NEVADA DEPARTMENT OF TRANSPORTATION

2024

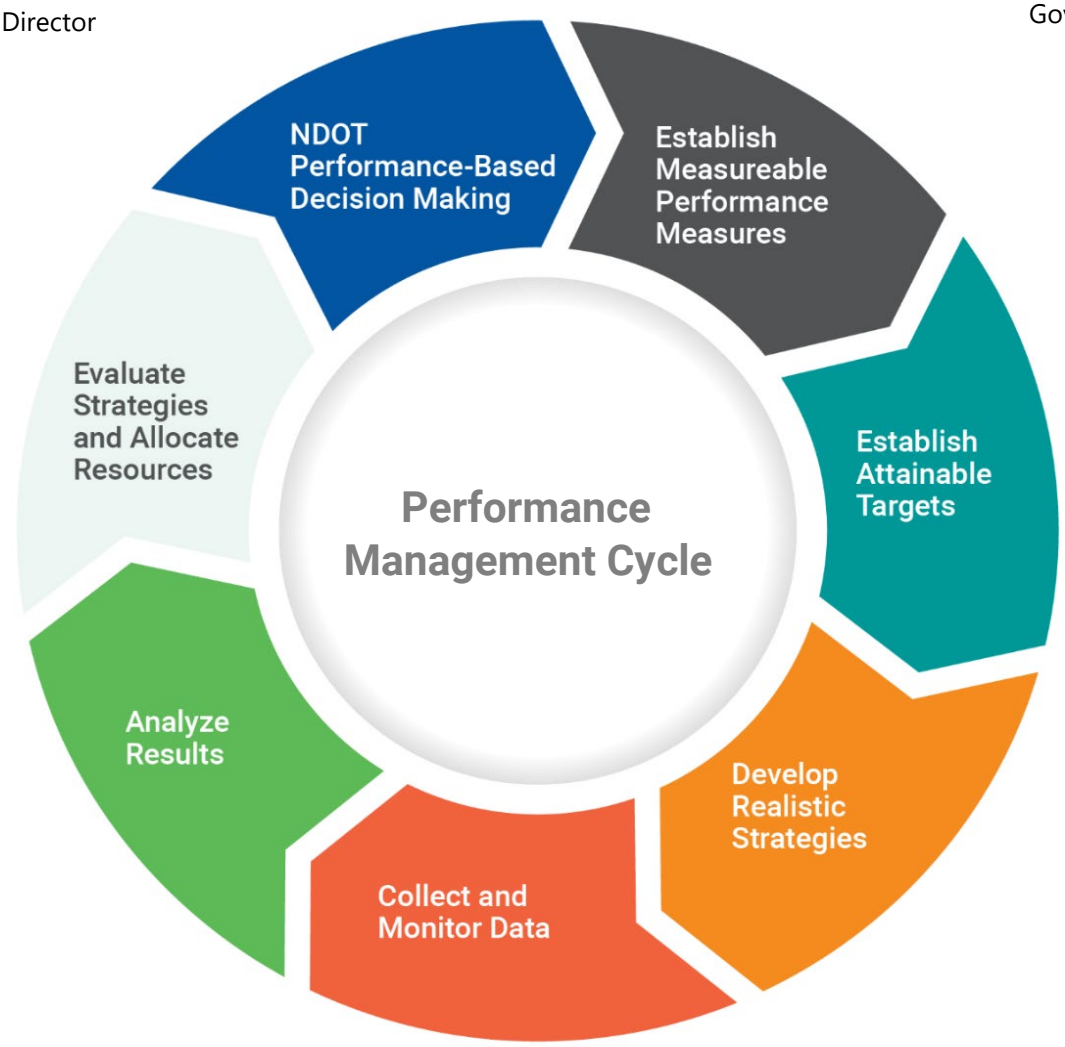
PERFOMANCE MANAGEMENT REPORT

DECEMBER

Table of Contents

Tracy Larkin Thomason, P.E.
Director

Joe Lombardo
Governor



2024 PERFORMANCE MANAGEMENT REPORT

Prepared by the **Performance Analysis Division**

Nevada Department of Transportation

1263 South Stewart Street | Carson City, NV 89712 | www.nevadadot.com

STATE OF NEVADA TRANSPORTATION BOARD of DIRECTORS

JOE LOMBARDO
Chairman/Governor

STAVROS ANTHONY
Lieutenant Governor

ANDY MATTHEWS
State Controller

VIRGINIA VALENTINE
Member – District 1

JUSTIN KALB
Member – District 1

FRANK LEPORI
Member – District 2

GARY PEREA
Member – District 3

NDOT ADMINISTRATION

TRACY LARKIN THOMASON
Director

SONDRA ROSENBERG
Deputy Director – Administration

MARIO GOMEZ
Deputy Director – Operations & Maintenance

SAJID SULAHRIA
Deputy Director – Project Delivery & Engineering

FELICIA DENNEY
Assistant Director – Administration

JAE PULLEN
Assistant Director – Operations

REBECCA KAPULER
Assistant Director – Planning

SCOTT HEIN
Assistant Director – Engineering

JOE HARRINGTON
Director of Communications & Government Affairs

LORI M. STORY
Chief Counsel

NDOT STAFF CONTRIBUTORS

MARK WOOSTER
Chief Performance Analysis Engineer

NICK JOHNSON
Chief of Project Management

ANITA BUSH
Chief Maintenance and Operations Engineer

MAYA BOURGEOIS
Chief of Administrative Services

LACEY TISLER
Acting Chief Traffic Safety Engineer

SAMUEL LOMPA
Chief Construction Engineer

ALLISON WALL
Human Resources Manager

TROY OROSCO
Employee Development Manager

OSCAR FUENTES
Safety Manager

JESSEN MORTENSEN
Chief Bridge Engineer

WAYNE MILLER
Equipment Superintendent

CRAIG REYNOLDSON
Chief Right-Of-Way Agent

SCOTT HEIN
Chief of Roadway Design

NATALIE CAFFARATTI
Assistant Chief of Roadway Design

CHARLIE PAN
Chief Materials Engineer

ROD SCHILLING
Chief Traffic Operations Engineer

Vision, Mission, Core Values and Our Goals

VISION: Lead Nevada in Providing Safe, Reliable, and Accessible Transportation Choices for All.

MISSION: Provide, operate, and preserve a reliable and sustainable transportation system that enhances safety, quality of life, and economic development through innovation and collaboration.

CORE VALUES:

Respect: Value diverse perspectives through active listening, acknowledgment, and empathy, to ensure everyone feels seen and heard.

Integrity: Do the right thing by honoring commitments, choosing the ethical route, and ensuring transparency in actions and decisions.

Accountability: Deliver with excellence, own actions, and embrace responsibility to foster a culture of trust.

Communication: Prioritize open and timely dialogue that engages diverse perspectives and promotes internal and external collaboration.

Teamwork: Cultivate collaboration by acknowledging shared goals, and consistently supporting internal and external partners.

Flexibility: Embrace adaptability, value fresh ideas, and maintain an open mindset that adjusts to changes with agility and resilience.

Our Goals

1

IMPROVE SAFETY FOR THE TRAVELING PUBLIC AND NDOT WORKFORCE:

This goal concentrates on implementing targeted safety measures for infrastructure and the NDOT workforce to reduce crashes and enhance safety.

2

OPTIMIZE MOBILITY:

This goal centers on implementing initiatives aimed at bolstering overall system efficiency for all users. It encompasses infrastructure and non-infrastructure projects and integrates efficiency measures, operational enhancements, and advanced technologies.

3

PRESERVE ASSETS:

This goal emphasizes coordinating activities to develop and maintain assets in the most cost-effective manner.

4

CREATE A GREAT PLACE TO WORK:

This goal is focused on promoting organizational excellence and fostering a positive and supportive work environment within NDOT. It involves investing in the workforce through training programs, professional development, and employee support initiatives.

Introduction

NDOT's Performance Management is a collaborative process in which all major Divisions of the Department are involved in monitoring their quarterly, annual, and ultimate performance targets resulting in a customer-oriented, balanced, effective, efficient, and transparent decision-making process. It is a dynamic process, and improvements are incorporated into the performance management process on an ongoing basis. NDOT's performance management plays a vital role in the performance-based decision-making process. It: 1) ensures investment accountability and transparency, 2) tracks and monitors Department-wide performance, 3) helps identify and implement efficient and cost-effective performance-based programs, 4) links projects to the goals of the Department, 5) helps align performance targets with customer expectations, and 6) helps in delivering essential and high-quality projects.

The Department is required to develop a performance management plan for measuring its performance, which must include performance measures approved by the Transportation Board of Directors. The specific requirements are as follows:

1. Section 47.2

Annual Report on Performance Measures and General Project Information (NRS 408.133)

Prior to December 31 of each year, the Director of the Department of Transportation shall prepare a report as follows:

- Goals and objectives of the Department and the current status of meeting those goals
- Schedule, scope, cost, and progress of any current or proposed highway projects
- Funding sources, amount, and expenditures of the Department
- The rationale used to establish priorities
- Transportation Board and legislative directives
- Recommended plan amendments

2. Section 47.3

Annual Report on Benefit-Cost Analysis for Capacity Projects That Cost at Least $25 Million (NRS 408.3195).

The annual report will include the criteria used in the benefit-cost analysis. The resulting benefit/cost ratios will be reported to the Transportation Board of Directors. Additionally, a written description of the analysis for any project must be submitted and funds approved by the Transportation Board of Directors.

3. Section 55.5

Quarterly Report on General Project Information for the Blue-Ribbon Task Force Projects and Any Proposed Super and Mega (major) Highway Projects.

The report will include funding, descriptions, status, timelines, and information on the completed projects, if any. Report submitted to the Governor and the Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

Performance Management Dashboard

Executive Summary

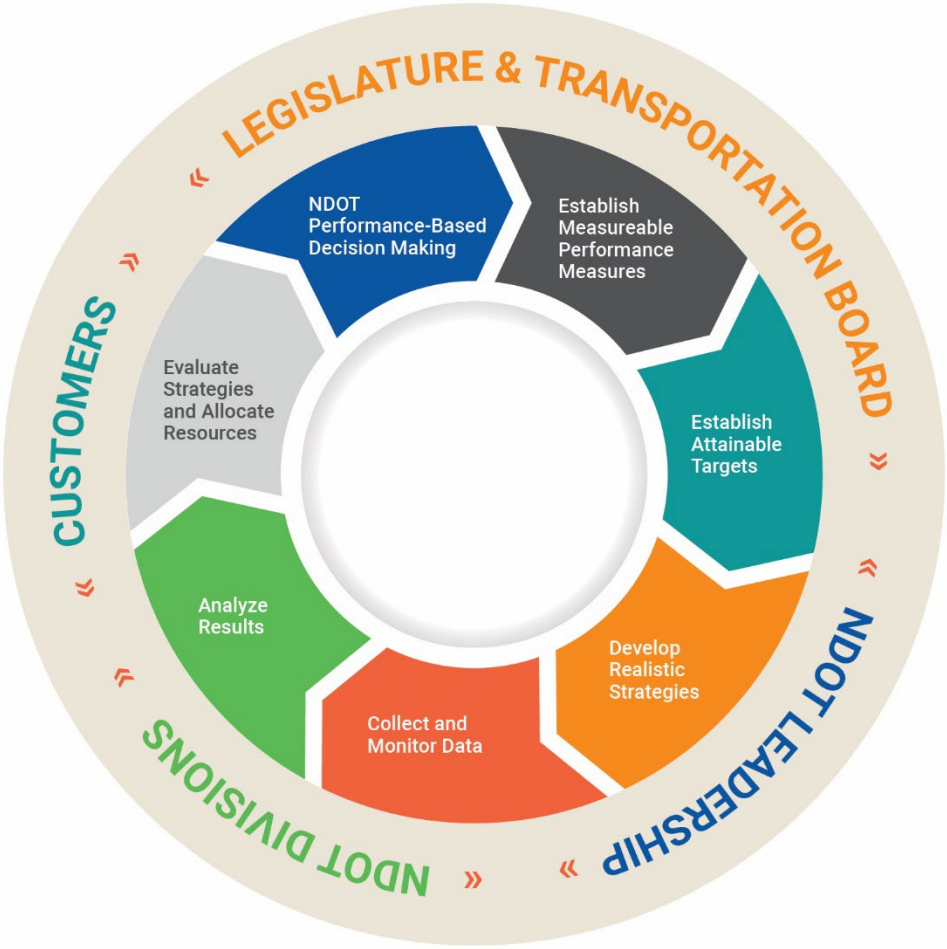
NDOT has established 16 performance goals and performance measures to track, monitor, and report on the major Divisions and program areas. NDOT's performance management system focuses on the critical aspects of a cohesive, integrated, and performance-driven approach.

NDOT's Division Heads are actively involved in the performance management process and support the process by conducting quarterly performance updates to help guide the various program areas in meeting their targets. NDOT's performance management system empowers staff to take ownership of the program, holds staff accountable for their Division's performance, helps diagnose and address problems faced by Divisions in meeting their targets, and effectively communicates its performance-based decision-making process to the public and legislature.

In fiscal year 2024, NDOT continued to monitor its performance-based management process. The "Performance Management Dashboard", the "Performance Measures Overview", and the "Detailed Performance Management Reports and Data" section of this report provide further information regarding NDOT's performance in fiscal year 2024.

NDOT Strategic Performance Management Process

NDOT's Strategic Performance Management Process is guided by comprehensive input from: 1) our customers in the form of surveys and direct two-way communication, 2) the State Legislature and decision makers, 3) leadership, commitment, and support from NDOT top management, and 4) collaborative team support from the major Divisions and program areas of NDOT. The process is part of the performance-based decision-making cycle that includes identifying realistic and specific performance measures, establishing measurable and attainable targets, developing comprehensive and effective strategies to help achieve the targets, collecting quarterly data and monitoring, and evaluating strategies to help allocate our resources most effectively and efficiently. The following graphic shows the performance management process.



Performance Goals - Measures

1. Reduce Workplace Accidents
2. Provide Employee Training
3. Improve Employee Satisfaction
4. Streamline Agreement Process
5. Improve Customer and Public Outreach
6. Improve Travel Reliability & Reduce Delay
7. Streamline Project Delivery - Bidding to Construction Completion
8. Maintain State Highway Pavement
9. Maintain NDOT Fleet
10. Maintain NDOT Facilities
11. Emergency Management, Security and Continuity of Operations
12. Reduce Fatal & Serious Injury Crashes
13. Project Delivery - Schedule and Estimate for Bid Advertisement
14. Maintain State Bridges
15. Streamline Permitting Process
16. Reduce Greenhouse Gas Emissions

Performance Measures Overview

Performance Measure		Target	Current Status	Target Met	Trend (5yrs or less)	Desired Trend
Employee						
Reduce Workplace Accidents (1)	Percentage of workplace injury/illness per 100 employees	1% Reduction of five-year rolling average	0.0% Decrease			
	Percentage of injury/illness requiring medical attention per 100 employees	1% Reduction of five-year rolling average	-0.2% Decrease			
Provide Employee Training (2)	Percentage of employees trained according to requirements	95% Compliance	90% Compliance			
Improve Employee Satisfaction (3)	Percentage of employees satisfied with NDOT	70%	61%			
Project Delivery						
Streamline Agreement Process (4)	Percentage of agreements processed within 10 days	90%	91.9%			
Streamline Project Delivery – Bidding to Construction Completion (7)	Percentage of completed contracts within10% of original programmed budget; within 10% of original assigned working days; with a cost increase of less than 3% in Change Orders	80%	96% within 10% of original programmed budget			
			98% within 10% of original assigned working days			
			75% with a cost increase of < 3% in Change Orders			
Project Delivery – Schedule and Estimate for Bid Advertisement (13)	Percentage of scheduled projects advertised within the established federal fiscal reporting year	80%	30%			
	Percentage of engineers' estimates within a range of the awarded contract estimate	80%	33% (Intermediate vs Award)			
			38% (Final vs Award)			
Streamline Permitting Process (15)	Percentage of encroachment permits processed within 45 days	95%	94.4%			
Assets						
Maintain State Highway Pavement (8)	State roadways maintained at "fair or better" condition	95% - Category 1	96% - Category 1			
		90% - Category 2	91% - Category 2			
		85% - Category 3	86% - Category 3			
		75% - Category 4	74% - Category 4			
		50% - Category 5	42% - Category 5			
Maintain NDOT Fleet (9)	Percentage of mobile equipment in need of replacement	1% Decrease	-2.20% Decrease			
	Percentage of fleet in compliance with condition criteria	1% Increase	4.06% Increase			
Maintain NDOT Facilities (10)	Percentage of facilities with a current Facility Condition Assessment (FCA)	100% - FCA – Ultimate Target	96.4% - FCA			
	Overall condition composite	1.00 – Ultimate Target	0.75			
Maintain State Bridges (14)	Percentage of bridges on the NHS in "good" condition	35% or greater	52.7%			
	Percentage of bridges on the NHS in "poor" condition	7.0% or lower	0.6%			
	Percentage of bridges on the non-NHS in "good" condition	35% or greater	54.4%			
	Percentage of bridges on the non-NHS in "poor" condition	7.0% or lower	0.8%			

Resuming the previous table

Performance Measure		Target	Current Status	Target Met	Trend (5yrs or less)	Desired Trend
Safety						
Emergency Management, Security and Continuity of Operations (11)	Percentage of emergency management plans implemented	100% Compliance	100% Compliance			
Reduce Fatal & Serious Injury Crashes (12)	Number of traffic fatalities of five-year rolling average	347.8 - or less	365.4			
	Number of serious traffic injuries of five-year rolling average	1,021.3 - or less	1,069.8			
	Number of traffic fatalities per 100M VMT of five-year rolling average	1.279 - or less	1.347			
	Number of serious traffic injuries per 100M VMT of five-year rolling average	3.755 - or less	3.940			
	Number of non-motorized fatalities and serious injuries of five-year rolling average	262.6 - or less	301.0			
Our Partners						
Improve Customer and Public Outreach (5)	Annual improvements in customer satisfaction & public outreach	75% - Positive satisfaction level	64% Annual customer satisfaction survey			
Improve Travel Reliability & Reduce Delay (6)	Interstate TTR	87.1% or higher	85.1%			
	Non-Interstate NHS TTR	87.1% or higher	90.1%			
	Interstate Truck TTR (Index)	1.25 or less	1.30			
	Las Vegas non-SOV Travel	21.7% or higher	25.6%			
	Las Vegas PHED Per Capita (Annual hours)	10.0 hours or less	12.5 hours			
	Reno non-SOV Travel	23.1% or higher	30.7%			
	Reno PHED Per Capita (Annual hours)	11.0 hours or less	11.2 hours			
Reduce Greenhouse Gas Emissions (16)	Percentage of reduction in greenhouse gas emissions	In alignment with state's goal (2005 baseline), 28% reduction by 2025 and 45% reduction by 2030	NDOT baseline is being evaluated. (The Chart shows the accumulated reduction based on 2019.)	N/A		

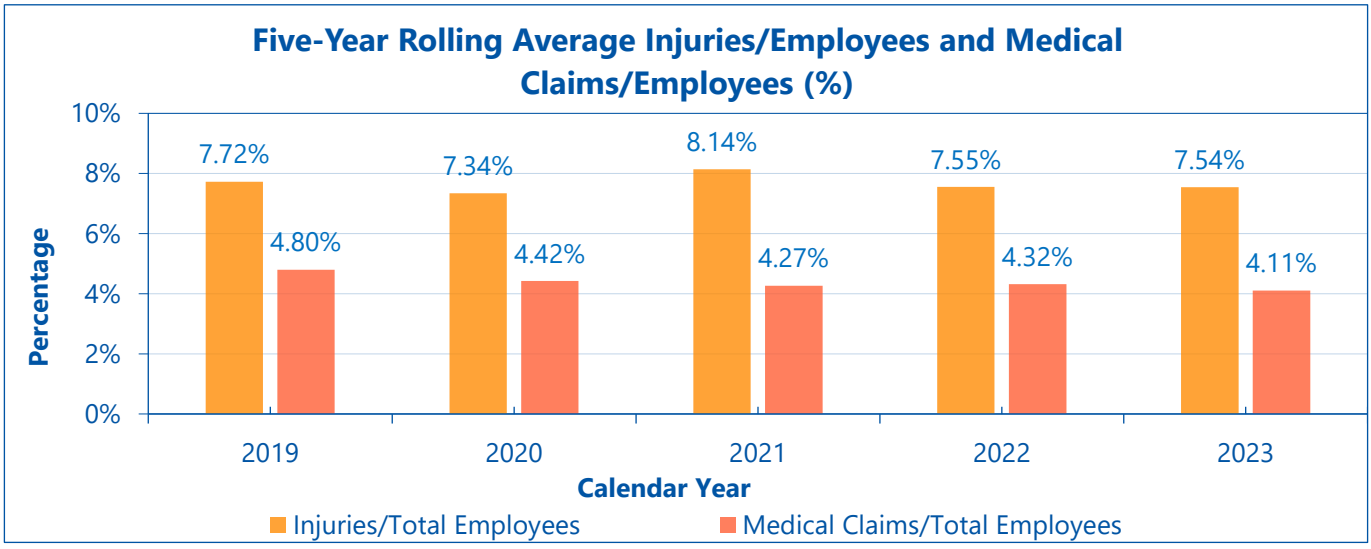
Performance Dashboard

The following Performance Management Dashboard provides an executive summary of each of the 16 performance goals and their related performance measures, targets, and the status of each performance measure in relation to established targets for fiscal year 2024. Detailed information regarding each performance measure is provided in the "Detailed Performance Management Reports and Data" section of this report.

