conflicts with other concurrent project involving public outreach meetings/efforts occurring at the time of this report

### **3-2 PROCESS AND SCHEDULE OF THE PUBLIC SURVEY**

The public survey followed the process below from conception to results tallying and presentation to the transportation and planning staff:

- Red Plains Professional developed a draft public survey designed to solicit public input on the SIT Transportation Network and potential issues/concerns.
- August 6th, 2014 - Draft Survey was submitted to the Tribal Planning Department
- August 18th, 2014 - Comments received on Draft Survey
- September 16th, 2014 – Tribal mailing labels received by Red Plains
- September 19th, 2014 – Surveys mailed out
- September 23rd, 2014 – First surveys start trickling in
- November 1st, 2014 – All surveys received
- November 20th, 2014 – Completed survey data entry and analysis
- November 25th, 2014 – Public survey results presentation to the transportation and planning staff.
- December 2014 – Survey Results incorporated into the LRTP document

### 3-3 PUBLIC SURVEY RESULTS

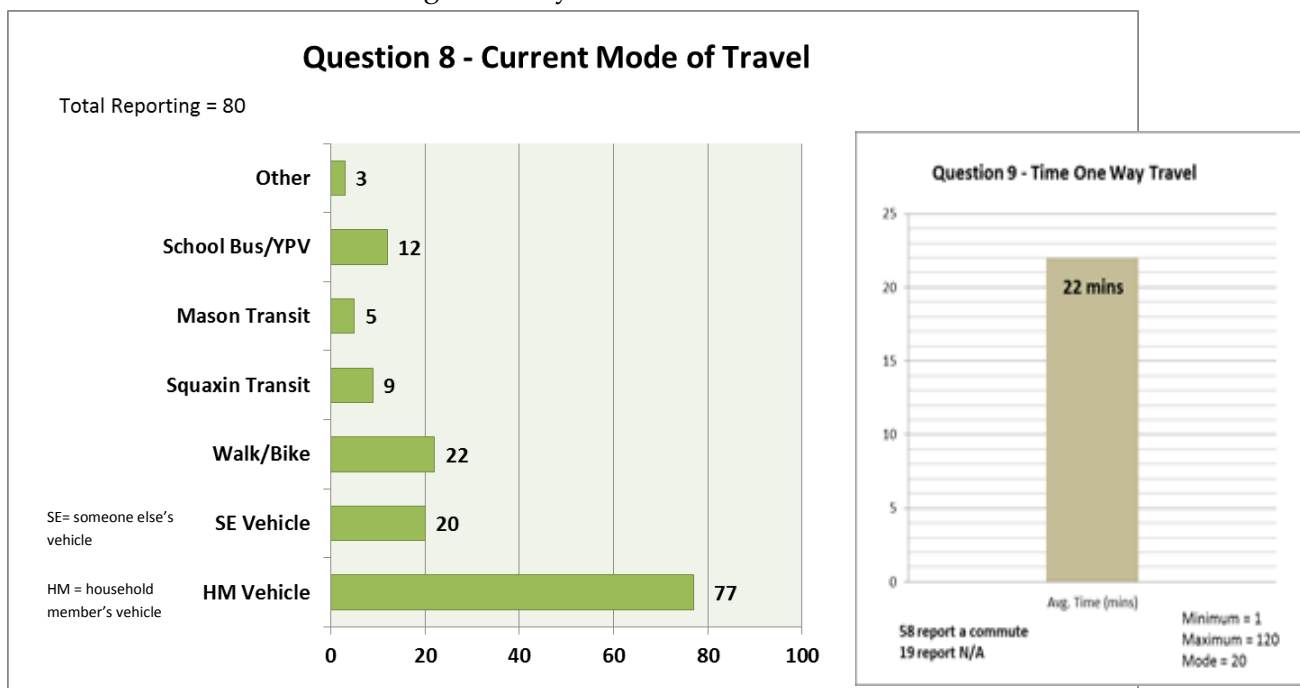
The complete public survey results presentation and calculation spreadsheet are located in Appendix B – Public Meeting Documentation & Survey Results, for more in depth analysis and future use. This section of the report will identify some of the highlights and conclusions made from the analysis of the public survey responses. **It is important to note that the findings are based only on those surveys returned. This information must be presented and used maintaining that preface** as emphasized by the tribal planning staff during the survey results presentation.

#### 3-3.1 DEMOGRAPHIC HIGHLIGHTS

- 44% of tribal households have 3 or more people living within the home
- 61% of tribal households have 1 tribal member, 39% have two or more, and 27% have three or more
- 27% of household members are 20 years of age or under
- 14% are ages 65 and older
- 12% of household report having a person living with a disability
- 95% of households have access to a licensed, insured and operational vehicle
- 80% of households have access to 2 or more vehicles

#### 3-3.2 COMMUTE HIGHLIGHTS

- The following charts indicate both the mode of transportation for individuals in the household and the average one way commute time to work or school.



