

# NEVADA STATE FREIGHT PLAN

## EXECUTIVE SUMMARY

*A strategic framework for freight mobility and economic competitiveness*

SEPTEMBER 2016



TRAIN



TRUCK



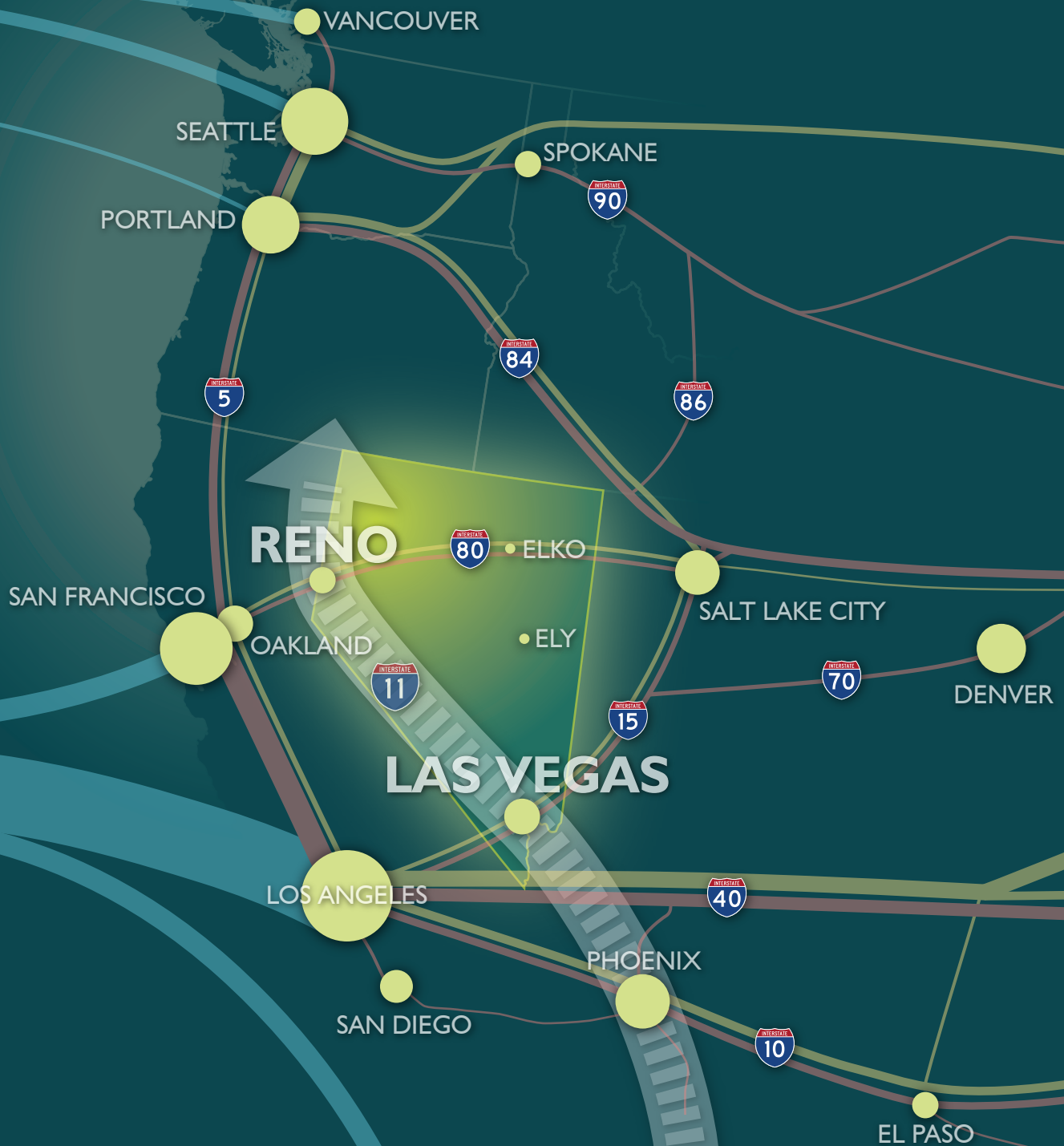
SHIP



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# WHAT IS THE NEVADA STATE FREIGHT PLAN?

A strategic framework for freight mobility and economic competitiveness

The Nevada State Freight Plan (Freight Plan or Plan) is the state's first comprehensive multimodal plan that identifies specific recommendations to improve the state's freight infrastructure and distribution, with the ultimate goal of creating a competitive advantage for Nevada that will result in a **growing and diversifying economy**.

## The Freight Plan

- » Identifies strategic goals, objectives, and performance measures
- » Provides a competitive market analysis identifying critical issues, trends, and economic drivers
- » Outlines the vision and framework to improve the movement and distribution of goods

- » Recommends strategies and actions to achieve goals and implement the Plan
- » Describes the funding, financing, and partnerships needed to achieve the Plan

The Freight Plan builds on previous work completed by the state of Nevada in assessing and planning its freight infrastructure. Integral to this planning process was the initiation of an ongoing dialog with key industry leaders and local and state agency stakeholders with the formation of the Freight Advisory Committee (FAC) and through one-on-one meetings with additional key stakeholders and interested parties.

# WHAT IS THE PLAN TRYING TO ACHIEVE?

The Freight Plan identifies eight strategic goals and related objectives to guide current and ongoing freight-related planning efforts to meet the state's freight transportation needs. The goals identified for Nevada's freight transportation system were informed by federal, state, and local planning efforts, and are consistent with

the federal goals established under Title 23, United States Code, Section 167, National Freight Policy. Together, these goals address the areas of economic competitiveness, mobility and reliability, safety, infrastructure preservation, technology, environmental sustainability, and livability, funding, and collaboration.

## Strategic Goals of the Freight Plan



### Economic Competitiveness

Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness.



### Mobility & Reliability

Provide an efficient and reliable multimodal freight transportation system for shippers and receivers across the state.



### Safety

Improve the safety of the freight transportation system.



### Infrastructure Preservation

Maintain and improve essential multimodal infrastructure within the state.



