

TRANSPORTATION DECISIONMAKING

Information Tools For Tribal Governments

Developing A Long-Range Transportation Plan



U.S. Department
of Transportation
**Federal Highway
Administration**

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Developing A Long-Range Transportation Plan

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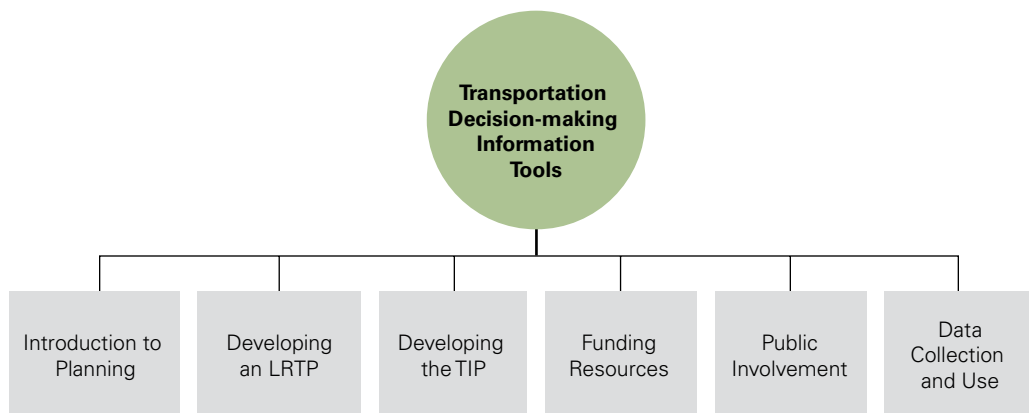
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Administration**

INTRODUCTION

The Federal Highway Administration's (FHWA) Office of Planning developed this document in cooperation with the Bureau of Indian Affairs (BIA) Northwest Division, other FHWA offices (Federal Lands Highways [FLH], New York Division, and Resource Center), and the Federal Transit Administration (FTA) Office of Planning and Environment. The goal of this document is to provide a tool to assist Tribal Governments in developing a Long-Range Transportation Plan. The *Transportation Decisionmaking: Information Tools for Tribal Governments* series contains modules that cover different aspects of transportation planning. All modules identify linkage points between Indian Reservation Roads (IRR) transportation planning and the Statewide and metropolitan planning process. The intention of this series is to provide an overview of fundamental and conceptual techniques as well as notable practices. The first round of modules¹ to be developed include:

- Introduction to Planning.
- Developing a Long-Range Transportation Plan (LRTP).
- Developing the Transportation Improvement Program (TIP).
- Funding Resources.
- Public Involvement.
- Data Collection and Use.



¹Additional modules, once developed, will be accessible on the Internet at the FHWA Tribal Planning Web site at <http://www.fhwa.dot.gov/hep/tribaltrans/> and on the FHWA/FTA Transportation Planning Capacity Building Web site at <http://www.planning.dot.gov/tribal.asp>

The purpose of this module, *Developing a Long-Range Transportation Plan* (LRTP), is to provide Tribal decisionmakers and planners with a summary of the fundamental process for developing an LRTP. This module offers a general framework for developing an LRTP and provides examples of noteworthy practices by several Tribal organizations.

By developing an LRTP, Tribes will benefit from the following two key perspectives:

1. Process-related practices that can be applied within the context of “good planning” within a particular Tribal area.
2. An appreciation of how Tribes (and Tribal transportation planning) connect to other planning activities, including IRR, Statewide, metropolitan, and local transportation planning processes (as appropriate).

The IRR Rule (25 Code of Federal Regulations [CFR] 170) identifies elements that may be included in an LRTP. The specific steps described herein are not required by Federal statute or regulation; instead, these steps represent a general process on how to develop an LRTP in support of the requirements of the IRR program, as well as of the Federal Highway Administration/Federal Transit Administration Statewide and metropolitan planning process.

STEPS FOR DEVELOPING A LONG-RANGE TRANSPORTATION PLAN

The purpose of transportation planning is to identify broad goals to meet transportation needs. The multimodal strategies for achieving these goals can and should address current and future community land use, economic development, environment (natural, human, and cultural), traffic demand, public safety, health, and social needs, among others.

