

STATEWIDE TRANSPORTATION PLAN – Moving Nevada Through 2028



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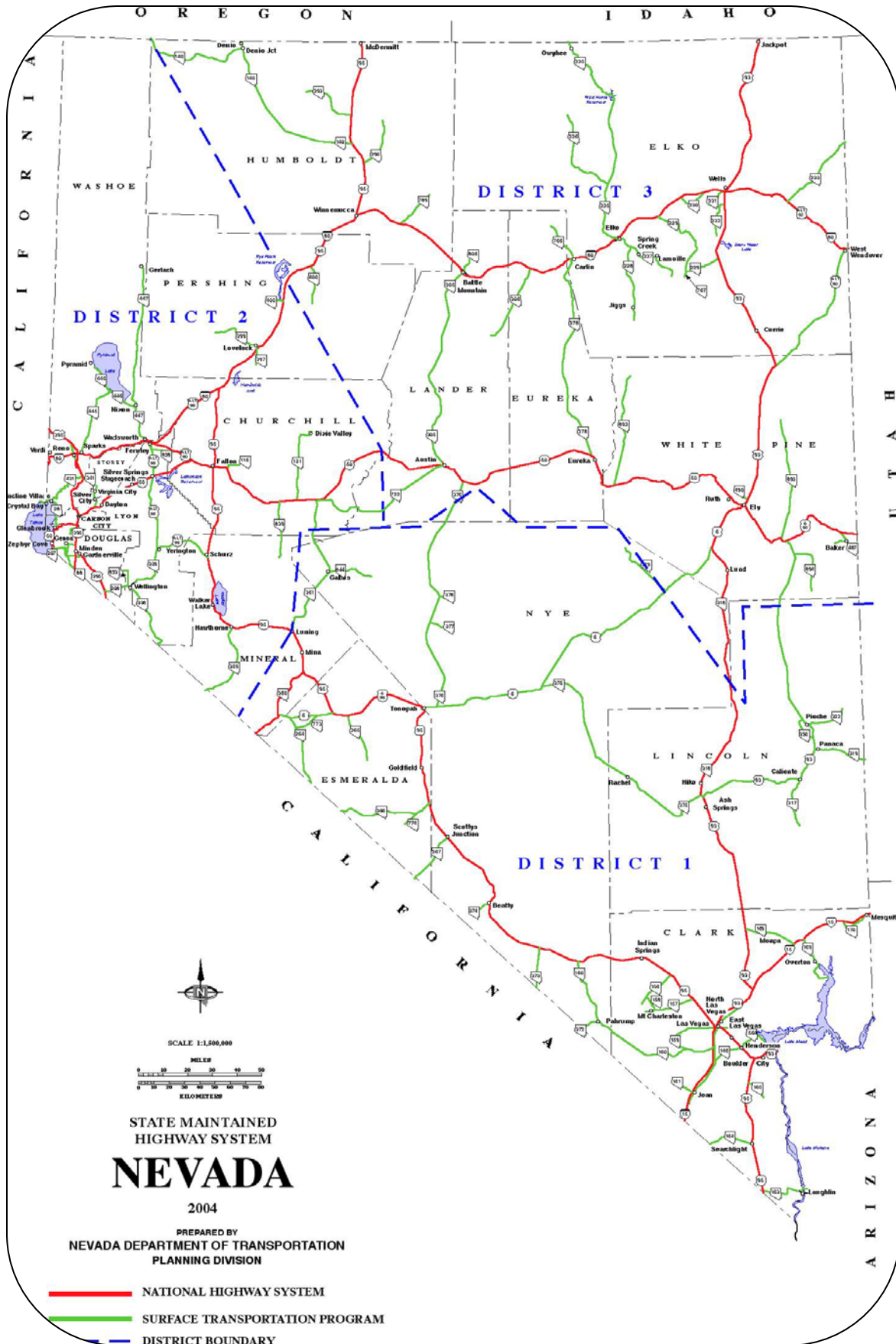
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EXECUTIVE SUMMARY



Plan Development

Nevada’s Statewide Long-Range Transportation Plan is a policy document that is intended to provide direction and strategies for the Nevada Department of Transportation (NDOT) over the next 20-years. This Plan was prepared by NDOT with the assistance of many individuals and organizations. It is a multimodal plan that explores the issues affecting aviation, bicycles, pedestrians, transit, cars, trucks, and trains and the linkage between these modes.

This Plan was developed in accordance with the current federal transportation bill, known as the Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) provisions. The last edition of the Statewide Long-Range Transportation Plan, titled the NevPLAN, was adopted in 2002 under the Transportation Equity Act for the 21st Century (TEA-21). The Plan was renamed with this edition.

There are four designated Metropolitan Planning Organizations (MPO’s) in Nevada: Clark County, Washoe County, Carson City and Lake Tahoe. These four MPO’s have the primary stewardship for transportation planning within their boundaries, including member cities and surrounding unincorporated areas. The

MPO’s facilitate the coordination of planning activities between the multiple local agencies and NDOT with their urbanized areas. NDOT coordinates with the MPO’s and represents the interests of the state.

We worked closely with all of our transportation partners, (MPO’s, local, state, federal and tribal nations) to ensure that our efforts were coordinated and consistent with theirs. This is only one planning element of many. All of these plans should provide a consistent and accurate depiction of the needs of the statewide transportation system.

During the development of this plan NDOT reached out to the citizens, communities and businesses of Nevada to find out what’s important to them and what they want our transportation system to look like in the future. We held several workshops across the state, attended community meetings, participated in corridor studies, and attended transportation fairs. We also used the comments that we received from over 500 customer opinion surveys.

“More emphasis needs to be placed on new residents to connect the place they work with the place where they plan to live.”

-anonymous survey comment

Guiding Principles

Through the Mission Statement, the general direction of the organization is established. NDOT’s Mission is:

“Providing a better transportation system for Nevada through our unified and dedicated efforts.”

NDOT has established Goals and Core Values to help achieve our Mission (see Chapter 1 – Introduction). These Goals and Core Values were used to develop the Guiding Principles for this Plan. We also used the input that we received from our citizens. Our intent was to develop direction for this Plan that reflects the opinions of the users of our transportation system. These Guiding Principles represent the goals, core values, and standards of conduct that NDOT will use to guide the decisions we make. We have also developed strategies to help us attain our Guiding Principles, and objectives to gauge how well we are meeting our principles. These Guiding Principles are also used as the initial step in our project selection and prioritization process.

GUIDING PRINCIPLES:

- **SAFETY** – Improve safety for all modes of our transportation system.

A core priority of NDOT and all citizens in this state is transportation safety across all modes. NDOT will work to ensure that safety is considered and implemented, as appropriate, in all phases of transportation planning, design, construction, maintenance, and operations.

- **CUSTOMER SERVICE** – Improve internal and external customer service and satisfaction.

NDOT will work to improve and enhance our transportation network to have a positive impact on our residents and the traveling public. We will work to improve our relationships with the contractors and crews who build our infrastructure, local businesses and developers who need access to their facilities, the customers who need timely permits to work in our rights-of-way, and our political leaders who are trying to satisfy their constituents.

- **FISCAL RESPONSIBILITY** – Secure the highest amount of funding possible for our state and ensure that it is invested responsibly and properly.

NDOT will work to secure the highest amount of federal and state funding possible and we will use effective planning and decision making to ensure that funding goes to the state’s highest priorities. We will ensure proper use of our funds while fulfilling the state and federal requirements that go along with the benefit of receiving those funds.



- **ASSET MANAGEMENT** – Protect the public’s investment in our transportation system.

NDOT will work to balance our limited funding with the appropriate highway maintenance that will most effectively maximize the life of our system and protect our assets.

- **MOBILITY / ACCESSIBILITY** – Provide a statewide, multimodal, interconnected, efficient transportation system that enhances Nevada’s Economic Competitiveness.

NDOT will continue to work with our partners (MPO’s, local, state, federal and tribal governments), to increase the capacity of our transportation system. We will seek ways to make our existing transportation system work

better by utilizing strategies such as, Intelligent Transportation Systems, Access Management, and Travel Demand Management. We will continue to promote and support other modes of transportation that alleviate congestion, such as transit services and facilities for pedestrians and bicycles.

- **FREIGHT MOVEMENT** – Improve the safety and mobility of freight movers.

NDOT understands that a well functioning transportation system is vital to our economy and that delays cost our freight carrier industry and our economy money. We will work to make commercial carrier trips to and through our state as smooth and efficient as possible and provide them with superior intermodal connectivity when needed.

- **ENVIRONMENTAL STEWARDSHIP** – Ensure the human and natural environments are considered when developing the transportation system.

A sound transportation system must address the relationship between the movement of people and goods as well as the impact upon our environment. NDOT will work closely with our MPO’s, federal, state, regional, local and tribal governments to coordinate and preserve our environment and natural resources for our future generations.

About Nevada

At one time, Nevada was the nation’s most sparsely populated state, outside Alaska, when the Paiute and other Native American tribes were making a meager living from the land and animals. Our population exploded from 1950 to 2000 increasing more than 1200%. Since 1990 Nevada’s population grew by 133% with nearly 1 million new residents, the fastest

rate of growth in the nation. Las Vegas experienced the highest percentage change of any metropolitan area in the country. Today at about 2.7 million people, Nevada is increasingly home to retirees and workers in new technology industries. Nevada’s population is expected to continue to grow to 4.3 million people by 2026.

Nevada’s economy is overwhelmingly based on tourism, especially gaming, (legalized in 1931) and resort industries centered in Las Vegas and, to a lesser extent, Reno and Lake Tahoe. Nevada is the gambling capital of the US with gaming taxes accounting for 34.1% of general fund tax revenues. The service sector employs about half of Nevada’s workers. Nevada is 5th in the country for tour bus operations, and most are coming into Las Vegas.



The State of Nevada is divided into 17 individual counties that vary widely in population. The 10 largest cities in Nevada are: Las Vegas (545,147), Henderson (232,146), Reno (203,550), North Las Vegas (176,635), Sparks (82,051), Carson City (56,062), Elko (16,685), Boulder City (15,177), Mesquite (13,523), Fernley (11,342).

There are 31 Native American Reservations and Colonies in Nevada covering almost 2,000 square miles and close to 9,000 members.

Nevada is the driest state in the nation, with an average annual rainfall of only about 7 inches. Almost 80% of Nevada lands are federally owned and given over to military and related use. Nellis Air Force Base and the Nevada Test Site have been the scene of much nuclear and aircraft testing.

About 100 miles northwest of Las Vegas, Yucca Mountain has been proposed to be the primary depository for U.S. nuclear waste. If approved, rail transportation will be the mode used in Nevada and nationally, for the shipment of 70,000 metric tons of nuclear waste to Yucca Mountain. The State of Nevada has filed a suit challenging DOE’s final Yucca Mountain Environmental Impact Statement (FEIS). The State contends the DOE should have fully and adequately addressed transportation of spent nuclear fuel and high-level radio waste to Yucca Mountain in the FEIS, and that the transportation analysis contained in the FEIS is legally and substantively deficient and entirely inadequate.

With a calculated value of about \$4.9 billion in 2006, Nevada’s mineral industry is a major economic force in our state. Nevada is the nation’s leading producer of gold, barite, and lithium. Copper, diatomite, dolomite and other minerals are also extracted. Nevada is rich in geothermal resources and is second only to California in the production of geothermal power. The state’s leading agricultural industry is cattle and calves. Crops consist mainly of hay, alfalfa, seed, barley, wheat, and potatoes.

Manufacturing includes gaming machines and associated products, aerospace equipment, lawn and garden irrigation devices, and seismic monitoring equipment. Warehousing and trucking are also significant industries in Nevada.

Transportation – Current and Future

There are a total of 34,624 centerline miles of roads in Nevada, 29,202 miles are maintained by the local agencies and 5,422 miles are maintained by NDOT. Nevada’s interstates, urban freeways, principal arterials, and rural minor arterials were rated #1 for the smoothest roads in the Nation by the Federal Highway Administration.



Sixteen percent of all Nevada’s roads are on the state maintained system, however, that 16% carries 58% of the total vehicle miles of travel. Thirty-nine million people visited Las Vegas in 2005 and 53% percent of them arrived by automobile or bus. The state maintained system also carries 83% of all truck traffic and 87% of the heavy truck traffic. Annual vehicle miles of travel on all Nevada roads exploded from 10 billion in 1990 to 22 billion in 2006. That number is expected to increase to 35 billion vehicle miles by 2010. Almost every major road leading into and out of the Las Vegas Valley and the Reno area needs to increase capacity in order to keep up with growth.

The fatality rates in Nevada are similar to the national experience, with significant decreases during the 80’s and early 90’s followed by a noticeable flattening over the past decade. However, Nevada’s fatality rate has

consistently been 20% to 40% above the national average. While Nevada continues to rank high nationally in the statewide rate of traffic fatalities on the state’s highway system, improvement has been made through concentrated and coordinated efforts. A core priority of NDOT and all citizens in this state is transportation safety across all modes.

There are 1898 public bridges in Nevada; 1084 are owned by NDOT, 776 are owned by federal, county, city or other governmental agencies, and 38 are privately owned. Currently, only 5% of Nevada’s bridges are rated as deficient, compared to the national average of 25% placing us #1 in the Nation. But by 2020, we are projecting a \$24 million deficit in our bridge preservation funding program.

In Nevada, truckers are the third largest motorists group using our highways, after commuters and tourists. Interstate 15 and Interstate 80 are among the busiest truck-freight corridors in the nation and that traffic is expected to increase significantly in the future. After the tragic events of September 11, 2001, the US 93 Hoover Dam crossing of the Colorado River was closed to freight traffic increasing congestion and wear and tear on alternate routes. It is also costing the trucking industry million of dollars in delays and fuel. New bridges planned downstream of Hoover Dam and near the existing Laughlin Bridge will reduce congestion on these facilities.

September 11, 2001, also cause safety for the freight carrier industry to take on a new dimension. It forced freight carriers to increase their efforts to ensure the safe, secure and efficient movement of goods into and across the US.

Our transportation system is a vital link for mobilizing our armed forces and for

supporting civilian emergency response. Per Nevada Revised Statutes, (NRS 414) NDOT is the primary agency responsible for keeping state highways and roads repaired and open during a disaster and assisting with traffic control on our routes. NDOT has evaluated our existing security threat and the countermeasures that we have in place and as a result, we have documented our security system and provided guidelines to ensure that we have secured our nations highways and bridges for all motorists.

There is one major railroad operating in Nevada, Union Pacific with 1,091 miles of track. There are various other small lines operating in Nevada completing the total track miles of 1,449 in the state. Our railroads are key players in moving freight, and to some extent passengers. The coordination among these modes is critical for the movement of goods and services in and through our state and to our economy.

Amtrak operates the only intercity rail passenger service across Nevada via the California Zepher. This train operates daily between Oakland, California and Chicago, Illinois with Nevada stops in Reno, Sparks, Winnemucca and Elko. Annually, about 70,000 passengers use Amtrak for Nevada origins or destinations.



Nevada recently received \$45 million through the SAFETEA-LU Technical Corrections Bill to continue environmental work

on the proposed 300-mph magnetically levitated train from Anaheim, California to Las Vegas, Nevada. In addition, environmental work for a high-speed diesel-electric passenger train between Las Vegas and Victorville, CA is being done by a private company.

The US Congress has identified 43 “High Priority Corridors” nationally. Those of particular note for Nevada are:

- Economic Lifeline Corridor, running through California, Arizona, and Nevada.
- US 395 Corridor, running through Washington, Oregon, Nevada, and California.
- The CANAMEX Corridor, running north-south through Montana, Idaho, Utah, Nevada, and Arizona.

Two of these corridors are truly multimodal, having both interstate highways and transcontinental rail routes. One is the Economic Lifeline Corridor, which branches in Southern California. One branch includes Interstate-15 and the Union Pacific Railroad (UP) main line through Las Vegas to a junction with the CANada – MEXico Corridor (CANAMEX).

The Interstate-15 corridor through southern Nevada has qualified for the prestigious Corridors of the Future Program (CFP). As one of six multi-state transportation corridors selected, I-15 will be eligible for the accelerated designation of federal funds and project development. The CFP corridor selection was based on congestion reduction, mobility improvements, supporting economic growth, and innovations in project delivery and finance. Nevada took the lead on the multi-state application working together with partners in California, Utah, and Arizona to create a regional project of national significance.

As a major trade route, I-15 connects to four transcontinental highways – I-10, I-40, I-80

and I-90. The I-15 corridor is a critical commerce corridor which plays a significant role in the movement of goods in the United State, commuters within or close to urban core areas, and recreational and seasonal travelers. NDOT has selected this corridor for a demonstration project to examine the effectiveness, value and functionality of managed lanes and confirm the suitability of public-private partnerships for Nevada. Interstate 15 also runs directly through the heart of PROJECT NEON, which is a comprehensive strategy to address the short and long-term transportation needs along the I-15 corridor.

Although Interstate 15 and Interstate 80 are national freight and rail corridors for the Ports of Oakland and Long Beach California, Nevada does not have any major waterways or ports that would fall under the jurisdiction of the United State Department of Transportation.

Nevada is ranked the seventh largest state in the nation, in terms of square miles, and as a result our population centers are spread across many miles. Because of our geography, aviation plays a critical role in bridging the vast distances between our communities. Nevada’s public-use airports include two international, three commercial-service, and 47 general-aviation facilities. McCarran International Airport in Las Vegas is the 5th busiest airport, by traffic movement, in the world and it is currently at capacity. A new commercial airport 30 miles southwest of Las Vegas (Ivanpah Valley) is currently being planned. Ivanpah Valley Airport is expected to be open in 2017 and will serve the projected 55 million passengers annually with 14-gate terminals and two parallel runways for concurrent takeoff and landings.