### Advanced Innovative Technology

Use advanced technology, innovation, competition, and accountability in operating and maintaining the freight transportation system.



### Environmental Sustainability & Livability

Reduce adverse environmental and community impacts of the freight transportation system.



### Sustainable Funding

Fully fund the operations, maintenance, renewal, and expansion of the freight transportation system.



### Collaboration, Land Use, and Community Values

Establish an ongoing freight planning process to coordinate the freight transportation system and ensure consistency with local land use decisions and community values.

# BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions



Objectives with performance measures and targets are identified for each goal, with emphasis on highways that are under NDOT's control. Accomplishment of these objectives will make concrete, measurable progress toward the attainment of the freight transportation system goals and ultimate realization of our shared vision for Nevada's freight transportation system.

## Mobility & Reliability

Provide an efficient and reliable multimodal freight transportation system for shippers and receivers across the state.

## Safety

Improve the safety of the freight transportation system.

## Advanced Innovative Technology

Use advanced technology, innovation, competition, and accountability in operating and maintaining the freight transportation system.

### Objective:

#### Choke Points on Major Truck

**Routes:** Reduce the number of locations where the average truck speed is below 40 mph.

### Objective:

**Highway Safety:** Improve daily highway system operations management to eliminate freight-associated motor vehicle fatalities.

### Objective:

**Freight-related R&D:** Support research and development of innovative freight-related technologies that can advance improvements and measure system performance.

**Measure:** Truck speeds on I-15, I-80, I-580, US 395, US 93, US 95, I-215/CC-215

**Measure:** Number of fatal motor-vehicle crashes involving trucks

**Measure:** Number of freight related research tasks completed annually by the NDOT Research Section

### Baseline:

**2015 Conditions:** 42 locations with speeds below 40 mph

### Baseline:

**2009-2013 Statewide Average:** 13.8 fatalities

### Baseline:

**2014 Freight-Specific Research:** None  
**2015 Freight-Specific Research:** TBD

**Target:** ≥ 10% reduction by 2021

**Target:** < 10 fatalities by 2021

**Target:** ≥ 2 per year

**Score:** ◆

**Score:** ◆

**Score:** ■

**Analysis:** Travel speeds during afternoon peak periods (4 to 6 pm) on the major truck routes were evaluated to identify some of the chokepoints on major truck corridors. During the month of July 2015, there were 42 locations where the average truck speed during the afternoon peak period dropped below 40 miles per hour.

**Analysis:** While total highway fatalities in Nevada have been trending downward, truck-involved motor vehicle crash fatalities remained relatively flat from 2009 through 2013.

**Analysis:** While there were no recent research programs directly related to freight-specific technologies initiated in 2013-2014, the NDOT Research Section's primary mission is the advancement of innovations in transportation; therefore, many research programs initiated benefit the freight transportation system either directly or indirectly.

▼ Maintain or Needs Some Improvement    
 ◆ Needs More Improvement    
 ● Needs Significant Improvement    
 ■ Not Yet Scored



# BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions (Continued)

## Infrastructure Preservation

Maintain and improve essential multimodal infrastructure within the state.

### Objective:

**Pavement Condition:** Maintain a minimum 95% of state-maintained pavements in fair or better condition.

**Measure:** Percentage of state-maintained pavements in fair or better condition

### Baseline:

**Roadways in fair or better condition:** 71%

**Target:** ≥80% by 2021

**Score:** ▼

**Analysis:** At the current annual average expenditure for pavement rehabilitation, it is projected that the state-maintained roadway network will deteriorate from 75% to less than 50% of roads in fair or better condition by 2027.

*\* NDOT is actively working on adjusting their pavement management system reporting capabilities to enable the reporting of pavement conditions in accordance with FHWA's recently proposed metrics.*

### Objective:

**Bridge Conditions:** Target of less than 5% of NDOT state-maintained bridges are in poor condition and a minimum 50% in good condition.

**Measure:** Percentage of NDOT state-maintained bridges that are in good and poor condition

### Baseline:

**Bridges in poor condition:**  
NHS - 2%  
Non-NHS - 1%

**Target:** Maintain 5%

**Score:** ▼

**Analysis:** Bridge preservation funding for the 2015-2017 biennium is expected to be decreased by over 30% as compared to 2013-2014 expenditures. Under the current funding plan, bridge preservation backlog is expected to increase by nearly 300% by 2027.

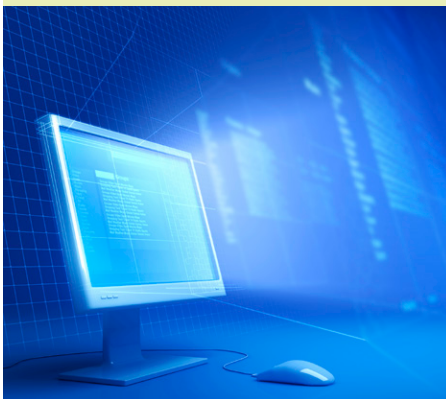
### Baseline:

**Bridges in good condition:**  
NHS - 48%  
Non-NHS - 51%

**Target:** Maintain 50%

**Score:** ▼

▼ Maintain or Needs Some Improvement    ◆ Needs More Improvement    ◆ Needs Significant Improvement    ■ Not Yet Scored



# BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions (Continued)

## Environmental Sustainability & Livability

Reduce adverse environmental and community impacts of the freight transportation system.

### Objective:

**Vehicular Emissions:** Reduce vehicular emissions by reducing congestion, deploying technologies that improve the fuel-efficiency of commercial vehicles, and providing better mode-choice and integration to encourage utilization of the most sustainable options.