There are several Federal requirements that call for an LRTP. Most Tribes are familiar with this requirement in the IRR Program Final Rule (IRR Rule 25 CFR 170.410-415). Additional requirements for LRTPs can be found in the FHWA/FTA statute and

regulation on Statewide and metropolitan planning (23 United States Code [USC] 134 and 135; and 23 CFR 450.214 and 450.322).

Generally speaking, all the Federal regulations and the statute mentioned above require public involvement and a 20-year horizon for the LRTP to assist communities in the transportation decisionmaking process. In addition, there are specific elements required for States and metropolitan areas.

For Tribal governments, the IRR Rule identifies elements that may be included in the LRTP (see Figure 1); however, there are

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 to 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.
- J. An analysis of funding alternatives to implement plan recommendations.

Figure 1. Elements That May Be Included in a Long-Range Transportation Plan (Source: IRR Rule 25 CFR Part 170.411).

no statutory required steps or elements for a Tribal LRTP.

This outline covers a set of eight basic steps to consider when developing your Tribe’s LRTP. It is important to note that some textbooks outline a process with as few as four steps. The important message here is that this model can be tailored to meet each Tribe’s needs and resources. This module for *Developing a Long-Range Transportation Plan* is adapted for Tribes from the joint FHWA/FTA document titled *Planning for Transportation in Rural Areas*.² These basic steps are outlined in Figure 2 below.

The LRTP steps outlined in this module can be used to develop an LRTP as required by the IRR Rule (25 CFR 170.410 through 170.415) as well as a means for coordinating planning activities within the Statewide and metropolitan transportation planning processes (23 CFR 450.214 and 23 CFR 450.322). As noted earlier, the steps outlined are neither to be considered prescriptive nor are they required. As with every

Tribe, each transportation-planning process is unique and should be tailored to best meet local community circumstances and needs.

Transportation planning provides a framework for the community to make decisions about its transportation system. The LRTP is a tool for Tribal members as well as for the Tribal decisionmakers. As you set out to develop the LRTP for your Tribe, remember that a successful process does not have to be complex and that there is no set length of pages. Through a focused set of Tribal meetings, your Tribe can develop a transportation plan that is suited to meet the unique needs of your Tribe. These planning activities can occur with a minimal budget. Ultimately, the plan will identify long- and short-term needs that may be large or small investments. For example, the short-term budget may include either bridge improvements or perhaps only one van and one driver.

Public Involvement and Consultation With Planning Partners

Public involvement is an opportunity to capture a community’s values and perceived needs, establish consensus, and identify issues and concerns. The IRR Rule and the FHWA/FTA Statewide and metropolitan planning process specify requirements related to public involvement. In fact, public involvement is perhaps the single most important component of transportation planning. Effective public involvement will result in opportunities for Tribal members to participate in the planning process. As depicted in Figure 2, public involvement should take place throughout the entire planning process, and it is an integral component to many of the steps.

Prior to adopting plans or programs, the Metropolitan Planning Organization (MPO) or State Department of Transportation (DOT) are required to provide citizens, affected public agencies, representatives of



Figure 2. Basic Steps in Developing an LRTP.

²This section is adapted from the joint FHWA/FTA document titled *Planning for Transportation in Rural Areas*, which can be accessed at <http://www.fhwa.dot.gov/planning/rural/planningfortrans/index.html>.

transportation agency employees, private providers of transportation, other affected employee representatives, and other interested parties with a reasonable opportunity to comment on the plan. The new IRR Rule found in 25 CFR 170 identifies a set of criteria for the BIA and Tribes regarding public hearings. After consultation with the appropriate Tribe and other agencies, the MPO or DOT then will determine the need for public involvement (based on the criteria) for an IRR transportation improvement program and an LRTP or project. In addition, a public review of the draft IRR LRTP is required.

Separate and equally important to the public involvement process is consultation with planning partners. As described in Figure 3, there are consultation requirements specified in the Statewide, metropolitan, and IRR statute and regulation. Consultation between planning partners is an opportunity to confer on needs of the larger community, to compare and coordinate planning approaches, and to generally communicate about the mutual vision for the transportation system that often will cross over multiple jurisdictions.

The Navajo Transit System (NTS) successfully demonstrated a comprehensive process for public involvement outreach as well as consultation with planning partners while developing the Navajo Transit System.