Public transportation in Nevada is a critical element used to move our tourists and workforce particularly in the urban areas of our

state. But it is also becoming an essential mode of transportation in rural Nevada. From 1999 to 2008, our rural transit program grew from \$1M in annual federal funding to over \$10M, and we are on track to become a \$20M program in the next few years. Since 1975, over 400 vehicles have been acquired that operate in 45 areas throughout our state. Buses in rural Nevada travel over 5,000,000 miles per year and there has been no severe crashes and no fatalities in over 25 years.

“I think NDOT must recognize that a transportation system consists of more than automobiles, and should work to provide a transportation system for Nevada that balances the modes.”

-anonymous survey comment

Many of our elderly, disabled, tribal reservation members, and the general public in rural areas depend on our transit services. Each year over one million rides are given on vehicles provided through NDOT with Federal Transit Administration funding. These rides contribute to the quality of life and independence for many of our rural residents by providing access to employment, medical, shopping, and government services.

Through our surveys and public outreach we consistently find there is a demand for a continuous, high quality bike/pedestrian system that links our communities and the cities together. NDOT recognizes that bicycling and walking are important components of our transportation system and we make every effort to integrate these modes into as many transportation projects as feasible. Our State Bicycle Plan supports measures to encourage bicycling in Nevada and has two primary goals: to increase levels of bicycling throughout

Nevada and reduce crashes between bicycles and motorists. Our Pedestrian Plan provides a cohesive and uniform approach to pedestrian safety, mobility, security and comfort. The Plan stresses the need for system continuity across all components of a given pedestrian system.

NDOT, the MPO’s, and various municipalities have been increasing their efforts to acquire funds to provide bicycle and pedestrian facilities in their areas. In fact public agencies in Las Vegas have plans to add over 1800 miles of bicycle lanes, routes and shared use paths in the next 12 years, at a cost of \$50 million.

Most transit systems across Nevada have now equipped their buses with equipment to accommodate bikes. The Citizens Area Transit system in Las Vegas carries over 54,000 bike trips every month, which may be the greatest number of any transit system in the United States.



Finally, NDOT recognizes that we cannot continue to build our way out of congestion, we need to find ways to make our existing transportation system work better. NDOT is committed to continue to focus on strategies such as Intelligent Transportation Systems, Access Management, and Travel Demand Management. A Traffic Incident Management Coalition, consisting of local and state public safety individuals, emergency responders and NDOT, has also been formed to

focus on incident management. Collectively, these efforts are designed to reduce congestion by reducing the total number of vehicles on the roadway, reducing traffic on congested areas, improving the efficiency of the roadways and rerouting traffic away from congested situations such as accidents.

NDOT, the RTC of Southern Nevada, the Nevada Highway Patrol and local public agencies have formed a cooperative venture called Freeway Arterial Systems of Transportation (FAST) System in the Las Vegas Valley. FAST is one of the first truly integrated Intelligent System organization in the country. It provides opportunities to reduce congestion, improve incident response time and management, reduce the number of crashes, and efficiently use agency resources to manage traffic. The traffic control aspect of the FAST system is achieved through traffic signals, ramp meters, dynamic message signs and lane-use control signals.

NDOT was also responsible for pushing forward on the construction of our first High Occupancy Vehicle (HOV) lanes in Nevada, along the US 95 corridor in Las Vegas. Right now this HOV lane is restricted to motorcycles and cars with three or more passengers. Our objective is encouraging drivers to share rides.

Funding our Transportation System

NDOT is facing a severe funding shortfall crisis. Our state highway system needs are expected to be \$11 billion by 2015. We are currently facing a \$3.8 billion shortfall (in 2006 dollars), for the 10 largest projects planned for completion in 2015. This figure does not include the costs of many of our smaller projects, nor does it account for the maintenance and operation of our infrastructure.

We have more fuel efficient vehicles consuming less fuel and fewer revenues are being generated from gas taxes. Nevada’s gas tax is 18.4¢. State highway taxes and fees have not been raised since 1991. Compounding all of this, highway construction costs rose 99.7 percent nationally and highway construction inflation has risen nearly 44 percent in the past few years, exceeding general inflation.

Recognizing our impending funding shortfall, Nevada’s Governor went before the 2007 Legislature with Assembly Bill 595. This bill was passed and could provide up to \$1 billion dollars in bonding capacity for Super/Mega (Major) projects identified by NDOT as priority projects for our State. By providing funds to start vital road projects now, versus a pay-as-you-go strategy, we will save the taxpayers an estimated \$600 million in construction inflation costs. For more information on our Performance Measures see the “Annual Report for Assembly Bill 595.”

“I would like to see Nevada improve in transportation innovations. We have a golden opportunity to learn from other metropolitan areas and develop better traffic flow, reduce congestion and add mass transit ahead of the real need.”

-anonymous survey comment

NDOT initiated the Pioneer Program as another tool to address our anticipated funding shortfalls. This new program will help develop innovative road funding and construction partnerships. We hope to provide faster project delivery and relieve congestion, while securing more funding amid a statewide transportation funding deficit. This is a solution-oriented transportation program that explores innovative ways to deliver the roads that Nevada needs.

As part of the Pioneer Program, Governor Gibbons named a 12-member Public-Private Partnership Advisory Panel to explore the use of public-private partnerships. This is when a contractual agreement between a public agency, such as NDOT, and a private company is used to fund transportation improvements.

Whether through taxes, tolls or other fees, NDOT will continue to look to this new program to help provide quality transportation for Nevada. We are looking for programs and opportunities that work specifically for Nevada, while building upon lessons learned from other states. The Pioneer Program will join other NDOT initiatives to deliver quality transportation projects for the citizens and visitors of Nevada.

The future of our transportation infrastructure and our future land use are directly and inseparably related. The issues of population growth and transportation needs must be addressed cooperatively. The state, cities, counties, Native American tribes, trucking industry and all transportation agencies operating in Nevada, must coordinate and work as partners to innovatively and strategically invest in improvements that will make our system more efficient and effective. Our goal is to improve our transportation system for the economic vitality of our state while preserving our quality of life.

Chapter I – INTRODUCTION

Every resident of and visitor to Nevada is affected by transportation in one or more ways. Whether you are traveling daily to and from work, traveling for recreation, using a bike path for exercise, or are a visitor using our transit system to get around Las Vegas, it is part of our transportation network. Our quality of life in Nevada is heavily dependent on a productive, efficient and interconnected multimodal transportation system. The challenge for the Department of Transportation (NDOT) is to efficiently move people and goods throughout our state while providing a seamless network between travel mode options.

Nevada’s Statewide Long-Range Transportation Plan is a policy document that is intended to provide direction and strategies for NDOT over the next 20-years. This Plan was prepared by NDOT with the assistance of many individuals and organizations. It is a multimodal plan that explores the issues affecting airplanes, bicycles, pedestrians, transit, cars, trucks, and trains and the linkage between these modes.

During the development of this plan NDOT reached out to the citizens, communities and businesses of Nevada to find out what’s important to them and what they want our transportation system to look like in the future. We held several workshops across the state, attended community meetings, participated in corridor studies, and attended transportation fairs. We also used the comments that we received from over 500 customer opinion surveys. For a detailed description of our public outreach efforts, see Appendix A.

This Plan was developed in accordance with the Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) provisions. The financing

cycle for the Federal-aid Highway Program begins when Congress develops and enacts surface transportation authorizing legislation, such as SAFETEA-LU. This surface transportation act provides the foundation for the Federal-Aid Highway Program. It is the statutory provision that establishes or continues a Federal agency, activity or program and is generally for a six year period. The last edition of the Statewide Long-Range Transportation Plan, titled the NevPLAN, was adopted in 2002 under the Transportation Equity Act for the 21st Century (TEA-21). The Plan was renamed with this edition.



Federal and State Regulations

Under the United States Code, Title 23 Section 135 each state is required to develop a statewide transportation plan that provides for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the State and an integral part of an intermodal transportation system for the United States. The process for developing the plan shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems to be addressed.

Following are excerpts from the Code of Federal Regulations for “*Development and*

content of the long-range statewide transportation plan” (CFR 450.214). To view the entire US Code Title 23 Section 135 and the Code of Federal Regulation for Statewide Transportation Planning and Programming please refer to the Appendix.

- Cover a minimum 20-year forecast;
- Provide for the development and implementation of the multimodal transportation system and consider elements and connections between public transportation, non-motorized modes, rail, commercial motor vehicle, waterway and aviation facilities;
- Ensure the preservation and most efficient use of the existing transportation system;
- Reference or summarize applicable studies and any statements of policies, goals, and objectives on issues that were relevant to the development of the long-range statewide transportation plan;
- Should include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects contained in the Strategic Highway Safety Plan;
- Should include a security element that incorporates or summarizes the priorities, goals, countermeasures, or projects set forth in other transit safety and security planning programs, as appropriate;
- Be developed in consultation with affected non-metropolitan officials;
- Be developed in consultation with the Tribal governments;
- Include a discussion of potential environmental mitigation;
- Be developed in consultation with Federal, State, and Tribal land management, wildlife, and regulatory agencies;
- May include a financial plan.

In addition to Federal Law, NDOT has State Laws that guide the Planning Division in the development of this plan. The following is a summary of Nevada Revised Statutes (NRS) 408.233, for transportation planning at NDOT:

- Be consistent with the social, economic and environmental goals of the State;
- Designed to meet the present and future needs of the State and local areas of the State for adequate, safe and efficient transportation facilities and services;
- Coordinated with local plans for balanced transportation facilities and services;
- Establish planning techniques and processes for all modes of transportation.

NDOT Mission / Vision / Goals

Through the Mission Statement, the general direction of the organization is established. NDOT’s Mission / Vision / Values/ and Goals are:

Mission:

“Providing a better transportation system for Nevada through our unified and dedicated efforts.”

Vision:

“The nation’s leader in delivering transportation solutions, improving Nevada’s quality of life.”

Core Values:

- Integrity – Doing the right thing
- Honesty – Being truthful in your actions and your words
- Respect – Treating others with dignity
- Commitment – Putting the needs of the Department first
- Accountability – Being responsible for your actions

Goals:

- Optimize safety
- Be in touch with and responsive to our customers
- Innovate
- Be the employer of choice
- Deliver timely and beneficial projects and programs
- Effectively preserve and manage our assets
- Efficiently operate the transportation system

Guiding Principles

NDOT has established Guiding Principles for this Plan. Our Vision, Values, Goals, and Guiding Principles represent the ideas, beliefs and standard of conduct that we will use to guide the decisions we make every day. We have also developed strategies to help us attain our Guiding Principles, and objectives to gauge how well we are meeting our principles. Please refer to Chapter IV for details on these Guiding Principles:

- Safety
- Customer Service
- Fiscal Responsibility
- Asset Management
- Mobility/Accessibility
- Freight Movement
- Environmental Stewardship

These Guiding Principles are used as the first step in our project selection and prioritization process.

Performance Measures

Assembly Bill 595 went before the Legislature in 2007. This bill was passed and provided close to one billion dollars in bonding capacity for Super/Mega (Major) projects

identified by NDOT as priority projects for our State. Included in this Bill was the requirement that the State Transportation Board shall adopt a plan for measuring the performance of the Department, which must include separate sets of performance measurements for each major division at NDOT and for the Department as a whole. Performance measures were developed for four primary functions: 1) Administration, 2) Planning, 3) Operations, and 4) Engineering. For more information on our Performance Measures see the “Annual Report for Assembly Bill 595.”

State Transportation Board

The Department of Transportation is overseen by a seven member Board of Directors consisting of the Governor, the Lieutenant Governor, the Attorney General and the State Controller and three members representing different districts of the state, who are appointed by the Governor. The Board has various responsibilities under Nevada Revised Statutes 408.131. Specific to this document, the Board is responsible for “*executing or approving all instruments and documents in the name of the State or the Department.*” This Plan is brought before the State Transportation Board for their input and acceptance.

Advisory Committees

In addition to the Federal and State Law, there are a number of Advisory Committees that provide input and guidance during the development of this Plan. These committees represent the specific interests of their communities and groups. Following is a summary of the Advisory Committees that provided input and guidance during the development of this plan.

Statewide Transportation Technical Advisory Committee (STTAC)

The STTAC was formed by the Nevada Department of Transportation (NDOT) in 1991 with the passage of ISTEA, specifically to fulfill one element of that law and provide a forum for discussing statewide planning and programming issues. Committee membership is made up of federal, state, and local agencies/entities. Those members represent the diverse interests of their communities and agencies. STTAC Committee membership is listed in Appendix A of this report.



Nevada Bicycle Advisory Board

The Nevada Bicycle Advisory Board was created by the Nevada Legislature in 1991. Their primary purpose is to identify and address the needs of the bicycling community, promote programs and facilities for the safe and effective use of bicycles, and advise appropriate organizations of the state on policies, programs and facilities for the safe use of bicycles. The Board consists of 14 members appointed by the Governor, seven from the public and seven from specified State Agencies.

The Nevada Aviation Technical Advisory Committee

This committee is a cross spectrum of the aviation community. It includes the airlines,

military, general aviation, aviation advocacy groups, consultants, Federal Aviation Administration, airport operators, FBO's and aviation users. The committee guides the department in the development of state airport system planning, provides a forum for aviation interests to meet and discuss issues, provides for assistance with NDOT's aviation trust fund prioritization and selection process, and is the one committee that has specific responsibility to assist the department in planning for and securing a future for aviation in the state.

Advisory Committee for Transit

The Advisory Committee for Transit (ACT) is responsible for guiding the development of the Statewide Transit Program with the goal of *“providing coordinated transit service in any small urban area, rural community and Indian reservations which desires such a service and where such service is feasible.”* The committee also provides oversight towards the Department's administration of the Federal Transit Administration (FTA) Programs.

While most of ACT's attention is on rural issues, it is the sole committee in the state that looks at all the transit needs, meets with the legislators to discuss state funding needs, and assists the Department in the planning and distribution of grant award monies. In addition to operators, transit sub-recipients, and advocacy groups, the ACT is composed of several state agencies including UWR, Rehab Division, RTC's that support the UWR concept of coordination and cooperation among transit providers.

Legislative Commission's Subcommittee to Study Transportation Issues

This Subcommittee was created to study transportation issues, specifically, transportation

funding, transportation planning, and alternative modes of transportation, among other things. They will initiate studies and other legislative business relating to transportation that must be handled before the 2009 Legislative session.

Other Planning Guidance

In conjunction to the development of a Statewide Transportation Plan, the following plans or reports are incorporated by reference:

Transportation System Projects (TSP)

In compliance with Title 23 of the Federal-Aid Highway Act and the Nevada Revised Statutes (NRS 408.203) NDOT produces the Transportation System Projects (TSP) document. The TSP contains the following sections:

- Statewide Transportation Improvement Program (STIP)
- Transportation Enhancement Program Annual Work Program (AWP)
- Short Range Element (SRE)
- Long Range Element (LRE)

The TSP is the instrument used to implement plans resulting from the statewide transportation planning process. This planning process sets the stage for balancing the states needs with limited resources and by establishing long range funding strategies on a statewide basis. Development of the TSP is completed in cooperation with federal and regional agencies and local governments.

Metropolitan Area Plans

There are four designated Metropolitan Planning Organizations (MPO's) in Nevada: Clark County, Washoe County, Carson City and Lake Tahoe. These four MPO's have the primary stewardship for transportation planning

within their boundaries, including member cities and surrounding unincorporated areas.

Las Vegas and Reno are designated as Transportation Management Areas (TMA), having an urbanized area population of over 200,000. In addition to meeting all the federal requirements for an urbanized area and MPO, TMAs are also responsible for developing Congestion Management Process (CMP), TIP project selection, and are subject to a joint (FTA and FHWA) federal certification review of the planning process at least every three years.

The MPOs are required under SAFETEA-LU to prepare a long-range plan (20+ years) for their respective regions. These plans cover elements of transit, freight, transportation demand, bicycle and pedestrian, congestion management, highways, safety, security and mitigation elements. These plans and their recommendations are required to be financially constrained with reasonable funding assumptions. Following are brief overviews of each of the MPO plans:



The Regional Transportation Commission of Southern Nevada

The Regional Transportation Commission (RTC) of Southern Nevada is a regional government organization composed of elected officials appointed from each of the local governments within Clark County. They are the regional organization that develops transportation plans to meet the needs of the area.

The Clark County area in Southern Nevada includes the cities of Henderson, Las Vegas and North Las Vegas, as well as the other

smaller cities and towns such as Boulder City, Mesquite, and Laughlin, and the unincorporated areas in the county. These communities and services are linked to each other by a network of roads and streets that enable vehicular access to these services and permit them to receive materials to meet customer demands. Coordination is essential.

Often, when these municipalities work to meet the transportation needs of their constituents, there are conflicts with the needs of an adjacent jurisdiction. Limited funding for transportation projects from federal, state and local funding sources requires some agreement on how the money will be allocated so that local and regional needs are in balance. RTC of Southern Nevada coordinates agreement on project priorities, so that the planned projects can be funded with the resources available over time.

The RTC of Southern Nevada is responsible for providing public transportation in Clark County. Transit service is provided to the Las Vegas Valley, Boulder City and the outlying communities of Mesquite and Laughlin.

The RTC of Southern Nevada’s long range plan (20+ years), officially known as the Regional Transportation Plan (RTP) is a tool that local officials use to express regional transportation needs to both federal funding authorities and local citizens concerned about government response to transportation growth issues. The RTP has developed the following vision and goals for their Regional Transportation Plan (RTP):

Vision:

“Provide a safe, convenient, and effective regional transportation system that enhances mobility and air quality for citizens and visitors.”