1. Reduce Workplace Accidents

EXECUTIVE SUMMARY: Two performance measures have been established for this performance goal: 1) percentage of injuries/illnesses per one hundred employees, and 2) percentage of injuries/illnesses requiring medical attention per one hundred employees. The data is tracked per calendar year based on OSHA 300 Log Reporting, and a five-year rolling average is used for analysis. The five-year rolling average (2019 to 2023) for the injuries/illnesses not requiring medical attention decreased from 7.55% to 7.54% compared to the previous five-year average, and injuries/illnesses requiring medical attention decreased from 4.32% to 4.11% compared to the baseline. The five-year rolling average claim cost increased from $14,977 to $16,431. For detailed information refer to page 30.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of workplace injury/illness per 100 employees	1% reduction	0.0% decrease
Percentage of injury/illness requiring medical attention per 100 employees	1% reduction	0.2% decrease



2. Provide Employee Training

EXECUTIVE SUMMARY: The performance measure for this goal is the percentage of employees trained in accordance with prescribed training plans and the State statute training requirements. The data is tracked through the state fiscal year (FY). The target for required training in FY24 was set at 95%, and a 90% compliance was achieved, which was forty-five percent points greater than in FY23, and five percent points lower than the established target for FY24. Based on this level of achievement the target was not met. Certain circumstances that occurred in FY24 were responsible for the target not being met. For detailed information about this performance measure refer to page 34.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of employees trained according to requirements	95% Compliance	90% Compliance

Compliance Over 5 Years

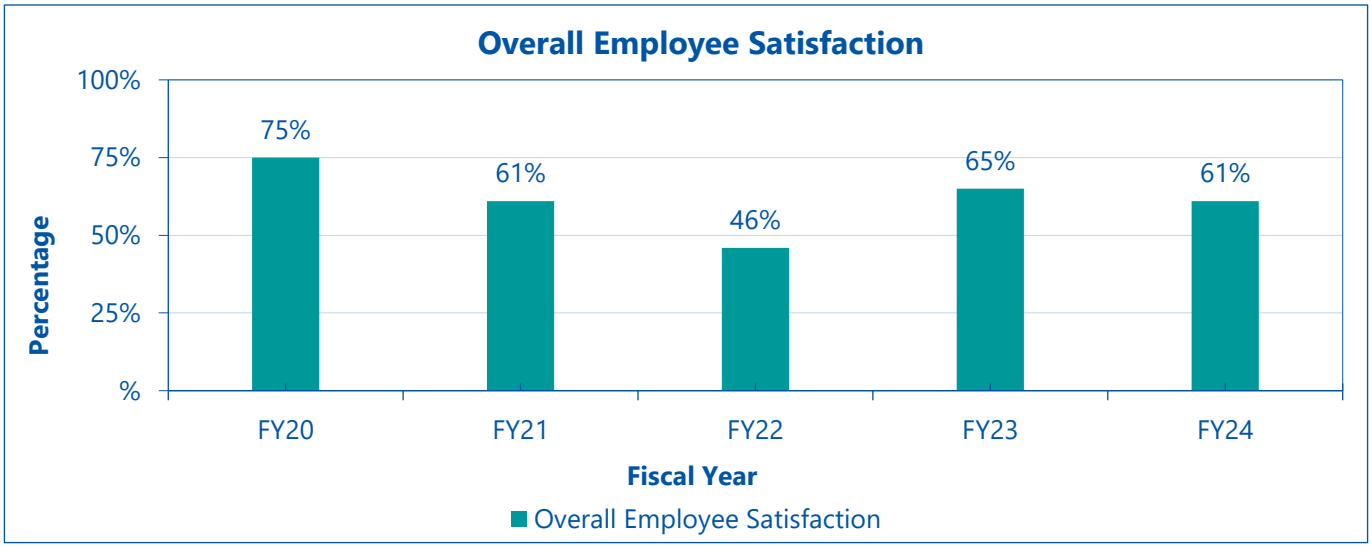
Requirement	FY20	FY21	FY22	FY23	FY24
Alcohol & Drug Program	92%	90%	92%	38%	90%
Defensive Driving	94%	83%	75%	55%	89%
EEO-Online	86%	89%	96%	41%	90%
Employee Appraisal	88%	86%	79%	35%	89%
Global Harmonization	96%	71%	78%	75%	95%
Grievance Procedures	90%	86%	83%	38%	88%
Internet Security Awareness	88%	51%	83%	85%	91%
Interviewing & Hiring	90%	88%	82%	34%	89%
Progressive Discipline	85%	87%	82%	34%	88%
Sexual Harassment Prevention	92%	66%	82%	22%	89%
Work Performance Standards	90%	88%	77%	35%	91%
Overall Compliance	**90%**	**80%**	**83%**	**45%**	**90%**

3. Improve Employee Satisfaction

EXECUTIVE SUMMARY: The performance measure for this goal is the percentage of employees who are satisfied with the NDOT work environment. The approach to tracking this performance measure is through conducting the annual employee satisfaction survey during the state fiscal year (FY).

The percentage of employees surveyed indicated that they are extremely or somewhat satisfied with the NDOT in FY24 is 61%. The target was established at the 70% satisfaction level; therefore, the target was not met. The satisfaction level achieved in FY24 is lower than in FY23. The decrease in satisfaction level in FY24 could be attribute yielding effects of the COVID-19 pandemic and other issues. For detailed information about this performance measure refer to page 40.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of employees satisfied with NDOT	70%	61%

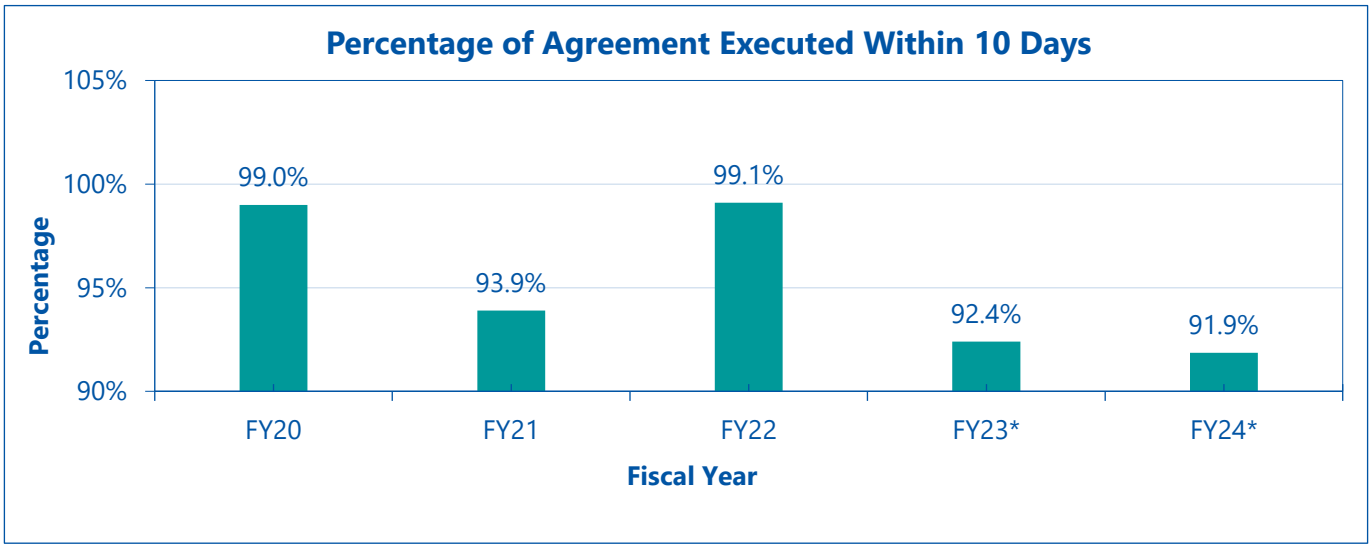


4. Streamline Agreement Process

EXECUTIVE SUMMARY: In state fiscal year FY24, 91.9% of all agreements submitted to the Agreement Services Section were executed within 10 days or less. This exceeds the established target of 90%. The goal to process an agreement was changed from 20 days or less to 10 days or less in FY24 because of prior years' successes.

In FY24, it took an average of 6 days to process an agreement excluding weekends and holidays, and the time agreements were with second parties or awaiting Transportation Board of Directors approval. The 6-day average was significantly less than the maximum 10 days established for the target and was very close to the ultimate target of processing 99% of agreements within 5 days. For detailed information about this performance measure refer to page 44.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of agreements executed within 10 days	90%	91.9%



* Performance Measure within ten (10) days in FY23 and FY24, other years in twenty (20) days

5. Improve Customer and Public Outreach

EXECUTIVE SUMMARY: This performance measure works toward reflecting the NDOT's Strategic Plan Core Values – "Communication: prioritize open and timely dialogue that engages diverse perspectives and promotes internal and external collaboration". The metric tracked for this performance measure is the customer service satisfaction rating done through the Annual Customer Service Survey. Also, other performance metrics that are tracked to determine how the Department is doing include the following: Facebook likes, Twitter engagement, and Instagram followers.

In FY24, a customer satisfaction level of 64% was achieved. This performance did not meet the set target of 75%. For more information refer to page 47.

 PERFORMANCE MEASURE	 TARGET	 CURRENT STATUS
Annual improvements in customer satisfaction & public outreach	**75%** Positive satisfaction level	**64%** Annual customer satisfaction survey

Items	FY19	FY20	FY21	FY22	FY23
Number of Respondents Rating NDOT Good		2,100	349	216	159
*Total Number of Surveys (Completed)		2,636	468	339	248
Percentage of "Good" Responses	75%	80%	75%	64%	64%

6. Improve Travel Reliability & Reduce Delay

EXECUTIVE SUMMARY: There are seven performance measures related to this performance goal:

1) Percentage of person-miles traveled on the interstate system that are reliable (Interstate TTR)
2) Percentage of person- miles traveled on the non-interstate NHS that are reliable (non-Interstate TTR)
3) Truck travel time reliability on the interstate system (Interstate Truck TTR Index)
4) Percentage of non-single occupancy vehicle travel in Las Vegas Metropolitan (Las Vegas non-SOV Travel)
5) Annual hours of peak hour excessive delay per capita in Las Vegas Metropolitan [Las Vegas PHED per Capita (Annual hours)]
6) Percentage of non-single occupancy vehicle travel in Reno Metropolitan (Reno non-SOV Travel); and
7) Annual hours of peak hour excessive delay per capita in Reno Metropolitan (Reno PHED per Capita (Annual hours)

The National Performance Measurement Research Data Set (NPMRDS) was used to analyze the performance of Nevada's interstate and non-Interstate NHS roadway systems. Based on the analysis using calendar year (CY) 2023 data, 85.1% of person-miles traveled on Nevada interstate were reliable, failing the 87.1% target that was set. The non-interstate NHS roadways had 90.1% reliability, which exceeds the set target of 87.1%. The truck travel time reliability index was not met. Meanwhile, targets for the annual hours of peak hour excessive delay per capita and percentage of non-single occupancy vehicle travel were both met in the two Metropolitan areas. For detailed information about this performance measure refer to page 56.

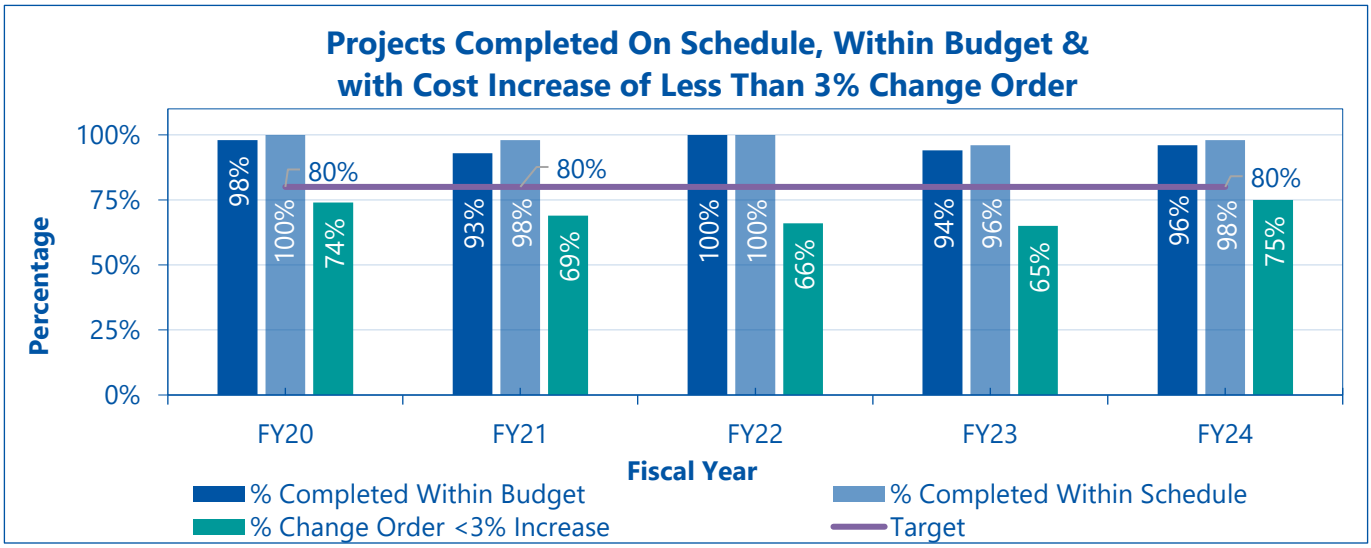
PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Interstate TTR	87.1% or higher	85.1%
Non-Interstate TTR	87.1% or higher	90.1%
Interstate Truck TTR Index	1.25 or less	1.30
Las Vegas non-SOV Travel	21.7% or higher	25.6%
Las Vegas PHED per Capita (Annual Hrs.)	10 hours or less	12.5 hours
Reno non-SOV Travel	23.1% or higher	30.7%
Reno PHED per Capita (Annual Hrs.)	11 hours or less	11.2 hours

7. Streamline Project Delivery - Bidding to Construction Completion

EXECUTIVE SUMMARY: For this performance goal, Design Bid Build and Construction Manager at Risk (CMAR) projects completed during the state fiscal year are evaluated based on cost estimate, Change Orders, and schedule compared to established targets.

Evaluation does not include projects in progress but only completed projects. In FY24, an average of 96% of completed contracts were within budget, 98% were within schedule, and 75% had Change Orders of less than three percent cost increase. Budget and schedule performance targets were met, but the Change Order target was not met. For detailed information about this performance measure refer to page 64.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of completed contracts within 10% of original programmed budget	80%	96% within budget
Percentage of completed contracts within 10% of original assigned working days	80%	98% within schedule
Percentage of completed contracts with a cost increase of less than 3% in Change Orders	80%	75% with Change Order <3% cost increase

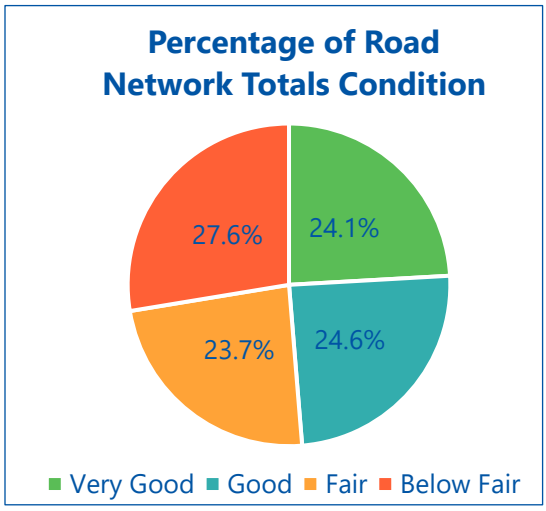


8. Maintain State Highway Pavement

EXECUTIVE SUMMARY: In FY24, NDOT was able to meet the performance targets for pavement conditions for categories 1, 2, and 3, but was unable to meet the performance target for category 4 and 5 roadways. Also, for clarity, category 1 roadways contained both Asphalt and Concrete roadways in the analysis.

To maintain the roadway network in "fair or better" condition, the Department performs rehabilitation work on the roadways each year. To increase the percentage of pavements in "fair or better" condition, rehabilitation work must exceed the rate of deterioration of the pavement on all roads. For detailed information about these performance measures refer to page 67.