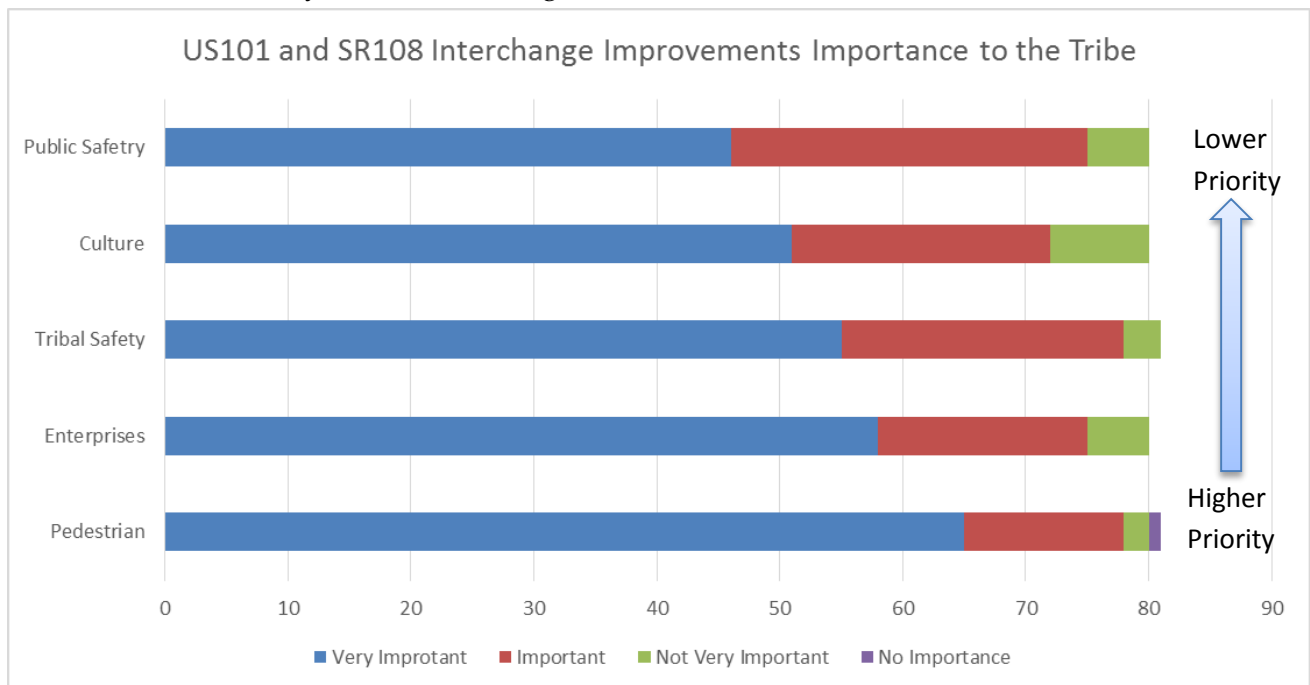


### 3-3.3 SQUAXIN ISLAND TRANSPORTATION NETWORK PUBLIC RATING

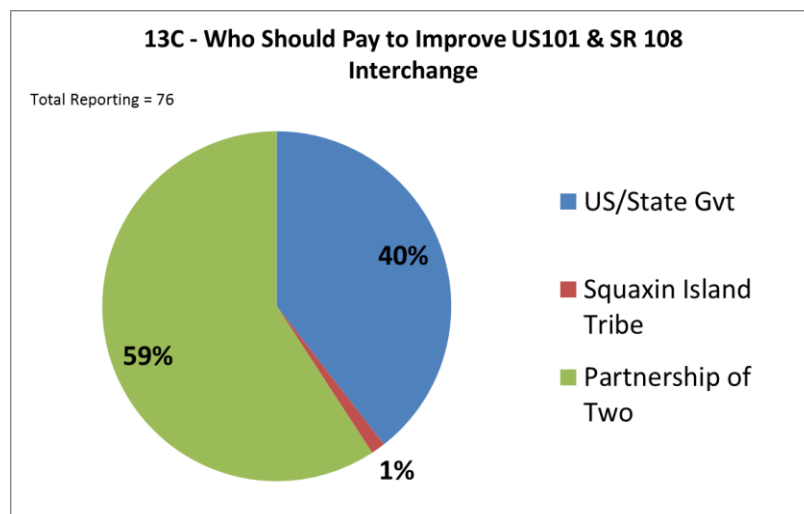
- 100% of households rated the SIT transportation system as average or above condition
- 50% of households rated it good and 13% rated it excellent. 0% rated it poor or failing.

### 3-3.4 TRIBAL PUBLIC OPINIONS REGARDING THE US101 AND SR108 INTERCHANGE

- 82% of the households rated the Safety of the US101 and SR108 Interchange as requiring improvement while 32% feel to be safe it will require complete reconstruction.
- The following table provides tribal public opinion regarding the tribal priority of the interchange improvements and the benefits the interchange improvements will have to their community and the Tribe in general.