**Measure:** Percentage of trucks registered within the state having an engine model-year of 2010 or newer

**Measure:** Truck speeds on I-15, I-80, I-580, US 395, US 93, US 95, I-215/CC-215

### Baseline:

**2015 Trucks registered in Nevada with MY2010 or newer engines:** 22%

### Baseline:

**2015 Conditions:** 42 locations with speeds below 40 mph

**Target:** ≥ 4% new trucks registered per year

**Target:** 10% reduction by 2021.

**Score:** ▼

**Score:** ◆

**Analysis:** A majority of Nevada-based trucking fleets operate within California, and are required to meet the CARB GHG emissions standards, providing a direct benefit to Nevada. As a result, there has been a steady increase of approximately 4% per year of newer vehicles (14% in 2013 to 18% in 2014), which is expected to continue to rise through 2023 as fleets continue to be upgraded.

**Analysis:** Travel speeds during afternoon peak periods (4 to 6 pm) on the major truck routes were evaluated to identify some of the chokepoints on major truck corridors. During the month of July 2015, there were 42 locations where the average truck speed during the afternoon peak period dropped below 40 miles per hour.

▼ Maintain or Needs Some Improvement   ◆ Needs More Improvement   ● Needs Significant Improvement   ■ Not Yet Scored





# BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions (Continued)

## Collaboration, Land Use, and Community Values

Establish an ongoing freight planning process to coordinate the freight transportation system and ensure consistency with local land use decisions and community values.

**Objective:**

**Collaboration:** Establish and foster an inclusive, long-term relationships and processes between and within the public sector, private sector, communities, agencies, and other transportation stakeholders regarding freight transportation.

**Measure:** Establish and meet regularly with the FAC

**Baseline:** FAC has been established as an early action item during the NSFP development

**Target:** Meet quarterly

**Score:** ▼

**Analysis:** State, local, and regional agencies and key private industry stakeholders have been invited to provide representatives to serve on the FAC. The FAC will help to guide the development of the Freight Plan and provide recommendations regarding projects, policies, programs, advanced technologies, and services to be presented to the Nevada State Transportation Board for further consideration. Upon completion of the Freight Plan, NDOT will continue to engage the FAC in ongoing freight planning efforts.

## Sustainable Funding

Fully fund the operations, maintenance, renewal, and expansion of the freight transportation system.

**Objective**

**Pavement Funding:** Provide consistent and adequate sources of funding to support the state’s pavement preservation goal

**Measure:** Percentage of available funding to full funding required to meet state’s pavement preservation needs

**Target:** Fund 60% of capital needs by 2021

**Score:** ⬠

**Objective**

**Bridge Funding:** Provide consistent and adequate sources of funding to support the state’s bridge preservation goal.

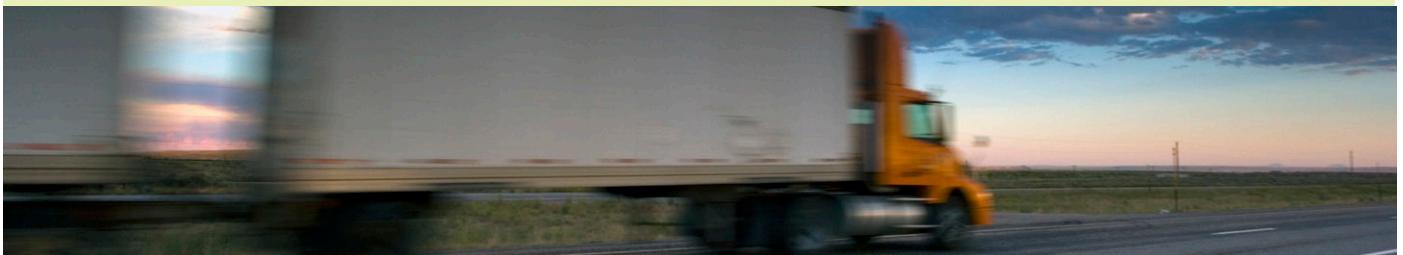
**Measure:** Percentage of available funding to full funding required to meet state’s bridge preservation needs

**Target:** Fund 75% of capital needs

**Score:** ⬠

**Analysis:** The only dedicated revenue source for transportation infrastructure in Nevada is the fuel tax, which was last increased in 1992. This funding stream has been stretched as a result of increased demands being placed on the freight transportation system, decreased purchasing power due to inflation, and declining revenues as new technologies and tougher federal standards have led to the development of more fuel efficient vehicles. Additional funding sources will need to be identified to adequately meet the preservation and capital improvement needs of the freight transportation system.

▼ Maintain or Needs Some Improvement    ◆ Needs More Improvement    ⬠ Needs Significant Improvement    ■ Not Yet Scored



# BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions (Continued)

## Economic Competitiveness

Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness.

### Objective:

**Freight transportation that provides a competitive advantage:** Support and enhance the state's economic competitiveness through transportation investments that improve and sustain the following critical factors of the state's freight transportation system: mobility and reliability; safety; infrastructure preservation; advanced innovative technology; environmental sustainability and livability; collaboration land use and community values; and sustainable funding.

**Measure:** Composite indicator reflective attainment in critical factor objectives

### Baseline:



**Target:** ≥75% of critical factor objectives have positive trends towards meeting their performance targets by 2021

**Score:** ◆ Progress on about 45% of critical factor objectives are trending positive

**Analysis:** The vision for the Nevada State Freight System is that it will provide the state with a competitive advantage. The combined impacts of improvements in the critical factors of freight transportation are envisioned to create this advantage. Tracking our overall progress towards achieving the established performance targets for the objectives established for the critical factors provides a measure to ascertain progress toward achieving this competitive advantage.

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# COMMODITY FLOWS

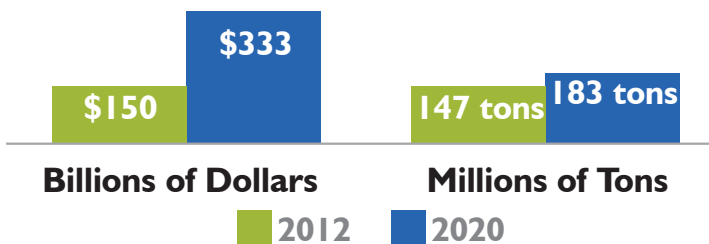
Nevada's economy is dependent on the daily distribution of millions of tons of goods shipped by a multimodal network of highways, railways, airports, ports, and pipelines.