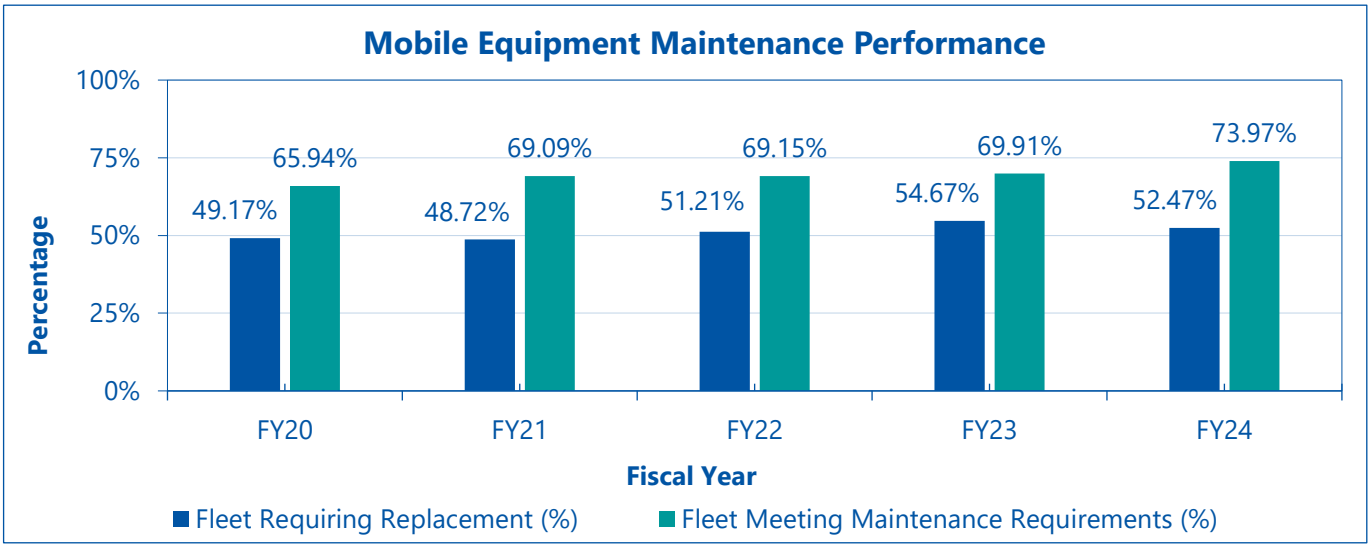
PERFORMANCE MEASURE	TARGET	CURRENT STATUS
State roadways maintained at "fair or better" condition		
Category 1	95%	95.5%
Category 2	90%	90.5%
Category 3	85%	85.8%
Category 4	75%	73.5%
Category 5	50%	42.0%



9. Maintain NDOT Fleet

EXECUTIVE SUMMARY: Two performance measures have been established for this performance goal: 1) percentage of mobile equipment in need of replacement, and 2) percentage of fleet in compliance with condition criteria. In FY24, NDOT was able to meet the performance targets for both the percentage of the equipment requiring replacement, and the percentage of vehicles in compliance with the preventive maintenance. For detailed information about this performance measure refer to page 76.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of mobile equipment in need of replacement	1% decrease	-2.20% decrease
Percentage of fleet in compliance with condition criteria	1% increase	4.06% increase



10. Maintain NDOT Facilities

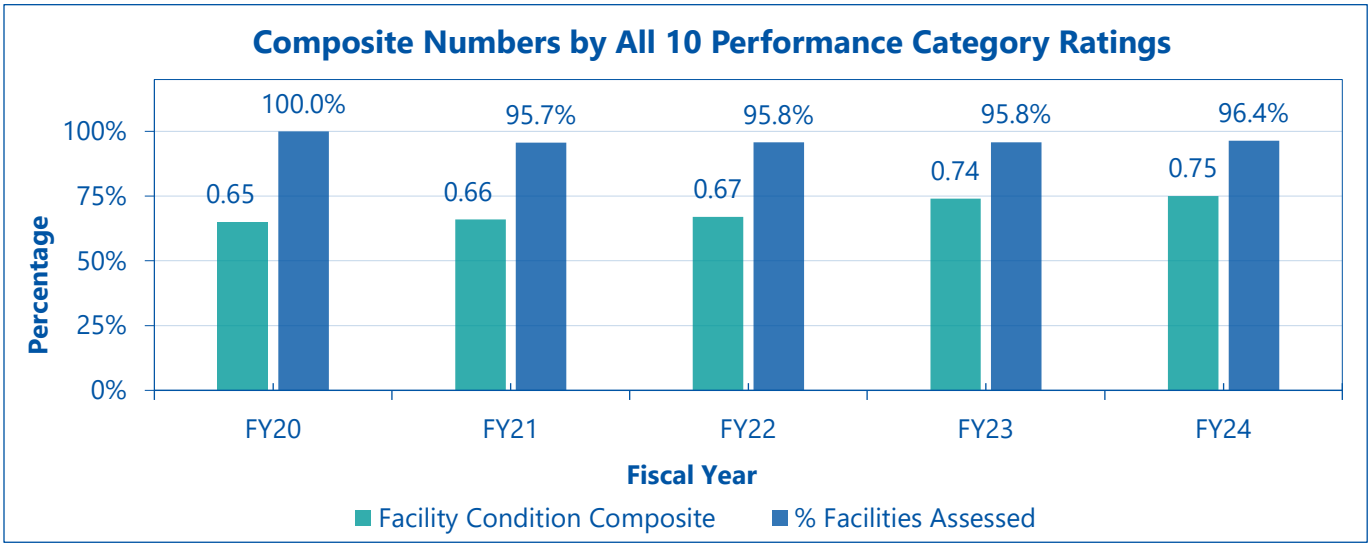
EXECUTIVE SUMMARY: There are two performance measures evaluated for this performance goal.

1) Percentage of facilities with a current Facility Condition Assessment (FCA). This tracks the percentage of buildings that have a current FCA performed on a seven-year cycle.

2) Overall Condition Composite. This assigns a composite score, which represents the overall condition of NDOT buildings.

A new methodology for calculating performance metric was initiated in 2021. In 2024, it is difficult to know if the annual target was met as the current fiscal year targets haven't been established. Some math errors were found and corrected, which affected the score output. For detailed information about this performance measure refer to page 81.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
1) Percentage of facilities with a current Facility Condition Assessment (FCA)	**100%** FCA – Ultimate Target	**96.4%** FCA
2) Overall condition composite	**1.00** Ultimate Target	**0.75**

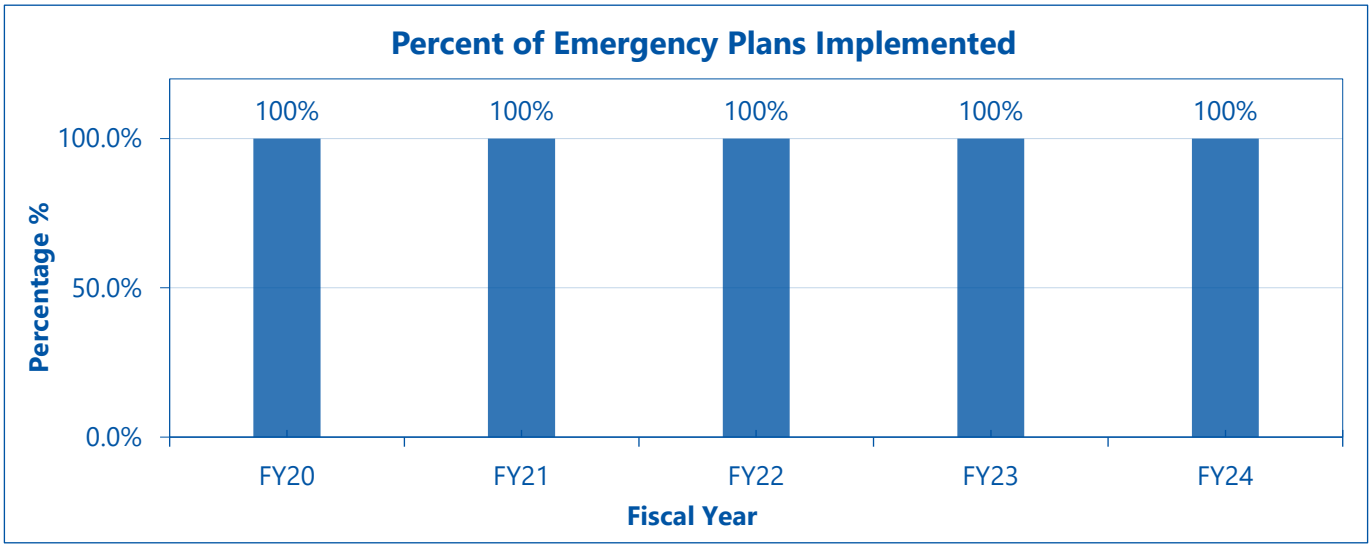


11. Emergency Management, Security and Continuity of Operations

EXECUTIVE SUMMARY: This performance measure involves tracking the percentage of NDOT Emergency Management Plans completed, training and education provided to the appropriate personnel about the plans, tests and emergency exercises performed in executing the plans, and updating the plans. Training, exercises, and plan updates are to be completed within a four-year cycle. This cycle provides sufficient time to manage staff and attend to real emergencies, as well as focus more attention on the emergency plans.

In state fiscal year 2024, NDOT obtained a 100% compliance level, which met the established target. For detailed information about this performance measure refer to page 89.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of emergency management plans implemented	100%	100%

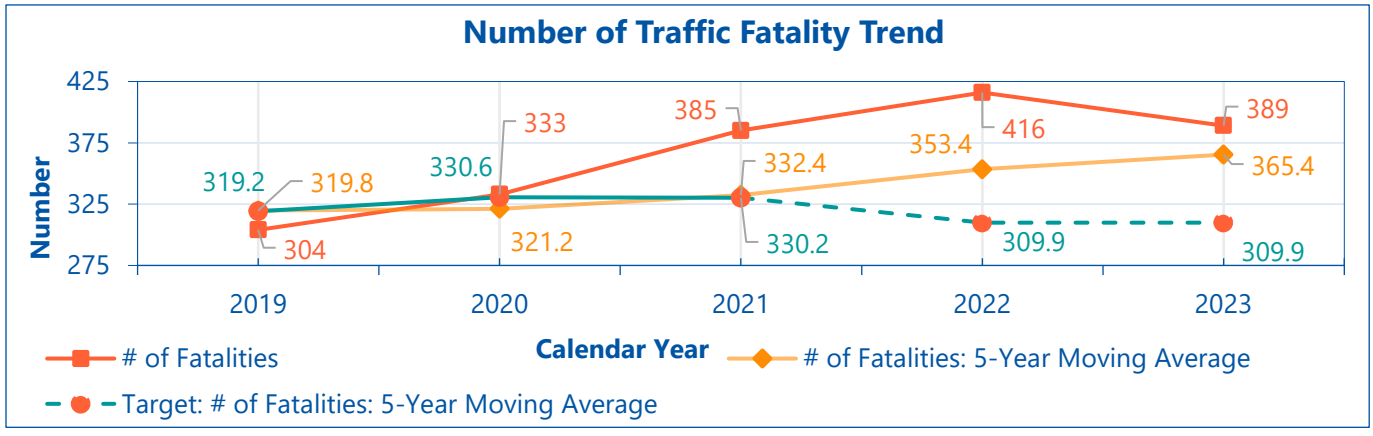


12. Reduce Fatal & Serious Injury Crashes

EXECUTIVE SUMMARY: There are five performance measures under this performance goal. They have been adjusted to align with the reporting requirements by the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA).

Targets for the various measures are based on the 2021-2025 Nevada Strategic Highway Safety Plan (SHSP) goal to reduce fatalities and serious injuries. The targets in the Plan were developed using the 2017 to 2021 crash data. Performance targets for all five performance measures were not met. Data is evaluated on calendar year (CY) basis. For detailed information refer to page 94.

RFORMANCE MEASURE	TARGET	CURRENT STATUS
Number of traffic fatalities of five-year rolling average	347.8 or less	365.4
Number of serious traffic injuries of five-year rolling average	1,021.3 or less	1069.8
Number of traffic fatalities per 100M VMT of five-year rolling average	1.279 or less	1.347
Number of serious traffic injuries per 100M VMT of five-year rolling average	3.755 or less	3.940
Number of non-motorized fatalities and serious injuries of five-year rolling average	262.6 or less	301.0



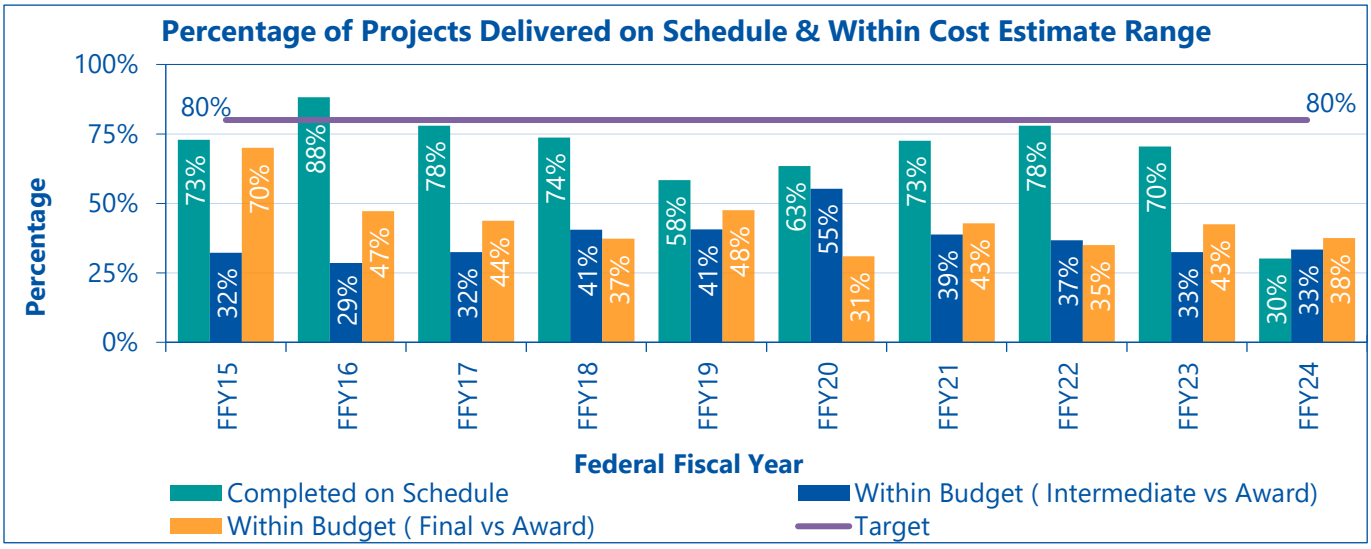
13. Project Delivery - Schedule and Estimate for Bid Advertisement

EXECUTIVE SUMMARY: This measure has been established to track project delivery performance within the federal fiscal year (FFY), from October 1, 2023, to September 30, 2024. The measure is quantified by:

1) **Schedule:** The percentage of scheduled projects advertised within the established federal fiscal reporting year.
2) **Project Cost**: The percentage of engineer's estimate within a range of the awarded contract estimate. The comparison ranges include:
   a. Intermediate (60% Design) Engineer's Estimate is within 15% of the Awarded Contract Estimate.
   b. Final (100% Design) Engineer's Estimate is within 10% of the Awarded Contract Estimate.

Neither Schedule nor Project Cost metrics met targets. For detailed information refer to page 100.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of scheduled projects advertised within the federal reporting year.	80%	30%
Percentage of engineers' estimates within a range of the awarded contract estimate	80%	a) 30% (Intermediate vs. Award) b) 38% (Final vs Award)



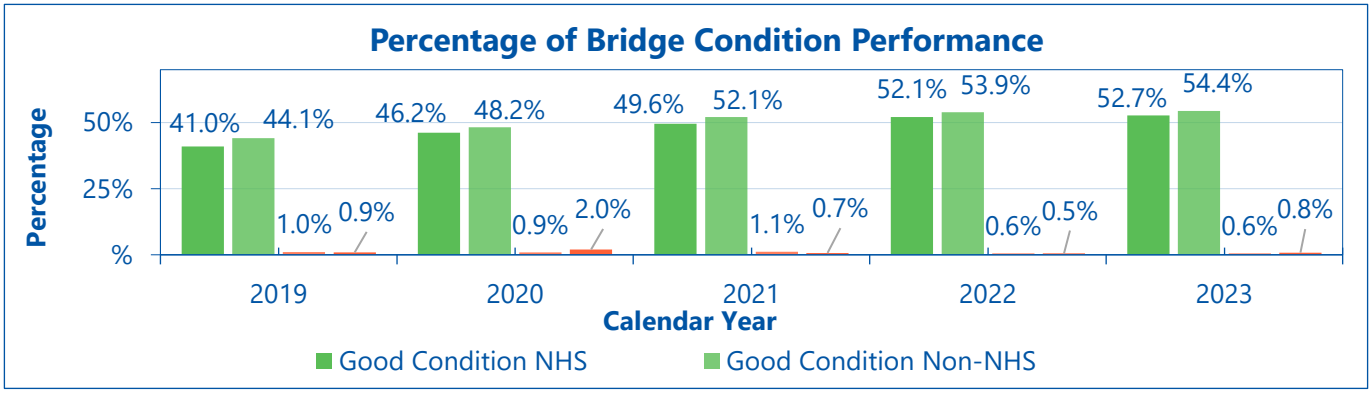
14. Maintain State Bridges

EXECUTIVE SUMMARY: The Department's performance measure for the maintenance of state bridges is bridge condition ratings, which is differentiated between those assets on the National Highway System (NHS) and those not on the system (non-NHS). This performance measure aligns with the established national performance measures, which include percentages of bridge inventory considered to be in "good" and "poor" condition.

As part of the NDOT Transportation Asset Management Plan (TAMP), the Department has established performance goals and targets related to the overall condition of the state's bridge inventory.

These performance targets include maintaining an inventory that has greater than 35% of bridges in "good" condition and less than 7% in "poor" condition. All performance targets were met and exceeded in 2023. For detailed information refer to page 113.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of bridges on the NHS in the bridge inventory in good condition	35% or greater	52.7%
Percentage of bridges on the NHS in the bridge inventory in poor condition	7.0% or lower	0.6%
Percentage of non-NHS bridges in the bridge inventory in good condition	35% or greater	54.4%
Percentage of non-NHS bridges in the bridge inventory in poor condition	7.0% or lower	0.8%



15. Streamline Permitting Process

EXECUTIVE SUMMARY: During the state fiscal year 2024, the NDOT Right-Of-Way Division accepted a total of 993 permits out of a total of 894 permits that were processed, and of which, 844 were processed within 45 days. This translates to a 94.4% performance rating that does not meet the performance target of 95%. For detailed information refer to page 124.

PERFORMANCE MEASURE	TARGET	CURRENT STATUS
Percentage of encroachment permits processed within 45 days	95%	94.4%

Summary of Status	District 1	District 2	District 3	HQ	Summary
Total Permits Accepted	603	324	66	0	993
Total Permits Processed	539	306	49	0	894
Total Permits Processed Less Than or Equal to 45 Days	522	286	36	0	844
Percentage of Permits Processed Less Than or Equal to 45 Days	96.9%	93.5%	73.5%	0.0%	94.4%

16. Reduce Greenhouse Gas Emissions

EXECUTIVE SUMMARY: This performance measure has been established as a percentage of reduction in Greenhouse Gas (GHG) emissions within the Department's operations. This measure was added to the annual reporting cycle in April 2020 to support the overall GHG reduction from the transportation sector as reported by the Nevada Annual Greenhouse Gas Inventory Report. The measure is in alignment with the state's goal to reduce economy-wide GHG emissions by 28% by 2025 and 45% by 2030 compared to a 2005 baseline (2019 Senate Bill 254). NDOT is performing an evaluation of the Department's operations beginning with state fiscal years 2019, 2020, 2021, 2022, 2023 and 2024 to establish a baseline to measure and assess future GHG reduction goals. For detailed information refer to page 127.

PERFORMANCE MEASURE	TARGET In Alignment with State's Goal (2005 Baseline)	CURRENT STATUS
Percentage of reduction in greenhouse gas emissions	**28%** reduction by 2025 **45%** reduction by 2030	Baseline evaluation under development in 2022

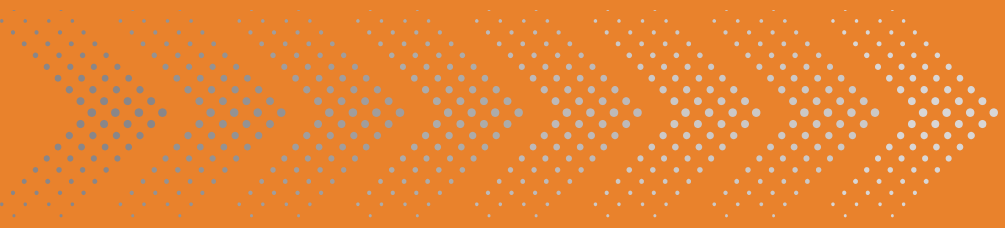
Table 1. GHG Emissions Baseline for FY19 – FY24 in Metric Tons of CO2 Equivalent (Mt CO2e)

Parameters	FY19	FY23	FY24	FY23-FY24 Change, %	FY19-FY24 Change, %
Stationary Source [a]	3,036.9	2,673.0	2,305.6	-13.7%	-24.1%
Mobile Source	20,385.9	16,773.6	16,130.5	-3.8%	-20.9%
Biofuel [b]	287.3	194.3	238.6	22.8%	-17.0%
Refrigeration/AC [c]	389.7	1,478.0	1,258.8	-14.8%	223.0%
Electricity Purchase	6,011.4	5,480.5	5,175.1	-5.6%	-13.9%
Business Travel	163.3	137.5	127.6	-7.2%	-21.9%
Commuting	6,170.8	3,256.6	3,398.3	4.4%	-44.9%
Waste Generation	1,445.3	1,283.2	1,921.0	49.7%	32.9%
Sum of Mt CO_{2e}	**37,603.3**	**31,082.4**	**30,555.6**	**-1.7%**	**-18.7%**

Note: b. Emission offsets from biofuel fractions (E85, B20) are quantified but are not included in the total GHG emissions estimates.

Detailed Performance Management

Reports and Data



1. Reduce Workplace Accidents

PERFORMANCE MEASURES:

1) The percentage of injury rate and percentage of claim rate are reported per calendar year. The percentage of injury rate is the number of reported workplace injuries and illnesses (i.e., number of C-1 forms filed) per 100 employees. 2) The percentage of claim rate is the number of injuries and illnesses requiring medical attention (i.e., number of C- 3 forms filed) per 100 employees. Data is based on annual OSHA 300 Log Reporting per federal reporting requirements. The CY23 calculation formula to determine the percent is as follows:

1) Total number of Injuries (126) divided by total number of employees 1540 x 100 = 8.18% - Injuries/All Employees.
2) Total number of medical claims (67) divided by total number of employees 1540 x 100 = 4.35 % - Medical/Employees.