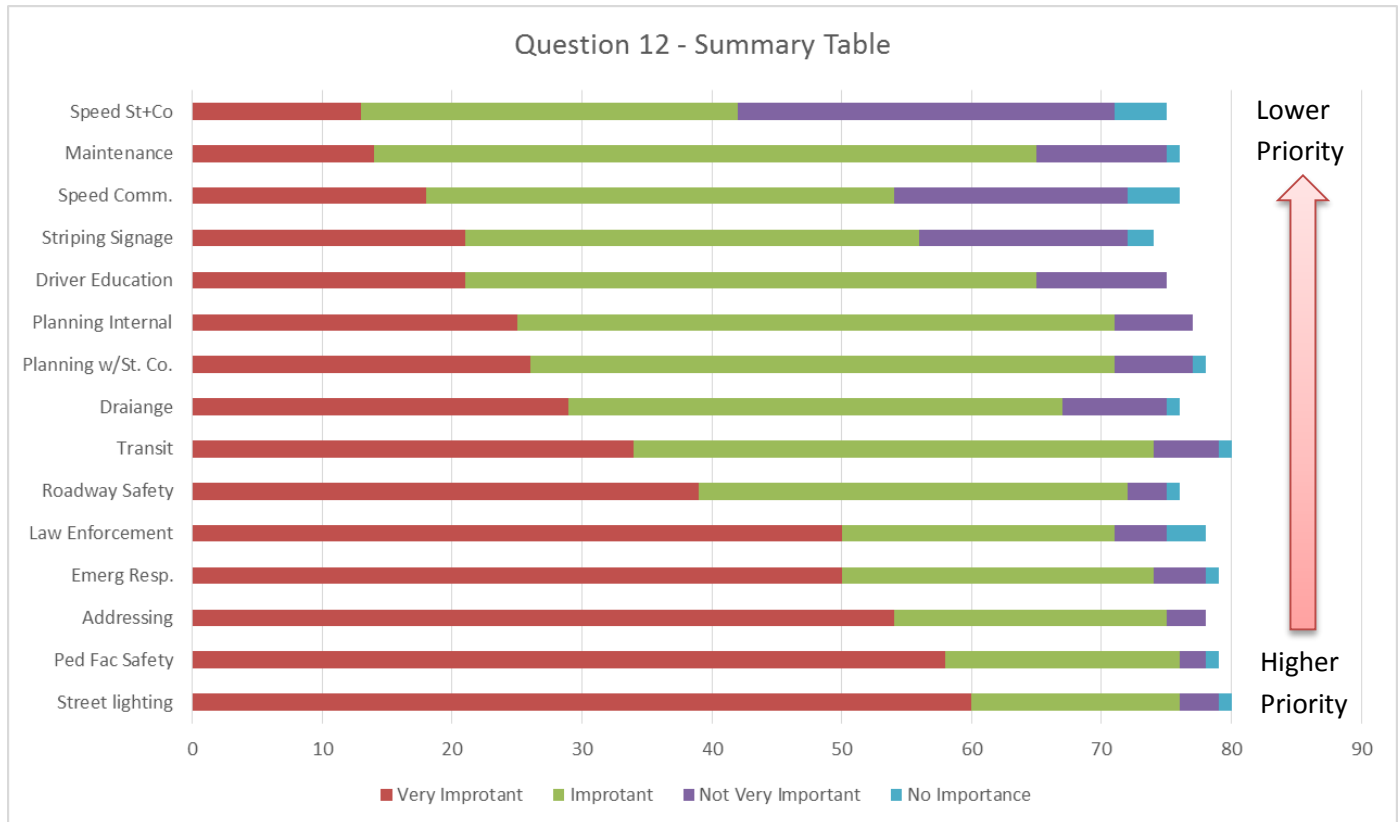


- 59% of the responding tribal public feel that the improvements to the US101 and SR108 interchange should be jointly funded while 40% feel it should be paid for by the US Federal and Washington State governments as the following chart indicates.



### 3-3.5 TRIBAL PUBLIC'S OPINION ON TRANSPORTATION PRIORITIES

- The following table is very insightful as to the tribal public's opinion on the importance of various transportation improvements and future expenditures



### 3-3.6 PUBLIC SURVEY GENERAL RESULTS AND OBSERVATIONS

- In general, a good condition physical transportation system is in place.
- In general, tribal members have access to transportation in a relative high percentage.
- Safety Improvements are needed particularly in location where local streets meet minor and major arterials.
- Street Lighting is a main concern and recommendation to improve safety.
- Pedestrian Transportation Facilities require significant planning, improvement, and expansion according to public opinion.
- Added transit service is being requested including "low cost tribal taxi service" and other specialized services.
- Emergency Response and Law Enforcement are both priorities to Tribal Members.
- Addressing System was a middle to high priority.
- Speed reduction and control was listed as the lowest priority/concern by tribal members as either enforcement is currently working or people generally drive safe in the community as it is designed.
- The Public also agrees that significant improvement is needed for the SR 108 Corridor and its intersection with US101.

## **PART FOUR – FUTURE TRANSPORTATION SYSTEM**

### **4-1 FUTURE DEVELOPMENT AND TRIBAL TRANSPORTATION PLANNING**

The Squaxin Island Tribe has various departments and organizations responsible for planning and implementing tribal development. Each development that occurs on or near the tribal properties has impacts to the transportation network and how people utilize it. To capture the future development plans, Red Plains interviewed various departments and staff to gather future development plans, potential horizon dates, and anticipated or studied impacts of those developments. The goal of these interviews were to develop a list of future development projects that would support analysis on the future transportation network through the Squaxin Island Tribal properties allowing the Tribal Planning Department to properly implement an adequate supporting transportation network.

In this section of the report we will identify those future development plans and get a better understanding of what projects will require TTP funding support for development and which projects will be funded through other funding programs. Those projects identified for future development utilizing TTP funding to develop the supporting transportation network will be separated to develop the Tribal Transportation Program Prioritized Project Listing. The tribal priority list is a list of all transportation projects that the tribe wants funded. The list is not financially constrained and it provides the BIA and FHWA insight to potential future transportation projects that may be developed by the tribe over the next 10-20 years.

As the Tribe moves closer to specific project planning, design, and construction of these facilities (or implementation of non-construction transportation projects) this list of projects provides the source listing of projects that will feed or populate the Tribal Transportation Improvement Program (TTIP). The TTIP is a fiscally constrained document typically illustrating the next 3-5 years of TTP funding expenditure. The TTIP will be clearly identified in the next part of this report Part Five.

#### **4-1.1 DEPARTMENT INTERVIEWS AND FUTURE DEVELOPMENT PLANS**

During the interview process discussions regarding future land use and developments with each department, it became very clear that the Squaxin Island Tribe's land development is strongly impacted by land ownership and acquisition. There were many land use developments discussed during this planning process that will not be identified in the Long Range Transportation Plan due the current land ownership or land status of particular parcels. When identifying future development plans we have divided the tribal properties into three regions: East of US101, West of US101, and elsewhere within the traditional tribal range. The following development project are listed accordingly.

**East of US101:**

“East of US101” is currently the location of the majority of the tribal community, housing, tribal campus, administration, institutions, departments, and cultural education/preservation. There is limited commercial development in this area at present. Connecting off of US101 heading east, SR108 provides the primary access through the tribal properties in combination with several county owned roads. The subsequent transportation network consists of Tribal and BIA roads servicing the various tribal developments. Proposed developments in this area are slated to maintain the current land use designations designed to enhance and support the community and culture.

- **Tu Ha’Buts Village Community Center Project:** Directly East of the Tribal Administration Building and Tribal Police Department lies an approximate two acre vacant lot that has served several past land uses including a ball field, boat storage, cultural activities, and canoe journey organization area. The property is slated to be the home of a cultural community center adding to the beautiful tribal campus area. The parcel is currently service by Klah Che Min Drive and Squaxin Lane. It is anticipated that additional roads, parking area, and pedestrian facilities (sidewalks and trails) will be required to support this development’s transportation need. The development will have impacts on the local drainage system underlying the current transportation system that will likely require improvements and upgrading. TTP funding may be used to perform transportation related improvements required for the project. The following TTP additions were made to accommodate this development.
  - TTP 0555 Section 010 was added
- **Klabsch Lane Apartment Expansion Project:** At the east end of the tribal community serviced by Klah Che Min Drive and various housing loops lies an existing tribal apartment building off of Klabsch Lane (TTP 0531). Expansion of the apartment complex is required to support the housing needs of the tribal members providing cost efficient housing. This development will require improvements and extension of Klabsch Lane, the construction of new parking, pedestrian facilities, and improvements to the adjacent TTP Route 0533 (which connects to Klah Che Min and runs north and then west from there to outline this future development. This route may require improvement as well to support the additional apartment complex. TTP additions were made to accommodate this development.
  - TTP 0531 Section 020 was added
  - TTP 0533 Sections 020 was added
  - TTP 0566 Section 010 was added
- **Tpeeksin Lane Housing Expansion Project:** The existing housing loop road Tpeeksin Lane is located north off Klah Che Min Drive and supports approximately

30 tribal homes currently. The new project includes the expansion of single family residential development north and potentially west of the existing development. The residential expansion project could add 15-20 new homes with the addition of new residential loop.