*In developing the plan, the NTS conducted extensive outreach across three States and to more than 100 Tribal chapters. This effort brought together passengers, Tribal leaders, and representatives from the Navajo Nation, the Bureau of Indian Affairs . . . to collaborate on developing a long-range plan for the NTS. The plan demonstrates a realistic need for regional and community transportation. It includes strategies for expanding mode choices and providing access to healthcare and employment for those living in remote, isolated areas with few transportation options.*³

—Transportation and Planning Excellence Awards FY 2004, Honorable Mention

³The Navajo Transit System Long-Range Transportation Plan received an honorable mention through the Transportation Planning Excellence Awards in FY 2004. More information is available at <http://www.fhwa.dot.gov/planning/tpea04/tribal.htm>.

Action	Description	Statutory/Regulatory References
Indian Reservation Roads Program	Defines consultation as “government-to-government communication in a timely manner by all parties about a proposed or contemplated decision in order to (1) secure meaningful Tribal input and involvement in the decisionmaking process and (2) advise the Tribe of the final decision and provide an explanation.”	25 CFR 170.100-108 25 CFR 170.413 25 CFR 170.424 25 CFR 170.435-441
Statewide Transportation Planning	Defines distinct forms of cooperation or consultation to be undertaken by the States in the development of Statewide long-range transportation plans and Statewide Transportation Improvement Programs with the following three types of governments: (1) metropolitan planning organizations, (2) non-metropolitan local officials, and (3) Indian Tribal areas.	23 U.S.C. 135(d)-(f) 23 CFR 450.104; 450.208(a)(23); 450.210(a); 450.214(c)(2); 450.216(a)
Metropolitan Transportation Planning	Requires that where a metropolitan planning area includes Federal public lands and/or Indian Tribal lands, the affected Federal agencies and Indian Tribal governments shall be involved appropriately in the development of transportation plans and programs. The Transportation Management Area (TMA) Planning Certification Review is an oversight opportunity for FHWA/FTA to ensure that the metropolitan planning process in each TMA is being conducted in accordance with applicable provisions of Federal law.	23 U.S.C. 134(h)(3)(B) 23 U.S.C. 134(i)(5) 23 U.S.C. 101(a)(23) 23 CFR 450.104; 450.202; 450.312(i); 450.330(a)

Figure 3. Consultation and Public Involvement Statutory/Regulatory Requirements.

Step 1: Establish Policy Goals and Objectives

The first step in developing an LRTP is to discuss the goals and objectives. At this stage, the Tribe is setting the overall goals for how the transportation system should be designed, built, operated and maintained over the next 20 years.

LRTPs should be linked to the Tribe's land use plan and should consider a full range of modal choices and investment options such as the following:

Transportation modal choices:

- Roads.
- Rail.
- Transit.
- Equestrian.
- Air.
- Water.
- Bicycle.
- Pedestrian.

Investment options:

- System operations.
- System maintenance.
- Technological improvements.
- Capacity expansion.
- Innovative financing/leveraging of funds.

To be most useful, the goals should be specific enough to guide the development of the plan but at the same time flexible enough to respond to changing conditions and implementation priorities. For example, the Organized Village of Kake (OVK) in Alaska developed a transportation plan with a general goal to address:

...the future land use, social and economic development, traffic demand, public safety, and health and social needs for the next 20 years. The LRTP will help identify OVK's role in the community of Kake's development and help maintain the transportation infrastructure that is needed within Kake.

Policy statements are also often developed as a result of goals. In the policy statement below from the Bois Forte Indian Reservation 20-year transportation plan, multiple modes are identified. Emphasis is placed on an "interconnected and efficient system." It is also important to note that this policy statement considers the transportation boundaries beyond the limits of the reservation.

The purpose of this study is to develop a guide for transportation improvements over a 20-year period, looking at all modes of transportation affecting the reservation. This study looks at the entire Bois Forte transportation network in order to develop a plan that links all modes together into an interconnected and efficient system. In addition, the study examines ways to connect reservation residents to other parts of the State whether it be through increased service from the Orr Regional Airport, or mass transit that links the reservation to the Iron Range cities of Minnesota.⁴

Additional items to consider in the development of policy goals and objectives include the following:

- Determining who will be responsible for making the policy decisions.
- Developing policy goals and objectives that involve local officials and provide for broad stakeholder and modal involvement.
- Making a clear connection to action plans.
- Identifying timelines for decisions and mechanisms for modifying and updating policies.
- Determining how your Tribal plan coordinates with neighboring communities (i.e., local or county) as well as with regional and State policies.