Current Year Target:

1% Reduction

Ultimate Target:

Zero accidents

Performance Champion/Division:

Safety/Loss Control Section Manager, Human Resources Division (HRD)

Support Divisions:

All NDOT Divisions

Overview and Plan Support:

Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the Department, employees, and the traveling public is an ongoing endeavor. This performance measure works towards meeting the following Department of Transportation Strategic Plan goals (1) safety first and (2) enhance organizational and workforce development.

Measurement and Supporting Data:

Claim costs include all medical expenses. The five-year ending CY23 average claim cost was increased by $1,454 per claim compared to the (2018-2022) baseline. The five-year injury rate ending CY23 shows no

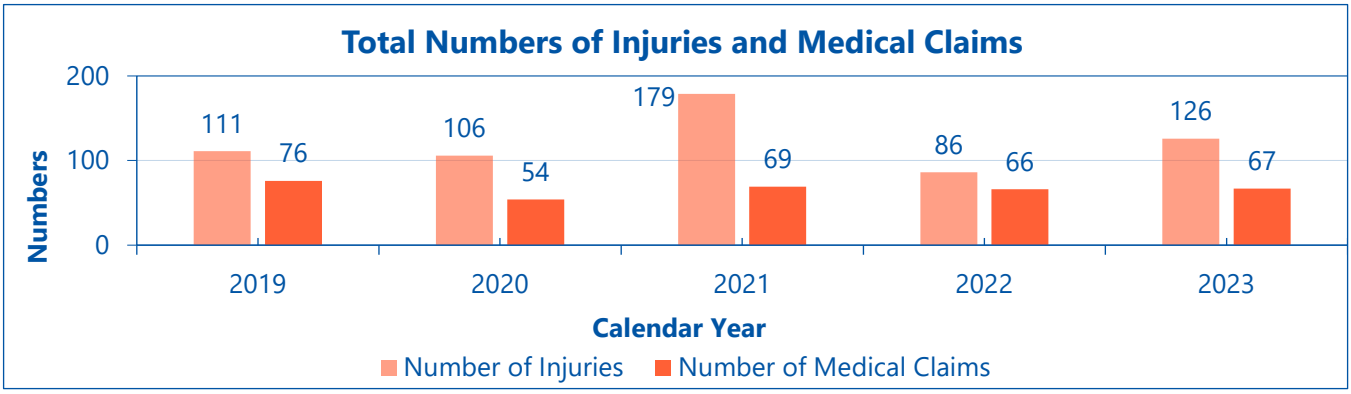
reduction (0.0%) compared to the baseline. The target of reducing the injury rate by 1% annually compared to the baseline was not met. The serious injury rate, which is the rate of injuries/illnesses requiring medical attention per every 100 employees did not meet the 1% annual reduction target. The rate of the five-year average ending CY23 was 4.11% compared to the baseline rate of 4.32%.

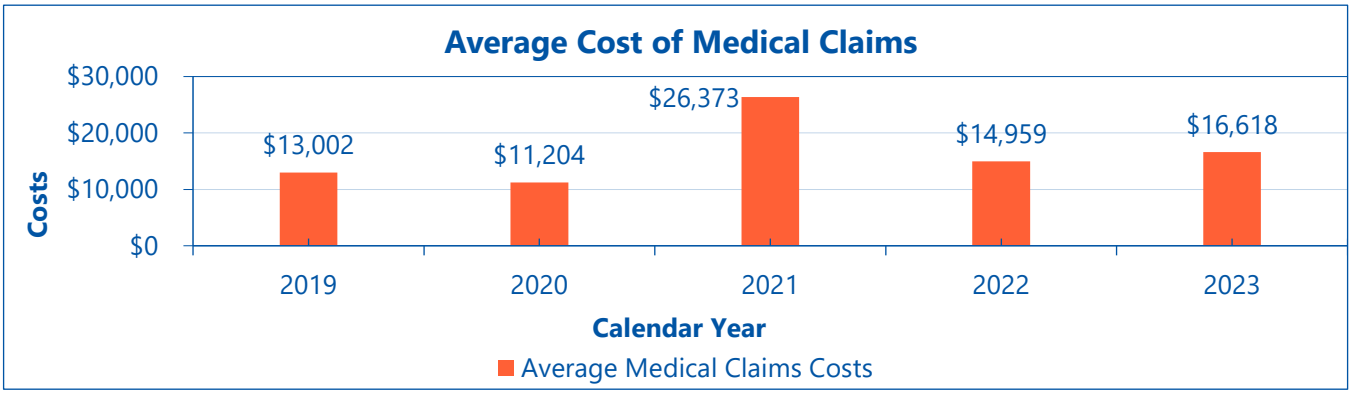
The annual baseline is the prior five-year average of (2019 through 2023). Data is reported on a calendar year pursuant to federal OSHA reporting and average number of employees during any given year. This data is used to calculate the percentage of injury rate and percentage of severity rate.

Most of the injuries sustained in CY23 were due to strains, lacerations, and fractures. Body parts injured were back, knee(s)s, elbow(s), and shoulder(s). Cause of injuries were due to struck by, slips, falls and lifting. The number of back claims for CY23 were 14 and stayed the same for CY22. Shoulder injury claims went from 2 in CY22 up to 8 in CY23. Sprains and Strains continue to be the highest injury claims for CY23 (38) and CY22 (29).

Calendar Year	2018	2019	2020	2021	2022	2023
Total # of Injuries	145	111	106	179	86	126
Injuries/All Employees	8.23%	6.36%	6.37%	11.15%	5.63%	8.18%
Total # of Medical Claims	95	76	54	69	66	67
Medical Claims/All Employees	5.39%	4.35%	3.24%	4.30%	4.32%	4.35%
Average Claim Cost	$9,346	$13,002	$11,204	$26,373	$14,959	$16,618
# All Employees	1,762	1,746	1,665	1,605	1,528	1,540
Total Calendar Year Cost	$887,842	$988,141	$605,038	$1,819,755	$987,275	$1,113,380

Calendar Year	2018-2022 Average	2023	2019-2023 Average
Total # of Injuries	125.4	126	121.6
Injuries/All Employees	7.55%	8.18%	7.54%
Total # of Medical Claims	72.0	67	66.4
Medical Claims/All Employees	4.32%	4.35%	4.11%
Average Claim Cost	$14,977	$16,618	$16,431





EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met:

No. For measure 1: Reduced by 0.0%

No. For measure 2: Reduced by 0.2%

Which Strategies Were in Place During the Data Reporting Period?

- Workers' Compensation training.
- Safety and health safety inspections.
- Safety and health training.
- Ergonomic evaluations.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

All strategies supported the Safety/Loss Control Section efforts to reduce workplace accidents and injuries.

Which Strategies Were Not Successful and Why?

The Safety/Loss Control made efforts to train District and Divisions employees in OSHA 10 Hour/30 Hour classes, but additional training would be beneficial.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

- Meet with Districts, Divisions, and Sections to explain existing and new Safety/Loss Control functions, so they understand how we can help them to improve workplace safety.
- Schedule safety and health fairs throughout NDOT.
- Offer OSHA 10 Hour and OSHA 30 Hour training classes to educate management, supervisors, and employees.
- Work collectively with the Nevada OSHA Safety Consultation and Training Section (SCATS) to assist with Safety and Health Inspections to reduce workplace accidents and injuries.
- With collectively with Nevada Risk Management to assist with required S.A.M. safety and health policies.

Long-term Strategies

- Create a (1) day Safety and Health Training Academy.
- Establish a safety training center.
- Hire staff to support the safety and health efforts for the Agency.
- Work with the Director's Office to create a Safety Division.

Does This Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

Yes. The "serious rate" determined by C-3 Forms is a better measure. C-3 Forms are completed when medical attention is sought. If the serious injury rate is reduced, it is a better indicator of success of safety programs and measures. The recommended annual target for CY23 is 1%.

In addition, track OSHA 10 Hour and OSHA 30 Hour training classes to reduce workplace accidents and injuries.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes, the Division Heads needs additional resources to support the Agency safety and health goals.

Next Year's Target:

Reduction of 1%

2. Provide Employee Training

PERFORMANCE MEASURES:

Percentage of employees trained in accordance with prescribed training plans and State statute training requirements.

FY24 Target:

95% overall compliance for all required training. This represents a 3% increase over the FY23 Target as agreed to increase 3% per FY until we meet the Ultimate Target of 100%.

Ultimate Target:

100% compliance for all required training.

Performance Champion/Division:

Human Resources Manager, Human Resources Division (HRD).

Supporting Divisions:

All NDOT Divisions

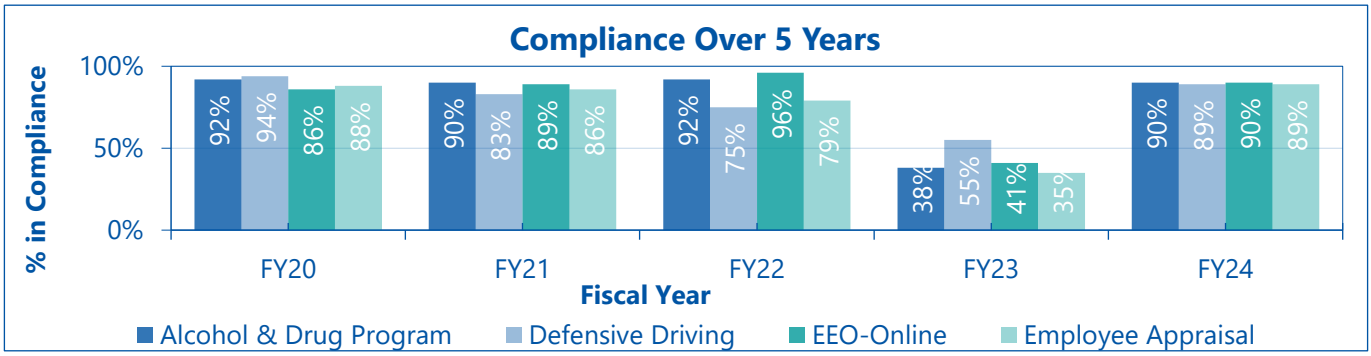
Overview and Plan Support:

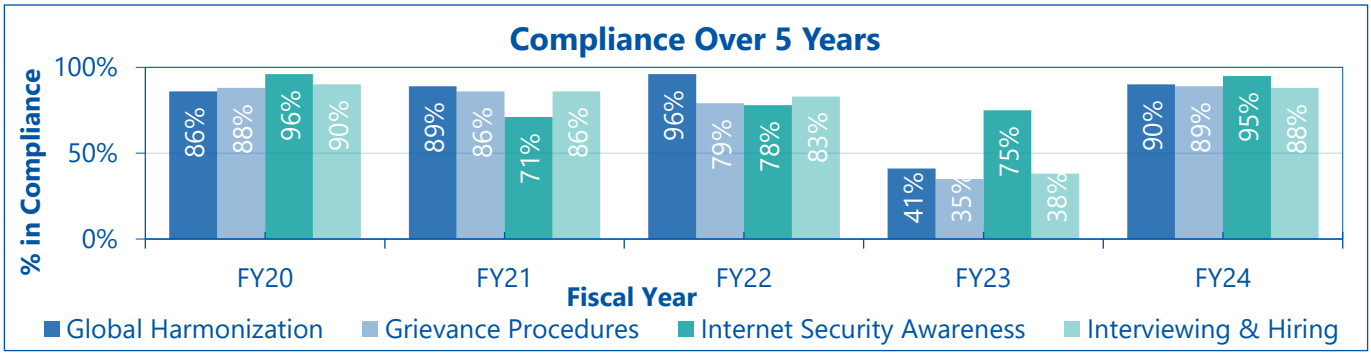
The classes selected for inclusion in the performance measure apply to the entire Department and are required by Nevada Administrative Code 284, the State Administrative Manual, or a specific NDOT Transportation Policy. All classes included are either required for all employees or all supervisors.

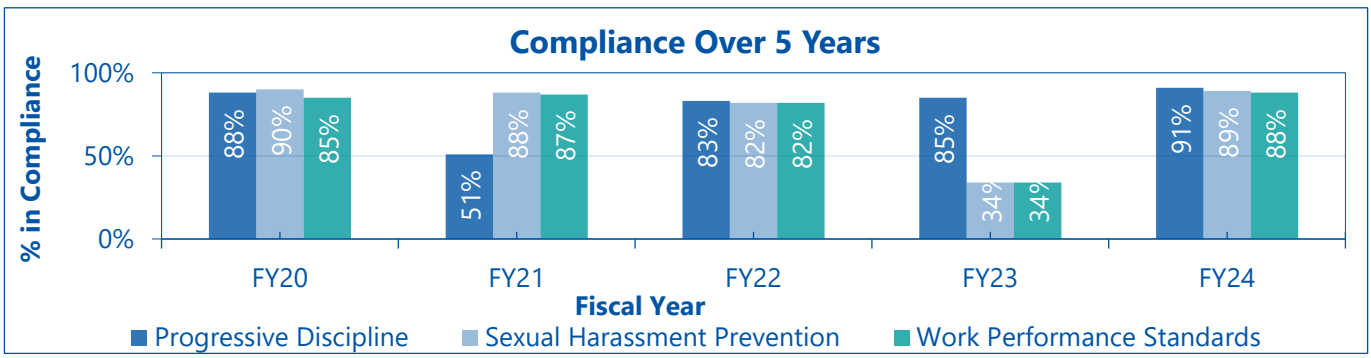
The compliance number calculated for each class reflects the percentage of employees who were required to take the class and have successfully completed it within the designated period. The FY24 compliance was 5% below target and was 45% above the previous year.

Compliance for Fisal Year

Requirement	FY20	FY21	FY22	FY23	FY24
Alcohol & Drug Program	92%	90%	92%	38%	90%
Defensive Driving	94%	83%	75%	55%	89%
EEO -Online	86%	89%	96%	41%	90%
Employee Appraisal	88%	86%	79%	35%	89%
Global Harmonization	96%	71%	78%	75%	95%
Grievance Procedures	90%	86%	83%	38%	88%
Internet Security Awareness	88%	51%	83%	85%	91%
Interviewing & hiring	90%	88%	82%	34%	89%
Progressive Discipline	85%	87%	82%	34%	88%
Sexual Harassment Prevention	92%	66%	82%	22%	89%
Work Performance Standards	90%	88%	77%	35%	91%
Overall Compliance	**90%**	**80%**	**83%**	**45%**	**90%**







The annual target for FY24 was 95% and the ultimate target is 100% compliance overall. The average for the 11 required classes was 90%, which shows an increase of 45% from last fiscal year's average of 45% and is short of the FY24 target by 5%.

For FY24 NDOT Reported:

- The strategy of sending out quarterly updates to employees and their Division Head was sufficient to bring up compliance.
- Sending these reports out also helped us identify gaps in our data presumably caused by the roll back from SMART 21 to NEATS.
- Although Supervisors cannot see their employees' compliance, including Division Heads in the quarterly updates did inform supervisors and mid-level managers.
- Marketing training raised the awareness of required classes. We also marketed how to enroll in both instructor-led and online training.
- Marketing training also had the effect of increasing compliance with other State of Nevada requirements that are not included in our report.
- The data collected helped us negotiate with Risk Management for more Defensive Driving in-person classes.

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met:

No

Which Strategies Were in Place During the Data Reporting Period?

Short-term Strategies

- Strategies for FY24 revolved around reestablishing the processes and reports we used with NEATS to reach prior high compliance numbers. These included emails with reminders when training is about to expire and sharing our annual report with Training Coordinators.
- Review Learning Management Systems used by other NDOT trainers that may be easily expanded to automate these reports and allow employees and their supervisors and managers to self-check on compliance.
- Identify the best method for adding external classes to our employees' NEATS transcript.
- Review expectations with all Training Coordinators.

Long-term Strategies

- Work with NDOT IT Section to revive the training modules in eHR. This will allow us to provide real-time feedback to employees and their supervisors about compliance with mandatory classes. eHR also automated the emails.
- Coordinate with other State agencies that also report on compliance with these classes to establish best practices and pool resources.
- Work with major maintenance stations to evaluate and improve opportunities for their employees to take online classes.
- Establish workshops to be taught in conjunction with online classes so that supervisors and managers can ask questions and apply knowledge to scenarios and complete the learning cycle.

Which Strategies Were Successful?

Short-term Strategies

- Reestablishing the processes and reports we used with NEATS helped us to communicate the requirements and how to meet those requirements. Involving the Division Heads encouraged them to provide time and other resources for their employees to complete training.
- Developing our relationship with Training Coordinators included making sure they had the appropriate permissions in NEATS. Training Coordinators were also instrumental in reviewing the data found in HR Datawarehouse (NEATS) and identifying and correcting errors in the Supervisor/Manager fields and identifying missing course attendance records.

Long-term Strategies

- Although our supervisory workshops do not increase our compliance percent, they do complete the learning cycle for the online mandatory classes and increase the effectiveness of the training.
- We continue to work with NDOT IT Section to revive the training modules in eHR. eHR will automate the reporting we do for these reports. It will be updated daily and will give supervisors and managers the ability to check compliance for their employees.

Which Strategies Were Not Successful and Why?

Short-term Strategies

- The only Learning Management System (LMS) reviewed during this time period was the KnowBe4 LMS used for tracking the Information Security Training requirement. It was determined that system

cannot add other training requirements and does not have the ability for supervisors to check their employees' progress with our training requirements. The CoreNV software being implemented by the State of Nevada to replace NEATS does have an LMS component, and we have committed to using NEATS with supplemental spreadsheets until that system goes live.

- Identify the best method for adding external classes to our employees' NEATS transcript.

Long-term Strategies

- We were not able to connect with other State agencies that also report on compliance with these classes in their performance measures.
- NDOT Maintenance Crews usually have one shared computer. Lack of computers combined with the nature of their work, makes it difficult for them to complete online training.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

- Meet with NDOT Performance Analysis to decrease the Ultimate Goal from 100% to 95%. This change would account for the grace period allowed for new staff in NAC and other documents that mandate training.
- Develop materials for supervisors, Training Coordinators and HR Liaisons to share with new employees to help them find, complete, and get credit for their required training.
- Training all Training Coordinators to use the administrative features in NEATS.

Long-term Strategies

- Support IT's efforts to automate the notification and reporting required to communicate our performance with the Divisions and Districts.
- Support IT's efforts to revive an upload procedure for adding external classes to our employees' NEATS transcript.
- Coordinate with other State agencies that also report on compliance with these classes to establish best practices and pool resources.

Does the Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Process?

Yes.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No.

Has the Covid-19 Pandemic Affected Your Performance Measure or the Ability to Meet Your Targets? If so, Explain.

No.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

No.

3. Improve Employee Satisfaction

PERFORMANCE MEASURE:

Employee Satisfaction

Current Year Target:

Overall rating 70%

Ultimate Target:

Overall rating 80%

Performance Champion/Division:

Human Resources Manager, Human Resources Division (HRD)

Support Divisions:

All NDOT Divisions

Overview and Plan Support:

Positive employee morale is critical to the success of the workplace. It is the backbone of a skilled and dedicated workforce and essential in attracting and retaining quality team members. A satisfied workforce will excel at their duties, and this benefits the people of Nevada, our visitors, and others traveling through our state. This performance measure works toward meeting NDOT's Strategic Plan the Number 4 goal: "Create a Great Place to Work".