- TTP 0544 Section 010 was added

**West of US101:**

“West of US101” is currently the location of the commercial enterprises development for the Squaxin Island Tribe which includes the casino, hotel, golf course, trading post, fuel station, restaurants, tobacco processing, and other commercial developments. Again connecting off of US101 heading west (from the same US101 and SR108 interchange described for the “East of US101” area), SR108 provides the primary access through the tribal property in combination with several county routes. Much of the development is directly off SR108 in this area. The subsequent transportation network consists of Tribal and BIA roads servicing the various tribal developments. Proposed developments in this area are slated to expand on the commercial, enterprise, light industrial, and economic development existing land uses and are planned to increase and support the economic stability of the Tribe.

- **Clary Property Development Project:** Directly west off of the US101 and SR108 interchange on the north side of SR108 lies an undeveloped property extending approximately 1,000 feet uphill (approximately 23 acres) which was recently acquired by the Tribe for future development. The property is directly across SR108 from the existing Little Creek Casino and Resort. The proposed development is scheduled for development in phases. The site is slated to support the development of a truck tractor and RV accommodating fueling station designed for both commercial and typical vehicle refueling. Later phases of the development will likely include the development of a convenience store, RV park, picnic and park area, auto service station, suite style office complex, established trail head, potential cycling trail center, transit station/stop, and parking areas. Conceptual plans and site layouts have been developed in support of this development. Following the conceptual site plans, TTP additions were made to accommodate this development project.
  - TTP 0522 Sections 010-060 were added
  - TTP 0556 Sections 101-040 were added
- **Restaurant Development Project:** West of the existing Little Creek RV Park lies a gravel parking area of approximately 2.5 acres directly southwest of the SR108 and TTP 0215 Section 010 intersection that is slated for a future restaurant. The restaurant will increase the food options to the RV Park and further diversify the economic development of the tribe. The gravel parking area and through road will

require improvements to support the proposed development. TTP additions were made to accommodate this development.

- TTP 0512 Section 010 was added
- TTP 0567 Section 010 was added
- **Skookum Creek Tobacco Expansion and Improvement Project:** The project is located west of the Little Creek Casino and Resort property and south of SR108. The current facility is serviced by an entrance road and parking lot which are recommended for addition into the TTP Inventory. From this entrance south off of SR108 the access road travels through the parking area and extends east to connect to the Salish Cliffs Golf Club Entrance Road. The development project includes the planned expansion of Skookum Tobacco processing center with the potential addition of customer retail space designed to further diversify the production and inventory of the site. Specific goods to be provided in addition to the current tobacco product lines are still pending and at the time of this report unavailable. The expansion however will require improvements to the ingress and egress of the facility to include roadway and parking lot improvements. The existing entrance road TTP additions were made to accommodate this development.
  - TTP 0502 Section 010 was added
  - TTP 0503 Section 010 was added
  - TTP 0504 Sections 010-020 were added

#### **Traditional Tribal Range:**

This area is very loosely defined in this report intended to identify development projects that are not within the specific tribal boundaries near the US101 and SR108 Interchange but rather the general region historically inhabited by the tribe over many years. Geographically this area cover both the “East” and “West” areas as described above and extends to cover the entire region. Development projects outside of the two specific areas will be identified in this section.

- **Tribal/Regional Cycling Route Development Project:** This project is not yet specifically located, but would include cycling improvements to several of the local and regional routes designed specifically to accommodate both hiking and bicycle traffic. The Tribal Planning Department will be moving forward into a planning process to develop a feasibility plan for the program. The plan will evaluate the current roadway conditions of a series of contiguous loops of varying lengths departing and returning from a designated location on the tribal property (likely near the Little Creek Casino Resort, RV Park, and transit depot. To initiate the inventory of this project TTP additions were made on a specific loop identified during one of the meetings with the tribal departments. Based on the feasibility

plan that will follow this report many additional trails will likely be added to the TTP Inventory in support of the project.

- TTP 0800 Section 010 Squaxin Island Cycling Loop #1 was added (4.7 miles).

#### 4-2 PROJECT TRAVEL DEMAND AND TRAFFIC IMPACTS ANALYSIS

The Long Range Transportation Plan is typically designed to include a travel demand, trip generation, and planning level traffic impact analysis of each proposed development project. With the diverse nature of funding sources used to implement enterprise and commercial development for the Squaxin Island Tribe, this plan will not include this typical analysis. Through the permitting process of each development project, the tribe performs individual impact statements providing the insight needed to make the necessary improvements to the supporting transportation network.

Traffic impact analysis typically measures the current traffic volumes and patterns of the supporting transportation network. Modeling the existing traffic by performing traffic counts and turning movement counts at specific location on supporting roadways and intersections provides the best baseline information for projections. Based on the roadway lane volumes and turning movement volumes, capacity and level of service (LOS) analysis provides a discipline-standard of rating the functionality of the roads and intersections of the existing system from A-F. An LOS ratings of “A” means there is little congestion and the transportation network is adequately moving traffic along the system, where a LOS rating of “F” would indicate a failing intersection or roadway that is not able to properly convey the traffic along the system. Each roadway and intersection is analyzed to provide a baseline rating for the transportation system components.

Based on the described land use changes and development plans in an area, a trip generation analysis measures the anticipated trips generated by each specific development. Through traffic modeling we are then able to distribute those additional trips onto the baseline traffic volumes and patterns to project transportation conditions for various horizon dates. We can then re-calculate the level of service of both roadways and intersection that are impacted by the planned development. This process allows us to project into the transportation system’s future to identify deficient roads and intersections. Travel demand is the core of transportation planning and allows the responsible roadway authority the ability to perform transportation system upgrades and improvement prior to development as required to maintain a well-operating transportation system.