## Existing Freight Flows

Currently, Nevada is primarily a consuming economy. Goods received from external sources (inbound flows) exceed the output of goods created or distributed (outbound flows) from within Nevada at a ratio of 2:1. The majority of top commodities by tonnage belong to resource-based industries (mining, construction) and are moved within the state, while the majority of top commodities by value belong to consumer goods industries (retail, food, beverage) and are inbound to the state.



**Inbound flows exceed  
outbound flows 2:1**



## Forecasted Growth in Freight

Population-related factors will drive growth in freight demand for consumer goods both nationally and at the state level, creating opportunities for investments in the trade, transportation, and freight logistics industry in Nevada. Forecasts indicate that freight demand in these industries will have rapid growth in Nevada's metros, while the freight demand in resource-based industries across Nevada will have slow growth. Through implementation of this Plan, Nevada could become a major Western freight hub for the distribution of consumer goods.

## Supply Chains of Key Sectors

Supply chains of key sectors within the state of Nevada, including food and allied manufacturing, advanced manufacturing, and mining and allied activities, were analyzed to better understand how these key sectors use the transportation system and what types of transportation system improvements in the state may have positive effects on their businesses opportunities and future growth.

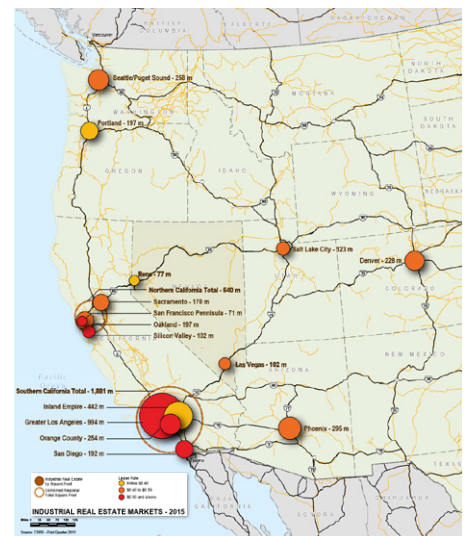
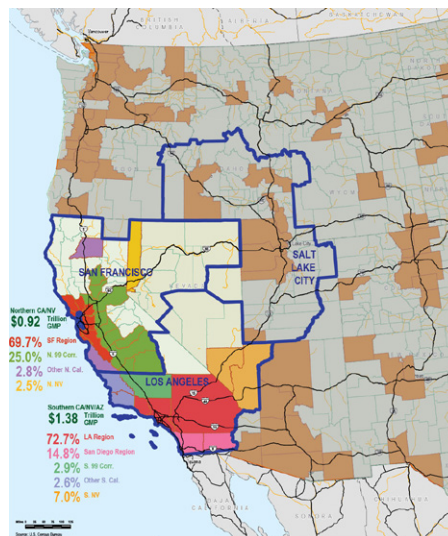
Category	Establishments	Jobs	Average Compensation	Other Metrics	Sector
KEY SECTORS	193	6,100	\$41,700	85% of firms < 50 employees; Contributed \$0.6 billion to GSP; National I-0 accounts indicate: \$1 output made \$0.60 GDP contribution	Food and Allied Manufacturing
	876	22,100	\$74,200	91% of firms < 50 employees; Contributed \$4.0 billion dollars to GSP; National I-0 accounts indicate: \$1 output made \$0.42 GDP contribution	Advanced Manufacturing
	209	18,000	\$87,300	84% of firms < 50 employees; Contributed \$6.4 billion dollars to GSP; National I-0 accounts indicate: \$1 output made \$0.62 GDP contribution	Mining and Allied Activities
SUPPORT SECTORS	1,207	41,000	\$47,400	91% of firms < 50 employees; Contributed \$3.7 billion dollars to GSP; National I-0 accounts indicate: \$1 output made \$0.36 GDP contribution	Logistics
	11,247	201,000	\$35,900	93% of firms < 50 employees; Contributed \$13.9 billion dollars to GSP; National I-0 accounts indicate: \$1 output made \$0.73 GDP contribution	Trade

# HOW WILL THIS PLAN REALIZE A COMPETITIVE ADVANTAGE FOR NEVADA?

## Existing challenges

Nevada's existing freight network has evolved incrementally over the past century as a system of stops along the national freight corridors between the coastal gateway ports to the west and the inland hubs to the east. As a result, Nevada's major metropolitan areas (Las Vegas and Reno-Sparks-Carson City) function primarily as "stop-drop-and-pick up" points and do not serve a larger western United States distribution network, but only the local market space.

Furthermore, despite Nevada being well situated in the western United States, with freight delivery distances of 2 days or less by truck to several major metros, the two primary corridors traversing the state, I-15 and I-80, provide only east-west and southeast-northwest access and are not functionally connected. This results in limited access to the Western region and no direct access to the North-South markets.



- » Nevada is part of three of the most successful economic regions in the United States.
- » Southern Nevada is part of the Los Angeles MTA with the largest GMP and the second greatest concentration of Fortune 500 headquarters. Northern Nevada is part of the San Francisco MTA, which is second in GDP but has the largest concentration of headquarters. Eastern Nevada is part of the Salt Lake MTA, which is third in size and number of headquarters.
- » Nevada's close proximity to these three very large and diverse concentrations of economic activity provides it with an opportunity and competitive advantage in attracting industry to the state.

- » Each of the three economic regions that cover the state can be divided into multiple subareas using MSAs within each economic region.
- » The southern Nevada subarea has 8.3% of total employment in the Los Angeles economic region, but only 7% of GMP. Northern Nevada has 4% of total employment in the Los Angeles economic region, but only 2.5% of GMP.
- » The state has a high economic dependency on freight-related industries.