Goals:

- Implement transportation systems that improve air quality and protect the environment.
- Develop fully intergraded modal options
- Enhance the efficiency of existing transportation facilities
- Improve access to mass transportation facilities and services
- Secure funding for expansion, operations and maintenance of systems and routes
- Enhance public awareness and support of the regional transportation system
- Improve safety for all travelers
- Improve security for all travelers
- Support more efficient freight travel



REGIONAL TRANSPORTATION COMMISSION
Public Transportation | Streets & Highways | Planning

Regional Transportation Commission (RTC) of Washoe County

The Regional Transportation Commission of Washoe County was formed in July 1979 as a result of legislation approved by the Nevada State Legislature, which consolidated the Regional Street and Highway Commission, the Regional Transit Commission and the Washoe County Area Transportation Study Policy Committee. They are the designated MPO for the Reno-Sparks urbanized area of Washoe County and are responsible for the planning of high volume regional roads and to create and maintain a vibrant and efficient transit network for Washoe County.

The Regional Transportation Plan (RTP) for the RTC of Washoe County proposes highway improvements that focus on the maintenance of the existing street and highway system and provide additional capacity for existing and future residents and businesses.

The RTP also proposes new bicycle, pedestrian and public transportation improvements.

Six overall goals were developed to guide the implementation of the RTP. These goals reflect the concern for better management of the transportation system and the need to strengthen the interrelationships between modes of travel. The RTP goals are:

- Provide for and sustain a mix of transportation modes that can meet the continuing needs for personal mobility and for the movement of goods consistent with regional goals and values.
- Comprehensively plan for all regionally significant modes of transportation and insure their interconnection. Coordinate with all other jurisdictions that either influence or are affected by regional transportation planning efforts.
- Develop a balanced land-use and transportation system that minimizes the need for automobile travel and maximizes the opportunity for transportation alternatives such as public transportation and non-motorized travel modes.
- Maintain, upgrade or develop existing and future transportation systems as a public service in way that renders them safe, functional, flexible, environmentally acceptable and aesthetically pleasing.
- Manage the transportation system to provide an optimum level of mobility for the greatest number of persons while ensuring mobility for the transportation disadvantaged.
- Improve safety in all transportation modes through timely maintenance of existing infrastructure, development of new infrastructure, enforcement of access controls and expanded public education and awareness.



Tahoe
Metropolitan
Planning
Organization

Tahoe Metropolitan Planning Organization (TMPO)

The Lake Tahoe Region holds Federal, State and Local transportation planning authorities and the region’s planning complexity requires the utmost coordination and collaboration among transportation and land use planning partners. The Tahoe Regional Planning Agency (TRPA) is the federally designated Metropolitan Planning Organization for the Lake Tahoe Basin, including the City of South Lake Tahoe, and in the State of California. The TRPA’s overriding obligation is adherence to the Lake Tahoe Planning Compact, including attaining and maintaining environmental thresholds. The TMPO’s mission, on the other hand, is to provide policy decision on transportation plans and program. The TMPO defined area is concurrent with that of the TRPA.

Under federal law, the TMPO is required to prepare a Federal Transportation Plan/Regional Transportation Plan (FTP/RTP) that looks at conditions 25 years from now, while focusing its implementation in the next five years. The Lake Tahoe Basin Regional Transportation Plan (RTP) combines the requirements of the TRPA, the TMPO, and California transportation planning requirements into a single, integrated plan that satisfies all planning requirements.

It is the goal of their RTP to develop an intermodal transportation system that reduces reliance on the automobile, provides for integrated connectivity of modes and services,

and provides for the efficient movement of people and goods in the Lake Tahoe Basin.

Rather than proposing increases in highway capacity, the Lake Tahoe Basin’s transportation plan focuses on getting the greatest value from the existing street network. Growth within the Lake Tahoe Basin is restricted by the area’s Regional Plan, which limits the number of housing units and commercial-retail floor area.

The TMPO does not operate the public transportation services in the Tahoe Basin. The area is served by two publicly operated transit systems, Tahoe Area Regional Transit (TART), BlueGO, and a number of privately operated shuttle systems.



Carson Area Metropolitan Planning Organization (CAMPO)

The Carson Area Metropolitan Planning Organization (CAMPO) is the State’s newest MPO designated by the Governor in 2003. They cover most of Carson City, the northern portion of Douglas County and the western part of Lyon County.

Following are the goals of CAMPO’s 2030 Regional Transportation Plan:

- Support the economic vitality of the CAMPO planning area by improving and investing in the transportation infrastructure, and promote consistency with planned growth and economic development patterns.

- Increase the safety of all modes of the transportation system.
- Increase the security of all modes of the transportation system.
- Increase accessibility and mobility of people and freight.
- Protect and enhance the environment, promote energy conservation, and improve the general quality of life for residents of the CAMPO planning area.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operation of the entire transportation system, and preserve the existing transportation system to the maximum extent possible.

CAMPO does not operate the public transportation service in the MPO area. The area is served by transit services from Jump Around Carson (JAC), Douglas Rural Area Transit, BlueGO, Eastern Sierra Transit Authority, Alpine Mountain Transit, and the Regional Transportation Commission of Washoe County (for intra-city service).

State of Nevada Statewide Rail Plan

The state rail plan describes Nevada’s rail planning program, and its part in overall statewide multimodal planning, highlights rail issues, examines the state rail network (including freight and passenger service), evaluates lines subject to abandonment and looks at remedies and alternatives, analyzes benefits and costs of potential projects, and assesses strategically Nevada’s rail future.

Nevada Airport Systems Plan

The primary purpose of Nevada’s Airport Systems Plan is to develop a system of airports that will meet the air transportation

needs of Nevada until 2020, which is also compatible with the National Plan of Integrated Airport Systems and local planning activities. Nevada’s Airport System Plan identifies airports and their significance to a balanced statewide system, establishes a program that looks at where improvements or expansions are needed, establishes investment priorities, defines policies and process for implementation, and serves as the basis for continuing statewide aviation system planning.

State Bicycle Plan

Nevada’s Bicycle Plan provides a blueprint for improving conditions for bicycling, clarifies NDOT’s role in bicycle transportation, and establishes policies for further integrating bicycling into the current transportation system. The state Bicycle Plan has two primary goals:

- Increase levels of bicycling throughout Nevada, doubling the number of trips made by bicycles in 2005 by the year 2010 with additional increases achieved by 2020.
- Reduce crashes involving bicyclists and motor vehicles in 2005 by at least 10% by the year 2010 with additional increases achieved by 2020.

Nevada Pedestrian Plan

The Nevada Pedestrian Plan sets forth a foundation for pedestrian facilities planning and design throughout the State. It is intended to provide a cohesive and uniform approach to pedestrian safety, mobility, security and comfort. It presents facts, current practices and recommended design features to ensure that walking Nevadans and visitors are afforded the best of all possible environments. The Plan stresses the need for system continuity across all components of a given pedestrian system. Finally, the Plan addresses the notion of pedestrian friendliness and its importance in setting the tone for a community or region.

Coordinated Human Services Transportation Plan

This plan focuses on the transportation needs of individuals with disabilities, older adults, and people with limited incomes throughout the rural and small urban areas of the State. The RTC’s of Southern Nevada and Washoe County and the Tahoe Metropolitan Planning Organization have developed complimentary Coordinated Public Transportation and Human Services Plans for their areas. Federal Transit Administration funding programs covered by this report include Elderly Individuals and Individuals with disabilities (5310), Job Access and Reverse Commute (5316), and New Freedom (5317). The goal for this plan is to provide guidance on how best to provide transportation services for these targeted populations. The Plan looks at service needs, gaps, and barriers, and identifies potential solutions for meeting transportation needs.

State Management Plan

The State Management Plan describes how NDOT and the sub-recipients of 5311 Federal Transit Administration (FTA) funds will administer and manage those funds. Eligible sub-recipients include State or local governmental entities, non-profit organizations, private for-profit operators of transit services or intercity bus services, and federally recognized Native American tribes. The 5311 FTA program is intended to enhance access of people in the non-urbanized areas of the state to health care, shopping, education, employment, public service and recreation.

State Implementation Plans

Sections of the Clean Air Act and its amendments require that state departments of transportation assure that their activities are in

conformity with State Implementation Plans. A State Implementation Plan (SIP) is a collection of regionally planned Transportation Control Measures (TCM) intended for the attainment of the Federal National Ambient Air Quality Standards. It is prepared and is intended to address emission reductions from both stationary and mobile transportation sources.

Surface transportation plans, programs, and projects cannot cause or contribute to new violations of National Ambient Air Quality Standards (NAAQS). A determination of conformance to the SIP is required for all Regional Transportation Plans (RTP), Transportation Improvement Programs (TIP), and regionally significant projects.

The Statewide Planning Public Participation Document

This Plan documents NDOT’s public involvement process, describing how we provide opportunities for public review and comment at key decision points during transportation planning activities. The procedures established in this document comply with the Statewide Transportation Planning Public Involvement requirements contained in the Code of Federal Regulations (CFR) 450.210 and Nevada Revised Statutes (NRS) 241.

NDOT Corridor Studies

A corridor study is an examination of transportation needs on particular sections of roads to gather knowledge that may someday be the start of transportation improvement projects. Corridor planning takes needs identified in the long-range plan, refines the understanding of those needs, and evaluates potential transportation strategies to address them. The end result is the selection of an investment strategy that best meets the needs in the corridor and that fits the region’s financial capacity.

Corridor plans are the connection between the long-range plan and project development.

CHAPTER II – ASSETS, OPERATIONS & MAINTENANCE



Roadway Systems

There are a total of 34,624 centerline miles of roads in Nevada, 29,202 miles are maintained by the local agencies and 5,422 miles are maintained by NDOT. Nevada’s interstates, urban freeways, principal arterials, and rural minor arterials were rated #1 for the smoothest roads in the Nation by the Federal Highway Administration.

Sixteen percent of all Nevada’s roads are on the state maintained system, however, that 16% carries 58% of the total vehicle miles of travel. The remaining 42% of the travel is carried on roads maintained by county, city or other governmental agencies. The state maintained system also carries 83% of all truck traffic and 87% of the heavy truck traffic.

Vehicle miles of travel on all Nevada roads exploded from 9 billion in 1990 to 20.8 billion in 2006. That number is expected to increase to 35 billion vehicle miles by 2010. A little over thirty-nine million people visit Las Vegas every year and approximately 53% percent of them arrive by automobile or bus. Almost every major road leading into and out of the Las Vegas Valley and the Reno area is in

need of capacity improvements in order to keep up with growth.

The highway system falls under four categories:

- National Highway System (NHS) is a system of major federal-aid roads including all of the Interstate Routes, most principal arterials, the defense strategic highway network and strategic connectors.
- Surface Transportation Program (STP) includes federal-aid roadways that are not on the NHS but are functionally classified as principal arterials, minor arterials, major collectors and urban collectors.
- Other Improved Roads that are not part of the NHS or STP are mainly functionally classified as local or rural collectors. They are public facilities which are regularly maintained. These roads are typically designated as access roads, frontage roads and state park roads when maintained by NDOT. The cities and counties maintain most of the other improved roads.
- Unimproved Roads are functionally classified as locals but are not regularly maintained. They carry sporadic traffic and do not qualify for federal aid or Nevada’s gas tax distributions.

Centerline Mileage

	NDOT Maintained	Locally Maintained	Statewide Total
Federal Aid			
NHS	2,123	23	2,146
STP	2,666	1,595	4,261
Non-Federal Aid			
Other Improved	633	21,045	21,678
Unimproved	0	6,539	6,539
Total	5,422	29,202	34,624

With the NHS and associated funding, states can choose from a range of improvements. They can make operational changes, such as a program to locate and remove stalled vehicles that are impeding smooth traffic flow. NDOT has initiated such a program called the “Freeway Service Patrol” in the Las Vegas and Reno areas and it has been a highly successful service. States can also employ available technology improvements such as Intelligent Transportation (ITS), which help reduce congestion and keep traffic moving without major roadway expansion. These programs have also been implemented by NDOT in the Las Vegas and Reno areas.

Our transportation system must be unified with each mode complementing the other. Intermodal carriers rely on all forms of transportation to deliver goods and services to consumers in the most efficient manner possible. NHS fulfills that goal by serving 198 ports, 207 airports, 67 Amtrak stations, 190 rail/truck terminals, 82 intercity bus terminals, and 20 multipurpose passenger terminals across United States. By providing these essential linkages to other modes, NHS creates a seamless transportation system for the rapid movement of people and products. It also helps us meet the challenges of global economic competition by enhancing our different modes of transportation, increasing America’s productivity and bolstering its economy.

Nevada is the 7th largest state in land area with two major urban population areas separated by approximately 450 miles: Las Vegas in the South and Reno in the North. The growth of these metropolitan areas has put significant strain on NDOT’s ability to meet the transportation needs in those areas. In addition to identifying new financing methods, NDOT has been pursuing a highway relinquishment program where certain roads on the system may be more adequate to serve the local needs rather

than the statewide system. These roads have been identified and proposals are being submitted to the local entities to take over ownership and maintenance responsibility. This may free up resources to accommodate the growing urban centers of the state and those roads that are more crucial to Nevada’s economy, safety and environment and the regional transportation needs.



Bridges

Age, traffic volumes, and heavy truck loadings have been increasing considerably in the last 10 years and this is taking its toll on our bridges. In addition, a significant number of our bridges are expected to turn 50 years old by 2010 causing a substantial backlog in our bridge preservation status. At this time, only 16% of our bridges are 50 years old. But by 2020, 555 of our bridges will become 50 years old making 67% of our bridges at least 50 years old. By 2020, NDOT is projecting a backlog in bridge preservation funding of \$24 million.

There are 1,898 public bridges in Nevada, 1084 are owned by NDOT (57%), 709 are owned by other governmental agencies, 60 are federally owned, 38 are privately owned, and 7 are owned by the railroad. Nevada’s bridges have been rated #1 in the Nation by the FHWA with only 5% being rated as deficient compared to the national average of 25%.

However, Nevada has a relatively low number of bridges in their inventory, they are fairly new compared to the eastern states, and we have a relatively benign climate.

Asset Preservation

NDOT is responsible for protecting highway assets, and preserving existing highways is a top priority. In fact, Nevada's interstates, urban freeways, principal arterials, and rural minor arterials were rated #1 for the smoothest roads in the Nation by the Federal Highway Administration. However, our investment in highways is substantial. Today's cost to replace the pavement surface alone is \$3 billion.

NDOT manages our highway assets using two systems: A pavement management system and a bridge inventory system. Both systems provide an inventory of our existing assets, their condition, needed repairs, and repair priorities.

Generally, pavement-preservation work consists of sealing, crack filling, patching, milling, overlaying or reconstructing the highway surface. Sealing, crack filling, patching are typically accomplished by NDOT maintenance crews. Milling, overlaying, or reconstructing the highway surface is normally contracted out.

NDOT's pavement preservation action plan in priority order consists of the following tasks:

- Continue to maintain our Interstate system and high-volume roads at a high level of serviceability by applying timely overlays and reconstructing inferior segments.
- Continue to maintain our non-Interstate Principal arterials, minor arterials, and other moderate-volume roads at a modest to high

level of serviceability by applying timely overlays and reconstructing inferior segments.

- To further develop economically sound methods to improve our low-volume roads and maintain them at a limited, but acceptable, level of service.
- To continue coordinating the integration of our routine pavement maintenance activities with planned overlay and reconstruction work.

Security

In light of the terrorist attack on September 11, 2001 and the resulting increase nationally in security concerns, NDOT has recognized the need for increased security awareness, and the need to protect our facilities, equipment, and the transportation infrastructure from physical damage or from being rendered inoperable, as best we can.

The State of Nevada, in accordance with Nevada Revised Statutes, Chapter 414 (NRS 414), is required to mitigate against, prepare for, respond to, and recover from emergencies/disasters in order to provide assistance that saves lives and protects health, safety and property. These emergencies/disasters may range from a small, localized event to a large scale event which requires a presidential Declaration.

A disaster may severely damage the transportation infrastructure. The damage inflicted may influence the means and accessibility of relief services and supplies. The Nevada Department of Transportation (NDOT) is responsible for keeping State highways and roads repaired and open during a disaster and will assist in traffic control on these routes. This will normally be accomplished through the

NDOT District Engineers and Managers at the Maintenance District level.

The Department of Homeland Security (DHS) issued Homeland Security Presidential Directive – 3: the Homeland Security Advisory System (HSAS). The HSAS provides five graduated threat conditions identified by both word and color, with appropriate security countermeasures for each threat level. Its implementation is mandatory for federal facilities and is strongly recommended for State, local and private facilities. The HSAS stated that it strongly appears to be in the Nation’s interest for State/State Department of Transportations to have a “parallel” system to reduce confusion and facilitate needed countermeasure implementation as appropriate during heightened security threat levels. Following the issuance of the HSAS Directive, the American Association of State Highway and Transportation Officials (AASHTO) established a Transportation Security Task Force which is requesting each State DOT to thoroughly evaluate existing security threat and countermeasures in place, documenting the State DOT’s security system, and providing guidelines to secure the nation’s highways and bridges.

NDOT has developed a Facility and Transportation Infrastructure Security Plan to provide guidelines for security at our facilities. This plan addresses employee training in what to watch for and how to respond to a suspected security problem, the appropriate actions to take in regards the security of NDOT’s mobile fleet, and physical measures which can be taken to protect NDOT facilities.