The transportation system analysis for the Squaxin Island Tribe and surrounding area as it relates to the Tribal Transportation Program is above and beyond the scope of the current

project supporting this plan. It is recommended that a regional transportation plan be developed in conjunction with the Federal Highway Administration, Washington Department of Transportation, and other local transportation stakeholders. Prior to the transportation study, it is recommended that the Tribe develop a consolidated Master Plan that identifies all of the proposed developments planned by the Tribe. The future welfare of the Squaxin Island Tribe is very much dependent on the regional transportation system. With required improvements identified for the US101 and SR108 Interchange, the potential realignment and functional classification change of Simmons Road, and the significant planned development specific to the Squaxin Island Tribe and along the US101 main thoroughfare between Olympia and Port Angeles, a regional transportation plan and traffic study is required to project conditions accurately.



## **PART FIVE – TRIBAL TRANSPORTATION IMPROVEMENT PROGRAM (TTIP)**

The Tribal Prioritized Project Listing is a list of future transportation related projects that are eligible to be completed using the Squaxin Island Tribe's TTP Program Tribal Share Funding. The list is generated as part of the planning process that ultimately supports the future Tribal Transportation Improvement Program (TTIP's). The projects identified below are listed in order of tribal priority at the time of this LRTP, however, the Tribal priority list is constantly changing and evolving as the specific needs of the community change. On an annual basis the Tribe generates the detailed TTIP which combines tribal prioritized projects from this list with available TTP funding for the year. The TTIP details the annual tribal priorities and forecasts the expected expenditures based on annual funding for the next three to five years. As this section identifies the conceptual prioritized list of projects, the annual TTIP details the true anticipated expenditure of the Squaxin Island Tribe's TTP Tribal Share. Below you will find a written description of each prioritized project. Following the written descriptions you will find the Prioritized Project Cost Estimate Table that provides conceptual engineering estimates for each project listed as individual "Schedules". It is important to note that these cost estimates are only planning level estimates for the projects from a transportation viewpoint. Each project may have special circumstances that at the time of this plan could not be foreseen or estimated. Examples would be: ROW acquisition may be required, environmental impact mitigation may be required, utility improvements may be required to support the projects, etc. The estimates provided allow the Tribe to program funding at a planning level to include the estimated construction expense of the transportation facility itself and the required design and typical pre-project planning and later construction management that is required to support the projects. The cost estimates provided also include as illustrated a 10% contingency fee that is meant to account for typical projects expenses that arise through the process from planning, design, bidding, construction, construction management, and project closeout.

The LRTP identifies 18 future projects in which the Tribe plans to construct in the future. All of the Prioritized Projects are illustrated on Map C – Prioritized Project Locations provided for you in Appendix F.

### **5-1 TRIBAL PRIORITIZED PROJECT LIST**

Resulting from the transportation planning study, the community involvement, the interviews with various tribal departments, and the roadway inventory process the following projects have been identified as priority projects to be funding (in full or partially) by the Squaxin Island Tribe utilizing its Tribal Transportation Program Tribal Share.

- 1. Transportation Program Administration (System Wide):** The Tribe currently contracts the TTP program funding through a government-to-government (G2G) agreement with the BIA. As such the Tribe incurs administrative costs and expenses to deliver the program and report the ongoing status of the projects and TTP activities. The Tribe would like to identify this project on the prioritized project listing for potential inclusion on the next TTIP.

2. **Transportation Planning and TTPFI Management (System Wide):** The Tribe would like to set aside funding to further develop and maintain the LRTP and TTP Facilities Inventory. There are annual costs associated with adding, revising, and maintaining the inventory and LRTP documentation required to support the projects under this program. As the tribal priorities change, the planning process and inventory must be designed in a way to remain liquid and have the ability to change accordingly. The Inventory update associated with this LRTP project has created many routes and sections in support of our planned projects and future development. The inventory is now completely incorporated into a high quality GIS. This Geographic Information System will also require continued updating and maintenance in years to come.
3. **Master Plan (System Wide):** As identified in Section 4-2 of this report the Tribe would like to move forward with a Master Planning Project which will have a significant transportation analysis component and deliverable. The Master Plan is critical for the future planning of the Squaxin Island Tribal and regional transportation network. The master plan will be written to consolidate all potential developments for the Tribe and be written in a way that will allow the Tribe to comprehend and realize the full expected costs required to support the future development plans (from a transportation perspective, as well as other infrastructure improvements required to support each project). This plan will allow the Tribe to set well-supported horizon dates on their future development plans. From these horizon dates the travel demand analysis including trip generation, traffic modeling, and level of service rating can be performed to better understand each developments micro and macro impacts on the supporting transportation network. The Master Plan should also identify the properties of interest and those development plans for conceptual analysis. This planning process should help guide the Tribe in future development prioritization.
4. **Transportation Safety Plan (System Wide):** MAP-21 established a safety program set aside within the TTP. The Tribe will secure funding to support the initial Transportation Safety Plan from the TTPSF set aside while utilizing several findings in this report to identify safety emphasis areas classified within the 4-E's of FHWA transportation safety planning (Engineering, Education, Enforcement, and Emergency Response). The public survey results will provide significant anecdotal data to support the safety plans and future project applications for funding. This LRTP combined with the collection and analysis of traffic crash and citation data will provide good baseline information required to identify emphasis areas of concern. Establishing a tribal safety team responsible for safety plan implementation will be critical to this project's success. With the limited funding available for these plans in the TTPSF program, the Tribe may look to supplement the transportation safety plan generation, analysis, and implementation with TTP funding. Possible supplementation projects: detailed Corridor Safety Plan

(SR108 from Bloomfield Road to the Little Creek Casino Resort), Roadway Safety Audits, Pedestrian Safety Plan, etc.