- » Nevada has two large concentrations of industrial real estate in southern Nevada and in northern Nevada.
- » Northern Nevada has a larger percentage, 12.5%, of the total in the San Francisco MTA than southern Nevada, which has only 5.7% of the total for the Los Angeles MTA.
- » Northern Nevada has a competitive advantage over any of the four Northern California sub-markets as average lease rate is the lowest at 38 cents per ft<sup>2</sup>/month.
- » Las Vegas' has a challenge to attract a greater share of the Greater Los Angeles market, the largest industrial market in the United States. The Las Vegas industrial lease rate of 56 cents per ft<sup>2</sup>/month. is higher than the current average lease rate in the Inland Empire, and southern Nevada lacks a large industrial park like Tahoe-Reno Industrial Center.



## Future Opportunities

However, the urban and economic growth in Nevada combined with its proximity to the increasingly congested gateway hubs in California is changing the nature of goods movements within Nevada, and increasing the potential for a new relationship to domestic and global trading hubs.

Growing congestion, significantly larger deepwater ships, and increasing use of short haul rail lines in California surrounding the major metropolitan areas of Los Angeles and San Francisco,

major global sea and air hubs, are driving new development further inland. Northern and southern Nevada have the ability to capture a significant amount of this growth with a strategic plan that responds to the needs of the freight industry – bringing regional economic benefits not only to Nevada, but to the western U.S. freight industry. Infrastructure and distribution space can be thought of as a pull factor that draws economic activity to the state from nearby regions.

## Economic Regions and Trade Corridors



### ECONOMIC REGIONS & TRADE CORRIDORS

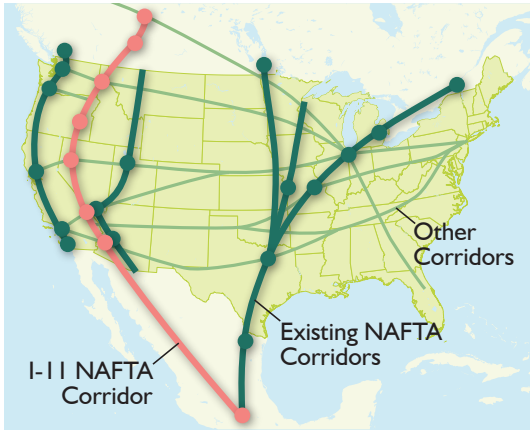
- Gross Metropolitan Product
- Major Trading Areas
- Basic Trading Areas
- Port (by Containers - TEU)
- ⊕ Proposed Port
- Waterborne Freight (TEU)
- Truck Flows (tons)
- Rail Flows (tons)
- - - Proposed I-11
- · · Possible I-11 Continuation
- ⊗ New NAFTA Crossroads
- New NAFTA Corridor
- Existing Interstate Network
- Existing Rail Network

Miles 0 25 50 75 100 125

Source: MGAA, BEA, Cambridge Systematics, AAPA, USDOT (FHWA, FRA), Oak Ridge National Laboratory, Rand McNally, Fortune

# THE FRAMEWORK FOR TRANSFORMATION

Nevada must change in three ways to capitalize on these opportunities and establish a competitive market position:



**Crossroads:** The relationship of the state's major metropolitan areas within the national freight transportation pattern must change from "stops along corridors" to "crossroads" through which they can gain broader access to a larger market area. Corridors provide access in only two directions, limiting market reach, while crossroads provide multidirectional access to a larger market space and make the region more attractive to freight-related industries and businesses.



**Modal Integration:** Nevada must increase its capacity and efficiency for intermodal rail-truck and air-truck transfers through a more integrated multimodal configuration. Fragmented modal configurations cause increased conflicts and inefficiencies in modal transfers, resulting in longer dray distances between yards, terminals, ports, airports, and other ancillary freight services and facilities. In contrast, integrated modal configurations are designed to be highly efficient freight hubs with the benefits of reducing cost and environmental impacts, while increasing reliability and safety.



**Capacity and Performance:** Capacity and performance improvements will be necessary to reduce congestion and traffic incidents, allowing for efficient movements of freight through the system with increased reliability, mobility, and safety.



# STRATEGIES FOR REACHING OUR GOALS

The Freight Plan presents a suite of strategies, supported by a series of implementation actions, to achieve the vision and goals of the Plan. The strategies include major investments in freight transportation infrastructure, as well as low-cost programs and broad-based policies designed to enhance freight operations and freight-supported economic development in Nevada. The Freight Plan also presents phasing, partners, and funding considerations to accomplish the outlined strategies.

Table I. Strategies for Reaching our Goals

Strategy	Actions	Lead Agency/ Department	Required Partnerships
1. Advance multi-use corridor planning for I-11.	1.1	Conduct an analysis of the regional freeway system in southern Nevada, and determine how and where the I-11 corridor would most appropriately fit in the network.	» NDOT » FHWA » RTCSNV » Southern Nevada Cities/County
	1.2	Perform a series of studies to assess the strategic extension of I-11 from Las Vegas to the Canadian border, comprising two levels of investigation: 1) detailed corridor planning to determine a single preferred I-11 corridor between the Las Vegas metropolitan area and northern Nevada border, and 2) high-level visioning to assess the most logical connection to Canada, based on the greatest economic and trade-related opportunities.	» NDOT » FHWA » MPOs » WSFC » Cities/Counties
	1.3	Update the Nevada Rail Plan with an analysis of the feasibility of completing a freight rail connection between Las Vegas and Reno-Sparks-Carson City.	» NDOT » FRA » MPOs » WSFC » Cities/Counties » UPRR
2. Facilitate private development of freight village(s) in northern and southern Nevada.	2.1	Identify and facilitate private development opportunities for intermodal facilities.	» GOED » Economic development agencies