Measurement and Supporting Data:

Overall Employee Satisfaction

Fiscal Year	FY20	FY21	FY22	FY23	FY24
Overall Employee Satisfaction	75%	61%	46%	65%	61%

Historical Level of Employee Engagement Participation (Respondents)

Year of Survey	FY20	FY21	FY22	FY23	FY24
Launch Date	13-Apr	20-Apr	24-May	13-Jul	15-Jul
Closing Date	13-Jul	23-Jul	12-Aug	18-Aug	31-Aug
# of Employee Respondents	823	662	800	729	838

Employee Satisfaction Survey Results

Survey Category Key Question Response Comparison FY23 - FY24	FY23	FY24	Increase/ Decrease
Satisfaction of Workplace Safety	76%	73%	-3%
Satisfaction of Workplace Physical Conditions	71%	66%	-5%
Satisfaction with Ability to Express Concerns to Their Immediate Supervisor	76%	76%	0%
Satisfaction with Ability of Their Immediate Supervisor to Communicate Effectively	78%	77%	-1%
Satisfaction with Their Immediate Supervisor Recognizing When They Go Above and Beyond Their Normal Duties	74%	72%	-2%
Satisfaction with Management Applying Policy Decisions Consistently	59%	58%	-1%
Satisfaction with Ability to Express Concerns to Their Management	64%	65%	+1%
Satisfaction with Flexibility of Employees Work Hours	86%	82%	-4%
Percentage of Employees Who Would Recommend NDOT to a Friend	57%	59%	+2%

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

No.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

FY24 Strategies Included:

- NDOT's leadership development and implementation of the following strategies:
    - Develop and implement NDOT Team Safety Plan
    - Develop building and facility maintenance and repair plan
    - Improve internal and external customer service
    - Build a cohesive, state-wide communications program
    - Evaluate and update communication structure and policies
    - Conduct proactive organizational change process to address emerging trends
    - Ensure business and operational continuity

- Administer Department policies and procedures consistently
- Retain and enhance mid-career talent
- Consolidate and transform Department data systems

- NDOT's leadership working to foster a healthy working environment.
- NDOT's leadership commitment to supporting and executing the NDOT Strategic Plan.
- NDOT implementation of an internal partnering program to foster communication among the Divisions and Districts.

Which Strategies Were Not Successful and Why?

Many of the strategies are ongoing. Their completion is expected to increase engagement and satisfaction.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

NDOT's leadership is creating a new and updated Strategic Plan.

Long-term Strategies

NDOT's leadership is committed to supporting and executing the NDOT Strategic Plan to increase employee satisfaction.

Does This Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes, the detailed breakdown of employee satisfaction provided by the annual survey identifies areas of success and deficiency. Areas of success are replicated, and areas of deficiency are evaluated for improvement. The survey provides support and guidance for the creation of specific goals and programs linked to the NDOT Strategic Plan.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No. Overall employee satisfaction is a critical factor for NDOT to execute the "Vision, Mission, and Core Values", and "Our Goals" of the Department.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

Yes. Based on the survey results, it is likely the COVID-19 pandemic continues to affect overall job satisfaction. The Department is still working out the best way, post-pandemic, to recruit, retain, and engage team members. The pandemic contributed to the current labor shortage. The labor shortage is negatively affecting the overall work environment and the sense that there is adequate staffing. Respondents continue to express high dissatisfaction rates regarding wages and benefits. The post-Covid repeal of telecommuting was a recurring negative theme in the qualitatively analyzed responses.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

No.

Next Year's Target:

70%

4. Streamline Agreement Process

PERFORMANCE MEASURE:

Percentage of Agreements executed within ten (10) days from when Division submits agreement with all supporting documents to the date when it is fully executed, excluding time the agreement is with the second party for signature or awaiting Transportation Board approval.

Current Year Target:

90% within ten (10) days

Ultimate Target:

99% within five (5) days

Performance Champion/Division:

Administrative Services Division, Assistant Chief

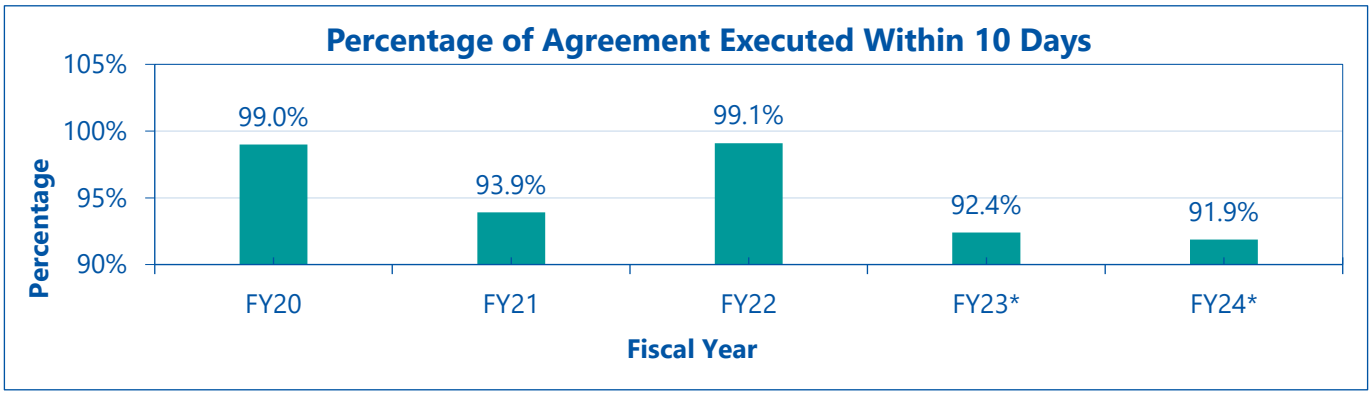
Overview and Plan Support:

An agreement is the instrument used to procure a variety of services for NDOT. The Agreement Services Section ensures that NDOT procures these services in accordance with established laws, rules, and regulations. Delays in executing agreements have a tremendous impact on operations, delaying what can often be critical services or services that impact the timely delivery of projects. Agreements for services and interlocal agreements with universities over $10,000,000.00 require the approval of the Transportation Board; agreements less than $10,000,000.00 and certain services exempt from Board approval, such as Right-Of-Way acquisitions and interlocal agreements, can be executed with approval from the NDOT Director.

This performance measure supports the Nevada Department of Transportation Strategic Plan number 2 goal: "Optimize Mobility", by delivering timely and beneficial projects and programs; being responsive to our customers; effectively preserving and managing our assets; and efficiently operating the transportation system.

Measurement and Supporting Data:

For fiscal year 2024, the average number of calendar days to execute agreements, measured from the time they were submitted to the Agreement Services Section until the time of agreement execution, but excluding weekends and holidays and time the agreement was with the second party or awaiting Transportation Board approval, was six (6) days. During fiscal year 2024, the Department executed 639 agreements, of which 587 were executed in ten (10) days or less. This translates to 91.9% of all agreements being executed within ten (10) days, exceeding the target of 90%.



* Performance Measure within ten (10) days in FY23 and FY24, other years in twenty (20) days

State Fiscal Year	FY24
Number of Agreements Executed	639
Number Executed Within 10 Days	587
Percentage of Executed Within 10 Days	91.9%
Average Number of Days to Execute	6

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Yes

Which Strategies Applied During the Current Data Reporting Period Were Successful?

All current strategies have been successful. Agreement Services Section staff understands the performance measure, what is measured, and how each stage of processing an agreement affects the measure. The Section Manager provides quarterly feedback to staff about the current processing time, tracking and discussing strategies for improving the execution of all agreements, including LPA agreements, if applicable.

Which Strategies Were Not Successful and Why?

All strategies implemented have been successful.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

Continue reporting the number of "workdays" to execute an agreement, excluding days with the second

party, weekends, holidays, and waiting for the Transportation Board. This method of measuring days accurately calculates the percents and average days NDOT took to execute an agreement. With electronic processes in place, Agreement Services has consistently exceeded the ten (10)-day agreement execution with higher than the 90% target.

Long-term Strategies

Continuing to assess the relevance of performance measure data and revising this measure, as necessary, to accurately reflect on the time it takes to process an agreement. Additionally, mandating that all agreements be processed via DocuSign is critical to maintaining the success of this performance measure.

At this time, Agreement Services will continue to work toward processing 90% of agreements within ten (10) days.

Does This Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes. All staff is made aware of the goals of a performance measure.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No. The efficiencies put into place have been successful on reducing the time to execute an agreement.

Has the Covid-19 Pandemic Affected Your Performance Measure or the Ability to Meet Your Targets? If so, Explain.

No. With the technology that we have it hasn't slowed the time it takes to execute an agreement.

Will Meeting the Next Yearly Target Have a Fiscal Impact? If so, Explain.

Yes. Procuring services more expediently will make Department operations more efficient, resulting in faster delivery of projects, more timely maintenance of facilities, and an overall higher standard of service provided. Collectively, this will result in overall cost savings.

Next Year's Target:

90% within 10 days

5. Improve Customer and Public Outreach

PERFORMANCE MEASURE:

Improve Customer and Public Outreach

Current Year Target:

The Communications Division employs a data-driven program to ensure NDOT is communicating and engaging with residents, visitors, and travelers across Nevada.

Customer Service

- Satisfaction: Maintain 75% rating

Social Media

- Total Audience Growth: -16%
- Engagement Rate per Impression: +3.2%
- Impression Growth: +18%
- Engagement: -3.8%

Public Involvement

- Total Events: +50%
- Hybrid (In-Person + Livestream) Events: +100%
- Virtual (Website): +60%
- Overall Attendance: +100%

Ultimate Target:

- Customer Service

Overall goal: Increase customer satisfaction by responding promptly and constructively to questions and concerns.

Satisfaction Goal: 70%

Response Time (future measurable goal) [1]

Notes:

1 - While response time will be measurable in the future, some questions and concerns inherently require more time to answer. Additionally, other factors can skew this figure, such as extreme events (e.g., snowstorms) that result in a spike in inquiries or complaints that temporarily overload our existing staff and may not be answered promptly.

Social Media

Overall goal: Reach as many Nevadans and travelers as possible with information about transportation and traffic safety issues, and constructively engage users with increasing frequency to further that reach. More specifically, consistently increase the number of followers and engagement with users on our social media channels.

Audience Growth: 10% per year
Engagement Rate per Impression: 3-6% average across all social media platforms

Public Involvement

Overall goal: engage as many Nevadans as possible by fostering open dialogue and gathering input on upcoming projects, programs, and studies.

We aim to ensure that our outreach efforts and public meetings reflect the diversity of the communities impacted, offering a mix of in-person, virtual, and livestream options. Special emphasis will be placed on engaging environmental justice communities to ensure their voices are heard.

For the upcoming year, we do not anticipate the same number of public meetings as in FY22-FY23. Expanding virtual and livestreamed meetings will be a focus in the upcoming year to allow us to reach a wider and more diverse audience, including those unable to attend traditional in-person events.

Performance Champion/Division:

Customer Service

Debbie Binggeli, Customer Service Manager

Social Media

Public Information Office

Public Involvement

Justin Hopkins, Public Involvement Specialist

Support Divisions:

Everyone in the Customer Service Division supports each other in achieving these goals. Additionally, we work closely with Planning, Project Management, Traffic Safety, and other Divisions that have a public outreach component.

Overview and Plan Support:

This performance measure works toward reflecting the NDOT's Strategic Plan Core Values – "Communication: prioritize open and timely dialogue that engages diverse perspectives and promotes internal and external collaboration". Customer service and public outreach (social media and public involvement) are critical aspects of strengthening NDOT's brand and ensuring we're delivering an effective program.

Measurement and Supporting Data:

Customer Service

Data collected by NDOT's customer service management system, Zendesk, is used to assess customer satisfaction. Specifically, since August 2020, data presented below is based on surveys collected by Zendesk from customers who contacted NDOT via e-mail, phone, social media, or the NDOT website. For FY23, Customer Service achieved a 64 percent satisfaction rate based on the 248 surveys (1,901 total) completed by customers.

Items	FY21	FY22	FY23
Number of Respondents Rating NDOT Good	349	216	159
*Total Number of Surveys (Completed)	468	339	248
Percentage of "Good" Responses	75%	64%	64%
Status	Actual	Actual	Actual

Social Media

Toward the end of FY24, NDOT discontinued social media consultant augmentation. Previously, this consultant staff had helped augment limited Department staff to substantially increase citizen education and engagement on major platforms (Facebook, Twitter, Instagram, and LinkedIn), including growing our overall userbase by 26%.

Totals [2]

- Impressions: 3,855,475 (+18%)
- Engagements: 142,576 (- 3.8%)
- Video Views: 124,480 (+11%)
- Audience Growth: 5,689 new users (-16%)

Platform	Facebook	Twitter/X	Instagram	LinkedIn[3]
Impressions	2,954,421	687,870	172,582	40,602
Engagements	122,331	10,947	6,307	2,991
Video Views	82,708	12,948	28,824	
Audience Growth	1,783 (-32%)	3,083(+14%)	823 (-20%)	
Engagement Rate per Impression	4.4%	1.6%	3.6%	

Notes:

2 - These totals do not include the three NDOT regional Twitter accounts and LoveNV Waters (Stormwater Outreach) social accounts.

3 - Without paid analytics tools, LinkedIn account analytics are not available past a calendar year. LinkedIn numbers reflect metrics from Sept. 10, 2023 through June 30, 2024.

Platform-Specific Findings

- Facebook

  After an 80% increase in audience growth last fiscal year, Facebook audience growth dropped 32% in FY24. Facebook generates users interested in community updates and impacts.

  Limited staffing provides staff time to primarily focus on X/Twitter regional accounts, with limited opportunities to post community-centered content via Facebook.

- X / Twitter

  While Twitter/X impressions dropped 23% in FY24, we still saw audience growth of 14% from the previous reporting period.

  NDOT social followers continue to use regional Twitter/X accounts for incident and construction-related traffic impacts (not included in these metrics), and the main account for more evergreen industry and Department information.

  NDOT focuses on these regional X accounts to post the most updated region-specific traffic impacts and updates.

- Instagram

  After seeing audience growth of 137% last year, Instagram audience growth dropped 20% in FY24.

  Instagram continues to be a high-potential platform for NDOT. But, with limited staff and no social media consultant support, we anticipate a decline in ability to post Instagram-centered content and links to appeal to this specific audience. We will, though, post video-based and other general content in an effort to continue engagement.

- LinkedIn

  The Department has posted to LinkedIn for approximately one year. With consultant augmentation during the first year, the Department worked to establish itself as a thought leader and lead employer in the industry by highlighting the NDOT team members and career opportunities. While positively highlighting the NDOT staff will remain a focus, our ability to continue to post to LinkedIn is currently hindered by staffing challenges.

Public Involvement

Between June 2023 and June 2024, NDOT saw a 75% increase in the number of public meetings held. This growth was largely driven by 15 public outreach events, which included in-person and virtual public meetings, as well as pop-up events. Pop-up events allow our public outreach team to engage with stakeholders directly in community spaces where they live and work. While we anticipate a different number of public meetings in the upcoming year, our commitment to maintaining diverse outreach methods remains strong.

Meeting Type	# of Meetings	Meeting Change (YoY)
In-Person (no livestream)	15	+50%
Hybrid (In-Person+ Live-Stream)	12	100%
Virtual (Website)	13	50%
Total	**40**	**+75%**

Beginning this year, we were able to better track the number of attendees across our in-person, livestreamed, virtual, and telephonic meetings. Next year, we will be able to measure YoY change.

Meeting Type	# of Attendees	Meeting Change (YoY)
In-Person	585	29%
Virtual (Website)	10,096	43%
Livestream	9,915	362%
Total	**20,596**	**+114%**

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Customer Service

The Customer Service satisfaction rating of 75 percent was not met for FY23. The rating of 75 percent in FY21 was likely artificially inflated due to a different survey method that proactively reached out to Nevadans to ask about their experience with NDOT. Currently, for FY22 and FY23, the surveys were only given to those who had interacted with Customer Service at HQ, which had a vacant position for at least half of the year. We anticipate increasing the satisfaction rate by a few percent points for next year now that the Division is fully staffed.

Social Media

We did not meet our 10% audience growth performance target, but did see Facebook and Instagram engagement rates, which met targets.

Audience growth and engagement are expected to continue to decrease without consultant support to build out NDOT's social media presence and engagement.

Public Involvement

NDOT expanded its outreach through community conversations, online meetings, and livestreamed events, contributing to a significant rise in overall engagement. The public involvement team also made notable progress by implementing PublicInput, a new software designed to track and enhance public participation. Data gathered from PublicInput will be used to inform future tracking and improve our outreach efforts.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

Customer Service

We continue to fine-tune Zendesk, our customer service management system, to ensure the increased caseload doesn't overwhelm our staff of two. We also continue to create triggers that automatically route certain tickets to the appropriate staff member, and training staff on Zendesk functionality has helped us respond to customers more effectively. Having two permanent staff members has also helped to better respond to customers.

Social Media

For numerous years, NDOT utilized a consultant to help build out social media calendars and track analytics, greatly improving reach and engagement. The current consultant contract ended in summer 2024, making it challenging to branch out further due to staff limitations. For the interim, NDOT is utilizing the Department's Public Involvement Specialist (Public Hearings Officer) to develop monthly calendars of content among other job duties. NDOT will look to continue a strong and informative social media presence by proposing a digital communications specialist (PIO II) position, to be vetted during the 2025 Nevada State Legislature.

Public Involvement

NDOT's public involvement efforts are evolving to better meet community needs. This shift results in fewer formal public meetings but more informal opportunities to connect with project teams and gather valuable input. However, many of these informal meetings are not currently tracked due to the absence of a centralized system. With the full implementation of PublicInput next year, we aim to capture a more comprehensive picture of all engagement efforts.

Which Strategies Were Not Successful and Why?

Customer Service

Existing dedicated staff is insufficient for centralizing customer inquiries with Customer Service as a growing need. We will need to think creatively about how we can continue to use one platform while acknowledging that this may require additional staffing or consultant support.

Social Media

We continue to explore targeted engagement on additional social media platforms, most recently Nextdoor. Toward the tail end of FY24, NDOT launched a Nextdoor presence to post high level and region-specific updates. This new use of Nextdoor will be an opportunity to further educate specific communities about major impacts of highway projects in their neighborhoods.

However, with staff limitations, we are conscientious of establishing a presence that isn't continuous, as that can inadvertently harm the brand as it creates more channels to monitor with limited staff.
We aim to provide a routine selection of short and long-format videos to provide project and program updates, as well as give Nevadans an inside look at the state's transportation staff and highway network.

Public Involvement

The full integration of the PublicInput system was delayed due to the departure of our previous Public Involvement Specialist and the Head of the NDOT Communications Office.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

Customer Service

Continue building strong relationships with the Districts to ensure we're providing consistent and timely responses to customers throughout the state. Consider bringing on additional customer service staff and produce data-driven reports to inform agency decision-making. Turn on the chat bot feature to better respond to individuals who visit the website.

Social Media

If approved, hiring a digital communications specialist (PIO II) will be pivotal in managing our social media public education and engagement program, and ensuring that NDOT can keep Nevadans updated across multiple social media platforms.

As staff resources allow, continue tracking metrics across platforms to tailor content and calendars to high-performing content and other goals.

With limited staffing and funding, the Department was not able to pursue the Public Input platform to send an external newsletter, but is utilizing the platform for hosting of periodic virtual public outreach and information.

Public Involvement

Our long-term objective is to foster stronger, more meaningful connections with Nevadans by offering diverse opportunities for public involvement. We plan to fully integrate the PublicInput system to streamline data collection, track engagement, and provide real-time feedback on public involvement efforts. By leveraging technology, we will capture a more comprehensive picture of public input and ensure that no engagement efforts go untracked. We will continue to prioritize accessibility by increasing the availability of virtual and livestreamed public meetings. Our goal is to reach a broader audience, including those who cannot attend traditional in-person meetings, ensuring equitable access to information and decision-making processes.

Long-term Strategies

Customer Service

Build stronger working relationship with District 3 and continue improving Zendesk integration with NDOT.

Social Media

Utilize proposed digital communications specialist (PIO II) to track more specific goals and metrics across platforms. With additional staffing, build out ability to respond to NDOT-specific citizen inquiries and concerns sent by social media. Capitalize on Nextdoor and LinkedIn accounts as more staffing and capacity is added.

Public Involvement

NDOT's Public Involvement team will strategically expand our use of technology. We will prioritize accessibility by increasing virtual and livestreamed meeting options, while continuing to offer in-person and informal pop-up events to meet stakeholders where they are. By developing clear, data-driven metrics, we will continuously evaluate and improve our outreach efforts.

Does This Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

Eventually, "public outreach" should grow to encompass government affairs metrics as well.

If the Department is not able to add a digital communications specialist (PIO II), social media metrics should be reevaluated to best reflect a constrained ability to build and track social media engagements.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

Public involvement saw significant fluctuations in in-person outreach and participation as a result of the pandemic winding down in 2021 and early 2022. Those issues were largely resolved in 2023; however, anecdotally, it appear that residents are more interested in virtual content than ever before.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

No.

Next Year's Target:

Customer Service

- Satisfaction: Maintain 70% rating

Social Media

- Total Audience Growth: +8%
- Engagement Rate per Impression: +2%

Due to limited staffing, social media target goals above have been substantially downgraded from previous years.