Districts

NDOT’s maintenance forces are divided into three Districts:

- District I is located in the southern region of our state and it is the most populous district. It includes the fastest growing city in the nation – Las Vegas with a population of close to 2 million out of a statewide total of 2.7 million. In addition, Las Vegas is one of the world’s most popular tourist destinations with 39 million visitors a year. District I borders three states – California, Arizona, and Utah.

- District II is located in the northwestern region of our state and covers a diverse area of both rural and urban population centers. It covers many miles of rural areas with smaller bedroom communities that are developing at an increasing rate. This district also includes Lake Tahoe, one of our national treasures. District II borders two states – California and Oregon.

- District III covers the most rural areas of Nevada and borders on three states – Oregon, Idaho, and Utah. Within this area hundreds of miles of state maintained roads wind through high desert plains and across passes in snow covered mountains.

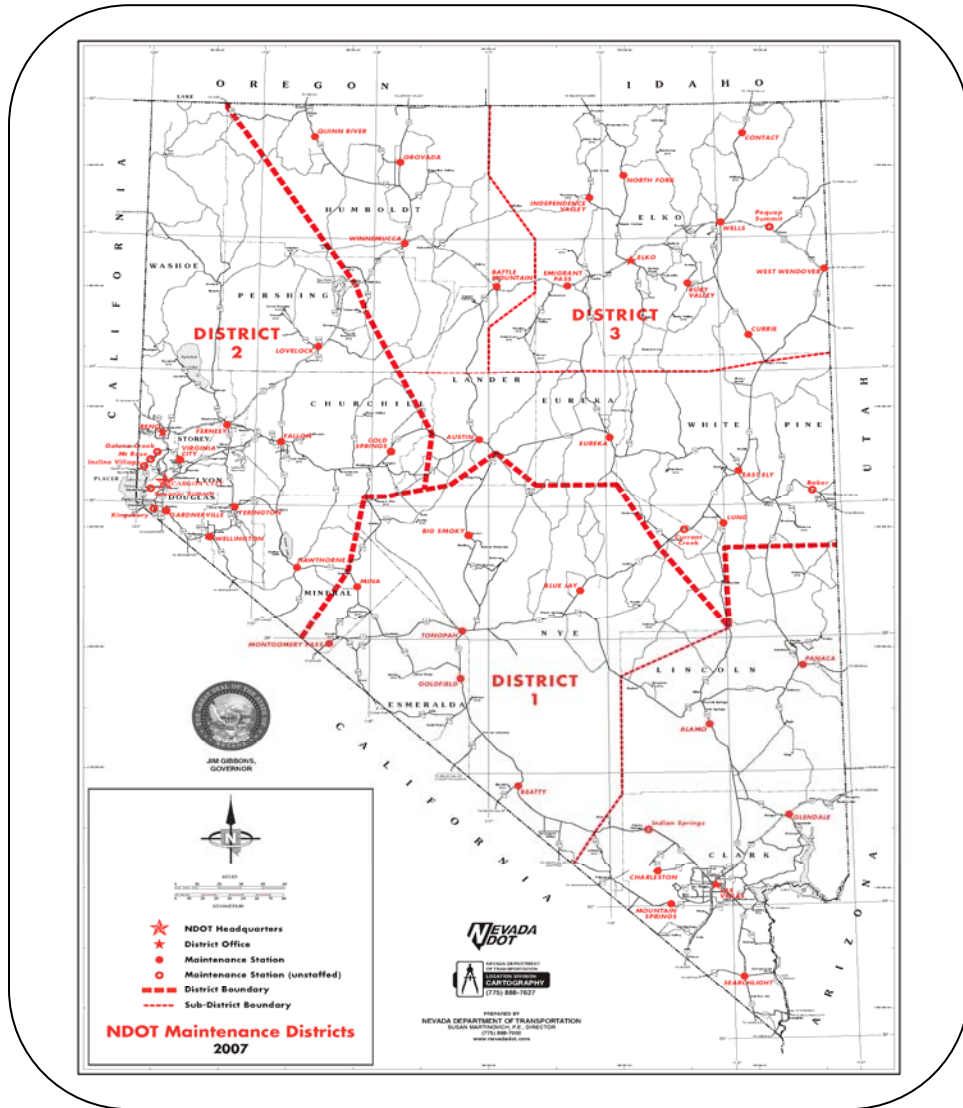


There are approximately 98 maintenance tasks performed by the maintenance crews under the Maintenance Management System. Typical maintenance activities include, but are not limited to:

- Debris/Trash Removal
- Fill Slope Repair
- Urban Sweeping
- Landscaping
- Maintain Road Markers

Blade Shoulders
 Weeding & Burning
 Crackfilling
 Machine Patching
 Graffiti Removal
 Plowing and Snow Removal
 Anti-Icing Strategies

Storm Cleanup
 Weather Forecasting
 Bridge Inspection and Maintenance
 Sign Removal and Replacement
 Animal Interaction



Most importantly, our Districts perform public outreach. They have daily contact with those who use our roads and they understand the issues within the communities they live in and serve. Our Districts also perform specialized public outreach such as conducting community

workshops, coordinating and working special events, attending public meetings and working with the media.

NDOT will be closely watching the affects that global warming is predicted to have

on our assets and the type of work we perform in our Districts. Research studies have identified the serious impacts climate change poses for our transportation system. Increases in very hot days is expected to increase the frequency of wildfires, compromising pavement integrity; increased flooding is expected to inundate roads and bridges; and increases in Arctic temperatures is expected to cause subsidence of permafrost, disrupting roads. Heavier rainfall in many parts of the country will require redesign and replacement of drainage structures.

Reservation Roads



There are 26 federally recognized Native American tribes in Nevada and a total of 31 Native American Reservations and Colonies. Their properties cover almost 2,000 square miles, ranging from as small as .03 square miles to as much as 725 square miles. Tribal holdings are scattered across vast geographic areas of the state that are near both urban areas and semi-rural or extremely rural areas. There are close to 9,000 tribal members in the state, and 26,000 people who classify themselves as American Indian or Alaska Native.

All of the Interstate and US Highways, and several of the State highways pass through or along an Indian Reservation or Colony in Nevada. And in some areas, our roads go

directly to a reservation. By allowing us to build and maintain roads through a reservation, NDOT recognizes the key role they have in connecting our state and interstate highway system. At the same time, our transportation system provides Indian communities with access to schools, work, shopping, hospitals, and emergency services. Many reservations in Nevada are isolated, so getting to urban areas for simple things such as medical appointments, work, and shopping are challenges.

Transit programs provide tribal members with needed mobility within the reservations and for the remote reservations around the state. Almost every tribe in Nevada has purchased a van through NDOT utilizing Federal Transit Administration funding. These vans contribute to the quality of life and independence for many of the elderly and disabled tribal members. They provide access to employment, medical, shopping, and government services.

The Bureau of Indian Affairs (BIA) has been involved in the repair and reconstruction of roads on Indian Reservations since the 1920’s. The BIA is part of the Department of the Interior in Washington, D.C. In 1982, the Surface Transportation Act created the Federal Lands Highways Program which established Indian Reservation Roads (IRR) as a category of public roads providing access to or within Indian reservation lands. An IRR is defined as a public road that is located within or provides access to an Indian reservation or Indian trust land. IRR roads have multiple owners, including Native American tribes, the BIA, states, and counties.

IRR funds go directly to the tribes and are distributed based on a mathematical formula using 1) cost to construct, 2) vehicle miles of travel, and 3) population. The tribes are required to produce a 20-year long range transportation plan for their IRR roads to

address future land use, economic development, traffic demand, public safety, and health and social needs. The tribal government uses its IRR long-range transportation plan to develop a tribal priority list or Tribal Transportation Improvement Program (TTIP). The TTIP is required to be consistent with State and MPO planning practices. Acceptable use of IRR funds is planning, design, construction and maintenance.

The California/Nevada Tribal Technical Assistance Program (CA/NV TTAP) is a collaborative strategy between the Federal Highway Administration and the BIA, funded by the US Department of Transportation. It is one of seven TTAP's nationwide serving tribal governments. The CA/NV TTAP serves the transportation program of the tribal governments in the California Nevada region. The purpose of the CA/NV TTAP is to assist and promote the development of safe modern transportation facilities and policies within California/Nevada Indian country for all users. It is a transportation resources center designed to serve the transportation program of the tribal government of California/Nevada region.

Most of the roads on the reservations in Nevada are dirt, and the tribes do not have adequate funding to maintain them properly or even consider paving them. In addition, over the past few years IRR funding has been decreasing while the BIA has been passing more and more road responsibilities to the Native American tribes. And because very few reservation roads are functionally classified as a "local collector" there have been few opportunities for NDOT to become directly engaged in projects on tribal lands.

Unlike many Native American tribes across the United State, the tribes in Nevada have chosen not to rely on gaming as a revenue source. As a result many are struggling

financially. Finding new sources of income is a challenge for the tribes of Nevada right now and this will continue to be a challenge over the next twenty years.

Improving the transportation system within the reservations and colonies is a joint responsibility not only for federal agencies, but a shared responsibility of state and local governments with transportation investments on or near Indian communities. Improving the transportation system provides increased public safety and economic opportunities in these communities.

Most Native American tribes have passed laws that give preference to tribal members for employment and contracting work on or near a reservation. All covered employers (including construction contractors) operating within the boundaries of an Indian Reservation are required to comply with Tribal Employment Laws.

Today Nevada's Native American tribes share common concerns such as land management, water rights, transportation and storage of nuclear waste, economic development and the decimation of ancestral burial sites. Protecting the cultural heritage and artifacts of our Native American tribes is imperative as we improve our transportation infrastructure in Nevada.

NDOT's Cultural Resources Section is responsible for ensuring that our projects comply with Federal and State requirements regarding protection of cultural resources (i.e., significant historic, architectural, archaeological and paleontological resources) and consultation and coordination with Native American Tribes. They identify affected tribal lands and interests and consult with tribal officials to address effects of proposed projects on their lands or interests. Our Archaeological Section protects,

preserves, researches and learns from Nevada’s past and strives to protect that past.

Landscape & Aesthetics

In 2002, NDOT adopted a Landscape and Aesthetics Master Plan for the state of Nevada. This Plan sets policies and procedures for addressing landscape and aesthetics in all state highway projects throughout their life cycle, and is the foundation upon which the program is built. It is the policy of the State of Nevada that landscape and aesthetics will be considered along with all other design factors in all transportation projects throughout their life cycles. Along with setting high-level policy, the Plan developed funding mechanisms for including landscape and aesthetic treatments in highway design.



The Landscape & Aesthetics Plan is an integral part of NDOT’s Roadway Design that addresses both the visual quality of the State’s highways, and the impact of highways on their surrounding landscapes. The Plan was developed as part of NDOT’s commitment to ensuring that all aspects of our highway’s surroundings, including scenic, historic, aesthetic and environmental resources, are carefully considered while maintaining safety and mobility. It is one of the primary ways that NDOT responds to citizens’ desires to improve the aesthetic quality of the State’s highways.

Landscape and aesthetics refers to the total visual quality of the highway, but includes more than plants and decorative designs. It includes carefully designed road alignments that preserve scenic vistas, and minimize disruptions to communities and natural habitat caused by the presence of a highway. Landscape and aesthetic treatments emphasize regionally appropriate materials and drought resistant plants.

The Plan also established programs to help communities develop their own landscape and aesthetics projects. Local governments, private citizens, civic groups and the business community are encouraged to work with NDOT to develop cooperative agreements for funding the design, construction and maintenance of landscape and aesthetic improvements.

Addressing landscape and aesthetics in highway design contributes to Nevada’s tourist-based economy, and improves its citizens’ quality of life.

Our Carbon Footprint

US temperatures have been rising over the last century, and they are projected to continue. These climate changes are a result primarily from emissions of Greenhouse Gases (GHG) associated with energy use. Americans are driving more, building more, consuming more energy, and emitting more carbon.

Carbon dioxide accounted for 83 percent of GHG emissions in the U.S. in 2006. Transportation – roads, rail, air, and marine – accounted for one-third of those emissions. However, road use accounts for most of the emissions from the transportation sector. Factors such as fuel economy, type of fuel used, vehicle miles of travel and traffic operations are what affects those emissions.

Scientists have identified five climate changes of particular importance to U.S. transportation:

- Increases in very hot days and heat waves,
- Increases in Arctic temperatures,
- Rising sea levels,
- Increases in intense precipitation events, and
- Increased hurricane intensity.

In general, the western portion of the U.S. has warmed more than the eastern portion. Potentially, the greatest impact of climate change for our transportation system will be flooding of coastal roads, railways, transit systems and runways because of global rising sea levels. This could also lead to land subsidence in some locations. Coastal roads, rail lines, and bridges, particularly those that serve as evacuation routes, may have to be elevated or parallel routes upgraded.

Temperature extremes (mainly heat waves) could lead to more frequent buckling of pavements and misalignment of rail lines. More intense precipitation could increase the severity of extensive flooding.

On the positive side, temperature rises could mean later onset of seasonal freezes and earlier seasonal thaws. This could mean reduced costs of snow and ice control for departments of transportation and safer travel conditions for passenger vehicles and freight.

Transportation planners may be required to design facilities to higher standards to hedge against the potentially negative impacts of climate change, but at what cost? Decision makers will have to weigh the risks and probabilities when making investment, maintenance and design decisions.

It is anticipated that more use of alternative fuels and hybrid vehicles in the future will help combat emissions. At this time, Nevada does not offer any incentives for alternative fuel vehicles, but that is expected to change in the future. Congress has also enacted harsher fuel economy standards for all new light-duty vehicles (cars, light trucks, and SUV) to achieve an average standard of 35 miles per gallon by 2020. And, there is great interest in developing policies that would shift travel demand to alternative modes of transportation, such as transit, biking, walking, and telecommuting.

Addressing the impacts of climate change will also require regional and multistate involvement. Planners will have to address climate change from a long-term perspective, recognizing that the investment decisions we make today, particularly about the location of our transportation infrastructure, are going to shape long-term development patterns.

Air Quality

There are only two areas in Nevada that are classified as “nonattainment”: Clark County in the South and Washoe County in the North. The rest of Nevada is largely rural or small urban and currently have no air quality attainment standards.

Clark County (Las Vegas) is currently in non-attainment for three pollutants: carbon monoxide (CO) particulate matter 10 microns in size or less (PM₁₀), and Ozone (O₃). Non-attainment is the term used to describe levels of these pollutants that the US Environmental Protection Agency (EPA) has designated as not meeting the clean air standards for that pollutants as defined in the National Ambient Air Quality Standards (NAAQS). The Clean Air Act Amendments of 1990 require that each

non-attainment area and pollutant be addressed by a control plan, referred to as the State Implementation Plan (SIP), developed by the state air quality planning agency. The SIP sets out policies and actions to ensure that air quality meets NAAQS within a time frame determined under EPA regulations.

The core area of the Truckee Meadows (RTC of Washoe County), in the North, is designated as in “moderate” non-attainment for carbon monoxide (CO) with a design value of less than 12.7 parts per million and “serious” non-attainment for particulate matter of less than 10 microns (PM₁₀). Washoe County, outside the Tahoe Regional Planning Agency (TRPA), is designated as “marginal” non-attainment for ozone (O₃).

These areas are eligible for federal Congestion Mitigation Air Quality (CMAQ) improvement funds and mitigation measures for these funds are carried out by their respective Metropolitan Planning Organizations (MPO). In addition, the MPO’s have various other emission reducing strategies such as traffic signal timing optimization, employee rideshare programs, transportation demand management activities and converting transit vehicles to alternative fuels. NDOT works in cooperation with the MPO’s in support of congestion mitigation measures.

The Carson Metropolitan Planning Organization planning area is currently in attainment for ozone (O₃) and is expected to continue as such until 2030. However, they continue to promote the level of air quality that is enjoyed today. They are monitoring and coordinating their traffic signals to provide optimum traffic flow and keep vehicles from idling. They promote alternative means to transportation by supporting bicycle and pedestrian improvements and encouraging transit use.

Conformity administration and other air pollutant concerns in the Tahoe Basin are complicated at best. The Tahoe Basin is divided between two states, California and Nevada. Each of these states administers the conformity process differently with the EPA. Furthermore, the sub-jurisdictional areas within each state present different classifications and therefore require unique analysis.

The TMPO Tahoe Basin is currently in attainment of the federal and state CO standards. A portion of the North Lake Tahoe Basin lies within Washoe County which is classified as “marginal” non-attainment for ozone. Therefore that northern portion of the Lake Tahoe Basin is also classified as “marginal” non-attainment for ozone.