## Table I Acronyms

**AASHTO** – American Association of State Highway and Transportation Officials

**DETR** – Nevada Department of Employment, Training, and Rehabilitation

**DMV** – Department of Motor Vehicles

**FAA** – Federal Aviation Administration

**FAC** – Freight Advisory Committee

**FHWA** – Federal Highway Administration

**FRA** – Federal Railroad Administration

**GOED** – Nevada Governor’s Office of Economic Development

**HAZMAT** – Hazardous Materials

**ITS** – Intelligent Transportation System

**LRTP** – Long-Range Transportation Plan

**LVCVA** – Las Vegas Convention and Visitors Authority

**LVGEA** – Las Vegas Global Economic Alliance

**MPO** – Metropolitan Planning Organization

**NA** – not applicable

**NDOT** – Nevada Department of Transportation

**NSFHP** – Nationally Significant Freight and Highway Projects

**RTC** – Regional Transportation Commission

**RTCSNV** – Regional Transportation Commission of Southern Nevada

**TBD** – to be determined

**UNLV** – University of Nevada Las Vegas

**UNR** – University of Nevada Reno

**UPRR** – Union Pacific Railroad

**U.S.C** – United States Code

**WSFC** – Western States Freight Coalition

Table I. Strategies for Reaching our Goals

Strategy	Actions	Lead Agency/ Department	Required Partnerships
3. Deploy technologies that improve the fuel efficiency of commercial vehicles, and provide better mode-choice and integration to encourage the most sustainable freight transportation options.	3.1 Encourage use of cleaner vehicle technologies to reduce freight vehicular emissions.	» Nevada Trucking Association	» DMV » NDOT
	3.2 Work with the FAC to develop a mode policy that encourages moving freight in the most sustainable manner.	» NDOT	» FAC » State Transportation Board
	3.3 Build a compelling public benefits analysis and demonstration of potential market feasibility for new intermodal and/or bulk transload rail services from/to the state.	» GOED	» NDOT » UPRR » LVCVA » RTCSNV » Washoe RTC
	3.4 Pursue electrification at truck stops to reduce vehicle emissions from idling.	» Private Truck Stops	» NDOT » Nevada Trucking Association » Department of Conservation and Natural Resources » Nevada Governor's Office of Energy
	3.5 Establish incentives to encourage the trucking industry to invest in next-generation truck technologies.	» Nevada Trucking Association	» DMV » NDOT
4. Preserve and renew Nevada's freight highway network.	4.1 Update the State Highway Preservation Report every 2 years to keep an accurate assessment of current maintenance needs to renew funding allotments by the Nevada State Legislature.	» NDOT	» NA
	4.2 Determine a reliable source of funding for implementation of needed preservation/maintenance requirements.	» NDOT	» State Transportation Board » State legislature » Nevada Trucking Association » FHWA





Table I. Strategies for Reaching our Goals

Strategy	Actions	Lead Agency/ Department	Required Partnerships
5. Develop a preservation and expansion program for short-line freight rail infrastructure.	5.1	Establish a policy to strengthen NDOT's role in rail planning and implementation, including funding. Establish a policy and criteria for state involvement in rail preservation. Based on criteria, identify investments on short-line rail infrastructure and service preservation.	» FAC » FRA
	5.2	Develop a new rail spur to the Apex Industrial site in southern Nevada to serve existing and near-term anticipated manufacturers.	» RTCSNV » NDOT » City of North Las Vegas » Apex Holding Company
6. Strengthen NDOT's Rail Safety and Security Program.	6.1	Secure additional funding for NDOT's Rail Safety and Security Program. Additional funding from private stakeholders, discretionary grants, or other federal, state, or local sources could help to fund more significant changes, such as closures or physical grade separations.	» UPRR » MPOs » Cities » Counties
7. Develop a method to track and integrate freight transportation, land use, and economic development planning along major freight corridors in Nevada.	7.1	Form land use advisory committees throughout the state to coordinate with NDOT on changes in land use strategies that may impact access along state-owned freight corridors, as well as new land developments that may impact the movement of freight vehicles.	» Cities » Counties » MPOs » NDOT » GOED » Economic development agencies
8. Maintain organization of the FAC to advise on implementation of freight strategies statewide.	8.1	Establish a schedule and process for convening or engaging the FAC in freight-related planning issues and progress upon completion of the Freight Plan.	» NDOT » FAC
9. Maintain organization and coordination of the WSFC to advise and support on regional freight issues, projects, and policies.	9.1	Establish the mission, organizational structure, process, and schedule for engaging the WSFC in freight-related planning issues upon completion of the Freight Plan.	» NDOT » WSFC
10. Encourage logistics and manufacturing-based companies and organizations to pursue workforce development training opportunities.	10.1	Advise on known educational/training opportunities at FAC meetings and encourage members to pursue educational opportunities.	» GOED » Nevada System of Higher Education » DETR