Public Involvement

- Total Events: +10%
- Hybrid (In-Person + Livestream) Events: +10%
- Virtual (Website): +10%
- Overall Attendance: +10%

6. Improve Travel Reliability & Reduce Delay

PERFORMANCE MEASURE:

1) Interstate Travel Time Reliability (Interstate TTR) Measure: Percentage of person-miles traveled on the interstate system that are reliable
2) Non-Interstate Travel Time Reliability (non-Interstate TTR) Measure: Percentage of person- miles traveled on the non-interstate NHS that are reliable
3) Freight Reliability Measure: Truck travel time reliability on the interstate system (Interstate Truck TTR Index)
4) Percentage of non-Single Occupancy Vehicle (non-SOV) Travel Measure: Percentage of non-single occupancy vehicle travel in Las Vegas Metropolitan (Las Vegas non-SOV Travel)
5) Peak Hour Excessive Delay (PHED) Measure: Annual hours of peak hour excessive delay per capita in Las Vegas Metropolitan [Las Vegas PHED per Capita (Annual hours)]
6) Percentage of non-single Occupancy Vehicle (non-SOV) Travel Measure: Percentage of non-single occupancy vehicle travel in Reno Metropolitan (Reno non-SOV Travel)
7) Peak Hour Excessive Delay (PHED) Measure: Annual hours of peak hour excessive delay per capita in Reno Metropolitan (Reno PHED per Capita (Annual hours)]

(See: "Measurement and supporting data" below for definitions of these performance measures.)

Current and Ultimate Targets:

2023 Reporting Period - Calendar Year	Current Targets	Ultimate Targets
Interstate TTR	≥ 87.1%	≥ 87.2%
Non-Interstate NHS TTR	≥ 87.1%	≥ 87.4%
Interstate Truck TTR Index	≤ 1.25	≤ 1.24
Las Vegas non-SOV Travel	≥ 21.7%	≥ 21.8%
Las Vegas PHED Per Capita (Annual Hours)	≤ 10.0	≤ 9.8
Reno non-SOV Travel	≥ 23.1%	≥ 23.2%
Reno PHED Per Capita (Annual Hours)	≤ 11.0	≤ 9.6

Performance Champion/Division:

Traffic Operations

Support Divisions:

Roadway Systems

Performance Analysis

Overview and Plan Support:

NDOT in coordination with the Federal Highway Administration (FHWA) and the Metropolitan Planning Organizations (MPO's), selected these performance measures to align with the US DOT's Infrastructure Investment and Jobs Act (IIJA) passed by Congress on November 15, 2021, the Fixing America's Surface Transportation (FAST) Act passed by Congress on December 4 , 2015, the Moving Ahead for Progress in the 21st Century (MAP-21) Act passed by Congress on July 6, 2012, and the Department's Transportation Systems Management and Operations (TSMO) Program Plan executed on May 13, 2020. To assist in this analysis, the Department leverages the Regional Integrated Transportation Information System (RITIS) to analyze the federal National Performance Management Research Data Set (NPMRDS), as well as INRIX data obtained from mobile phone devices, connected vehicles, portable navigation devices, and on-board fleet management systems. Moreover, the measures described herein are an indication of the level of efficiency of Nevada's state-maintained transportation system.

Measurement and Supporting Data:

The following are simplified definitions for the performance measures utilized to evaluate the mobility and reliability of Nevada's state-maintained transportation system.

Interstate Travel Time Reliability (Interstate TTR) Measure

Interstate TTR is the percentage of total roadway segments, weighted by the roadway length, the annual average number of daily trips (AADT), and average number of persons in a vehicle (vehicle occupancy), that are reliable over a given year. A trip is considered reliable by the US DOT if the travel time is below 1.5 times the 50th percentile for a given evaluation period (morning, afternoon, evening, and weekend). If the 80th percentile or more of trips through a roadway segment in all evaluation periods are found to be reliable, the roadway segment is considered reliable.

Non-Interstate Travel Time Reliability (non-Interstate TTR) Measure

Non-Interstate TTR is the percentage of person-miles traveled on non-interstate segments of the National Highway System (NHS) that are reliable. This measure is used and calculated in the same manner as Interstate TTR with the exception that all calculations are specific to non-interstate segments on the NHS.

Freight Reliability (Interstate Truck TTR Index) Measure

The Interstate Truck TTR Index is calculated as an index to assess the reliability of travel time for freight trucks on the interstate system. To determine the reliability of an individual segment, the Truck Travel Time Reliability (TTTR) is calculated as the ratio of the "longer travel" time (95th percentile) to the "normal" travel time (50th percentile). The TTTR's of interstate segments are then used to calculate the TTTR Index for the entire interstate system using a weighted aggregate calculation for the worst performing times of each segment.

Reno and Las Vegas Non-single Occupancy Vehicle (non-SOV) Travel Measure

Non-SOV Travel is the percentage of the population in urbanized areas that are commuting to work by means other than utilizing a single occupancy vehicle, such as carpool, van, public transportation, commuter rail, walking, or bicycling, as well as telecommuting. The percentage of non-SOV Travel was obtained in coordination with the Northern and Southern Regional Transportation Commission utilizing the American Community Survey (ACS) Commuting (Journey to Work) data from the U.S. Census Bureau.

Reno and Las Vegas Peak Hour Excessive Delay (PHED) Measure

PHED indicates the annual hours of excessive delay per capita. Excessive delay is defined as the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. For the purposes of this rule, the speed threshold is 20 miles per hour (mph) or 60 percent of the posted speed limit for each segment, whichever is greater during 15-minute intervals. The total excessive delay metric is also weighted by vehicle volumes and occupancy. For Nevada specific calculation purposes, the peak traffic periods are defined as weekday mornings from 6 a.m. to 10 a.m. and 3 p.m. to 7 p.m. for weekday afternoons.

The table below depicts the results of the performance measures up to the current 2023 reporting period.

Reporting Period - Calendar Year	2017	2018	2019	2020	2021	2022	2023	Current Target
Interstate TTR	86.8%	87.0%	85.1%	94.4%	88.9%	89.0%	85.1%	≥ 87.1%
Non-Interstate NHS TTR	86.8%	86.3%	86.8%	92.4%	93.1%	93.7%	90.1%	≥ 87.1%
Interstate Truck TTR (Index)	n/a	1.27	1.28	1.23	1.26	1.32	1.30	≤ 1.25
Las Vegas non-SOV Travel	21.5%	21.3%	21.4%	21.5%	22.5%	31.8%	25.6%	≥ 21.7%
Las Vegas PHED Per Capita (Annual hrs.)	11.0	11.6	7.4	4.6	9.1	7.6	12.5	≤ 10.0
Reno non-SOV Travel	n/a	n/a	n/a	n/a	n/a	32.2%	30.7%	≥ 23.1%
Reno PHED Per Capita (Annual hours)	n/a	n/a	n/a	n/a	n/a	8.2	11.2	≤ 11.0

EVALUATION OF PERFORMANCE MEASURE

Annual Target Met?

The Interstate TTR, Interstate Truck TTR Index, LV PHED, and Reno PHED metrics were not met. This is primarily due to the delay resulting from construction projects, special events, weather events, and traffic incidents occurring in the Reno and Las Vegas metropolitan areas.

Which Strategies Were in Place During the Current Data Reporting Period?

NDOT has several programs, which aim to improve system reliability by mitigating recurring and non-recurring congestion, improving traffic safety, and reducing secondary incidents. These programs include:

- The Towing & Recovery Incentive Program (TRIP) facilitates the safe and quick clearance of commercial vehicle crashes and large vehicle incidents through the improvement of towing standards, procedures, and training. This Program will improve incident management while building a mutually beneficial relationship within the towing community by making it more profitable for them to meet quick clearance goals.
- The Reno and Las Vegas Freeway Service Patrol (FSP) Program improves safety and reliability on the freeway systems by removing crashed or disabled vehicles from travel lanes and promptly restoring traffic congestion to normal traffic flows.
- The Emergency Response Hazmat Program improves reliability on all state-maintained roadways by quickly and safely mitigating hazardous spills impacting travel lanes.
- The 511 Advanced Traveler Information System (ATIS) improves reliability on all state-maintained roadways by informing motorists of real-time traffic conditions, which enables users to make informed and reliable trip decisions.
- The Traffic Incident Management (TIM) Program is a planned and coordinated process by various public agencies and private sector partners to detect, respond to, and remove traffic incidents to restore traffic capacity as safely and quickly as possible. The Nevada TIM Coalition provides a forum for discussions, incident debriefings, state and regional policies and procedures to enhance coordinated response times for safe, quick removal of incidents from the roadway.
- The Department has an interlocal agreement with the Regional Transportation Commission of Southern Nevada (RTC-SNV) to manage the Freeway and Arterial Systems of Transportation (FAST) Traffic Management Center (TMC), which operates and maintains both the Las Vegas arterials and the freeway networks from one centralized facility that is co-located with the FAST Division of RTC-SNV, the Highway Patrol Division of Nevada State Police, and the Highway Patrol Dispatch Division of the Department of

Public Safety. In addition, NDOT's Active Traffic Management (ATM) System, which is operated by FAST TMC personnel, provides the ability to dynamically manage congestion based on prevailing and predicted traffic conditions along the I-15 and US-95 freeway corridors.

- The I-80 Multi-State Corridor Operation and Maintenance (MCOM) Program is a multistate partnership led by NDOT and includes state DOTs in California, Utah, Wyoming, and Nebraska (I-80 Winter Operations Coalition). The Coalition was initiated in 2010 by NDOT to bring state DOTs together to collaborate on strategies to improve I-80 corridor operations and responses to winter weather events. The Coalition collaborates with State DOTs, safety and technology experts, communications specialists, and trucking industry representatives to develop strategies that improve the safety, mobility, and consistency of travel and the movement of freight along I-80 during the winter months.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

- The Towing & Recovery Incentive Program started in December 2023, and there were three TRIP activations recorded for the reporting period. The TRIP activations resulted in an average response time of 47.8 minutes and an average clearance time of 34.7 minutes.
- The Reno and Las Vegas FSP Program improved reliability on the interstate by mitigating 53,635 roadway incidents such as crashes, disabled and abandoned vehicles, roadway debris, providing incident scene safety, and addressing other situations that disrupt traffic flows. The number of incidents increased by over 4,000 from 2022 levels.
- The 511 ATIS had 4,323,301 sessions on the NVRoads website and 135,548 calls to the 511NV Interactive Voice Recognition (IVR) system. Both amounts have increased dramatically since the previous year.
- The Statewide Hazmat Emergency Response Program improved reliability by mitigating 32 roadway-related hazardous material incidents ranging from diesel spills, biohazardous releases, illegal dump and/or spill removals, and addressing other hazmat situations that the Department does not have the manpower and expertise to perform.
- Nevada ranked 8th in the nation for the percentage of first responders trained in Strategic Highway Research Program 2 (SHRP2) TIM training. The first responders trained included law enforcement, fire/rescue, towing and recovery, EMS, and transportation/public works. Moreover, the number of first responders trained in Nevada is 6,424, which amounts to approximately 75% trained. In 2023, a new TIM coalition was started in Carson City. The other existing coalitions are in Winnemucca, Elko, Ely, Tonopah, Las Vegas, and Reno.
- The FAST TMC provides traffic alerts via #FASTAlert on Twitter, Freeway Traffic Alerts (via text messages

and e-mail distributions), and Waze. These messages include crash information, travel times, construction alerts, weather alerts, and special event details. In 2023, more than 10,854 messages were sent out via text message, email distribution, and Waze. The FAST TMC also assisted in proactively managing 11,402 traffic incidents in Clark County, which included 154 secondary incidents.

- The I-80 Winter Operations Coalition held several webinars and a virtual joint summit with the I-15 Mobility Alliance in December 2023. There was interest and support for continuing to coordinate between these two NDOT-led multi-state groups. Moving forward, NDOT may pursue joint summits with other multi-state coalitions, such as the Northwest Passage and the I-35 Corridor Coalition.

Which Strategies Were Not Successful and Why?

All strategies were successful.

Strategies for Improvement Planned for Next Reporting Period

Short-term Strategies

- The TIM Coalition will conduct its annual training and crash demonstration at the Nevada Safety Summit from November 12th to 14th, 2024, and for the first time, conduct a Rural Safety Summit on July 16th and 17th, 2024. The crash demonstration features real crashed vehicles, and volunteer victim actors that allow first responders to demonstrate how they conduct incident management in the field. For the 2024 Crash Responder Safety Week (CRSW), NDOT will again request the Governor's proclamation and work with our partners for various media blasts.
- NDOT kicked off an Automated Vehicle Location and Telematic System (AVLTS) project, which will equip the NDOT vehicles with AVLTS technology. Although the Department is currently determining what data it will track and keep, it is anticipated that the system will aid the Department in monitoring vehicle maintenance and safety aspects in operating the fleet. The project also includes automated Driver Vehicle Inspection Reports (DVIR) for Commercial Driver's License (CDL) operated vehicles. Other possibilities include some public-facing features for the snowplows through the 511 ATIS. The feature will provide snowplow video and automatic vehicle location (AVL) to enable users to know the status of the snow plowing efforts during inclement weather and be able to visually confirm road conditions. The AVLTS is expected to be operational by the 2024 Winter season.
- NDOT applied for SMART Grant funding to develop a data standardization roadmap leading to the creation of a data exchange that can be used by the I-80 Coalition, a multistate partnership that includes 11 states from California to New Jersey and additional partners along the I-35 corridor. The I-80 corridor can better service the public through improved and coordinated data sharing and

operations to address congestion, safety, global competitiveness, and national security. Improving interoperability along this corridor will be essential to achieving these goals.

Long-term Strategies

- NDOT is designing a Truck Parking Availability System (TPAS) that will allow truck drivers to see parking availability in the 511 ATIS. The concept of operations is currently under development and the implementation date is yet to be determined.
- NDOT developed a Statewide ITS & ATM Master Plan recognizing there is a need to leverage resources and capabilities through the application of a wide range of strategies to improve the safety, reliability, mobility, and overall performance of Nevada's surface transportation system. The ITS & ATM Master Plan outlines future ITS and ATM strategies to advance NDOT's capabilities to provide NDOT with a clear understanding of how to plan for, implement, operate, and maintain ITS & ATM strategies at a statewide level.
- NDOT's TSMO Program Plan optimizes the deployment of non-capacity improvement projects by implementing performance-based metrics and strategically prioritizing them. The program builds on a performance-based planning approach for the management and operations of the transportation system and introduces cost-effective solutions to maximize the efficiency of the existing system by addressing the end-user needs.

Does This Performance Measure Effectively Measure What Is Desired?

Yes. The measures effectively measure the reliability of the transportation system and align with FHWA MAP-21 performance measures allowing for consistency across the nation.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes. These measures indicate how successful program strategies have improved the mobility and reliability of the transportation system.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes, the targets cannot be me57t without the aid of the program strategies described above, such as FSP, TIM, Hazmat, 511 ATIS, ATM, HOV, TRIP, and TSMO. Each program strategy plays a vital role in meeting the performance targets. NDOT also needs to continue providing access to software programs such as RITIS and purchasing traffic data.

Next Year's Target:

2024 Reporting Period - Calendar Year	Target
Interstate TTR	≥ 87.1%
Non-Interstate NHS TTR	≥ 87.1%
Interstate Truck TTR (Index)	≤ 1.25
Las Vegas non-SOV Travel	≥ 21.7%
Las Vegas PHED Per Capita (Annual hours)	≤ 10.0
Reno non-SOV Travel	≥ 23.1%
Reno PHED Per Capita (Annual hours)	≤ 11.0

7. Streamline Project Delivery - Bidding to Construction Completion

PERFORMANCE MEASURE:

Schedule and estimate from award opening to construction completion in state fiscal year 2024 (July 1, 2023 to June 30, 2024).

Budget Measure = Percentage of completed contracts within 10% of original programmed budget.

Schedule Measure = Percentage of completed contracts within 10% of original assigned working days.

Change Order Measure = Percentage of completed contracts with a cost increase of less than 3% in Change Orders.

Current Year Target:

80% of completed contracts within budget and schedule. Projects were evaluated and met the measure if they were under 110% of the original programmed budget and schedule. 80% of completed contracts with cost increases under 3% due to Change Orders.

Ultimate Target:

80% of completed project contracts within budget measure, schedule measure, and Change Order measures.

Performance Champion/Division:

Construction Division

Support Divisions:

Engineering Divisions (Project Management; Environmental; Right-Of-Way; Location; Roadway Design; Structures; Hydraulics)
Operation Divisions (Materials; Traffic Operations; Maintenance and Asset Management; District 1; 2; 3)

Overview and Plan Support:

This performance measure aligns with two goals of the NDOT Strategic Plan:
(1) Improve Safety for the Traveling Public and NDOT workforce. This goal concentrates on implementing targeted safety measures for infrastructure and the NDOT workforce to reduce crashes and enhance safety

(2) Optimize Mobility. This goal centers on implementing initiatives aimed at bolstering overall system efficiency for all users. It encompasses infrastructure and non-infrastructure projects and integrates efficiency measures, operational enhancements, and advanced technologies.

Measurement and Supporting Data:

FY24	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly Totals
Number of Completed Contracts	9	9	15	15	48
Percentage of Completed Contracts Within 10% of Original Programmed Budget	89%	100%	93%	100%	96%
Percentage of Completed Contracts Within 10% of Original Assigned Working Days	100%	100%	100%	93%	98%
Percentage of Completed Contracts with a Cost Increase of Less Than 3% in Change Orders	78%	56%	93%	67%	75%

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Budget Measure - Yes

Schedule Measure - Yes

Change Order Measure – No

Which Strategies Applied During the Current Data Reporting Period Were Successful?

1) Thorough plan and specification review process to ensure intent is clear and contract documents provide for the highest quality possible for each construction project.
2) Consultation with Supporting Divisions to ensure proper scope and specifications are incorporated.
3) Budgets are developed and tracked closely to ensure fiscal responsibility.
4) Contract schedules are developed to complete the contract work with minimal impacts to traffic and public and providing adequate time for the contractor to provide a quality job.
5) Bid Review Analysis Team performs an in-depth analysis of every contract bid to identify potential quantity or plan errors and potential vague or conflicting specifications.
6) Detailed tracking of quantities during construction for accurate payment.
7) Change Order review process in place to ensure a detailed analysis and well documented accounting of changes to the contract.

Which Strategies Were Not Successful and Why?

None. Strategies will be continually monitored and revised as necessary to improve.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

Continued coordination during project development to ensure quality plans, specifications, and accurate quantities are produced for every construction project.

Long-term Strategies

Continue to strive to meet the 80% of completed contracts with a cost increase of less than 6% in Change Orders. Review of Change Order measure and completed contracts to better identify specific areas that may need improvement. Review of the specific Divisions/Districts requesting the Change Orders and identify areas for improvement. Review strategies and refine if necessary.

Does This Performance Measure Effectively Measure What Is Desired?

Yes. It assists in determining ongoing efforts and is effective and an appropriate approach to evaluating the data. The data demonstrates the Department's overall construction program performs at or above performance measures and is a strong indicator of the success of the overall program.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes. The performance measures will demonstrate if there are issues within areas of the program, which would need to be addressed and works towards meeting the goals of the Nevada Department of Transportations' Strategic Plan.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No. The continued evaluation of these measures will be monitored as there have been a significant number of promotions and changes to personnel in many Divisions, as well as retirements and therefore the Department has many vacant positions, which may reflect in future evaluations.

Has The Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

No.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes. By continually improving and striving to reach the goal of 80% of completed contracts with a cost increase of less than 3% in Change Orders will directly relate to additional available funding for future projects.

Next Year's Target:

80% of projects within Budget Measure, Schedule Measure, and Change Order Measure

8. Maintain State Highway Pavement

PERFORMANCE MEASURE:

Percentage of state-maintained roadways in "fair or better" condition.

Current Year Target:

Category 1: 95% Minimum "fair or better" condition

Category 2: 90% Minimum "fair or better" condition

Category 3: 85% Minimum "fair or better" condition

Category 4: 75% Minimum "fair or better" condition

Category 5: 50% Minimum "fair or better" condition

Ultimate Target:

Perform annual preservation as necessary to maintain the condition of the roadway network in conformance with the established goals and additional preservation as necessary to eliminate the accumulated backlog.