Goals and objectives may include qualitative and quantitative characteristics. For example, one goal may be for all members of the Tribe to have access to some form of transportation. A possible objective to achieve this goal may be to establish a dial-a-ride system, accessible to all Tribal members. Figure 4 identifies NTS' goal and objective for completing their long-range plan.

⁴ Bois Forte Indian Reservation 20-year Transportation Plan, March 2002

In 2003, the NTS completed a long-range plan to guide the gradual strengthening and expansion of its services and facilities. This long-range plan was the first of its kind in the history of the NTS and represents a unique achievement in Tribal transportation planning. While short-range, three-year plans are commonly prepared in order to secure Federal transit funding, those plans are limited by their lack of ability to pursue the “big picture” and are not appropriate tools for implementing major changes in strategy or direction. The NTS recognized that a longer-range vision was needed to address the large-scale route restructuring and capital improvements needed for the system, including a new administrative and maintenance facility. In developing the plan, it became evident that a clear and financially sustainable long-term strategy would be necessary to meet future transit demand across the reservation. The result was a long-range plan unique in its assessment of need and in its prescription of incremental and cumulative change.

Figure 4. FHWA/FTA Transportation Planning Excellence Awards: 2004 Honorable Mention (co-sponsored by The American Planning Association).

Every Tribe will, of course, have different priorities and therefore different goals and objectives. Nevertheless, the key factor is that the goals and objectives are developed in a consultative manner, including significant public involvement; are measurable; and are used to guide plan development.

Step 2: Analyze Transportation System Conditions

To determine what future investments to make, the Tribe should first evaluate the existing conditions of the transportation system. There are a variety of tools and techniques available to evaluate existing conditions.

To evaluate the existing system condition, you must first identify the types of system performance measures to use. The measurements will vary on the basis of the mode. For example, service objectives for roadways may include consideration of roadway capacity, design, and safety. Examples of transit service standards are population coverage and frequency of service. The Navajo Nation provides a good example of how the first two steps support the development of an LRTP:

The Navajo Nation is by far the largest Tribal reservation in the United States, covering over 26,000 square miles and comprising over 280,000 members. The NTS currently has fifteen vehicles serving seven routes. The long-range plan found that, given the continuation of historical trends, transit demand is anticipated to outpace system growth by a factor of seven over the next 20 years. It was clear that the NTS faces some unique challenges in meeting future demand within current funding levels. It also became clear that, given the real funding constraints of the past two decades, the plan would need to carefully prioritize improvements. Based on a comprehensive assessment of existing capital facilities and service levels, ridership data, Tribal leadership priorities, and Reservation demographics, the NTS long-range plan identified and prioritized a series of capital and service improvements over the next 20 years.⁵

Factors to consider when conducting a conditions analysis are as follows:

- Defining the geographic limits of the transportation system.
- Defining potential environmental (cultural, human, and natural) impacts.
- Defining information needed about the overall system and the different elements of the system (e.g., What conditions are most important for the economic and social well-being of your community?).
- Determining who is going to use the information and why.
- Defining which measures of system conditions will be used.
- Maximizing the use of existing management systems, analysis tools, and data collection procedures to provide measures and data.

If data collection is beyond your current resources, it is important to remember that Federal, State, and local agencies (such as the Federal Lands, BIA, State, city, and county) are valuable resources for obtaining existing system-conditions data. The BIA maintains a database of Indian Reservation Roads. The State DOT may have data regarding operational and physical characteristics of the State and county system.

⁵The Navajo Transit System Long-Range Transportation Plan received an honorable mention through the FHWA/FTA Transportation Planning Excellence Awards in FY 2004. More information is available at <http://www.fhwa.dot.gov/planning/tpea04/tribal.htm>.

Data sharing enables cooperating agencies to effectively utilize one another as a resource. Some areas, like Washington State, are working with Tribes to develop an accurate database of incidents on reservation roads. Another example of data sharing comes from the Executive Summary of the Grand Portage Transportation Plan:

The first step taken toward completing the transportation plan consisted of working with the Grand Portage Natural Resources Department to obtain the comprehensive inventory of all roads within the reservation developed by their Geographic Information System staff. Results from the inventory were used to establish an up-to-date database of all reservation roads.⁶

Measurement/Monitoring of Existing System Conditions

The steps involved in the measurement and monitoring of existing system conditions are as follows:

- Establish agreed upon measures and evaluation procedures for system elements based on performance goals and objectives. A way to do this is to establish condition measures that describe the physical conditions of facilities or condition measures that describe levels of service or operational performance.
- Determine data and information requirements to measure progress toward policy goals and objectives that are set for the transportation system.
- Apply condition and performance measures.