5. **Comprehensive Pedestrian and Bicycle Plan (System Wide):** Through the public survey process and interviews with various tribal departments, it became very evident that the connection of the tribal community members to the local goods and services (as supported by foot or bicycle travel) requires significant planning, expansion, and safety improvement considerations. The pedestrian plan must focus on the condition rating of the existing trails and pathways utilized by the tribal members (youth and elders) to access services by foot. Additional study and community involvement will be required to also identify the desired connection that currently do not exist. In this plan recreational trails should be strongly considered both for the health and benefit of the community but also for potential enhancement of commercial developments for the non-community member. Walking and hiking trails provide a great opportunity for tribal community enhancement by incorporating cultural education and preservation through interpretive signage, planned bench seating location with educational placards and interactive stations, the display of traditional tribal art, and environmental enhancement and education of plant and animal species. For extended hours of operation and use, path lighting should certainly be considered here in the Pacific NW where we experience short days and overcast low light conditions seasonally. The plan should strongly consider connectivity to other internal and external paths and trails. In instances where the potential exists for vehicle-pedestrian conflicts, well-designed safe crossing and walkways should be implemented to discourage accidents. A significant challenge that will be faced by the Tribe through the study will be to gain project support and buy-in from those local and regional agencies responsible for many of the roads traveling through the pedestrian trails and pathways transportation system. The LRTP identified significant challenges to pedestrian safety such as the tribal community and economic develop areas bisection on either side of US101. SR108 and several county roads will likely require pedestrian facility upgrades required to improved driver education and warning of the presence of pedestrians and pedestrian facilities. Traffic calming measures must be implemented to warn the un-expecting vehicle driver of the proximity to the tribal community and increased likeliness of pedestrian traffic. Where possible and practical, designs must be implemented to reduce the potential for conflicts even if that includes the development of pathways and trails that do not share the same alignments of existing roads. This project is one of the highest priorities of the Tribal Public and Administration.
6. **Cycling System Feasibility Plan (TTP Trail 800 Section 010 – Squaxin Island Cycling Route Loop #1):** The project consists of the conditions assessment and feasibility study of developing a Squaxin Island Cycling Program. The program will include the

identification of multiple loops originating near the Little Creek Casino Resort, RV Park and transit depot along with the establishment of bike lanes, bike facilities, stop/rest locations, restroom facilities, scenic pullout areas, and re-watering stations. On longer routes consideration will be given to potential camping sites and other overnight accommodations. GIS maps will be identified and formed to create a comprehensive Cycling Route Map designed to illustrate the established routes for both the traveling recreational public users and tribal community users alike. The system can be established and published to draw in additional commercial development and provide another unique feature to a visit to the Squaxin Island Tribe. Consideration to cultural education and enhancement should be given to the cycling program similar to that described in the more localized Pedestrian and Bicycle Plan identified as prioritized project #5. The feasibility plan should identify associated expenses to improving the cycling facilities along the designated loops and identify a phased implementation plan for various route loops. To initiate the project the Tribe has identified the potential alignment of Cycling Loop #1 which generally utilized SR108, SE Bloomfield Road, and SE Kamilche Point Road. It is important to note that this bike trail is a proposed route recommended for addition to the TTP system, and is currently not operational as a certified bike trail.

7. **Tribal Transportation Program Facility Maintenance Plan (System Wide):** During the LRTP project, Red Plains interviewed the tribal maintenance department to get their acute perspective on the needs for the continued maintenance of the transportation network. MAP-21 and supporting regulation made it possible for Tribes to utilize up to 25% of their full annual Tribe Share or up to \$500,000 (WHICH EVER IS GREATER). This new regulation allows the Tribe the authority to utilize 100% of its TTP annual allocation for maintenance activities as long as those facilities are in the TTPFI (TTP Facility Inventory). As a result of this regulation change Red Plains has made a comprehensive inventory effort to include all potential tribal transportation facilities to the official inventory (this includes parking lots, trails, and all roads within or providing access to the tribal properties). In conversation with the maintenance department, there is no established routine maintenance guide followed to preserve the existing transportation network. The maintenance team is responsible for all transportation, building, and wastewater maintenance activities and utilize facilitydude.com as a ticket-response based management system. They operate as an “on-call” service and “as-directed” department, responding to maintenance needs as they are reported. Several of the Tribe’s enterprises maintain their own facilities as well. This project would utilize the inventory conditions analysis collected during the LRTP planning and inventory process and program prioritized maintenance projects required to maintain and improve upon the functionality and condition of the transportation network. The plan

would decipher project that would be performed by the tribal maintenance department and those larger tasks that may need to be competitively bid. Project cost estimates for each maintenance project identified would be estimated, allowing the Tribe to better fiscally plan and schedule the required maintenance activities.

8. **Tribal Transportation Program Maintenance Project (System Wide):** This project is identified to include in the TTIP annually with a specific amount set aside to complete the programmed projects and activities identified in the Tribal Transportation Maintenance Plan as described in Project #7 above. Again, per regulation the Tribe can utilize their entire TTP annual allocation for maintenance activity under this prioritized project. The purchase, lease, or rental of maintenance equipment is also an eligible expense under this project in support of the maintenance department. Short term plans do include the purchase of a street sweeper/cleaner for TTP facility maintenance. Until the Maintenance Plan is complete, the Tribe may choose to show this project on the TTIP at an estimated annual level while accurately reporting expenditures.
9. **Squaxin Island Tribal Transportation Facilities Construction and Maintenance Standards Project (System Wide):** The project includes the development of the standard drawings and specification for roadway design, utility design, construction, and maintenance activities. Standards would include tribally approved typical sections for roadway design based on functional classification and use of the roadway. Pulling from various established existing standards from the Federal, State, and County codes, the Tribe would compile and adopt its own set of development standards suited to meets its project expectations and expected processes.
10. **Street Lighting Safety Improvement Project (Various Routes):** The project would consist of the planning, design, and construction of required transportation system illumination for specific intersections, roadways, parking areas, and trails. Results of the public survey identified improved street lighting as a significantly desired transportation system improvement. Since the number of locations, desired devices, accessibility to electrical, etc. are not known at this time, a cost estimate for this project would result from the design process to be completed at a later time. A street lighting plan and design is required to better understand the project and lighting systems.
11. **Squaxin Island Tribe Public Transit Service Supplement (System Wide):** The TTP funding can be used to support and supplement tribal transit program operation, equipment, and their supporting transit facilities. The Tribe would like to list this prioritized project to build in the flexibility of potentially (if needed) supplementing the current transit program. The current Federal Transit Administration funding and other funding sources used to operate the transit service have regulations limiting their uses in some instances. Having the ability to supplement your transit program with TTP funds can prove to increase flexibility, be used as match funding for FTA or other grant

programs, or simply supplement or expand the current program. This project should be listed annually on the TTIP as an established amount to provide for this flexibility.