Performance Champion/Division:

Materials

Support Divisions:

Maintenance and Asset Management

Overview and Plan Support:

This performance measure supports the Department's Mission to effectively preserve and maintain NDOT's pavement assets. For the Department to maintain the roadway network in "fair or better" condition, maintenance and preservation work is performed on the roadways each year. To increase the percentage of pavements in "fair or better" condition, this work must be constructed on all roads faster than the rate of deterioration of the pavement.

The Department's Pavement Management System (PMS) assists NDOT with maintaining and improving the condition of the entire state-maintained roadway network. This network consists of a 5,396-centerline mile (13,810 lane mile) inventory that is classified into five separate road prioritization categories. These road categories are primarily based on average daily traffic (ADT) and federal guidelines for highway classification descriptions. Because traffic levels are a primary input in pavement design, each road prioritization category consists of pavements that share similar rates of deterioration and require similar timing for maintenance and preservation repair work.

NDOT uses a pavement condition rating system called the Present Serviceability Index (PSI) to objectively measure important roadway attributes such as travelers' responses to motion and appearance as demonstrated by a smooth riding surface that is without cracking, rutting, patching, or potholes. The PSI pavement condition rating system uses a value that is calculated using pavement roughness measurements and mathematical formulas that quantify pavement distresses such as cracking and rutting. These measurements and formulas are combined and standardized into an objective rating scale numbered from zero to five. Pavement rated from four to five is interpreted as pavement in new or very good condition with a smooth surface that is without distress or irregularities. Pavement rated less than three is interpreted as pavement in very poor or failed condition with the roughest of surface conditions and no longer navigable at the posted speed limit. The PSI pavement condition rating system is used to quantify the pavement condition for each road within the state-maintained roadway network.

Funding for improvements is generally administered as part of either the Pavement Maintenance Program (PMP) or Pavement Improvement Program (PIP). PMP funds are typically used for traditional maintenance work such as chip seals, filling potholes and patching. PIP funds are typically used for repair strategies often classified elsewhere as rehabilitation - such as asphalt overlays, mill and fills, and recycling methods. The cost and construction timing for the various repair strategies are significantly different and contingent on the pavement condition at the time of the repair. There is a significant cost savings when pavement is proactively rehabilitated in fair condition as compared to reactively reconstructed in very poor condition.

Measurement and Supporting Data:

Current Pavement Condition of the State-Maintained Road Network

Each category of road has a pavement condition minimum "fair or better" target that represents a reasonable condition in which the road should be maintained. It also represents a balance between condition and expense. Smoother roads in better condition are generally less expensive to maintain and rehabilitate. However, when roads become rough, cracked, or rutted, more money must be spent to bring them back to acceptable condition.

Table 1 shows the current condition of the roadway network for which NDOT is responsible, along with the annual targets that have been established for the condition of the roads. For the 2023 data collection period, the NDOT pavement management system contains 5,230 centerline miles (13,441 lane miles) that were surveyed and are reported on in this table. Most of the un-surveyed network consists of dirt/aggregate surfaced routes and roadway segments under construction during the time the data was collected. The active construction zones are also largely responsible for the yearly variability in the size of the surveyed network.

Table 1. Pavement Condition versus Annual Target by Road Category

PSI Condition by Road Prioritization Category Percent (%) and Number of Miles

Condition	PSI Rating Scale	Road Category 1	Road Category 2	Road Category 3	Road Category 4	Road Category 5	Road Network Totals
Very Good	5.00 to 4.00	64.5%	42.4%	27.6%	7.2%	2.3%	24.1%
		425.6	437.8	299.3	58.8	37.9	1,259
Good	3.99 to 3.50	22.2%	32.5%	36.0%	30.3%	10.2%	24.6%
		146.1	335.2	390.7	248.7	166.4	1,287
Fair	3.49 to 3.00	8.8%	15.6%	22.3%	36.1%	29.5%	23.7%
		58.1	161.4	241.8	296.2	481.0	1,239
Below Fair	< 3.00	4.5%	9.5%	14.2%	26.5%	58.0%	27.6%
		29.6	97.6	154.2	217.2	946.2	1,445
Total Miles:		660	1,032	1,086	821	1,632	5,230
Condition Goal: Percent "Fair or Better"		95%	90%	85%	75%	50%	
Current Condition: Percent "Fair or Better"		**95.5%**	**90.5%**	**85.8%**	**73.5%**	**42.0%**	72.4%
Condition Goal Met?		Yes	Yes	Yes	No	No	

Figure 1 further illustrates the relative performance of the pavements for each road category. Each successive category has generally less very good and good roads, and generally more roads below fair, even when the overall percent for "fair or better" is similar. For instance, while the performance of Category 1 relative to the "fair or better" target is only about 5% higher than that for Category 2, the percent for Category 1 in the very good range (psi>=4.0) is more than 50% higher than the similar percent for Category 2. This relative performance is the expected result of prioritizing spending on roads in higher categories.

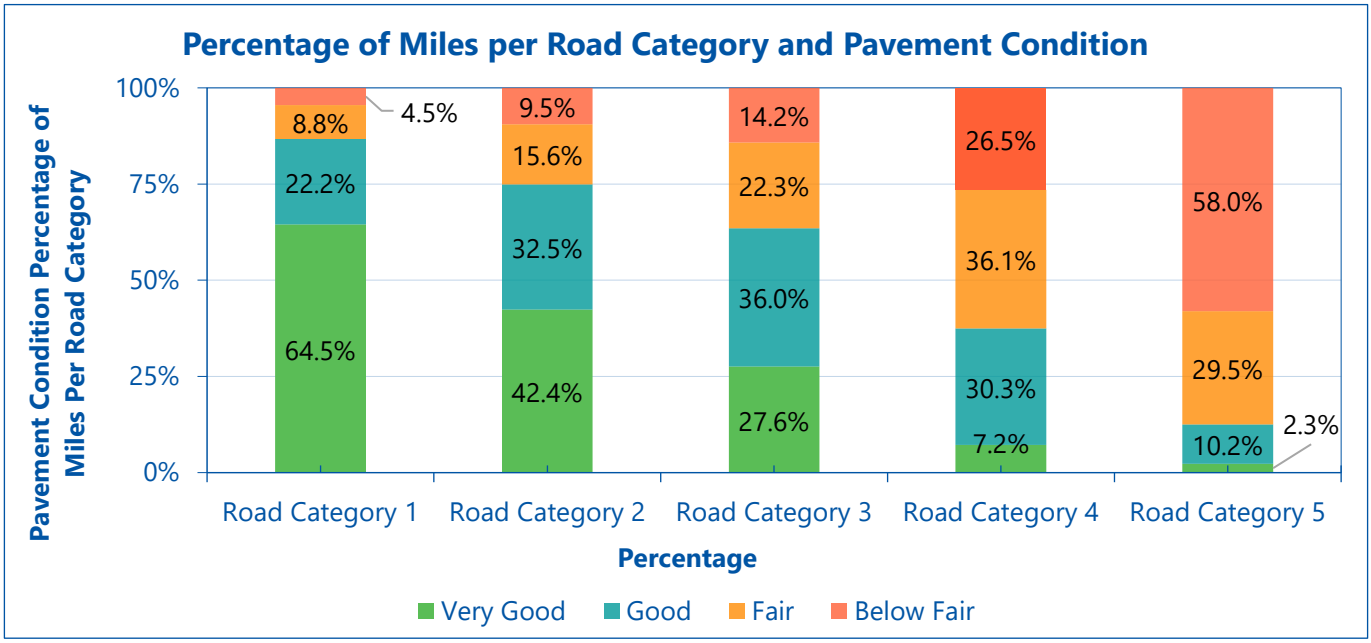


Figure 1. Percentage of Miles per Road Category and Pavement Condition

Figure 2 shows the reported performance of each category for the last five years. The established target for each category is shown as a blue line. In the last five years, the network has gone from having only two categories meet performance targets, up to having four categories meeting targets, and back down to only three meeting targets. Category 5 has begun to improve because of the increased effort to bring this category up to target levels.

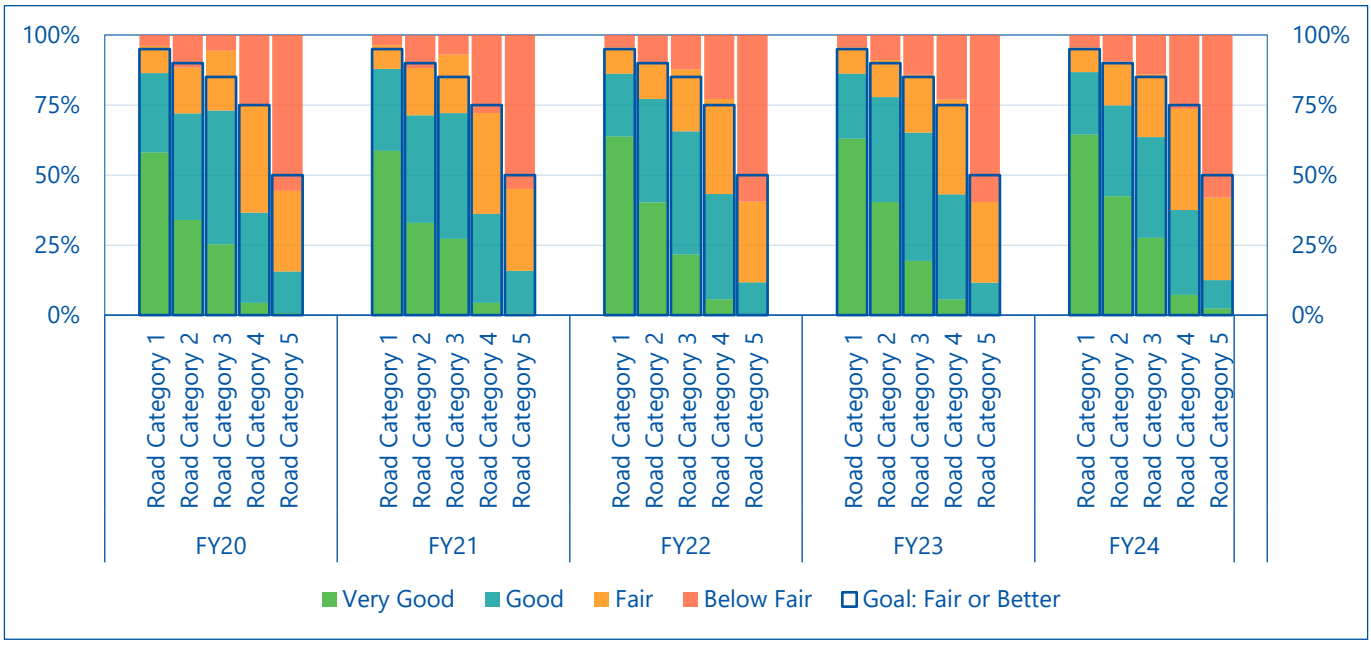


Figure 2. Pavement Condition Performance Trends by Road Category

Pavement Preservation Repair Work for the State-Maintained Road Network

During state fiscal year 2024, NDOT advertised approximately $177,457,295 worth of contract maintenance and preservation pavement repair work. These expenditures addressed the needs for approximately 262 centerline miles (600 lane miles) of roads. TABLE 2 contains a financial summary of the advertised maintenance and preservation pavement repair work that was accomplished on the state-maintained roadway network during state fiscal year 2024 along with the corresponding amount of mileage that was improved.

Table 2. Advertised Pavement Repair Work for State Fiscal Year 2024

State Fiscal Year 2023	Contract Values ($)		Centerline Miles	Lane Miles
Contract Maintenance Repair Work Expenditure and Mileage	$ 30,198,276		202	427
Contract Preservation Repair Work and Expenditure and Mileage	$ 147,259,019		60	173
Contract Maintenance and Preservation Repair Work Expenditure and Mileage	$ 177,457,295		262	600

Future Pavement Needs

Keeping the pavement network maintained at an acceptable level requires consistent funding and proper project selection. Table 3 shows the performance of the network relative to target for different areas of the State. Additionally, it shows the distribution of preservation funding necessary to either maintain the network at target levels where it currently meets them (identified with green) or bring the network up to the target level within five years where it does not (identified with pink).

The differences identified in the Table 3 show that project needs are different across the State. Washoe and Clark Counties – where the population is most concentrated – have relatively more Category 1 and 2 roadways, which are in relatively worse condition compared to the rest of the State. As a result, these two counties have just under 30 percent of the lane miles but require nearly half of the funding.

Table 3 also highlights the need for consistent investment in the entire state road network – even in those areas where the pavement is currently performing at a relatively high level. The continuous preservation effort is necessary to ensure that the network does not fall below the targets in the future.

Table 3. Project and Funding Distribution to Meet Targets

County	Category	Lane Miles	Performance Target	Performance FY23	Yearly Lane Miles	Yearly Cost ($M)
CL	1	1,104	95%	**93.6%**	76.9	32.5
CL	2	1,305	90%	**81.2%**	65.1	32.5
CL	3	230	85%	**78.3%**	10.7	4.2
CL	4	182	75%	**58.0%**	11.9	3.2
CL	5	135	50%	**24.9%**	10.0	1.5
CL	All	**2,955**			**174.6**	**73.9**
	% of Total	22.0%				35.8%
WA	1	408	95%	**86.1%**	33.4	14.1
WA	2	283	90%	**85.2%**	11.8	5.9
WA	3	139	85%	**81.9%**	5.5	2.1
WA	4	132	75%	**69.1%**	5.7	1.5
WA	5	133	50%	**42.1%**	5.3	0.8
WA	All	**1,095**			**61.7**	**24.5**
	% of Total	8.1%				11.9%
All Others	1	1,501	95%	**98.7%**	94.5	39.9
All Others	2	1,667	90%	**95.0%**	37.1	18.5
All Others	3	1,890	85%	**86.7%**	56.6	22.1
All Others	4	1,332	75%	**76.1%**	38.7	10.4
All Others	5	3,002	50%	**42.7%**	115.3	17.3
All Others	All	**9,391**			**342.2**	**108.3**
	% of Total	69.9%				52.4%
Total	All	**13,441**			**578.5**	**206.7**

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

The annual target was met for roads in Categories 1, 2, and 3. Categories 4 and 5 did not meet the targets.

Which Strategies Were in Place During the Current Data Reporting Period?

- Continue additional investment in Category 5 roads until targets are met.
- Incorporate the expected performance of candidate projects with respect to these performance measures directly into the project selection process.
- Monitor and evaluate the performance of the network with respect to the targets and distribute projects as necessary to keep it performing at the desired level.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

- Continue additional investment in Category 5 roads until targets are met.

  The current data shows improvement in category 5 roads. Additional projects are planned that should allow the improvement trend to continue.

- Incorporate the expected performance of candidate projects with respect to these performance measures directly into the project selection process.

  The expected impact on this performance measure is one of the primary considerations used to develop the list of proposed PIP and PMP projects each cycle. The data for any performance period will not include improvements from projects proposed during the period. Changes are typically due to projects developed two to three periods earlier.

- Monitor and evaluate the performance of the network with respect to the targets and distribute projects as necessary to keep it performing at the desired level.

  Even though recent spending on maintenance, preservation, rehabilitation, and reconstruction has not been at the levels projected to be necessary to maintain performance at target levels, Categories 1 through 3 are still performing above target, and Category 5 is showing improvement.

Which Strategies Were Not Successful and Why?

All of the strategies were successful. Pavement projects take several years from conception to completion, and the effectiveness of long- term strategies will not be evident until completion of the projects that originated after these strategies were implemented.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

- Continue additional investment in Category 5 roads until targets are met.
- Provide additional projects for Category 4 roads to stop the decreasing performance trend.

Long-term Strategies

- Incorporate the expected performance of candidate projects with respect to these performance measures directly into the project selection process. The development and implementation of the NDOT Enterprise Asset Management System should allow future expected performance to be more easily established and usable for project selection.
- Monitor and evaluate the performance of the network with respect to the targets and distribute projects as necessary to keep it performing at the desired level.

To keep the network performing at the targeted levels, the targets themselves, and the network performance relative to them, must be used to help guide the project selection process. These goals are a continuation of previous long-term goals, which have not been in place long enough to be fully incorporated into the project selection processes.

Does This Performance Measure Effectively Measure What Is Desired?

Yes. Based on the deterioration rates of state-maintained roadways, the annual and ultimate targets represent what is realistic, cost effective and acceptable.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes. Monitoring and evaluating the pavements with respect to these metrics is necessary to determine the effectiveness of the performed rehabilitation and maintenance. Only through the evaluation can progress be determined.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

Other performance measures exist and have been investigated by the Department. This measure accurately portrays the experience of the traveling public and what condition is reasonable for the roadway network.

Has The Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

The ability to collect and process the data used for this performance measure continues to be hampered by the hiring difficulties that started during the pandemic. This does not directly affect the performance measure, but does affect the ability to monitor it and evaluate progress.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes. Meeting these targets requires significant and continual spending on maintenance and preservation projects. However, this can be weighed against the results of underfunding the annual needs of the system, which will lead to an increased deterioration of the entire roadway network.

Proactively applying maintenance and preservation strategies to the state-maintained roadway network can extend pavement service life and reduce costly reconstruction projects that not only impact the Department's budget but also impact the traveling public for longer periods of time due to construction projects that take longer to complete.

Next Year's Target:

The targets for next period are unchanged from the previous reporting period:

Category 1: 95% Minimum "fair or better" condition

Category 2: 90% Minimum "fair or better" condition

Category 3: 85% Minimum "fair or better" condition

Category 4: 75% Minimum "fair or better" condition

Category 5: 50% Minimum "fair or better" condition

9. Maintain NDOT Fleet

PERFORMANCE MEASURE:

There are two performance measures for the maintenance of the Department's fleet of mobile equipment:

1) Percentage of fleet requiring replacement.

   This measure is the percentage of the fleet that has reached the age or mileage that has been established for replacement.

   A lower percent is desired, indicating the fleet is being replaced in a timely manner and expensive rebuilds and breakdown repairs are being avoided.

2) Percentage of fleet that complies with scheduled maintenance requirements.

   This measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements. Preventive maintenance allows the vehicle to perform over expected life without breakdown. As the fleet is maintained per the manufacturer's recommendations based on mileage or accrued hours of operation, compliance is achieved.

   A higher percent is desired, indicating the fleet is being maintained as recommended to gain the maximum performance life.

Current and Ultimate Targets:

FY24 Reporting Period	Current Target	Ultimate Target
Fleet Requiring Replacement (%)	Decrease of 1% per year	10% maximum
Fleet Meeting Maintenance Requirements (%)	Increase of 1% per year	95% minimum

Performance Champion/Division:

Equipment Division

Supporting Divisions:

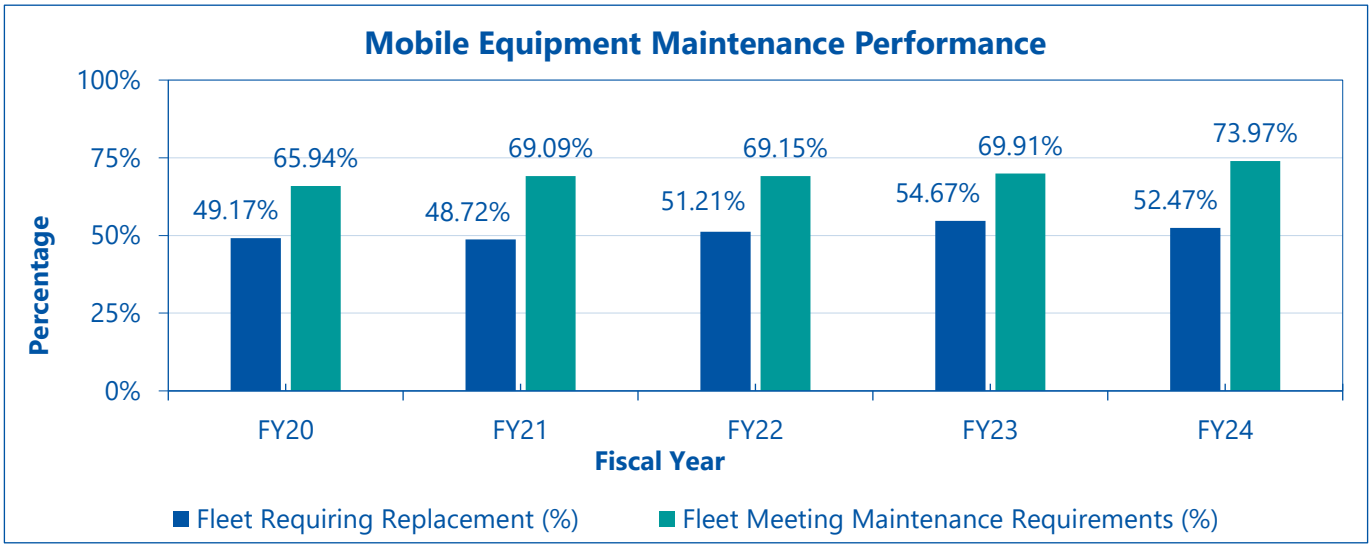
Districts 1, 2, and 3 support both performance measures by performing scheduled vehicle preventive maintenance at their repair facilities.