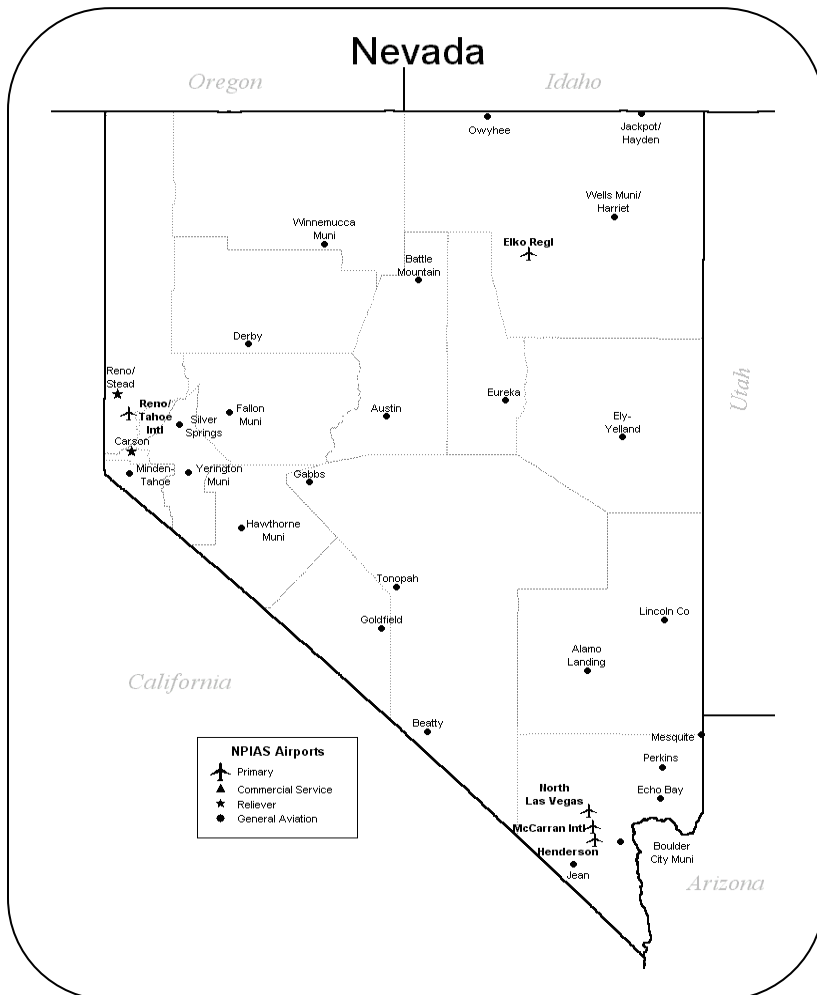
Chapter III – MULTIMODAL/ INTERMODAL SYSTEMS

AVIATION

The United States Department of Transportation (USDOT) recognizes that airports contribute to air transportation and economic needs at varying levels, have varying roles in the system, and needs for facilities and services differ by location. Factors such as coverage, accessibility, based aircraft, facilities, services and expansion capabilities should be considered.

Nevada is ranked the seventh largest state in the nation, in terms of square miles, and as a result our population centers are spread across many miles. Aviation is critical in bridging vast distances between communities. In addition, Las Vegas is one of the worlds most popular destinations with 39 million visitors every year; 47% arrive by aircraft.

Nevada has 52 public use airports of which 37 are publically owned and 15 are privately owned. Public use airports operate in 16 of our 17 counties. Storey County does not have a publicly owned airport. We have more than 135 privately owned airports and landing strips. While helicopters can typically land anywhere, there are 30 heliports in Nevada that are recognized by the FAA.



Nevada’s public-use airports include two international, three commercial-service, and 47 general-aviation facilities. McCarran International Airport is Nevada’s busiest airport and it is currently at capacity. In 2007 it ranked 14th in the world with 47.7 million total passengers. Reno-Tahoe International is Nevada’s second busiest airport, with 5 million total passengers.

A new commercial airport 30 miles southwest of Las Vegas (Ivanpah Valley) is currently being planned on 6,000 acres of land just east of Interstate 15. Phase I of the Ivanpah Valley Airport is expected to be open in 2017 and will initially serve 6 million passengers annually. When Ivanpah airport is completed it will serve 35 million passengers with a 14-gate terminal and two parallel runways for concurrent takeoff and landings. The environmental planning work for the airport is currently underway.

There are 5 General Aviation airports currently being planned for development in Nevada: Mesquite, Pahrump, Goldfield, Alamo and Owyhee.

Twenty-five airports in Nevada have paved runways that are more than 5,000 feet in length. This is the minimum length typically needed for a corporate/business jet to operate safely at general aviation airports.

Nevada has about 4,300 registered aircraft and 6,800 Nevadans were registered as pilots. Approximately 375,000 scheduled and 1.1 million non-scheduled aircraft flights takeoff or land in our state annually.

NDOT is prohibited from owning or operating any of Nevada’s airports per Nevada Revises Statutes (NRS) 408.233. However, all state DOT’s are involved in airport system planning – looking at the State’s needs and

opportunities for air travel (passenger and freight) to ensure that we have the best balance and an effective system of airports. Airports are more effective as they connect to both highways and other modes of transportation. NDOT has responsibility to be sure the infrastructure is in place and to pursue funding from the federal government for our airports as best we can. Every one of our public use airports in Nevada has access to the nation’s airport system.

Air travel provides important support to Nevada’s economic health. The total direct impact of General Aviation in Nevada is over \$114,000,000 annually and the industry employs some 1,300 workers. The economic impact of the Clark County Airport System amounts to \$63.5 billion annually and in Northern Nevada it is approximately \$3.2 billion annually. These impacts are not only for airport employees, they affect the local communities and trickle through segments of the economy. Additionally, airports can be more effective as they connect to both highways and other modes of transportation.

The Statewide Analysis, Nevada General Aviation Airport Economic Impact Study, was recently completed by the University of Nevada as shown in the following table.

General Aviation Airport Economic Impact

Over \$1 million	\$300,000 to \$1 million	\$100,000 to \$300,000	under \$100,000
Boulder City	Battle Mountain	Beatty	Alamo
Carson City	Ely	Overton	Austin
Fallon	Hawthorne	Silver Springs	Eureka
Jean	Jackpot	Tonopah	Lovelock
Mesquite	Winnemucca	Wells	Owyhee
Minden-Tahoe			Panaca
Reno-Stead			
Yerington			

Air Freight

Air cargo is the mode of choice for freight commodities that are time-sensitive, high-value, lightweight, and traveling more than 350 miles. In 2007 over 300 million pounds of cargo passed through McCarran International and Reno Tahoe International airports. Most of the freight shipments to and from an airport travel there by motor vehicle so roadway connectivity and proximity to an interstate or major highway is vital.

Air freight typically is not constrained by airside congestion since flights operate at off-peak periods. However, air freight is limited by the ability of air cargo hubs to maintain warehouse space (since airports are located in congested areas where land is limited), the ability of trucks to access the airports, competing land uses and environmental issues. In addition, air cargo carriers require runway lengths ranging from 7,500 feet to a more desirable 9,000-10,000 feet, with a width of at least 150 feet.

Military Operations

Military operations in Nevada are centered in three areas: Las Vegas at the Nellis and Creech Air Force Bases, the Tonopah Test and Training Range, and the Fallon Naval Air Station. These facilities are vital to the continued technological and strategic growth of the military.

The Nellis facility allows for the varied military services that engage in aeronautical warfare to interact, perfect, and advance programs and test programs in real air combat conditions. Users from all over the world come to take part in these simulated combat tests.

The Creech facility, formally known as the Indian Springs facility, will soon become the home of the Unmanned Aerial Vehicle test and certification program for the US Air Force.



The Nevada Test and Training Range in Tonopah, is where combat conditions are recreated to allow pilots and weapons operators to use military procedures to deliver weapons, perfect intelligence and surveillance techniques and test ground readiness procedures in anticipation of live combat conditions. It is also where the military designs, and puts into operation, some of the most technologically advanced programs in the military.

The Fallon Naval Air station is the home of the U.S. Navy's famous Top Gun program where fighter combat tactics are perfected.

The military controls approximately 40% of the airspace within the state boundaries. The restrictions imposed by Restricted Areas, Alert Areas, Military Training Routes, and Special Use Airspace does not pose a great inconvenience to the scheduled airlines because of routes and altitudes they fly, but do occasionally pose limitations on arriving and departing scheduled aircraft from the McCarran International Airport. However, military airspace does limit the efficiency of most general aviation flying.

Major military construction projects in Nevada according to the National Defense Authorization Act for Fiscal Year 2007 include; almost \$50 million for Creech Air Force Base, \$7.7 million for range upgrades at NAS Fallon, \$4.8 million for an Airfield Rescue Fire Station at Nellis AFB and \$5 million for the replacement of the Nevada Air National Guard vehicle maintenance complex in Reno.

The Future of Aviation

In 2004 an airfield capacity analysis was completed as part of Nevada’s Airport System Plan. That analysis indicated that capacity exceeds the demand for the year 2020 at virtually every airport in Nevada. As stated previously, McCarran International Airport in Las Vegas is currently planning an additional airfield at Ivanpah. Reno/Tahoe International Airport will not require planning for additional airfield capacity until the year 2028.

Air carrier activity in Nevada has increased considerably and is expected to continue to grow significantly during the next 20 years. A 38% passenger growth is anticipated through 2020. Much of this growth is anticipated at McCarran International Airport in Las Vegas that expects growth of about 19.4 million enplanements by 2020.

Because of a trend to use aircraft with larger seating capacities, air carrier and air taxi operations are only expected to increase 73%, to 986,00 by 2020.

General aviation activity is expected to grow at a much slower pace during the next several years. Following the national trends, Nevada general aviation aircraft recreational flying is declining while business or corporate activity is growing slowly. Growth will reflect an increasing percentage of multi-engine and jet

aircraft of the total fleet mix. General aviation aircraft operations are anticipated to grow by about 50% during the 20-year planning period.

Nevada’s Airport System Plan has estimated that capital improvement program costs for our state’s airports over the next 20-years will be approximately \$1.4 billion. An additional \$1.5 billion will be needed for the development of three new airports in the State, including Ivanpah, Mesquite and Pahrump.



The development cost requirements for the primary airports, including the Elko Region, McCarran International, North Las Vegas and Reno/Tahoe International Airports total \$1.2 billion or 88 percent of the total program requirement. The development costs requirement for the non-primary airports total \$161 million or 11 percent of the total program requirements. The development costs requirement for the other airports in the State system that are not included in the NPIAS and are not eligible for FAA Airport Improvement Program funds, total \$1 million and account for 1 percent of the total program requirements.

In 2005 the Nevada Legislature approved the allocation of \$500,000 to fund the Nevada Aviation Trust Fund to provide matching funds to local governments in rural Nevada to fund FAA grants. NDOT is continuing to explore new sustainable funding sources for Nevada’s rural airports.

One of the fastest growing elements of the aviation industry is the shipment of air cargo. The two Nevada metropolitan areas of Las Vegas and Reno have demonstrated the same historic air cargo trends as the nation and have the potential to exceed the national rate of air cargo growth. Existing forecasts indicate both the Las Vegas and Reno areas expect their cargo activity to exceed the FAA’s national projections. Air cargo at the McCarran International Airport is projected to increase by 613 percent from 2000 to 2020. At the Reno/Tahoe International Airport air cargo is projected to increase 343 percent during that same period.

NDOT’s strategy to support air transportation includes:

- Support for a dedicated funding source for airport improvements. One source of funding could include reinvesting a portion of the tax revenue generated by the airports back into projects to promote airport safety and system maintenance.
- Work with FAA to conduct and complete a statewide planning study of Nevada’s airports and implement the study recommendations.
- Support and advance intermodal connections such as public transit and highway projects serving passenger and cargo airports.
- Make needed improvements to address airport safety issues.
- Support NASA’s Small Aircraft Transportation Study (SATS), as follows:
 - Inform small airports of SATS requirements for instrument approaches, runway lengths, navigational aids, and landside facilities (e.g., terminals, ground transportation, and meeting facilities).

- Establish standards for SATS (e.g., lower approach minimums).
- Work with the entitlement airports to identify roadway and intermodal projects that provide economic benefit to Nevada.



BICYCLE AND PEDESTRIAN

Nevada’s bicycle and pedestrian facilities provide the public with opportunities to bicycle or walk between destinations, appreciate the state’s scenic areas, and increase opportunities for physical activity. In general, these facilities include various bikeways such as: shared roadways with paved shoulders, rails with trails, designated bicycle lanes, shared roadways, designated bicycle routes, and shared-use paths.

Bicyclists & Bicycle Facilities

Although a relatively small number of Nevada’s adults regularly commute by bicycle, many use their bicycles for a number of other types of trips. Nevada’s remarkable growth in the past few years is leading to the development of more populous, urban communities – places with greater social and transportation need for improved access to transit systems, greater numbers of citizens who do not have access to a private automobile, or more people who live within bicycling distance of a desired destination.

NDOT plans, designs, constructs, and maintains bicycle facilities on the state-owned roadway system. NDOT’s policies and decisions govern bicycle facilities on this system.

The state-supported system includes connecting highways and other locally-owned roadways where there is state and federal investment in local government (county, town, city, general interest district) projects. NDOT collaborates in the decision making process for projects on these routes, and thus influences the planning and design decisions made for those improvements.

The local system includes local streets and county and town roads. Most bicycle travel occurs on this system and its connectivity to the other systems is of major importance. NDOT has an interest in ensuring that bicycle systems are interconnected and that this system serves both the mobility and access needs of bicyclists. Unlike the other two systems, NDOT has indirect oversight responsibilities for the planning and design of this system.

Most of the state highway system in developed areas now have wider travel surfaces that give bicyclists access to at least narrow (three foot) paved shoulders, making it easier for bicyclists and motorists to share the roadway. But most arterial streets with their high volumes of traffic do not permit the creation of bike lanes or provide wide curb lanes for side-by-side bicycle and motor vehicle road-sharing in that lane.

In Nevada’s rapidly growing urban areas, road construction is occurring at such a rate that bicycle facility development can occur throughout the region if the design standards governing road design require the inclusion of bike lanes and other similar facilities. In spite of this opportunity, Nevada has very few miles of bike lanes, most of which are found in Carson City, Reno, and the greater Las Vegas area. However, 98% of the roadways in the Las Vegas area are considered bike compatible, because the curb lane is at least 14 feet wide, ample for shared use travel with vehicles.

Most transit systems across Nevada have now equipped their buses with equipment to accommodate bikes. The Citizens Area Transit system in Las Vegas carries an average of 55,000 bike trips every month and demand continues to increase. To accommodate this growing demand, the RTC is in the process of replacing existing 2-unit bike racks with 3-unit bike racks.

“I have been attempting to make better use of my bike in conjunction with the bus. It’s great that most busses have bike racks in the front.”

-anonymous survey comment

Safety is often cited as a principal reason why people do not bicycle more often. From 2005 through 2007 there were a total of 1179 cyclists crashes. Of those crashes, there were a total of 16 reported fatalities: one in 2005, ten in 2006, and five in 2007. There were 12 reported fatalities in Clark County, representing 75% of all fatalities in the state. Bicycle crash data is limited because a great many bicyclists-motorists crashes go unreported or are unreportable because they do not result in injury (even though the bicycle itself may have been totaled in a crash with a motor vehicle).

Several states have passed legislation requiring helmets for bicyclists under the age of 18, however the use of bicycle helmets in Nevada is currently voluntary.

Nevada’s Bicycle Plan provides a blueprint for improving conditions for bicycling, clarifies NDOT’s role in bicycle transportation, and establishes policies for further integrating bicycling into the current transportation system.

The vision established for Nevada’s Bicycle Transportation Plan is:

To provide Nevada’s residents and visitors the choice of traveling to their destinations by bicycle by providing new and improved and well-maintained transportation facilities that conveniently and efficiently accommodate bicyclists in a suitable environment.

The state Bicycle Plan has two primary goals:

- Increase levels of bicycling throughout Nevada, doubling the number of trips made by bicycles by the year 2010 with additional increases achieved by 2020.
- Reduce crashes involving bicyclists and motor vehicles by at least 10% by the year 2010 with additional increases achieved by 2020

Ensuring a seamless or inter-connected bicycle transportation network across jurisdictional boundaries and at different functional levels of highway/street systems is vitally important to the success of the Bicycle Plan.

In 1991, the Nevada Legislature created the Nevada Bicycle Advisory Board (NBAB). Their primary purpose is to identify and address the needs of the bicycling community, promote programs and facilities for the safe and effective use of bicycles, and advise appropriate organizations of the state on policies, programs and facilities for the safe use of bicycles. The Board consists of 14 members appointed by the Governor, seven from the public and seven from specified State Agencies.

The Department cooperates with the NBAB regarding matters pertinent to the development of bicycle programs and facilities. In addition, the Department works cooperatively with the NBAB’s recommendations regarding bicycle policy, planning, design and intermodal

operations in development of the statewide bicycle system.

NDOT, the MPO’s, and various municipalities have been increasing their efforts to acquire funds to provide bicycle and pedestrian facilities in these areas. In fact public agencies in Las Vegas have plans to add over 1800 miles of bicycle lanes, routes and shared use paths in the next 12 years, at a cost of \$50 million.



Pedestrians & Pedestrian Facilities

In much of the United States, cities, towns, and the public infrastructure systems that serve them, have been designed with the automobile in mind. This often occurs to the detriment of other modes. The design of our communities often seems to discourage pedestrian travel.

Government is responsible for developing a cohesive and uniform approach to pedestrian safety, mobility, security and comfort. Different levels of government become involved in different ways. At the federal level, participation is mostly in the areas of programming and policy, as well as enabling implementation plans through a variety of funding programs. Local and regional agencies—cities, counties, and MPO’s—usually view their pedestrian concerns from a more parochial standpoint, focusing on specific sidewalk, path

or traffic signal projects that meet the needs of specific constituencies.

State government is uniquely positioned to provide guidance in planning and designing uniform applications of treatments and devices. Section 2.2.1.4.4 of the NDOT Design Manual requires construction of sidewalks where current or anticipated pedestrian traffic presents a potential conflict. When NDOT reconstructs or resurfaces public roadways, the correction of sidewalk deficiencies is reviewed in the scope of work.

NDOT prepared the Nevada Pedestrian Plan that sets forth a foundation for pedestrian facilities planning and design throughout the State. It is intended to provide a cohesive and uniform approach to pedestrian safety, mobility, security and comfort. It presents facts, current practices and recommended design features to ensure that walking Nevadans and visitors are afforded the best of all possible environments. Wheelchair-bound (non-ambulatory) individuals are considered in the Plan, as are individuals with other impairments such as loss of vision and hearing. The Plan stresses the need for system continuity across all components of a given pedestrian system. Finally, the Plan addresses the notion of pedestrian friendliness and its importance in setting the tone for a community or region.