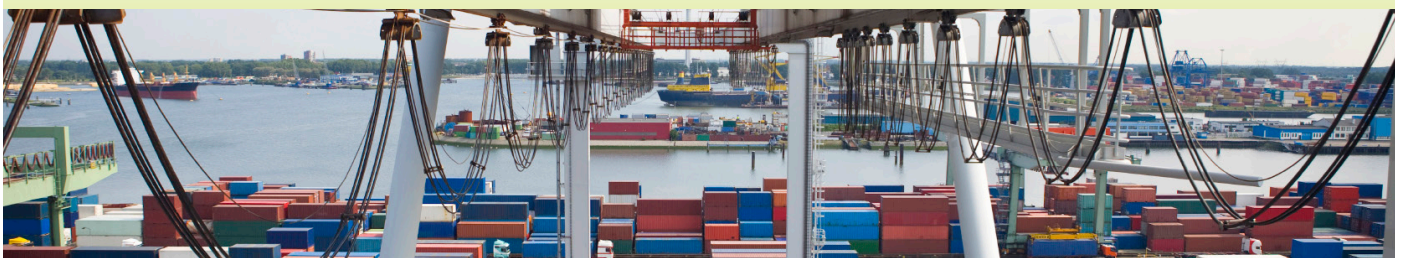


Table I. Strategies for Reaching our Goals

Strategy	Actions	Lead Agency/ Department	Required Partnerships
11. Pursue freight-related research through NDOT's Research Section to improve the state's readiness and adaptability to new freight movement and technology trends.	11.1 Develop freight-related problem statements to submit to NDOT's Research Section.	» FAC	» Nevada Trucking Association » UNR, UNLV, and other research entities
12. Incorporate autonomous system technologies into Nevada's freight system.	12.1 Understand and develop strategies to respond to advances in autonomous/connected vehicle technology and their impact on the freight transportation system, including related "smart infrastructure" to support implementation.	» Nevada Center for Advanced Mobility	» NDOT » GOED » DMV
	12.2 Understand and develop strategies to respond to drone or unmanned aerial vehicle technology as a potential supportive freight delivery technique.	» Nevada Institute for Autonomous Systems	» NDOT » GOED » DMV » FAA
13. Increase the number of truck parking spaces and facilities, along with supportive ITS improvements.	13.1 Create a Nevada Truck Rest Stop Implementation Plan. Phase I is largely completed as part of the Freight Plan, and Phase II would consist of continued data collection and analysis, including surveys and interviews that will result in identification of issues as well as recommendations for additional truck parking areas.	» NDOT	» Nevada Trucking Association » WSFC
	13.2 Implement investments in partnership with private and public stakeholders on truck parking ITS, and expanding rest areas along interstate and interregional highways. Explore multistate partnerships.	» NDOT	» FAC » WSFC
14. Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional vehicles to operate with fewer impediments on the freight network.	14.1 Identify locations for permanent truck inspection equipment, stations, and data system. Develop a scalable implementation plan with potential phased improvements (e.g., truck weigh stations, pre-screening lanes). Determine a method to sustainably fund improvements and operations, including full-time staffing, and determine a fee schedule and appropriate use of fines (e.g., use truck fines to fund the inspection program). Change the Nevada Revised Statutes to allow permit fees to be charged in excess of administrative needs. Explore use of a consolidated online website or application to issue and store state-required permitting and credentials, allowing streamlined access for freight carriers and law enforcement compliance officers alike.	» NDOT » Nevada Highway Patrol	» Nevada Trucking Association
	14.2 Construct the inspection stations at key locations, including integration of advanced technologies to gather information – reducing layover time for truckers and limiting the number of on-hand staff required.	» NDOT » Nevada Highway Patrol	» TBD
	14.3 Develop design standards to require an 18-foot-0-inch bridge clearance for all new construction be considered, and implemented when feasible.	» NDOT	» Nevada Trucking Association





Table I. Strategies for Reaching our Goals

Strategy	Actions	Lead Agency/ Department	Required Partnerships
15. Develop response plans and mitigation strategies for potential threats to Nevada's freight transportation system.	15.1 Research and document risks, mitigation measures, and emergency plans in a Comprehensive Disaster Risk Assessment.	» NDOT	» Nevada Highway Patrol
	15.2 Conduct a Hazardous Commodity Flow Study to document by what route and mode all hazardous materials are transported throughout Nevada.	» NDOT	» State Emergency Response Commission » Nevada Department of Public Safety, HAZMAT Permitting Office
16. Update the Freight Plan at regular intervals to ensure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.	16.1 Integrate recommendations from the Freight Plan into NDOT's performance-based Long Range Transportation Plan (LRTP).	» NDOT	» MPOs » Cities » Counties
	16.2 Integrate freight performance measures into NDOT's annual Performance Management process, allowing the monitoring of performance and progress of freight improvements. Based on the resultant analysis, maintain a list of high-priority freight performance needs.	» NDOT	» FAC » MPOs
	16.3 Conduct periodic updates to Nevada's defined National Highway Freight Network.	» NDOT	» FAC
	16.4 Conduct a wholesale update to the Freight Plan every 5 years.	» NDOT	» FAC
	16.5 Hire or allocate support staff to the NDOT Freight Program to implement these strategies.	» NDOT	» FAC
17. Implement projects defined in the Freight Plan's prioritized list of improvements.	17.1 Incorporate the fiscally constrained freight investment plan into the long-range transportation plan, and update as needed.	» NDOT	» FAC
	17.2 Periodically identify and prioritize additional freight-related capital improvement projects, and update the prioritized list of projects and fiscally constrained freight investment plan.	» NDOT	» FAC
18. Pursue an "all-of-the-above" strategy to achieve sustainable transportation funding to operate, maintain, and expand Nevada's freight transportation system.	18.1 Stay abreast of legislative changes that may result in grant opportunities.	» NDOT	» FAC » WSFC » AASHTO
	18.2 Strategize project opportunities for this 5-year round of NSFHP grants; prepare necessary planning and environmental studies to meet grant requirements.	» NDOT	» FAC
	18.3 Maintain coordination with FAC and WSFC to collaborate on potential funding opportunities that are conducive to multi-state projects or partnerships.	» NDOT	» NA
	18.4 Communicate to the public and stakeholders the status quo outlook for the condition and performance of the State Highway System, and how this could change with fuel tax indexing if approved by the voters in November 2016.	» FAC	» NDOT » DMV » Nevada Trucking Association » MPOs » National Association of Counties
	18.5 Prepare a "business case" document that assesses quantitatively and/or qualitatively the economic and non-economic benefits of full implementation of the state's long-range transportation plan to the significant beneficiary groups.	» NDOT	» TBD

# FUNDING AND FINANCING

## Potential Federal Funding Opportunities

In December 2015, Congress passed the Fixing America's Surface Transportation or (FAST) Act. The legislation provides focused resources for highway freight infrastructure investments. Apportionments to Nevada total:

- » Five years of federal funding certainty for highway, highway safety, and transit programs;
- » A modest increase in federal funding levels;
- » Reforms supporting more efficient project delivery;
- » Focused resources for highway freight infrastructure investments; and
- » Continuation of performance-based program implementation.

Apportionments to Nevada total **\$1.923 billion over 5 years**, as well as the potential to utilize USDOT's new discretionary freight grant funding program's (FASTLANE) **\$4.5 billion** Grant Program for nationally significant freight and highway projects. The FAST Act also extends the I-15 designation from Mexico to I-80, a facility of particular significance for Nevada. On July 1, 2020, Congress will rescind **\$7.6 billion** in unobligated highway funds nation-wide. NDOT will continue its aggressive obligation practices to insure that the State loses no money with this rescission.