Types of condition information that fall into the following categories are shown in Table 1.

Table 1. Condition information and category.

Category	Measure
Extent of the system—basic inventory	<ul style="list-style-type: none"> • Number of lane miles • Number of transit vehicles • Square footage of bridges • Length of culverts, etc. • Services available
Use of system	<ul style="list-style-type: none"> • Traffic, ridership, etc.
Physical conditions/performance	<ul style="list-style-type: none"> • Pavement, bridges, transit equipment
Operational conditions/performance	<ul style="list-style-type: none"> • Mobility • Safety

Remember that these steps are general. Many Tribes will not develop this level of detail when measuring existing system conditions. For example, in the Organized Village of Kake Transportation Plan, factors considered are “weather, soil, and topography,” “community road system,” drainage, “right-of-way road ownership,” and “inventory of maintenance equipment.”

Forecasting Future Conditions

Plans are future-oriented. Although they typically respond to a backlog of needs, they should address future conditions and plan for them. In rural areas, straightforward approaches can be used to forecast future conditions.

There are a number of ways to estimate travel demand within the transportation-planning context. These range from simple techniques, such as historical trend analysis, to variants of more complex computer models that require large databases of demographic and socioeconomic information to forecast travel demand. Simplified demand estimation techniques and analysis are appropriate in most Tribal planning situations.

The demand analysis should identify all perceived mobility issues, impediments, and opportunities in the region. For example, if a section of roadway is thought to be unsafe and safety improvements are proposed, then a detailed accident history should be compiled to support the assessment. Or if the transportation of the elderly and/or disabled is felt to be an important transportation need, then various findings from State, regional, and local transit needs and benefits studies should provide the supporting documentation. The State DOT will be able to provide modal data, such as traffic volumes, volume/capacity ratios, accident rates, transit ridership, and the core rail system to assist in this analysis.

Land use and economic development information can be accessed through the following:

Local Comprehensive Plans

- Tribal agencies, BIA, regional, city, or county plans.
- Local school districts.

Rural Development Plans

- Federal, State, local (e.g., water districts, Indian Health Service).

⁶ Grand Portage Transportation Plan Executive Summary, January 2003

Census Bureau

- Population statistics.
- County business patterns.
- American Indian and Alaska Native Service Population.

U.S. Geological Survey

- Land use and other mapping data.

Step 3: Perform Needs Analysis

Transportation system needs are most usefully assessed by evaluating the gap between the goals and objectives that are established for the transportation system and the baseline system conditions. The needs are the planned actions for addressing this gap. How much can be implemented over the planning horizon will depend in large part on finance levels. A successful needs analysis should:

- Provide technical information for setting goals.
- Define the costs of meeting plan goals and objectives.
- Compare transportation plan needs with available funds.
- Provide information to evaluate trade-offs among different needs.

In identifying the deficiencies, results from public involvement meetings/activities should be used as input, although these may be mostly subjective. The Grand Portage Transportation Plan states the following:

Following the gathering of the road inventory data, the first transportation steering committee meeting was held to review the inventory data and identify issues within the Grand Portage transportation system. Issues regarding the transportation system were also gathered from Grand Portage residents through the use of a community-wide survey mailed in June 2002. The issues were grouped into the following topics: trails and recreation; the Grand Portage National Monument; community walkability and safety; the Grand Portage Lodge and Casino; and maintenance issues. In addition, the public

was offered an additional opportunity to comment on the transportation planning process during an open house held at the Grand Portage Community Center in June 2002.

Gap Analysis

The needs analysis can be used to determine broad but different categories of need for achieving planning goals. A first step in a needs assessment is to measure the gap between the transportation system goals and current objectives and conditions. This requires a set of goals and objectives that can be quantified and that can relate to the operational and physical condition of the transportation system. The results of this gap analysis are often referred to as *deficiencies*.

Evaluation of Alternative Strategies and Actions to Address the Gap

The purpose of this step is to assess the cost and impacts on transportation system condition of alternative strategies or improvements that address transportation needs. For long-range planning purposes, the needs areas can be grouped different ways. They can be organized for the different elements of the transportation system (roads, bridges, rail, etc.) and different policy goal areas (mobility, safety, preservation, economic development, environmental, etc.) that are established in the plan. Evaluation can be undertaken at a “coarse” level to consider the full range of alternative strategies and to identify those meriting further consideration. These can be then subject to a more detailed analysis.