- 12. Tu Ha'Buts Village Community Center Project (TTP Route 0555):** The project consists of the bidding, construction, and construction management of the transportation network improvements required to support the future community center. Project will include new construction of roads, sidewalks, and parking facilities.
- 13. Klabsch Lane Apartment Complex Phase II Project (TTP Route 0531, 0533, & 0566):** The project consists of the planning, design, bidding, construction, and construction management of the new transportation network required to support the expansion and development of an additional apartment complex. The project will include new construction of roads, sidewalks, and parking facilities.
- 14. Tpeeksin Lane Housing Expansion (TTP 0544 Section 010):** The project consists of the planning, design, bidding, construction, and construction management of the transportation system required to support the new residential street supporting up to an additional 30 tribal single family residences. The project will include the roadway and sidewalk developments.
- 15. Clary Property Development Project (TTP Route 0522 Sections 010-060 & Route 0556 Sections 010-040):** The project consists of the planning, design, bidding, construction, and construction management of the transportation network required to support the development. The conceptual plans of the project include multiple intersections with SR108, roads, sidewalks, parking lots, an RV Park, transit facilities, and structural wall.
- 16. Restaurant Development Project (TTP Route 0512 & 0567):** The project consists of the planning, design, bidding, construction, and construction management required to improve the existing gravel parking facility into a well-designed paved transportation network providing ingress and egress likely to a fast food style restaurant. The project will include roads, drive through, sidewalks, and parking lots.
- 17. Skookum Creek Tobacco Retail Center Access Road Project (TTP Route 0502, 0503, & 0504):** The project consists of the planning, design, bidding, construction, and construction management required to improve the existing roads and parking facilities to a standard and appearance suitable for a potential retail store location of expanded inventory.
- 18. Child Development Center Loop Project (TTP Route 0905 Sections 800, 805, 807 and TTP Route 0517):** The project consists of improving the ingress and egress to the child development center with the creation of a loop access road. The project will include the replacement and upgrade of an approximate 30 foot spanning bridge, along with a secondary access point to SR 108.
- 19. Wellness Complex Area Improvements (TTP Routes 0574 and 0580):** The project consists of the construction of expanded parking areas to support the Family Services

and Health Center future development plans. The project also includes some improvements and reconfiguration of the existing parking lots in the area.

**20. Dual Language Signage Project (System-wide):** The Tribe is researching funding sources to implement a dual language sign project. The project will consist of replacing existing street signs and installing new street signs where signs currently don't exist. The signs will list the Tribal name while providing the names translation and meaning. This is an area wide project that will enhance cultural preservation and awareness both for the tribal members and traveling public.

**21. Transit Facility Development Project:** The project consists of the construction of a new transit facility to include office space, bus maintenance facility, and bus storage facility that is slated to support the tribal transit program and motor pool.


## 5-2 CONCEPTUAL ENGINEERS ESTIMATES PER PROJECT

TOTAL LUMP SUM SCHEDULE SUMMARY		PROJECT ESTIMATES
Project #1 - Transportation Program Administration		\$10,000
Project #2 - Transportation Planning and TTPFI Management		\$25,000
Project #3 - Master Planning Project		\$162,500
Project #4 - Transportation Safety Planning		\$71,000
Project #5 - Comprehensive Pedestrian and Bicycle Trails Plan		\$50,000
Project #6 - Cycling System Feasibility Plan		\$27,500
Project #7 - Tribal Transportation Program Facility Maintenance Plan		\$20,000
Project #8 - Tribal Transportation Program Facility Maintenance Project*		\$10,000
Project #9 - SIT Transportation Facility Construction and Maintenance Standard		\$35,500
Project #10 - Street Lighting Improvement Project*		\$1,000
Project #11 - SIT Transit Program Supplementation Project*		\$1,000
Project #12 - TTP 0555 - Tu Ha'Buts Village Community Center Project		\$407,800
Project #13 - TTP 0531, 0533, & 0566 - Klabasch Land Apartment Complex II		\$240,400
Project #14 - TTP 0544 - Tpeeksin Lane Housing Expansion Project		\$604,000
Project #15 - TTP 0522 & 0556 - Clary Property Development Site		\$1,546,500
Project #16 - TTP 0512 & 0567 - Restaurant Design Project		\$395,650
Project #17 - TTP 0502, 0503, & 0504 - Skookum Creek Tobacco Project		\$515,500
Project #18 - TTP 0905 & 0517 - Child Development Center Loop Project		\$300,700
<b>TOTAL LUMP SUM CONTRACT AMOUNT</b>		<b>\$4,424,050</b>

\* These projects are identified on the list as a place holder as actual project expenses will be determined by plans identified in higher prioritized projects that must precede these activities. See the detailed project descriptions and cost estimates for details.

The user of the above estimate understands that Red Plains Professional (RPP), the Consultant, has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's method of pricing, and that the Consultant's opinions of probable construction costs are made on the basis of the Consultant's professional judgment and experience. The Consultant makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the above.



PREPARED BY:				PREPARED FOR:		Squaxin Island Tribe	
PROJECT NAME:		LRTP Project Improvements		DATE:		December 30, 2014	
SUBJECT:		Cost Estimate					

Squaxin Island Tribe					
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Transportation Program Administration</b>					
1	Annual Administration expenses required to deliver and maintain the Tribal Transportation Program Contracts and Projects	1.0	YR	\$10,000	\$10,000
<b>Project Estimate</b>					<b>\$10,000</b>

Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Transportation Planning and TTPFI Management</b>					
2	Annual expenses required to perform routine maintenance and updates to the Tribal Long Range Transportation Plan and inventory required to support the program	1.0	YR	\$25,000	\$25,000
<b>Project Estimate</b>					<b>\$25,000</b>

Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Master Planning Project</b>					
3	Project specific expenses to complete the Squaxin Island Master Plan designed to consolidate, analyze, and estimate future development project expenses, feasibilities, and implementation schedule. The project will include a comprehensive travel demand analysis of the Transportation Network	1.0	PLAN	\$162,500	\$162,500
<b>Project Estimate</b>					<b>\$162,500</b>

Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Transportation Safety Planning</b>					
4A	The project consists of generating the inaugural Transportation Safety Plan as identified in the Tribal Transportation Program Safety Funding guidelines and FHWA-SA-12-017 Developing Safety Plans - A Manual for Local Rural Road Owners	1.0	PLAN	\$12,500	\$12,500
4B	The project consists conducting and documenting Roadway Safety Audits on all of the TTP Routes in and around the tribal community and development areas and immediate proximity. The Safety Audits will provide better supporting documentation to apply for additional TTPSF grants and awards	1.0	PLAN	\$23,500	\$23,500
4C	The project consists of a Corridor Safety Analysis and Plan for SR108 from Bloomfield Road to the Little Creek Casino Resort and related developments. The US101 and SR108 Interchange will require specific analysis as it related to pedestrain as well as vehicular safety	1.0	PLAN	\$35,000	\$35,000
<b>Project Estimate</b>					<b>\$71,000</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Comrehensive Pedestrian and Bicycle Trails Plan</b>					
5	The project would generate a comprehensive mapping and conditions assessment of the existing pedestrian and bicycle paths, trails, sidewalks, and other related transportation facilities and recommend/estimate improvements and additions to the system based on current and anticipated usage	1.0	PLAN	\$50,000	\$50,000
<b>Project Estimate</b>					<b>\$50,000</b>

Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Cycling System Feasibiltiy Plan</b>					
6	The project consists of a conditions assessment and feasibility study for the development of a Squaxin Island Cycling Program. The project would support transportation, tourism, economic development, and promote community health. Cycling Loop #1 potential alignment has been identified while several other loops of varying length and difficulty should be identified and analyzed as part of the study. Improvements to supporting facilities would be included in this study	1.0	PLAN	\$27,500	\$27,500
<b>Project Estimate</b>					<b>\$27,500</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Tribal Transportation Program Facility Maintenance Plan</b>					
7	The project would utilize the TTP Inventory conditions assessment and provide analysis, estimates, and program future maintenance activities and projects required to sustain and improve the transportation network from a maintenance perspective. Based on the maintenance activities identified, the plan would estimate and program the implementation of equipment purchases(if warranted), materials purchases, and identify specific projects for potential outsourcing and bidding	1.0	PLAN	\$20,000	\$20,000
<b>Project Estimate</b>					<b>\$20,000</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Tribal Transportation Program Facility Maintenance Projects*</b>					
8*	The project is estimated at an uncalculated "place-holder" number simply to establish the project for inclusion on the TTIP. Project Number 7, once complete, should program a portion or all of the TTP funding and required maintenance expenses. Annually, those projects and activities will be quantified and generate this projects annual allocation - Up to \$500,000	1.0	YEAR	\$10,000	\$10,000
<b>Project Estimate</b>					<b>\$10,000</b>

Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Squaxin Island Tribal Transportation Facilities Construction and Maintenance Standards Project</b>					
9A	Pre-planning meeting and Tribal coordination	1	MTG	\$3,500.00	\$3,500
9B	Develop transportation design, construction	1.0	PLAN	\$32,000	\$32,000
<b>Project Estimate</b>					<b>\$35,500</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Street Lighting Safety Improvement Project*</b>					
10*	No estimate is provided at this time. The Safety Plans, Standards and Specifications Development, and Master Plan should identify the types, styles, number, utility availability, and locations that will be needed to address this public safety concern	1.0	Project	\$1,000	\$1,000
<b>Project Estimate</b>					<b>\$1,000</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>SIT Transit Program Supplementation Project*</b>					
11*	This project is a placeholder project identified to allow the Tribe to utilize TTP funding as needed to support the SIT Transit Services and provide funding flexibility to the program. It should be identified on the TTIP and the Tribe should identify the annual amount annually based on the program needs and forecasts	1.0	Project	\$1,000	\$1,000
<b>Project Estimate</b>					<b>\$1,000</b>
Item	Description	Quantity	Unit	Unit Price	Total Cost
<b>Tu Ha'Buts Village Community Center Project (TTP Route 0555)</b>					
12A	Planning	1	LS		\$4,500
12B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$12,800
12C	Design	1	LS		\$48,500
12D	Construction	1	LS		\$310,000
12E	Construction Management	1	LS		\$32,000
<b>Project Estimate</b>					<b>\$407,800</b>

<b>Klabsch Lane Apartment Complex Phase II Project (TTP Route 0531, 0533, &amp; 0566)</b>					
13A	Planning	1	LS		\$2,800
13B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$11,500
13C	Design	1	LS		\$28,500
13D	Construction	1	LS		\$178,600
13E	Construction Management	1	LS		\$19,000
<b>Project Estimate</b>				<b>\$240,400</b>	
<b>Tpeeksin Lane Housing Expansion (TTP 0544 Section 010)</b>					
14A	Planning	1	LS		\$6,800
14B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$38,000
14C	Design	1	LS		\$47,200
14D	Construction	1	LS		\$465,000
14E	Construction Management	1	LS		\$47,000
<b>Project Estimate</b>				<b>\$604,000</b>	
<b>Clary Property Development Project (TTP Route 0522 Sections 010-060 &amp; Route 0556 Sections 010-040)</b>					
15A	Planning	1	LS		\$15,600
15B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$36,200
15C	Design	1	LS		\$128,700
15D	Construction	1	LS		\$1,246,000
15E	Construction Management	1	LS		\$120,000
<b>Project Estimate</b>				<b>\$1,546,500</b>	
<b>Restaurant Development Project By RV Park (TTP Route 0512 &amp; 0567)</b>					
16A	Planning	1	LS		\$4,500
16B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$15,400
16C	Design	1	LS		\$33,750
16D	Construction	1	LS		\$312,000
16E	Construction Management	1	LS		\$30,000
<b>Project Estimate</b>				<b>\$395,650</b>	

<b>Skookum Creek Tobacco Retail Center Access Road and Frontage Access Project (TTP Route 0502, 0503, &amp; 0504)</b>					
17A	Planning	1	LS		\$4,500
17B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$18,400
17C	Design	1	LS		\$42,600
17D	Construction	1	LS		\$410,000
17E	Construction Management	1	LS		\$40,000
<b>Project Estimate</b>				<b>\$515,500</b>	
<b>Child Development Center Loop Project (TTP Route 0905 Sections 800, 805, 807 and TTP Route 0517)</b>					
18A	Planning	1	LS		\$5,200
18B	Pre-Design Activities (Survey, Environmental, Geotechnical, Traffic Study, Etc)	1	LS		\$38,000
18C	Design	1	LS		\$35,200
18D	Construction	1	LS		\$202,300
18E	Construction Management	1	LS		\$20,000
<b>Project Estimate</b>				<b>\$300,700</b>	

### 5-3 EXAMPLE TRIBAL TRANSPORTATION IMPROVEMENT PROGRAM TABLE