One of Nevada’s statewide safety goals as proposed in the Strategic Highway Safety Plan (SHSP) is to reduce the annual pedestrian fatalities from 55 per year to 37 per year. It is unlikely that pedestrian education alone could achieve such a goal for pedestrian crashes, therefore, our strategies are part of a more comprehensive approach to address fatalities (i.e., such as coupled with enforcement campaigns or engineering improvements).

Ideally, all programs would be implemented statewide; however, 90% of pedestrian fatalities occur in Clark County (72%) and Washoe County (18%). A responsive approach for deploying our strategies is to target only high risk population groups or high risk areas, such as Clark and Washoe Counties.

While many of the strategies proposed in Nevada’s Strategic Highway Safety Plan (SHSP) are intended to improve pedestrian safety, the following strategies are specifically directed towards reducing pedestrian fatalities:

- Provide pedestrian safety education for pedestrians and motorists.
- Enforce pedestrian laws at high crash locations (judicial follow-thru).
- Increase pedestrian safety by constructing sidewalks, refuge islands, and upgrading signals.
- Develop criteria to identify high pedestrian crash locations and placement, design and implementation guidelines for pedestrian amenities.

Clark County includes the famous Las Vegas Strip and many other locations with high pedestrian traffic in its jurisdiction. Many of the roadways in these areas are six lanes and the intersections of the arterial roadways are very wide, creating dangerous conditions where pedestrians mix with vehicles.

The past decade in Las Vegas has seen considerable changes in the pedestrian environment. Public and private investments have enhanced pedestrian movements. At several major intersections pedestrian bridges have been built linking large casino properties on all four corners of the intersection at the second floor level, and prohibiting at-grade pedestrian crossings. New landscaped medians have been provided along the strip, enhancing

mid-block crossing in some locations, but restricting pedestrian crossings at others. This methodology has been used in Las Vegas to improve the design of pedestrian facilities at all the new mega-resort casinos.



Also, the concept has been used to establish a public safety perspective to support an Obstructive Use ordinance that establishes a specific threshold standard for sidewalk pedestrian traffic flow and regulates and prohibits mobile activities, such as solicitation of handbills and t-shirt vendor tables on segments of sidewalks that cannot adequately support those activities.

While there are few communities in Nevada with the same roadway and pedestrian environment as the Las Vegas Strip, many communities have transit stations, busy urban streets, and suburban growth corridors with high pedestrian volumes and many pedestrian-vehicle conflicts. These areas can benefit from an analytical approach to determining the appropriate facilities for pedestrians. The tools developed for the high traffic pedestrian intersections in Las Vegas can be used to improve the safety and comfort of pedestrians in other communities.



RAILWAY SYSTEM & FREIGHT

Railroads have contributed in a major way to the economic well-being of Nevada since the first railroad track entered the state near Reno in 1867, as part of the first transcontinental rail link. The intervening years have seen great changes in railroading in the United States in general, and Nevada in particular.

Compared to other modes, rail transport is low cost, energy efficient, safe, and environmentally friendly. For long distances, it is clearly the mode of choice for transport of bulk commodities such as coal, chemicals, and minerals. Over distances of about 500-700 miles, railroad is the preferred means of transporting cargo in containers and trailers, and has for some time been the preferred means of transporting new automobiles.

Nevada's railroads remain an important component of the state's transportation infrastructure. Today, millions of tons of coal, chemicals, minerals, stone and other commodities are moved into and out of Nevada by rail. Annually, almost 200,000 passengers travel across Nevada.

Nevada's rail network is currently composed of approximately 1,250 miles of

mainlines and 200 miles of branchlines. Union Pacific (UP) is the major railroad in Nevada with two main lines crossing the state and close to 1,200 miles of track. UP's possession of its main line across northern Nevada resulted from its merger with Western Pacific in 1982 and another merger in 1996, with the Southern Pacific Transportation Company (SP).

Nevada has 330 at grade crossings, 300 private crossings, and about 120 grade-separated crossings. Annually there are approximately three fatalities at crossings, three trespass fatalities, and approximately 14 injury accidents in Nevada. In Southern Nevada the Regional Transportation Commission and local entities are working with Union Pacific Railroad (UPRR) to eliminate all the remaining at grade crossing along the main line through the Las Vegas Valley. The Reno Retrac 33 foot-deep train trench project recently opened providing a 2.3 mile railway transportation corridor through downtown Reno eliminating 13 at grade crossings.

Amtrak operates the only intercity rail passenger service across Nevada via the California Zephyr. This train operates daily between Oakland, California and Chicago, IL with stops in Nevada at Reno, Sparks, Winnemucca, and Elko. Annually about 70,000 passengers use Amtrak for Nevada based origins and destinations. An additional 80,000 passengers enjoy traveling to Nevada on rail excursion trips. Amtrak ceased service across southern Nevada, including Las Vegas, in 1996.

Nevada is home to the newest monorail in the nation built along a 4-mile stretch of the Las Vegas Strip. This phase was privately built and financed. The second phase is proposed to continue to the airport.

Nevada recently received \$45 million through the SAFETEA-LU Technical

Corrections Bill to continue environmental work on the proposed 300-mph magnetically levitated train from Anaheim, California to Las Vegas, Nevada. In addition, environmental work for a high-speed diesel-electric passenger train between Las Vegas and Victorville, CA is being done by a private company.



NDOT is responsible for state rail planning, the periodic updating of the State Rail Plan and for administering of Local Rail Freight Assistance (LRFA) funding when available. State rail planning is coordinated with the Statewide Transportation Technical Advisory Committee (STTAC), Regional Transportation Commissions, local governments, Indian tribal governments, California Department of Transportation, as well as the railroads, rail customers and the public. NDOT is prohibited from owning or operating any of Nevada’s railroads per Nevada Revises Statutes (NRS) 408.233.

The Future Rail System

The Nevada Department of Transportation’s rail mission is:

“To satisfy the present and future transportation needs of the state for adequate, safe, and efficient movement of people and freight at a reasonable cost to the taxpayer.”

NDOT’s railroad program meets this mission by:

- Supporting the reintroduction of the Federal Railroad Administration (FRA) Local Rail Freight Assistance (LRFA) program.
- Supporting efforts for the continuation of Amtrak passenger rail service.
- Supporting the continuation of rail services essential to state and local needs.
- Assisting shippers and railroads as much as possible for continued uninterrupted service.
- Providing a balanced multimodal transportation system in cooperation with other state programs for safe and efficient transport of people and goods while minimizing environmental consequences.
- Helping maintain the railroad as an available mode within the free enterprise system recognizing competition with other forms of transportation.
- Supporting rail service retention through a partnership between the private sector and state and local government to minimize rail line abandonments.
- Supporting federal policy initially established by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and subsequent reauthorization acts regarding the movement of people and goods in a unified, interconnected, and economically efficient manner, to reduce energy consumption and air pollution while promoting economic development.

Since 1970, railroads in Nevada have abandoned more than 300 miles of track. However, business growth centered around the Reno/Sparks area, Las Vegas/North Las Vegas and Henderson areas suggests there is the opportunity for potential expansion of rail service in the future.

Union Pacific’s intermodal business has grown considerably in Northern Nevada, along

with the development of super distribution warehouses. The Tahoe Reno Industrial Center, located in Storey County approximately seven miles east of Reno-Sparks on the I-80 freeway, is proposed to be the largest park in the world. Rail services run through the middle of the park so businesses can utilize Union Pacific or Burlington Northern Santa Fe Railway or choose a private carrier.

In addition, the City of Fernley, located on I-80 approximately 32 miles east of Reno-Sparks, and at the intersection of US Highways 50A and 95A, established their first business park in the 1980's. Fernley also has rail (freight) access. Northern and Central California markets are reached overnight, while Los Angeles, San Francisco, Portland, Salt Lake City and Las Vegas are all within a 500 mile radius.

In the Ely area, there have been several proposals over the last few years for the rail line between Shafter/Cobre, such as hauling land fill from the Bay area to a site in White Pine County, transporting power generating products, and as a possible route to Yucca Mountain. The rail line has been studied and would need considerable work to be brought up to UP mainline standards for use again.

About 100 miles northwest of Las Vegas, Yucca Mountain is slated to be the primary depository for U.S. nuclear waste. Both nationally and in the state of Nevada, rail transportation will be the mode used for the shipment of 70,000 metric tons of nuclear waste to Yucca Mountain. The State of Nevada has filed a suit challenging DOE's final Yucca Mountain Environmental Impact Statement (FEIS). The State contends the DOE should have fully and adequately addressed transportation of spent nuclear fuel and high-level radio waste to Yucca Mountain in the FEIS, and that the transportation analysis

contained in the FEIS is legally and substantively deficient and entirely inadequate.

NDOT believes the following will shape Nevada's rail transportation future:

- Pacific Rim trade and the North American Free Trade Agreement (NAFTA) will cause the state to become a more attractive world resort destination and a major trade corridor.
- Significant impacts on transportation may occur with new technology.
- Environmental concerns will significantly affect transportation options.



Most of the freight and passenger traffic on Nevada's rail lines is moved through Nevada rather than from or to Nevada, yet the goods and people transported from or to Nevada over these lines benefit significantly from the economies of scale and frequency of service made possible by high volume through traffic. Strategically, therefore, the continued competitive viability of UP's transcontinental routes is highly beneficial to Nevada's economy. Likewise, the business and communities served by the light density lines connecting with the UP mainlines benefit from the continued viability of light density lines.

Continued population and gaming industry growth in Nevada suggest the importance and potential of the Reno/Sparks-Tahoe-Bay Area and Las Vegas-Southern

California passenger rail corridors. Nevada has encouraged development and implementation of both rail corridors in transporting visitors to the popular tourist/convention areas at Lake Tahoe, Reno/Sparks, and Las Vegas. Increasing congestion on I-80 and snow in Donner Pass in the winter both add to the importance of the Reno/Sparks- Truckee-Tahoe-San Francisco Bay Area corridor. However, given the precarious prognosis for Amtrak and the funding uncertainties at the federal government level, Nevada cannot count on Amtrak or federal funding support to improve passenger rail service in these two regional corridors.

During the last ten years, NDOT has participated with Caltrans in studying the applicability of adding an additional passenger train each day between Sacramento and Reno/Sparks. To date, this study has not resulted in additional train service. Recent history supports the ridership demand when added cars to the California Zephyr between the San Francisco Bay Area and Reno support more than 100,000 additional annual riders in this corridor.

The rail component of Nevada's intermodal/multimodal planning focuses on projects and areas considered to be most important to the state and its transportation and rail planning objectives. Following are specific strategies for the future:

- Monitor freight traffic density, and maintain contact with state's railroads regarding their plans.
- Seek opportunities for federal funding/public private partnerships where these would advance state objectives.
- Seek opportunities to facilitate intermodal transportation, which may contribute to industrial development in the growing Reno/Sparks, Las Vegas/North and Las Vegas/Henderson areas.
- Review other states' policies to determine

whether Nevada can provide incentives to would-be rail users. Solicit regular meetings with the railroads and neighboring states to exchange information and search for mutually beneficial solutions to problems.

- Considering the possibility of no additional LRFA funding, review strategies to supplement/replace limited federal funding.
- Continue to encourage development and implementation of San Francisco Bay Area-Truckee-Tahoe-Reno passenger rail service and seek ways to improve passenger rail service in the Las Vegas-Southern California rail corridor.
- Continue the environmental work for the high speed rail projects.
- Meet annually with UP, Amtrak and California Department of Transportation to discuss rail issues and related rail/freight topics.

TRANSIT PROGRAMS

Public transportation in Nevada is a critical element used to move our tourists and workforce particularly in the urban areas of our state. But it is also becoming an essential mode of transportation in rural Nevada. From 1999 to 2008, our rural transit program grew from \$1M in annual federal funding to over \$10M, and we are on track to become a \$20M program in the next few years. Since 1975, over 400 vehicles have been acquired that operate in 45 areas throughout our state. Buses in rural Nevada travel over 5,000,000 miles per year and there has been no severe crashes and no fatalities in over 25 years.

Many of our elderly, disabled, tribal reservations, and the general public in rural areas depend on our transit services. Each year over one million rides are given on vehicles provided through NDOT with Federal Transit Administration funding. These rides contribute to the quality of life and independence for many of our rural residents by providing access to employment, medical, shopping, and government services.

Nevada is home to four urbanized transit systems (Carson City, Las Vegas, Reno, and Lake Tahoe) and eight rural transit systems (BlueGo, Ely Bus, North Eastern Area Transit, Silver Rider-Laughlin, Silver Rider-Mesquite, Churchill Area Regional Transportation, Douglas Area Regional Transportation, and Lincoln County Transportation). There are approximately 50 nonprofit agencies providing transportation services to the elderly and persons with disabilities in the rural and small urban areas of the state. Rural transit buses operate on almost all of the 24 Native American Reservations and colonies in Nevada.

In Clark County the Citizens Area Transit (CAT), Metropolitan Area Express

(MAX), RTC ADA Para-transit and Silver STAR systems operate. In Washoe County the RTC Ride, RTC Access, RTC Sierra Spirit, RTC Intercity and Tahoe Area Regional Transit (TART) systems operate. The metropolitan area of Carson City, added Jump-Around-Carson (JAC), a fixed route service in October 2005, to their existing demand-response service. The Tahoe Metropolitan Planning Organization (TMPO) offers a coordinated transit system (BlueGO) that combines fixed-route, demand-response, and flex-route (shuttle) service to the residents in South Lake Tahoe on both the California and Nevada sides of the state line. On the North shore of Lake Tahoe, Placer County, CA operates the Tahoe Regional Transit Service (TART).



In response to the increasing demand for faster service along the Las Vegas Valley’s busiest roads, the RTC of Southern Nevada is currently working on building a rapid transit system, called ACE. The ACE rapid transit system will be the showcase transportation initiative for the Las Vegas Valley. The sleek bullet-shaped vehicles will travel in dedicated lanes where possible with less frequent stops than fixed-route transit, enabling the service to change routes based on traffic patterns and move passengers longer distances in a shorter time period than fixed-route bus service.

The RTC of Washoe County is in the process of developing Bus Rapid Transit (BRT) for the Reno area. They expect to have many of their BRT features in place or under development by 2011. These features will include service that is more frequent, wider station spacing, transit signal priority, and improved reliability.

In Lake Tahoe, BlueGO is undertaking a route restructuring plan which will involve an express route along US Highway 50 between the South Y Transit Station in California and the Kingsbury Transit Center at Stateline NV.

Demographic data was collected from 15 counties (excluding Clark and Washoe Counties) to document population characteristics in these areas that may require specific transit services. Ten out of fifteen counties have a population over age 65 at or above the national average of 12.4%. Twelve out of fifteen counties have a disabled population of over the national average of 19.3%. Five counties have a population below the poverty level that is above the national average of 12.4%.

As in most areas of the U.S. the majority of Nevada’s population drives alone to work. According to the 2000 Census, Humboldt County has the highest percentage of travelers on public transit and Esmeralda County has the highest percentage of walkers.



The FTA is responsible for the implementation of the Urban Transit Program and is the federal funding source for large and small urbanized areas. NDOT administers the rural program and passes federal dollars through the State to designated eligible recipients including counties, cities, regional transit authorities and private nonprofit organizations. Specific FTA funding categories are:

- Section 5303
Program funds are available to urban areas with populations greater than 50,000 for the development of transit plans and programs.
- Section 5307
Provides discretionary funds to assist state and local public bodies in capital acquisition, eligible costs include; procurement of land and capital equipment, and construction and reconstruction expenditures to build or improve existing facilities. Funding is discretionary and is allocated on a national basis, rather than a formula distribution to the state.
- Section 5309
Provides discretionary capital assistance funds for three primary activities: new and replacement buses and facilities, modernization of existing rail systems, and new fixed guideway systems (new starts).
- Section 5310
Authorizes capital assistance for the purchase of rolling stock to be used for the operation of transportation services for the elderly and persons with disabilities. These funds can also be used to purchase contracted services to operate transportation for the elderly and persons with disabilities.
- Section 5311
Provides capital, administrative and operating assistance to state agencies, local

governments, Indian Tribes and Colonies, non-profit organizations and private operators for public transportation services. All projects must benefit residents in non-urbanized areas of the state. These funds cannot be used for transportation services in urbanized areas.

- Section 5313
Provides funds to the state to be used for transit planning in the small urban and rural areas of the state. Funds can be used by the state or passed through to the local entities.
- Section 5316 Job Access Reverse Commute (JARC)
Provides funds to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to get and keep jobs. This funding is formula based.
- Section 5317
Formula funds aim to provide additional tools to overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society. These funds are to support new public transportation services and public transportation alternatives beyond those required by the Americans with Disabilities Act (ADA) of 1990.

Local funding for transit projects is derived from a variety of sources, such as non-federal grants, local government funds, user fees, cash donations, in-kind services, and advertising revenue.

Matching funds are a major concern for rural transportation organizations in Nevada. Most Federal and State grants require a 10% to 50% match. As a result, in 2007 NDOT and the Advisory Committee for Transit (ACT) testified before the State Legislature in support of

Assembly Bill 629. The bill was passed and provided a one-time allocation of \$250,000 from the General Fund to NDOT for rural transit operations for the elderly and persons with disabilities program.

“Put in better forms of public transportation, i.e., more efficient buses, monorail, better bike lanes. If they were better, I would use them more.”