Select Strategies and Actions—Identify Costs

For your Tribal transportation plan, remember to consider alternative strategies for addressing deficiencies. Once a strategy is developed, the cost of implementing this strategy defines the needs. The total cost of the plan improvements is important for determining implementation. This is developed by determining the cost of implementing the selected strategies. See “Cost Estimates” under Step 5.

Step 4: Set Priorities

Because transportation needs typically outweigh expected revenues, it is important to prioritize the needs identified during the transportation planning process. Given the often overwhelming number of potential improvements, it is important that the planning process has an agreed upon approach to project prioritization. The key success factors for setting priorities are as follows:

- Establishing formal prioritization-ranking criteria and applying it consistently.
- Applying the prioritization criteria to all programs and projects.
- Making efforts to use the same prioritization criteria as those used to develop the Statewide plan.
- Prioritizing ranking criteria that consider as many factors as possible in determining program priorities (system, multimodal, environmental, social, and economic factors). Perhaps specific projects will need to be phased over several years.

In the case of the Grand Portage Transportation Plan, the “Step 3: Needs Analysis” outlined in this module was addressed in combination with the “Step 4: Set Priorities.” This again underscores the point made earlier that Tribes should customize the process to fit their needs and available resources.

Step 5: Establish a Funding Plan

The transportation plan needs to be realistic, and usually that means fundable. A financial analysis of the specific projects that implement the transportation plan will help to ensure that it is realistic. Without tying transportation projects to reliable funding, the recommended solutions that are developed can easily become a “wish list.” Principles for developing a funding plan include the following:

- Including an analysis of the participating Tribe’s capabilities of financing needs.
- Basing the multiyear financing plan on the needs identified in the funding plan.

- Taking into account the possibility that funding falls short of meeting identified needs. The funding plan should contain a discussion of how additional funding will be raised or how assumptions will be reassessed to ensure that level of service standards will be met or adjusted. If there are funding constraints, specific projects may have to be funded over several years.

Financial Planning Steps

The following steps can be used to develop the transportation finance analysis:

1. Identify transportation needs and solutions.
2. Develop cost estimates for solutions.
3. Assess the ability to pay for these projects and services.
4. Develop financing policies.
5. Forecast revenue from existing and potential sources.
6. Develop a financing schedule by matching transportation projects and services to revenue projections.
7. Establish policies to govern the management of the transportation-financing program.

These steps are not strictly sequential. For example, forecasting revenue from existing and potential sources can proceed at the same time as the identification of transportation needs.

Cost Estimates

Cost estimates are necessary to compare the transportation needs with available revenues. Costs should be estimated for the following:

- Maintaining the existing and proposed transportation system.
- Designing and building new, expanded, or replacement facilities (e.g., roads, terminals, bridges).
- Acquiring new transit vehicles and related capital costs (e.g., maintenance facilities).
- Operating transportation services, such as transit or ridesharing.
- Administering and planning the transportation system.

On the highway side, there are well-established unit costs that can be applied to develop needs estimates for improvements. Project development costs to consider include planning, environmental analysis and review, engineering, design, construction, right of way (property, relocation, and settlement costs), construction, and maintenance costs. Use “rough” unit prices, for example, \$3,000/linear foot of new roadway, \$800/linear foot of new, shared bike–pedestrian path, and \$200/square foot for a new bridge. These unit prices can come from a variety of sources such as BIA, county, State, FLH, FHWA, or FTA.

Unit costs can be developed and factored for inflation. For other transportation modes there are less well-established methods; however, most State DOTs are now working on developing consistent assumptions and a rigorous approach for developing cost estimates for other transportation modes.

It is important to estimate transportation systems operations and maintenance costs, because these will likely consume a significant portion of the existing revenue resources. Estimates can usually be based on existing historic data. The information required is likely to be available from the finance officer of the State, transit agency, and city or county. Estimates of new costs for facilities and services will generally be based on a combination of rough estimates and specific cost estimates. Detailed cost estimates based on preliminary engineering, right-of-way appraisals, or operating plans only need to be done for the most immediate recommended improvements. Most of the recommended improvements in a long-range transportation plan will need an “order-of-magnitude” cost estimate. These estimates are

based on factors such as typical “per mile” construction costs for different types of roadways or the operating costs for similar transit services in other counties.