### Major issues:

- » Virtually all freight improvements benefit other transportation system users.
- » Cost of improvements need to be shared equitably among beneficiaries.
- » State and local transportation agencies have identified \$47.25 billion in needs through 2035 and \$20.8 billion in revenues through 2035.
- » Heavy reliance on fuel taxes is increasingly problematic because of loss in purchasing power due to inflation and declining revenue per mile driven due to increasing fuel economy.

### Strategy for moving forward:

- » Develop sustainable revenue to operate, maintain, renew, and expand all transportation modes
- » Identify and communicate the benefits that transportation investments provide to society to build public support
- » Mitigate the loss of purchasing power due to inflation
- » Move to funding mechanisms that address impacts of increasing vehicle fuel economy
- » Share the cost of improvements equitably among all beneficiaries of the transportation system
- » Improve mechanisms for increasing private sector participation in delivering transportation infrastructure and services





# NEVADA'S HIGHWAY FREIGHT NETWORK AND PROJECTS

The FAST Act created two new sources of funding specifically for freight projects. The National Freight Program provides \$60.8 million to Nevada during the next 5-year period (\$57.9 million programmed funds plus NDOT's 5% match of \$2.9 million) to help fund smaller freight-related projects. In addition, a new freight-related discretionary grant program—Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE)—will help to fund larger and multistate projects; however, it is a competitive grant that cannot be relied upon for consistent funding.

Only projects located on the National Highway Freight Network (NHFN) are eligible for funding from these new sources. The National Highway Freight Network is primarily comprised of interstate freeways and an additional 75 miles of Critical Urban Freight Corridors and 150 miles of Critical Rural Freight Corridors designated by this Plan.

Because the mileage cap mandated in the FAST Act for the National Highway Freight Network is disproportionately low within large states like Nevada, two additional corridor categories important to Nevada were added to help prioritize state funding for projects not on the national network. All of these together make up Nevada's Highway Freight Network.

A Multiple-Objective Decision Analysis tool was used to identify Nevada's Highway Freight Network, and to efficiently input and prioritize freight related projects. The prioritized list of projects was separated into three categories: critical, very important, and important. The following maps show all projects on the list, including a sampling of several critical projects, overlaid onto Nevada's Highway Freight Network.

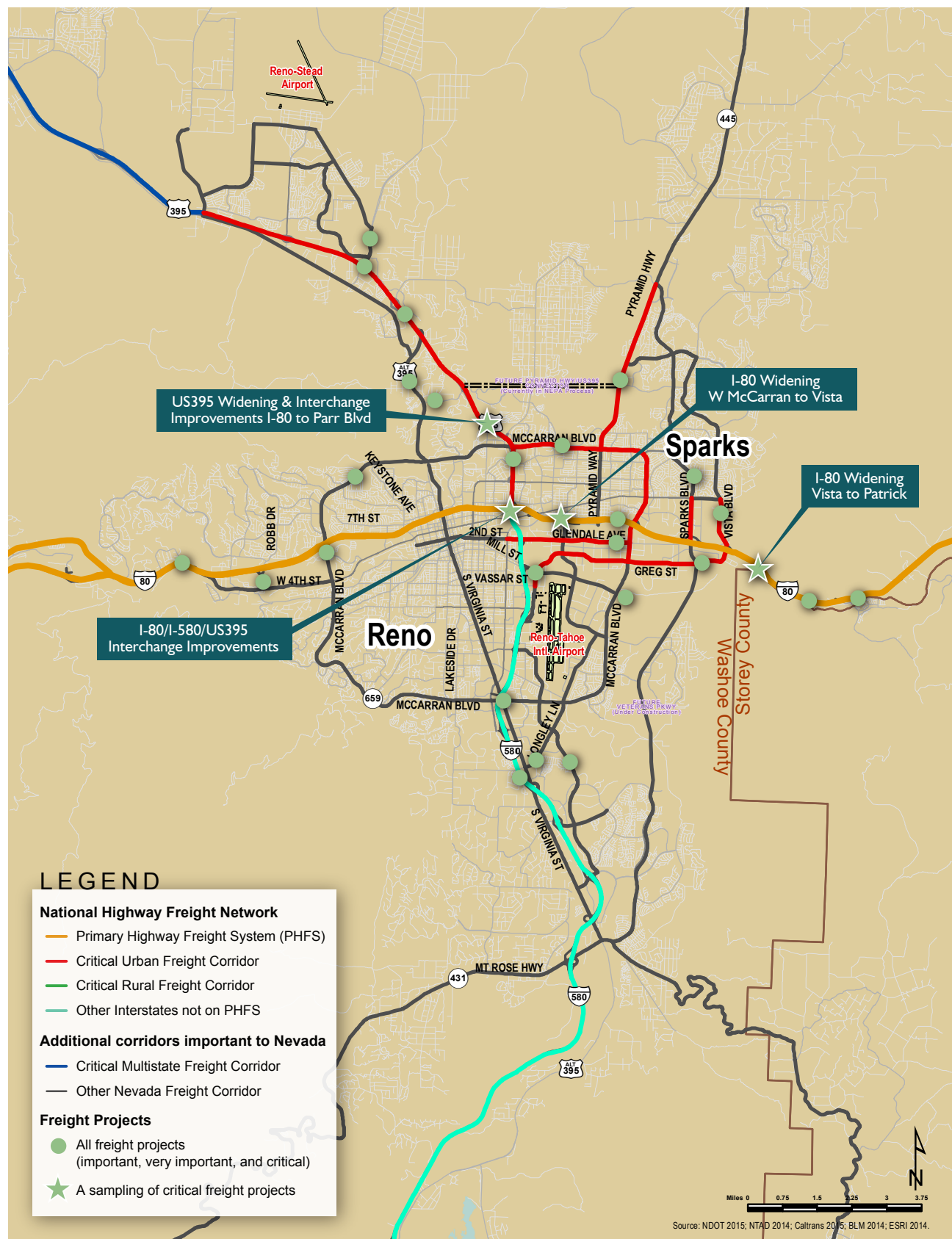


# Nevada's Highway Freight Network and Projects: Las Vegas Area





# Nevada's Highway Freight Network and Projects: Reno-Sparks Area



# Nevada's Highway Freight Network and Projects: Statewide