-anonymous survey comment

Transit Programs and the Future

In 2005, NDOT commissioned Nevada’s Long Range Mass Transit Plan. This study looked at existing transportation delivery throughout the State and considered and contrasted various transportation modes and options for application to and integration with the rural areas of Nevada. Key findings of the study were:

- Continuation of existing levels of service is very important to the rural transportation agencies and serves as the life line for many seniors and handicapped residents.
- The lack of basic services such as groceries, post office, and banking facilities require individuals without cars to travel long distance by public transit to conduct personal business.
- No rural transportation providers routinely offer weekend service. The actual demand for weekend service should be evaluated relative to the cost to provide.
- The lack of taxi service in the majority of locations has added to the number of patrons requesting transportation services from senior centers
- There were no instances identified during the survey where transfers between different

agencies occurred. A semi-annual meeting of transportation providers would help them identify and discuss important issues in service delivery and increase the coordination possibilities between providers.

- The majority of agencies that do not operate under contract indicated capital and operating funds were not adequate. Funding sources for capital and operating expenses should be continually updated and reviewed. Where possible, joint applications between two or more providers should be explored. In addition, the possibility of demonstration projects through Federal and/or State funding sources should be explored.
- Providing rural transportation services by other modes such as local bus transit, intercity bus, bus rapid transit, light rail transit, Maglev, monorail, and personal rapid transit is not feasible due to high costs. In addition, Federal subsidies are essential for these types of service and securing grants to fund “new starts” is very competitive. The ridership demand and population base in rural Nevada would not compete with urban areas for limited Federal dollars.

Nevada’s Long Range Mass Transit Plan proposed the following recommendations for our program:

- Further study should be done on assisting rural providers with securing matching funds for Federal and State grants. The study should identify opportunities for public/private partnerships.
- Further study should be undertaken to identify specific ITS architecture and applications to monitor changing roadway conditions and to alert private drivers and public providers about potential hazards and road conditions.

- The implementation of a statewide ridesharing and matching service should be explored.
- The use of private companies to provide emergency medical services in rural areas should be studied.
- At a minimum, the existing funding levels for rural transportation providers need to continue.

Transit Security

Within the rural areas of the state, NDOT’s State Management Plan describes specific security transit measures. Many busses in rural areas have installed security cameras and NDOT is requesting cameras for new busses. In addition, some busses have installed lights on top of their vehicles that alert police if they are in distress. Within the urban areas of the state, the MPO’s are responsible for developing their own regional transit security strategies.

The RTC of Southern Nevada has adopted a Regional Transit Security Strategy that provides an optimal all-hazard approach, to preparedness, prevention, response, and recovery programs. The transit agencies in Southern Nevada focus their efforts on the prevention of an attack on the transit system.

The RTC of Washoe County considers security of the transportation system an important factor in the development of the objectives and policies for all modes of travel. RTC’s safety and security administrator regularly coordinates with the department of Homeland Security and other emergency preparedness and law enforcement agencies to manage security issues in the region, and to help prevent major disasters from occurring. They have a policy in place that states they will work with local, state, and nationwide law

enforcement agencies to enhance the security of public transportation. They also have an extremely active security update program including the installation of surveillance cameras on buses, an automatic vehicle locator (AVL) program on all agency vehicles.

The Carson Area Metropolitan Planning Organization (CAMPO) has a goal to increase the security of all modes of the transportation system. They hope to install surveillance cameras and Global Positioning Systems on all of their transit busses. In general, CAMPO encourages the use of all technologies, tools, and strategies that have the potential to improve the security of the residents in the region and visitors.

In the Lake Tahoe Basin, all of BlueGO's vehicles are equipped with automated GPS vehicle location (AVL), mobile data terminals (MDT), and radio data and voice communication equipment. BlueGO's electronic systems team with the Intelligent Transportation System (ITS) is being implemented in the Basin.

Chapter IV – Guiding Principles, Strategies, and Objectives

Throughout the development of this Plan, NDOT reached out to the citizens, businesses, and government agencies in Nevada to find out what’s important to them and what they want our transportation system to look like in the future. And we heard you loud and clear. You told us that you wanted safe accessibility and mobility that enhanced Nevada’s economy, but as we build you want us to preserve your quality of life. You told us that we need to respect the environment as we construct facilities and consider such things as endangered species, safe passage for wildlife to preserve historical migration and improve our air quality. And you want multimodal options like bicycle facilities that parallel and cross our transportation corridors, safe walking routes for recreation and health, and transit options for those who cannot drive or afford to pay the high costs for gasoline. And lastly, you asked us to spend your money wisely and provide friendly, efficient services to you. Our intent is to develop direction for this Plan that reflects the opinions of the users of our transportation system.

But NDOT is only one of many agencies responsible for maintaining and operating the State’s multimodal, interconnected, transportation system so it was crucial that we coordinated with all of the transportation agencies in the state to ensure that we are moving in the same direction. In fact, you will find that many of the Guiding Principles in this Plan are the same or similar to other transportation agencies throughout the state. All of the input that we collected over the past four years through our public outreach efforts was used to develop the Guiding Principles of this Plan. Our public outreach efforts, references, and survey

results are included in the Appendices of this document.

We chose to use the term “Guiding Principles” because a principle is a standard of conduct, an idea, or a belief. And these principles represent the ideas, beliefs and standard of conduct that NDOT will use every day to guide the decisions we make. These principles will be used to guide us when selecting transportation projects for our state. We have also developed strategies and objectives to help guide us and assess our progress towards achieving our Principles. Where possible, we have developed short, mid and long-term targets to further monitor our progress at different intervals and keep us on track to meet our Guiding Principles.

Every employee at NDOT plays a vital role in developing our transportation system but our performance is based for the most part on completed highway projects. Transportation facilities are the most visible indication to the public that our agency is appropriately executing and accomplishing our job. In truth, many of the support functions facilitate and allow those high profile construction activities to occur. Without the assistance from our support divisions, those transportation projects could not be completed which is why some of the strategies and objectives we used are specific to internal processes and procedures at NDOT. Ultimately, the more streamlined and efficiently our agency operates, the better utilization of our taxpayer funds and the better transportation improvements our customers receive.

In 2007 the Nevada State Legislature passed Assembly Bill 595, providing approximately \$1 billion dollars in bonding capacity for Super/Mega (Major) projects identified by NDOT as priority projects for our State. This bill required NDOT to

develop a plan for measuring the performance of the Department as a stipulation of receiving this funding. All of the objectives that were established as a requirement of this bill have been included under the Guiding Principles in the Plan. For more information on our Performance Measures see the “Annual Report for Assembly Bill 595.”

Plan supported the NDOT mission, vision, and goals. Through the mission statement, the general direction of the organization is established. NDOT’s mission is:

“Providing a better transportation system for Nevada through our unified and dedicated efforts”

And finally, as an agency we wanted to ensure that the Guiding Principles in this

GUIDING PRINCIPLES:



SAFETY

Improve safety for all modes of our transportation system.



CUSTOMER SERVICE

Improve internal and external customer service and satisfaction.



FISCAL RESPONSIBILITY

Secure the highest amount of funding possible for our state and ensure that it is invested responsibly and properly.



ASSET MANAGEMENT

Protect the public’s investment in our transportation system.



MOBILITY/ACCESSIBILITY

Provide a statewide, multimodal, interconnected, efficient transportation system that enhances Nevada’s Economic Competitiveness.



FREIGHT MOVEMENT - Improve the safety and mobility of freight

movers.



ENVIRONMENTAL STEWARDSHIP

Ensure the human and natural environments are considered when developing the transportation system.

The following pages describe each of our seven Guiding Principles, our strategies, and our objectives.



GUIDING PRINCIPLE: SAFETY

Improve safety for all modes of our transportation system.

A core priority of NDOT and all citizens in this state is transportation safety across all modes. The fatality rates in Nevada are similar to the national experience, with significant decreases during the 80’s and early 90’s followed by a noticeable flattening over the past decade. However, Nevada’s fatality rate has consistently been 20% to 40% above the national average.

While Nevada continues to rank high nationally in the statewide rate of traffic fatalities on the state’s highway system, improvement has been made through concentrated and coordinated efforts. Nevadans should be able to look at NDOT as the driving force behind the development and implementation of multimodal transportation safety improvement programs.

NDOT will work to ensure that safety is considered and implemented, as appropriate, in all phases of transportation planning, design, construction, maintenance, and operations. NDOT will strive to raise the safety awareness of both the transportation industry and users of transportation facilities. We will work closely with other local, state, tribal and federal agencies to improve information reporting on transportation crashes, exposure to risks, and trend analysis, in order to identify potential safety problems, analyze potential solutions and implement appropriate actions.

Following are the strategies, objectives and targets that were identified in Nevada’s 2006 Strategic Highway Safety Plan, initiated by NDOT and the Department of Public Safety.

STRATEGIES:

1. Create an education program aimed at reducing lane departure crashes by focusing on drivers and public officials responsible for law enforcement activities.
2. Conduct public service campaigns to reduce impaired driving.
3. Provide subsidized bus/limo/taxi service to/from bars.
4. Provide pedestrian safety education for pedestrians and motorists.
5. Conduct highly publicized DUI checkpoints.
6. Seize vehicle/license plate and create a “zebra” plate for DUI offences.
7. Conduct highly publicized seat belt enforcement campaigns coupled with a primary seat belt law and targeted education message.
8. Enforce pedestrian laws at high crash locations (judicial follow-thru).
9. Adopt automated enforcement including red-light running cameras.
10. Implement cost effective improvement to keep vehicles in their lane.
11. Flatten side slopes and remove roadside objects.
12. Increase pedestrian safety by constructing sidewalks, refuge islands, and upgrading signals.
13. Follow the principles of access management.
14. Implement geometric intersection improvements (i.e., left-turn lanes, roundabouts).
15. Increase intersection awareness with traffic control devices
16. Implement traffic signal upgrades and improvements.
17. Provide first responder training for highway maintenance workers, state patrol, etc.

- 18. Use technology to reduce emergency response times.
- 19. Improve ability to perform crash data analysis across agencies.
- 20. Develop criteria to identify high pedestrian crash locations and placement, design and implementation guidelines for pedestrian amenities.
- 21. Reduce crashes involving bicyclists and motor vehicles by at least 10% by the year 2010 (with additional increases achieved by 2020).

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Safety	Annual average lane departure failures.	Reduce from 186 to 132	
Safety	Annual average alcohol-related fatalities.	Reduce from 93 to 66	
Safety	Annual average alcohol-related repeat offender fatalities.	Reduce from 7 to 5	
Safety	Annual average unbelted fatalities.	Reduce from 164 to 116	
Safety	Annual average pedestrian fatalities.	Reduce from 55 to 37	
Safety	Annual average signalized intersection fatalities.	Reduce from 41 to 29	
Safety	Annual average intersection red-light running and speed fatalities.	Reduce from 18 to 13	
Safety	Annual average running off the road fatalities.	Reduce from 135 to 96	
Safety	Annual average unsignalized intersection fatalities.	Reduce from 88 to 63	
Intermodal Planning	Reduce crashes involving bicyclists and motor vehicles.	2010 = 10% 2015 = 2020 =	



GUIDING PRINCIPLE: CUSTOMER SERVICE

Improve internal and external customer service and satisfaction.

Everyone in our state is a customer of NDOT at some point because everyone relies on some form of transportation. Whether it’s the roads you use to get to and from work, the freight services that deliver food to your local grocery store, or the visitor using our transit services to get around Las Vegas. NDOT is working to improve and enhance our transportation network so we have a positive impact on our customers and the traveling public; but we also want to improve our relationships with the contractors and crews who build our roads, the local business and

developers who need access to their facilities, and our elected officials who are trying to satisfy their constituents. By working on the services that NDOT provides our business customers, like streamlining our permitting and agreement procedures, we hope they in-turn will be able to provide better services to their customers. We also feel that improving employee satisfaction and providing them the proper training and materials they need to perform their jobs, will ultimately improve our public’s overall satisfaction.

STRATEGIES:

1. Improve Customer/Outreach Satisfaction
2. Improve employee satisfaction
3. Provide training opportunities that will improve the skills of employees.
4. Streamline permitting process.
5. Streamline agreement execution process.
6. Designate an individual in each District / Division to be responsible for planning outreach activities.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Operations Group	Create a single point of contact in each District that can forward information to the appropriate person and provide a consistent response to the public.	Yes / No	
Operations Group	Track customer service requests yielding a satisfactory outcome and issues resolved in one day.	Yes / No	

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Human Resources Training	Percentage of employees trained in accordance with prescribed training plan.	2010 = 15% 2015 = 100% 2020 = 100%	
Human Resources	Overall satisfaction rating of 8 on scale of 10.	2010 = 8 to 10 2015 = 8 to 10 2020 = 8 to 10	
Administrative Services	Percentage of Agreements executed within 45 days.	2010 = 90% 2015 = 95% 2020 = 95%	



GUIDING PRINCIPLE: FISCAL RESPONSIBILITY

Secure the highest amount of funding possible for our state and ensure that it is invested responsibly and properly.

Nevada receives state and federal funds to build our transportation facilities, but these funds are also used to pay for such things as the day-to-day operation of our agency, our personnel, managing programs, and asset maintenance. There are a number of responsibilities attached to these funds. NDOT has the responsibility for ensuring proper utilization of these funds and to fulfill all of the state and federal requirements that go along with the privilege of receiving these funds.

NDOT also has a responsibility to work towards securing the highest amount of federal and state funding possible. This is accomplished

in a number of ways such as adhering to proper accounting procedures for these funds year-after-year, streamlining our project advertisement and delivery process, and maintaining low administrative project costs.

And finally, the citizens of Nevada expect the financing they provide for the state’s transportation system be managed and invested responsibly. NDOT must use effective planning and decision making to ensure that our limited transportation dollars are spent in the most responsible way and that we prioritize projects to ensure that limited transportation resources are allocated to the state’s highest priorities.

STRATEGIES:

1. Assist management with the effective discharge of their responsibilities by providing an independent review and appraisal function, guided by professional audit standards.
2. Through the Pioneer Program, continue to explore and develop new and creative ways to finance and deliver transportation improvements.
3. Ensure that adequate financial resources are available when needed.
4. Ensure that no federal obligation authority is lost and no federal apportionments or grants lapse.
5. Secure the highest amount of federal and state funding possible for the Department and ensure the optimum use of those funds.
6. Ensure that the Traffic Monitoring System will meet the statistical precision established by the FHWA for the Highway Performance Monitoring System (HPMS)
7. Maintain the Disadvantaged Business Enterprise (DBE) Program for the Department to ensure that DBE certified businesses have an equal opportunity to participate in NDOT work.
8. Maintain an accounting system of internal control, recording, classifying, summarizing and interpreting the financial transactions for the Department.
9. Streamline project delivery – schedule and estimate from pre-development state to bidding.
10. Streamline project delivery – schedule and estimate from bid opening to construction completion.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Auditing	Outside review of work procedures by AASHTO Peer Review Committee (every 3-5 years) approved.	Pass / No Pass	
Financial Management	Pass annual certification of financial integrity.	Pass / No Pass	
Financial Management	Year-end report for Utilization of Federal Funds passed.	Pass / No Pass	
Financial Management	All consultant audits passed.	Pass / No Pass	
Financial Management	Pass financial integrity review and evaluation (FIRE).	Pass / No Pass	
Major Projects	Percentage of projects completed within range of established cost estimate and schedule after environmental process.	2010 = reduce by 25% 2015 = 100% 2020 = 100%	
Construction	Percentage of projects within established range of cost estimate and schedule to completion.	2010 = reduce by 25% 2015 = 100% 2020 = 100%	
Traffic Information	Submit the annual Traffic Monitoring System in accordance with 23 CFR F 500 B by January 31.	Yes / No	
Operations Analysis	Benefit / Cost analysis completed on projects over \$25M.	Yes / No	
Contract Compliance	Achieve a DBE Goal of 5.7% per year in a race neutral DBE program.	2010 = 5.7% 2015 = 2020 =	
Contract Compliance	Conduct six DBE contract reviews per year.	Yes / No	



GUIDING PRINCIPLE: ASSET MANAGEMENT

Protect the public’s investments in our transportation system.

NDOT is responsible for billions of dollars worth of assets, including right-of-way, structures, pavement, signs, and signals. This represents a considerable taxpayer investment to be protected.

Asset management is a systematic process of maintaining, upgrading and operating physical assets, cost effectively. Objective, fact-based tools and techniques are systematically applied to determine how best to deploy available resources in order to achieve system-wide agency goals.

NDOT realized many years ago that it is less expensive to keep our infrastructure maintained in good condition rather than let it

deteriorate to the point where major reconstruction is needed. This strategy maximizes the life of our roads and assets and is a more efficient utilization of our dollars. However, with highway construction costs and right-of-way acquisition prices continuing to rise, many preservation and construction projects are being delayed. This prolonged reduction in our program will have serious consequences in future costs. And the strain on resources brought about by an inadequate maintenance system will have a direct effect on the economic development efforts across the state as well. Our challenge is balancing these scarce dollars with the appropriate maintenance that will effectively protect our assets.