Step 6: Develop the Plan

Developing the plan document or “putting it all together” can be a difficult process if not approached in a systematic fashion. Key success factors for developing plans include the following:

- Having clearly established roles and responsibilities for who will develop the plan, how and when it will be adopted, and how and when the plan can be amended.
- Using the planning team and the public consultation process to help develop the outline for the plan.
- Ensuring that the plan is a strategic and visionary document and not a “wish list.”

Just as the Statewide, MPO, and LRTPs are the basis for the Statewide Transportation Improvement Program, for the Indian Reservation Roads Program Transportation Improvement Program (IRRTIP), the LRTP is used to develop the Tribal Transportation Improvement Program and the IRRTIP.

During the planning process, all technical data and methodologies used should be documented. All references and other reports cited should also be documented. A model outline for a transportation plan is provided in Figure 5.

After the evaluation, analysis, and public involvement process takes place, a recommendation is made to the Tribal Council. A formal presentation should be made to the decisionmaking group, presenting the technical analysis and information gathered. As decisionmakers for the Tribe, Tribal Council members may want further information or may choose a different alternative than exactly what is presented by Tribal staff. With the technical analysis and information presented, the Tribal Council can make an informed decision.

EXECUTIVE SUMMARY

Provides an overall summary of the plan's objectives, methodology, findings, and recommendations.

SECTION I: GOALS AND POLICY STATEMENTS

This section presents the overall vision, goals, and objectives developed during the planning process. These form the overall umbrella for the direction of the transportation plan in terms of plan priorities.

SECTION II: TRANSPORTATION ELEMENT

Chapter I. Introduction

The introduction outlines the purpose of the plan, the plan participants, and the organization of the document.

Chapter II. Existing Conditions

This section presents the existing condition of the transportation system in terms of:

- Roadways (road and bridge conditions, traffic volumes, safety, and other criteria).
- Public or quasi-public transportation (transit, school bus, emergency service routes and facilities, air, and water).
- Non-motorized transportation (bicycle pathways, pedestrian pathways, and equestrian routes).
- Land use and population considerations, plans and programs of other agencies and jurisdictions, and county-wide policies.

Chapter III. Traffic Forecasts

This section presents historical traffic trends; population and land-use trends; population and demographic projections; population distribution; future land-use map; and future traffic projections and trends.

Chapter IV. Alternative Strategies Evaluation

The alternative strategies evaluation section presents the determination of needs based upon existing conditions and traffic. It forecasts the evaluation of alternatives for traffic safety, level of service and congestion, environmental impacts, financing, community support, and consistency with plans of other agencies and jurisdictions.

Chapter V. Priorities and Recommendations

This section presents prioritized recommendations for improvements to the area transportation system including: level of service; new corridors; road widenings; spot/intersection widenings; realignments or channelization; traffic control or signalization; shoulder improvements; paving, bridge replacements, or other physical improvements; pedestrian, bicycle, or equestrian improvements; transit and transit facilities; and land-use/transportation linkages.

Chapter VI. The Financing Element of the Plan

The financing section presents cost estimates for identified improvements, potential financing options, re-assessment of identified improvements based upon financial constraints, and the 3-year transportation improvement program for the area.

Chapter VII. Implementation and Monitoring

This section provides the plan for continually monitoring the performance of the transportation system to determine the progress being made in improving system performance and to identify additional areas of improvement.

SECTION III: APPENDICES

- A. References
- B. Technical Data and Methodologies
- C. Excerpts from other Reports

Figure 5. General Transportation Plan Format

Step 7: Develop the Program

Programming refers to a series of activities carried out by transportation planners, including data assessment, appraisal of identified planning needs, and consideration of available or anticipated fiscal resources (i.e., funding) to result in the drawing up, scheduling, and planning of a list of identified transportation improvements for a given period of time. The programming of projects for funding should consider:

1. Timing of the need for improvements (e.g., when the facility falls below the locally established level of service under assumed growth rates).
2. Timing for fund availability (i.e., transportation project may need to be replaced, phased over several years).

Plans often will require more funds than are available from Federal, State, and local sources traditionally dedicated to transportation funding. This means that the agencies engaged in transportation planning should identify funding mechanisms to support implementation of the transportation plan or reassess their desired levels of service.

Step 8: Implement and Monitor the Plan

For a transportation plan to be successful, it must be implemented effectively, and its progress should be monitored against the plan's objectives, thereby providing a "feedback loop." Transportation planning includes continually monitoring the performance of the transportation system and ensuring that plans are being implemented to meet the intended objectives.

The success factors for implementation and monitoring of the transportation plan include the following:

- Developing an on-going process known to participants for monitoring progress toward plan objectives.
- Establishing a process for how decisions regarding implementation are to be made.
- Establishing a process for conditions tracking.
- Establishing a well-defined process for how priorities will be set.

Less effective transportation plans typically lack an effective implementation plan and monitoring mechanism. These are required to "keep the plan alive" and to ensure that the plan guides and shapes transportation decisions in the future. Transportation plans need to be periodically reviewed and updated to stay current. The IRR Program requires an annual review of the LRTP and updates every 5 years (see 25 CFR 170.414).

CONCLUSION

Transportation planning provides a framework for the community to make decisions about its transportation system. The LRTP is a tool for tribal members as well as for the tribal decisionmakers. As you set out to develop the LRTP for your tribe, remember that the process does not need to be complex to be successful. There is no set length of pages. Through a focused set of tribal meetings, your tribe can develop a transportation plan that is suited to meet the unique needs of your tribe and that can be developed with a minimal budget.

RESOURCES

Planning Glossary	http://www.planning.dot.gov/glossary.asp
IRR Program	25 CFR 170.410 through 170.415
Statewide and Metropolitan Planning Process: 23 USC 134 & 135; 23 CFR 49 450	http://www.fhwa.dot.gov/legsregs/legislat.html
A Briefing Notebook for Transportation Decision-Makers Officials and Staff	http://www.planning.dot.gov/documents/BriefingBook/BBook.htm#2BB
Guide to Federal-Aid Programs and Projects	http://www.fhwa.dot.gov/programadmin/part1.htm#resroads
Planning for Transportation in Rural Areas	http://www.fhwa.dot.gov/planning/rural/planningfortrans/index.html
FHWA Native American Coordination	http://www.fhwa.dot.gov/hep/tribaltrans/index.htm
FHWA/FTA Transportation Planning Capacity Building	www.planning.dot.gov
Indian Health Service	http://www.ihs.gov
FHWA Office of Planning, Environment and Realty	http://www.fhwa.dot.gov/hep/index.htm
FTA Office of Planning and Environment	http://www.fta.dot.gov/about/offices/hq/4956_4950_ENG_HTML.htm
Federal Railroad Administration	http://www.fra.dot.gov
Bureau of Transportation Statistics	http://www.bts.gov
Office of Transportation Technologies	http://www.ott.doe.gov
ITS Electronic Document Library	http://www.its.dot.gov
Federal Aviation Administration	http://www.faa.gov
ITS Joint Program Office	http://www.its.dot.gov
ITS America	http://www.itsa.org
The Safe Communities Services	http://www.nhtsa.dot.gov/safecommunities
U.S. Department of Commerce	http://www.doc.gov
Job Access and Reverse Commute	www.fta.dot.gov/wtw/ http://www.fta.dot.gov/grant_programs/specific_grant_programs/4339_ENG_HTML.htm
Transportation Toolbox for Rural Areas and Small Communities	http://ntl.bts.gov/ruraltransport/toolbox/
National Atlas of the U. S.	www.nationalatlas.gov/
U.S. Census Bureau	www.census.gov
U.S. Geological Survey	http://www.usgs.gov/

NATIONAL ASSOCIATION WEB SITES

American Association of State Highway and Transportation Officials (AASHTO)	http://www.aashto.org
American Planning Association (APA)	http://www.planning.org
American Public Transit Association (APTA)	http://www.apta.org
American Public Works Association (APWA)	http://www.apwa.net
American Short Line and Regional Railroad Association (ASLRA)	http://www.aslra.org
Amtrak	http://www.amtrak.com
Association of American Railroads (AAR)	http://www.aar.org
Association of Metropolitan Planning Organizations (AMPO)	http://www.ampo.org
Community Transportation Association of America (CTAA)	http://www.ctaa.org
National Association of Towns & Townships	http://www.natat.org
National Association of County Engineers (NACE)	http://www.nace.org
National League of Cities (NLC)	http://www.nlc.org
National Association of Regional Councils (NARC)	http://www.narc.org
Appalachian Regional Commission (ARC)	http://www.arc.gov

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