STRATEGIES:

1. Maintain our Interstate system at a high level of serviceability by applying timely overlays where possible, and reconstructing inferior segments.
2. Maintain our Non-Interstate principal arterials by applying maintenance treatments such as chip seals and flush seals.
3. Optimize the available resources to efficiently manage the Department’s assets in a responsible, secure manner.
4. Provide an efficient and well-conceived engineering based process for establishing and maintaining the quality of materials and products incorporated in the facilities and structures constructed.
5. Sustain and enhance current quality standards and materials, and continue to strive to improve service delivery.
6. Maintain NDOT’s mobile fleet within prescribed limits.
7. Implement a computer based payroll system to be used by NDOT’s contractors and subcontractors, including items required under NRS 338.
8. Reduce work place accidents.
9. Maintain Facilities Infrastructure Security Plan and the Mobile Fleet Security Plan to comply with quickly changing Homeland Security Guidelines.
10. Rehearse the various security plans to identify weaknesses making necessary modifications as required.
11. Provide adequate education and training to NDOT personnel in order to ensure that security objectives are met during the design and construction as well as maintenance and operations phases.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Bridge	Percent of NDOT owned bridges categorized as structurally deficient or functionally obsolete.	2010 = reduce by 2.6% 2015 = 2.6% 2020 = 2.6%	
Materials	Percentage of state maintained pavements in fair or better condition as rated through the International Roughness Index.	2010 = 92% 2015 = 100% 2020 = 100%	
Operations Group	Maintain the percentage of the mobile fleet needing replacement within prescribed limits.	Yes / No	
Operations Group	Maintain mobile fleet utilization within the prescribed limits.	Yes / No	
Operations Group	Maintain the percentage of buildings and facilities in good condition and are compliant with appropriate codes, ordinances and Department guidelines within prescribed limits.	Yes / No	
Construction	Ensure that preventable causes of change orders and supplemental do not reoccur, with a 90% success rate.	Yes / No	
Contract Compliance	Reduce the number of late payrolls.	2010 = 90% 2015 = 2020 =	
Operations Group	Number of exercises of the various security plans will be within the prescribed frequency.	Yes / No	
Operations Group	Number of breaches in security will be within prescribed limit.	Yes / No	

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Human Resources Safety & Loss Control	Reduce number of work place injuries and illness to total number of employees.	2010 = reduce by 10% 2015 = Zero injury/illness 2020 = Zero injury/illness	



GUIDING PRINCIPLE: MOBILITY/ACCESSIBILITY

Provide a statewide, multimodal, interconnected, efficient transportation system that enhances Nevada’s economic competitiveness.

With Nevada’s population growth projected to continue, it is clear that NDOT needs to continue to increase the capacity of our highway system by adding new roads, widening existing corridors and constructing new interchanges. However, our population and travel demand growth has surpassed the resources that we have available for adding this new infrastructure. One way to address this challenge is to find ways to make the existing system work better. In doing so, we will need to focus on strategies such as Intelligent Transportation Systems, Access Management, and Travel Demand Management. This also means that we need to improve our project estimates and streamline our project delivery. NDOT will continue to promote and support other modes of transportation that alleviate congestion and improve our environment, such

as transit services and facilities for pedestrians and bicycles. We are working to ensure that all of our citizens and visitors have mobility and access, regardless of physical limitations, social status, economic level or geographic location.

Transportation and the supporting infrastructure are essential to the economic growth and development within Nevada and across our nation. Not only does a superior transportation system support and retain existing economic development interests within the state, but it will help to make Nevada attractive in the recruitment of new economic development. It is important that the transportation system not only serves the state’s citizens and business, but also places the citizens and business in a position that makes them competitive on a national and global scale.

STRATEGIES:

1. Reduce the percentage of daily vehicle miles traveled that occur at Level of Service “E” or worse on the state system.
2. Provide a consistent and effective operation of NDOT’s roadway network to provide a safe and reliable trip to the traveling public.
3. Streamline project delivery from pre-development to advertise date.
4. Increase levels of bicycling for transportation throughout Nevada, doubling the number of trips made by bicycles by the year 2010 (with additional increases achieved by 2020).
5. Foster and promote the development of a safe, efficient, dependable and environmentally compatible air transportation system.
6. Cooperate and coordinate with Federal government, regional transportation planning agencies, local governments, other appropriate political subdivisions, the public, the air carrier and general aviation industries, and the private sector in carrying out the aviation responsibilities.
7. Continue to evaluate existing ITS architectures (statewide and regional) and implement program updates to minimize congestion.
8. Create and maintain an NDOT Continuity of Operations plan to ensure greater participation in emergency exercises held by other state and local agencies.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
NDOT	Percentage of daily vehicle miles traveled at LOS E or worse.	2010 = 15% 2015 = 2020 =	
NDOT	Portion of federally funded projects advertised for contract in the year intended.	2010 = 100% 2015 = 100% 2020 = 100%	
Operations Group	Traffic Management Programs will be in place statewide, to the regionally appropriate level, and utilized by each District.	Yes / No	
Operations Group	Create regional incident management programs to minimize impacts of non-recurrent congestion.	Yes / No	
Operations Group	Expansion and implementation of ITS strategies on new roads will be included in contracts as the projects are built, enabling the roadway to operate at a higher level.	Yes / No	
Intermodal Planning	Airport Capital Improvement Program.	2010 = \$1,100,000,000 2020 = \$4,700,000,000	
Intermodal Planning	Rural passenger enplanements.	2010 = 32,300,000 2015 = 38,200,000 2020 = 44,500,000	
Intermodal Planning	Rural air carrier and taxi operations.	2010 = 780,000 2015 = 880,000 2020 = 990,000	
Intermodal Planning	Public use airports aircraft operations (A takeoff or landing).	2010 = 1,100,000 2015 = 1,200,000 2020 = 1,300,000	
Intermodal Planning	Bikeway projects implemented that were identified through NDOT and local government planning process.	2010 = # of bikeway projects implemented.	
Intermodal Planning	Integrate bikeway system plans with other transportation plans & programs.	Yes / No	

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Intermodal Planning	Rural transit ridership per year.	2010 = 1,200,000 2015 = 1,500,000 2020 = 2,000,000	



GUIDING PRINCIPLE: FREIGHT MOVEMENT

Improve the safety and mobility of freight movers.

Freight carriers dominate the transportation industry, representing the overwhelming majority of the domestic transportation market in both volume and revenue. Highways carry the bulk of freight in Nevada, followed by rail (tonnage) and air (value). Due to the nature of Nevada's commodity flow, water borne freight movements are insignificant or nonexistent.

Ensuring that we have sufficient intermodal accessibility and mobility is essential for freight movement in order to meet the needs of the state's industrial and commercial sectors. We understand that freight carriers need to move and that delays cost them money, so we are working to make their trips through our state safer and more efficient. A well functioning multimodal freight transportation system (roadways, airports, and railways) is vital to Nevada's economy and the national economy.

With the tragic events of September 11, 2001, safety for the freight carrier industry took on a new dimension. It forced them to increase their efforts to ensure the safe, secure and efficient movement of goods across the US. The threat of terrorists using hazardous materials in the transportation system as a weapon was a new danger to this industry. NDOT always considers the security of our transportation system and is working closely with our Federal, state, local, and tribal governments to ensure that all our freight carriers can travel in our state securely.

Truckers are the third largest motorist group using our highways, after commuters and tourists, and Nevada has seen an increase in the number of large truck crashes as well as fatalities over the period 2001 – 2005. The number of large trucks involved in fatal and non-fatal crashes increased 12 percent during that time period. The number of buses involved in fatal and non-fatal crashed increased 65 percent, from 20 to 33. NDOT works in cooperation with the Department of Public Safety and the Highway Patrol Division on improving highway engineering and design to reduce the likelihood of crashes caused by highway geometrics.

Nevada has fewer restrictions on trucking than any other state. For reducible loads, we allow a number of trailer combinations, including triples. For non-reducible loads, NDOT offers efficient and timely permitting to assist carriers in getting their loads to their destination safely.

Overall commodity freight tonnage for Nevada is expected to grow at an annual rate of around 2.5 percent, both for inbound and outbound freight. Airfreight is expected to grow the fastest at around 3.4%. In accordance with Nevada Revised Statutes Chapter 408, NDOT will promote and encourage development of adequate ground access to public use airports with multimodal interface to develop and coordinate a balanced transportation policy consistent with social, economic and environmental goals of the State.

STRATEGIES:

1. Reduce the number and severity of large truck/bus related fatalities on Nevada’s highways.
2. Improve the efficiency and administrative processes for the motor carrier industry and government agencies.
3. Promote safety on Nevada’s highways by providing law enforcement traffic services to the motoring public.
4. Reduce congestion costs for freight carriers.
5. Ensure regulatory compliance.
6. Streamline credentials and tax administration.
7. Provide timely and accurate road condition and weather information to prevent avoidable delays whenever possible.
8. Work with local governments to identify and address airport ground transportation problems.
9. Include intermodal facility and warehousing in future regional plans and small urban plans.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
DPS/HPD	Reduce large truck and bus related fatalities.	2011 = 0.16 fatalities /100 million vehicle miles.	
Traffic Information	Annual Truck Weight Characteristics Data report issued on time.	Yes / No	
Traffic Information	Vehicle (Truck) Size and Weight Enforcement Certification report issued on time.	Yes / No	
Administrative Services	Single trip over-dimensional vehicle permits issued within one day (or same business day).	2010 = 100% 2015 = 100% 2020 = 100%	
Administrative Services	Annual and special permits issued within 30 days.	2010 = 100% 2015 = 100% 2020 = 100%	
Operations Analysis	Commercial vehicle accidents/Commercial vehicle miles traveled.	In process of collecting.	



GUIDING PRINCIPLE: ENVIRONMENTAL STEWARDSHIP

Ensure the human and natural environments are considered when developing the transportation system.

Preserving and protecting Nevada’s human and natural environment and resources for the benefit of future generations is one of NDOT’s priorities. We understand that a sound transportation system must address the relationship between the movement of people and goods and the impact upon the environment. We work closely with our federal, state, regional, local and tribal governments to coordinate and preserve our environment and natural resources. We strive to protect and enhance the aesthetic values of transportation corridors in order to preserve quality of life for our citizens.

NDOT has a host state and federal laws that govern the way we plan and implement transportation projects. Mitigation strategies are incorporated into the project planning process as part of National Environmental Policy Act (NEPA) compliance. NEPA is our basic national charter for protection of the environment. It establishes policy, sets goals, and provides means for carrying out the policy. NEPA procedures ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. Some of the areas we consider are social-economics, wetlands/waters of the US, storm water, threatened and endangered species, air quality, noise, and hazardous materials/waste.

Agencies are now required to integrate the NEPA process with other planning at the earliest possible time to ensure that planning and decisions reflect environmental values and to avoid delays later in the process, and to head off potential conflicts.

The Nevada Revised Statutes and Nevada Administrative Code also include provisions that authorize protection of selected plant species declared to be in danger of extinction. Historic sites and buildings are being identified by local governments, the State Office of Historic Preservation, and organizations involved in historic preservation.

NDOT’s Cultural Resources Section is responsible for ensuring that our projects comply with Federal and State requirements regarding protection of cultural resources (i.e., significant historic, architectural, archaeological and paleontological resources) and consultation and coordination with Native American Tribes. They identify affected tribal lands and interests and consult with tribal officials to address effects of proposed projects on their lands or interests. Our Archaeological Section protects, preserves, researches and learns from Nevada’s past and strives to protect that past.

STRATEGIES:

1. Preserve and enhance Nevada’s transportation system while fostering relationships with the public and regulatory agencies.
2. Water Quality and Erosion and Sediment Control Program – Prevent pollution resulting from storm water runoff and wind erosion from NDOT facilities.

3. Work with Nevada’s resident and affiliated Native American tribes to protect our shared cultural heritage and values.
4. Facilitate improved communication between NDOT, the FHWA, and with Nevada’s resident and affiliated Native American tribes.
5. Ensure that Nevada’s resident and affiliated Native American tribes are informed and consulted for concerns when either their current land holdings or places/resources significant to them may be affected by NDOT’s projects.
6. Work to reduce the amount of annual energy we consume at our facilities and with our vehicles and equipment.
7. Protect the public’s interest and minimize NDOT’s potential liability through project activities, real estate transactions, or day-to-day operations.
8. Continue to employ more testing and evaluation of archeological remains using new technology, geographic information systems, and geographic positioning systems.

<u>Reporting Division</u>	<u>Objective</u>	<u>Target</u>	<u>Actual</u>
Environmental	Ensure that all Federally funded projects met requirements of the law under 23 CFR 771 & 772.	All projects subject to NEPA met federal requirements.	
Maintenance & Operations	Reduce annual energy consumption at facilities and with our vehicles and equipment from previous year.	Yes / No	

Chapter V – FUNDING OUR TRANSPORTATION SYSTEM



From 1990 to 2006, Nevada experienced the fastest population growth rate in the nation. Along with that came the fastest growth in vehicle miles of travel in the nation. Our population is expected to grow to 2.8 million people by 2010, and vehicle travel is expected to increase to 35 billion miles annually – an increase of 80 percent by 2010. The state’s tourism industry continues to grow. Thirty-nine million people visit Las Vegas annually and 53% percent of them arrived by automobile or bus. Interstate-80 and Interstate-15 are among the busiest truck-freight corridors in the nation and that traffic is expected to increase significantly in the future.

Las Vegas is currently one of the most congested cities in the United States, and unless major steps are taken, driving times during peak travel hours will be far worse than even present-day Los Angeles by the year 2030. Reno’s driving times during peak travel hours are expected to increase by 680 percent in the next 25 years.

NDOT utilizes and supports congestion-relieving technologies and alternative modes of transportation to reduce the number of vehicles on our highways, such as transit, carpooling,

implementing high occupancy vehicle lanes and intelligent transportation systems. Unfortunately, these alternative forms of transportation make only incremental improvements in congestion and do not forestall the need for significant highway improvements. Almost every major road leading into and out of the Las Vegas Valley and the Reno area needs to increase capacity in order to keep up with growth.

The safe mobility of people and goods in and through Nevada is a top priority for NDOT and it is essential to ensure our continued economic growth and prosperity. But this mobility is going to require a significant investment and NDOT is facing a severe funding shortfall crisis. Our state highway system needs are expected to be \$11 billion by 2015 (in 2006 dollars), without accounting for inflation.

NDOT has been planning and designing new projects to help relieve the worst of our congested corridors. Preliminary costs for these projects are estimated at \$4.8 billion; two projects exceed \$1 billion each and eight “Super Projects” exceed \$100 million each. These figures do not include the costs of many of our smaller projects.

We estimate that we will need to spend at least \$1.5 billion through 2014 on maintenance and preservation projects just to avoid increasing the backlog of pavement and bridge maintenance needs. Reconstructing roads costs about 4 times more than resurfacing them.

We have more fuel efficient vehicles consuming less fuel and fewer revenues are being generated from gas taxes. Nevada’s gas tax is 18.4¢. State highway taxes and fees have not been raised since 1991. Compounding all of this, highway construction costs rose 99.7 percent nationally and highway construction

inflation has risen nearly 44 percent in the past few years, exceeding general inflation.

At the federal level, the Congressional Budget Office predicts the “Highway Trust Fund” will run a deficit of \$1.7 billion in 2009 and \$8.1 billion by 2010. The fund gets its money from 18.4¢ a gallon excise tax that drivers pay at the pump. The last time the federal gas taxes were increased was in 1993 and Congress is showing no signs that they intend to raise this tax.

Even if the fund does not go into deficit, there is speculation that there will be a huge drop in the amount of funding available for transportation. In the past we estimated \$43 billion would be distributed to the states, but that number may be cut to as little as \$20 billion. It is clear that reliance on federal funding to address Nevada’s shortfall in the future is unrealistic.

Nevada is not alone in this funding crisis, but our needs are unique because of the tremendous growth our state has experienced. And every agency that we work with, (cities, counties, tribes, etc.), are also facing this same funding shortfall crisis so we must coordinate and work as partners to innovatively and strategically invest in improvements that will make the system more efficient and more effective.

Our challenge is to ensure that adequate funding is available for the future long-term health of our transportation system. Multiple and varied funding sources must be identified and managed responsibly so that Nevada’s transportation needs and economic interests are met.

As another tool to address our anticipated funding shortfalls, NDOT initiated the Pioneer Program. This new program will help develop innovative road funding and

construction partnerships. We hope to provide faster project delivery and relieve congestion, while securing more funding amid a statewide transportation funding deficit.



Recognizing our impending funding shortfall, NDOT staffed and provided information to the Governor’s office, which went before the 2007 Legislature with Assembly Bill 595. This bill was passed and provided approximately \$1 billion dollars in bonding capacity for Super/Mega (Major) projects identified by NDOT as priority projects for our State. The funding plan earmarked existing room, car rental and property taxes to pay for highway construction. By providing funds to start vital road projects now, versus a pay-as-you-go strategy, this will save the taxpayers an estimated \$600 million in construction inflation costs.

NDOT continues to keep our administrative costs consistently low year after year. Through expeditious business practices, innovative contracting methods and the use of new technologies, we provide timely road projects for the traveling public and avoid inflationary costs.

To generate and preserve additional funds, we promote programs such as sponsor-a-highway and logo signs that provide freeway trash removal and service information.

NDOT initiated the Pioneer Program as another tool to address our anticipated funding shortfalls. This new program will help develop innovative road funding and construction partnerships. We hope to provide faster project delivery and relieve congestion, while securing more funding amid a statewide transportation funding deficit.

As part of the Pioneer Program, Governor Gibbons named a 12-member Public-Private Partnership Advisory Panel to explore the use of public-private partnerships. This is when a contractual agreement between a public agency, such as NDOT, and a private company is used to fund transportation improvements.

Toll roads and lanes are a primary example of public-private partnerships, but NDOT's Pioneer Program innovations could also take the form of design-build projects and developer-paid projects. Availability payment programs are another possibility that would allow NDOT to pay back road builders/operators based on the number of vehicles using the road, and asset management programs could allow outside companies to provide certain road services.

Whether through taxes, tolls or other fees, NDOT will continue to look to this new program to help provide quality transportation for Nevada. We are looking for programs and opportunities that work specifically for Nevada, while building upon lessons learned from other states. The Pioneer Program will join other NDOT initiatives to deliver quality transportation projects for the citizens and visitors of Nevada.