Overview and Plan Support:

In the state fiscal year 2024, the Equipment Division continued to purchase new replacement equipment based on funding. The Rebuild Program will be continued on a limited basis for specialty equipment. The

Rebuild program was initiated in 2010 due to lack of funding for replacement equipment. This program extends the life of specified equipment that has reached or exceeded replacement criteria and is rebuilt to like-new condition, which assists in assuring that NDOT is adequately equipped for its work efforts in maintaining public safety.

The vehicles in the fleet are important to deliver projects, operate, and maintain a safe highway system. These performance measures help ensure the equipment is in good condition and helps meet NDOT's Mission, Vision, Core Values, and Goals.



Supporting Data:

State Fiscal Year	FY20	FY21	FY22	FY23	FY24	Current Target
Fleet Requiring Replacement	49.17%	48.72%	51.21%	54.67%	52.47%	
Change from Previous Year	-4.24%	-0.45%	2.49%	3.46%	-2.20%	Decrease of 1% per year
Fleet Meeting Maintenance Requirements	65.94%	69.09%	69.15%	69.91%	73.97%	
Change from Previous Year	2.31%	3.15%	0.06%	0.76%	4.06%	Increase of 1% per year

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met

1) Yes. funding to replace units that meet replacement criteria is enough to keep the fleet current.

Fleet Requiring Replacement

	FY23	FY24
	As of 7/1/2023	As of 7/1/2024
Total NDOT Fleet (unit)	2,738	2,790
Vehicles Meeting Age and Use Replacement Criteria (unit)	1,497	1,467
Requiring Replacement	54.67%	52.47%

During state fiscal year 2023, 121 units were replaced; however, during this same period, 99 different units met the age and use criteria and require replacement. The fleet is aging, and with the current funding levels, NDOT is barely keeping up with little progress toward the ultimate performance measure. Based on age and current use/mileage projections, more than half the fleet meets replacement criteria in state fiscal year 2023.

2) Yes. This target is calculated in whole at the end of the fiscal Year. The Department, as a whole, was able to increase Maintenance Requirements by 4.06%. This is due in part to outsourcing light duty equipment for PM Services. The FY24 Equipment Division Operations Audit confirmed shops are using outsourcing more than previously to increase the percent. NDOT has been able to increase the Fleet Service Work position statewide but continues to struggle in rural area with hiring and keeping employees. The FY24 audit identifies that rural areas in the private sector are also facing staffing shortages. NDOT is project to stay at the current percent in the next quarter. Currently, there are five vacant Fleet Service Worker positions statewide. It is hopeful the additional pay increases will create longevity. During the FY24 Audit shops report is still difficult to get the vehicles and equipment from the Crews to service on time.

Which Strategies Were in Place During the Data Reporting Period?

1) Fleet requiring replacement
   a. Revise replacement criteria by increasing usage criteria in selected class code. Improved technology has created longer lasting vehicles. Usage criteria was increased for sedans, SUVs, pick-ups, 1-ton trucks, most trailers, street sweepers, excavators, and snow cats based on OEM.
   b. Increase age criteria in other specified class codes. Selective replacement based on condition and usage that meet one of the replacement criteria. For example, a vehicle meeting both criteria may still have a useful life. Also, a vehicle meeting one replacement criteria may be replaced based on high maintenance cost.
   c. Focus on vehicles with the most need to be replaced instead of criterial alone. This will allow vehicles with high maintenance costs, high miles, and excessive age to be replaced. With the replacement of vehicles in MCCs with high number requiring replacement will decrease the replacement percent.

2) Fleet that complies with scheduled maintenance
    a. Analyze quarterly Preventive Maintenance (PM) that was accomplished on core fleet to identify non-compliance and make recommendations for vehicle maintenance.
    b. Outsource light duty vehicles for PM services to local shops and lube facilities. The shops will be responsible for servicing heavy equipment.
    c. Develop an enforceable policy for non-compliance of PM standards is still in development.

Which Strategies Were Successful?

All strategies were successful. While the percentage of fleet requiring replacement didn't decrease per the target, the trend is holding steady within 2%. Using the strategies indicates the fleet is being maintained as recommended to gain the maximum performance life.

Which Strategies Were Not Successful and Why?

All strategies were successful.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

1) Fleet requiring replacement
    a. Replace vehicles in the MCCs that have a high number of vehicles meeting replacement criteria and are deemed most critical to replace.
2) Fleet that complies with scheduled maintenance
    a. Continue to analyze quarterly Preventive Maintenance (PM) accomplished on core fleet.
    b. Continue to develop enforceable policy for non-compliance of PM standards.
    c. Outsource light duty vehicles while the shops focus on PM services of the heavy equipment.

Long-term Strategies

1) Fleet requiring replacement
    a. Maintain fleet size by usage assessments maximizes the usage of underutilized vehicles while minimizing the usage of overutilized vehicles.
    b. Move vehicles that are underutilized in a District or Crew to other Districts or Crews that has overutilized vehicles.
    c. Inquire through research to identify if certain fleet longevity can be extended to increase the current requirements.

2) Fleet that complies with scheduled maintenance
    a. Annual fleet condition audit will be performed by the Equipment Division, Highway Equipment Specialist to inspect and ensure compliance of the maintenance policy and procedures.
    b. Quarterly audit of PM service by each Repair Shop. Work directly with Repair Shop to utilize all resources available to them.
    c. Implementation of a Telematic System to record real time meter readings directly from vehicle to M5. This will eliminate entry errors at the pump and data entry errors. Project is near completion. However, it is under review for budget cuts that would be detrimental to the Department.
    d. Adjust the PM Maintenance Schedules to reflect OEM recommendations. This will extend our service intervals.
    e. Will implement changes to the Maintenance Repair Shops to be centralized instead of local. This will allow for a more controllable fleet maintenance program.
    f. Work with Districts to make Crew responsible to keeping their Units serviced within manufacture guidelines.

Does the Performance Measure Effectively Measure What Is Desired?

Yes

Does Monitoring and Evaluating This Performance Measure Improve Your Process?

Yes

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No

Has The Covid-19 Pandemic Affected Your Performance Measure or The Ability to Meet Your Targets? If so, Explain.

COVID has no effect on our performance measure unless funding for replacement equipment is cut.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

1) Percentage of fleet requiring replacement.
    Yes, meeting the target for replacing fleet will require a significant increase in the approved annual replacement budget. In order to reach the ultimate target of a maximum of 10% of the fleet requiring replacement, $160 million is needed. It is estimated to take 14 years with the current level of funding to reach this ultimate target. To reach this target in 8 years, NDOT will need $20 million/year for 8 years. This represents an annual increase of $12.5 million/year for 8 from our current annual budget of $7.5 million/year. This effort in FY24 has increased the replacement percent by 2.2%. However, replacement is still over 50% of the NDOT needs to be replaced. Continued funding is critical to meet Performance requirements.

10. Maintain NDOT Facilities

PERFORMANCE MEASURE:

NDOT buildings play a vital role in NDOT's Mission of operating a safe roadway transportation system. There are two performance measures for the maintenance of NDOT facilities.

1) Percentage of facilities with a current Facility Condition Assessment (FCA).

   State law requires state-owned facilities to be assessed periodically. NRS 341.128. By policy, NDOT does so on a seven-year cycle. This measure is the percentage of buildings that have a current FCA. On a seven-year cycle, Maintenance & Asset Management (M&AM) conducts FCAs, which are high-level assessments of the conditions of the buildings at all NDOT-owned sites. All structures observed during the FCA site visits are recorded in the buildings inventory. NDOT performs its own FCAs while State Public Works Division (SPWD) performs it for other public agencies.

2) Overall Condition Composite.

   This measure reports a composite figure, which represents the overall condition of NDOT buildings. The figure ranges from a minimum of 0 to a maximum of 1. A higher figure indicates a better average condition of NDOT's buildings than a lower figure. Please see the Overview and Plan Support section for a detailed explanation of how the figure is calculated.

Current Score and Ultimate Targets:

FY24 Reporting Period	Current Score	Ultimate Target
Current FCA	96.4%	100%
Overall Condition Composite	0.75	1.00

Performance Champion/Division:

Maintenance and Asset Management Division/Architecture Section

Support Divisions:

Districts, Right-Of-Way, Environmental

Overview and Plan Support:

The Maintenance and Asset Management Division (M&AM) maintains an inventory of buildings and building-like structures owned and operated by NDOT, excluding most leaseholds. The following categories of structures are excluded from this report:

- Leaseholds on private property where NDOT owns no title to the land and has no maintenance responsibility (e.g., an office lease in a privately-owned building)
- Building-like structures (e.g., shade ramadas, etc.)
- Non-building structures (e.g., wash pads, cutback oil tanks, etc.)
- Non-hazardous buildings and building-like structures with purely highway operations purposes (e.g. Boschung buildings, fiber huts, radio towers, etc.)
- Buildings of a minor nature that are not for occupancy (e.g., residential or other minor storage sheds, etc.); and
- Buildings less than 120 ft^2 in area that pose no operational risk of failure.

Trained teams with broad-based experience in inspection, engineering, and architecture are employed to conduct the FCA's. The ratings are generated through visual observation only, which is consistent with the intention that the FCA rates buildings at a high level. These teams rate each building for adequacy in 10 performance categories. For each performance category, the number of buildings with acceptable ratings is divided by the total number of applicable buildings within the category and the results are plotted as percents in Figure 1. The performance categories are:

1. **Accessibility –** The building, or applicable portion thereof, complies with accessibility codes. The rating is either "yes" (fully compliant with applicable accessibility code), or "no" (if there is any exception to full compliance). Facilities where construction commenced prior to January 26, 1992, are exempt from accessibility codes to the extent that they have not been altered after that date. Residences are exempt from accessibility codes. A higher percent indicates better average accessibility compliance.
2. **Painting –** The building exterior requires paint within the next three years. The rating is either "yes" (paint is required within three years), or "no". Buildings, which do not require paint on the exterior envelope are not rated. A higher percent indicates better average condition of paint.
3. **Roofing** – The building requires major maintenance or replacement to the roof within five years. The rating is either "yes" (major maintenance or replacement is required within five years), or "no". A higher percent indicates better average condition of roofs.
4. **Life-Safety –** The building has exit signs (if required), egress lighting, automatic fire suppression (if required), and a fire alarm/smoke detection system (as applicable). The rating is either "yes" (all applicable systems are installed and operational), or "no" (any applicable system is not present). A higher percent indicates a greater number of buildings have all required life-safety systems.

5. **Lighting and Electrical –** Rating of the overall condition of the building's lighting and electrical systems, excluding issues that are otherwise accounted for in Life-Safety and/or Energy Conservation (for example, egress lighting would be considered under Life-Safety rather than Lighting and Electrical). The rating is either "good" (no deficiencies noted, or minor deficiencies, which are easily correctable by the NDOT staff), "fair" (some deficiencies noted, which could require contractor or engineering assistance to correct but pose no hazard to personnel or operations), or "poor" (deficiencies are noted, which could require engineering and contractor support, and/or pose hazards to personnel and/or operations). Ratings of "good" and "fair" are considered acceptable. A higher percent indicates better average condition of lighting and electrical systems.
6. **Mechanical Systems –** Rating of the overall condition of the building's heating, ventilation, air conditioning, and plumbing systems. The rating is either "good" (no deficiencies noted, or minor deficiencies, which are easily correctable by the NDOT staff), "fair" (some deficiencies noted, which could require contractor or engineering assistance to correct but pose no hazard to personnel or operations), or "poor" (deficiencies are noted, which could require engineering and contractor support, and/or pose hazards to personnel and/or operations). Ratings of "good" and "fair" are considered acceptable. A higher percent indicates better average condition of mechanical systems.
7. **Energy Conservation –** Energy improvements are recommended due to one or several of the following conditions existing in the building: non-LED lighting; no automated lighting control; inefficient or obsolete heating/cooling/ventilation system; no automated heating/cooling/ventilation system control; lack of thermal insulation where the construction of the building or a component of the building readily allows for installation of additional insulation or insulated components; non-insulated glazing, and insulated glazing units, which have failed or show signs of deterioration. The rating is either "yes" (one or several improvements are recommended), or "no". A higher percent indicates a better average degree of energy efficiency.
8. **New Building Needs –** There is a known need for a replacement and/or additional building. The rating is either "yes" (a replacement or additional building is needed), or "no". A higher percent indicates a lesser need for replacement and/or additional buildings.
9. **Additions –** There is a known need to add area to an existing building. The rating is either "yes" (additional area must be added to the building), or "no". A higher percent indicates a lesser need for additions.
10. **Tenant Improvements –** There is a known need for space reconfigurations, carpeting, remodeling, and similar major interior work. The rating is either "yes" (there is a known need), or "no". A higher percent indicates a lesser need for tenant improvement work.

Finally, a composite number is generated by averaging all 10 performance category ratings. The composite number is the value reported as the current score in the Current and Ultimate Target table and is plotted for the current and previous four state fiscal years in Figure 2.

Measurement and Supporting Data:

Work has been completed on many capital projects in FY24. Most of the completed projects did not trigger a change to the ratings data.

The Architecture Section maintains records for 523 structures, some of which are minor in nature or leased as defined in the Overview and Plan Support section. Omitting minor and leased structures, Performance Measure 10 reports data for 383 buildings. As of the time this report was written, the average age of a reportable building is about 46 years (note that original dates of construction are missing for 5 buildings).

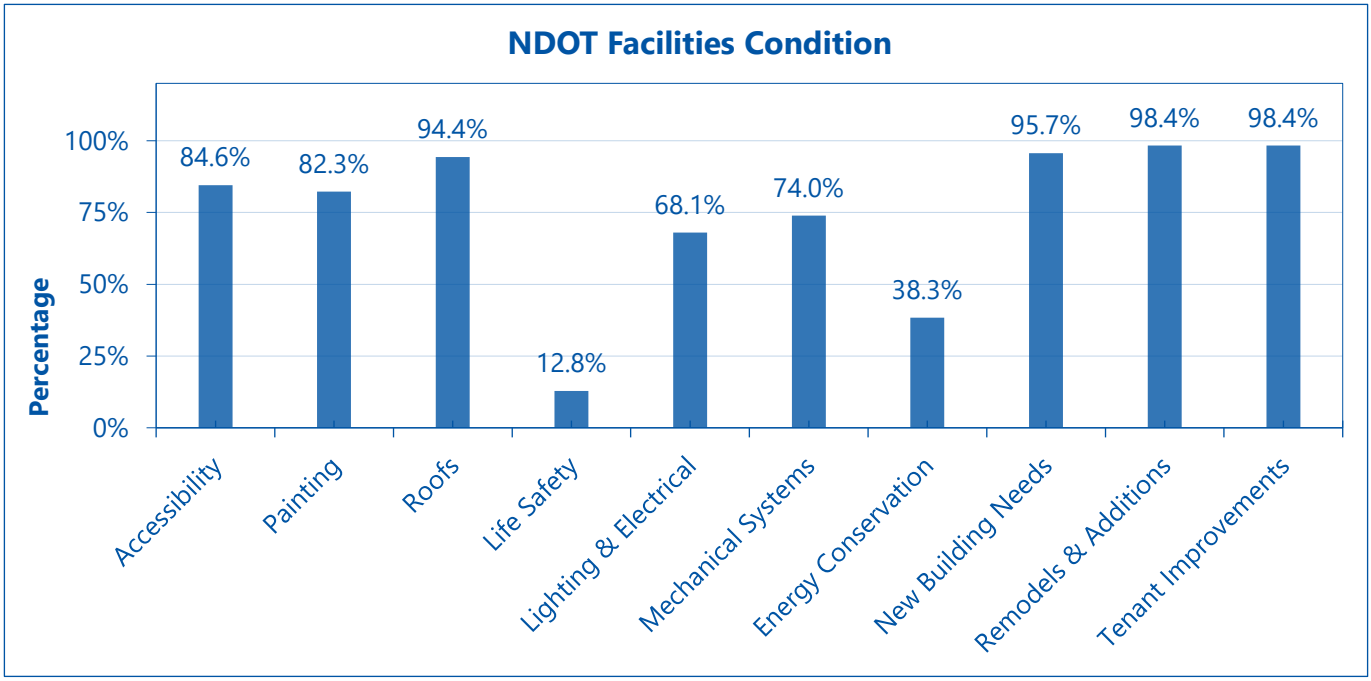


Figure 1 – NDOT Facilities Conditions Performance Categories

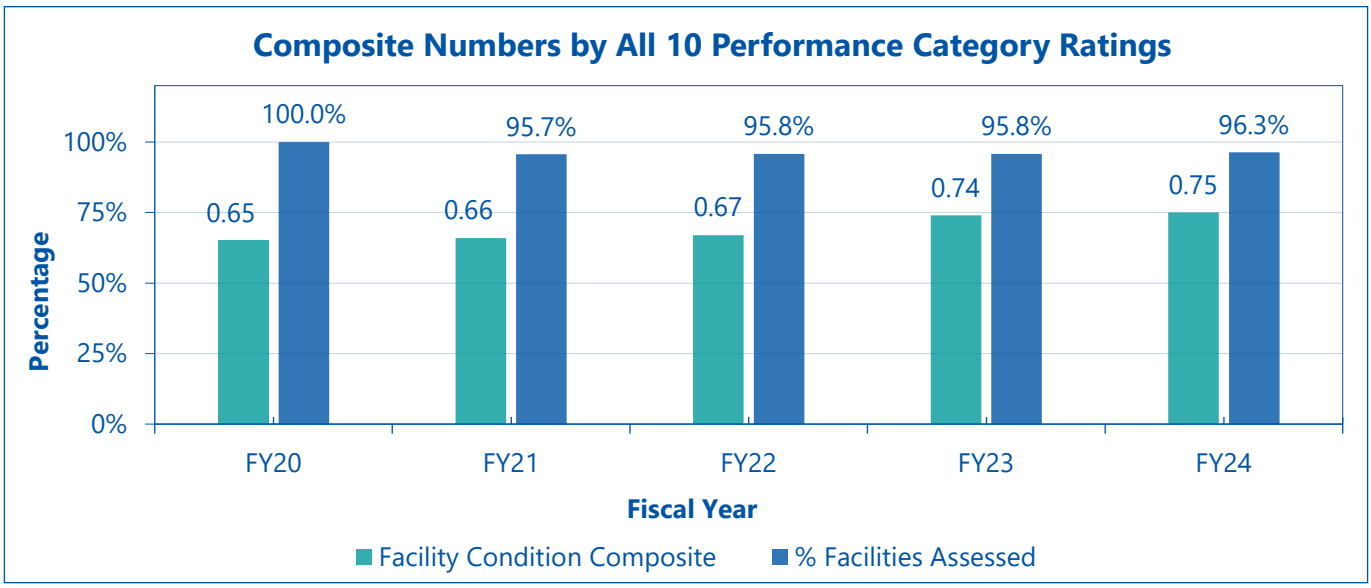


Figure 2 – Composite Score over Five Years

EVALUATION OF PERFORMANCE MEASURE

Annual Target Met

The annual target was not met.

Which Strategies Were in Place During the Data Reporting Period?

The primary strategies were:

- Continue working with a consultant to take existing Strategic Plan efforts over the finish line.
- Augmenting Architecture staff.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

The strategies listed above were successful, though that does not necessarily show in the reported values.

Which Strategies Were Not Successful and Why?

Not applicable.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

NDOT buildings are aging and in need of repair. One of the NDOT's strategic initiatives is to prioritize building and facility needs as there is not a current Strategic Plan for prioritization of repair of NDOT's buildings and facilities. NDOT will continue working with a program manager to produce detailed Strategic Plans, which quantify and prioritize the needs of the NDOT facilities to assist NDOT in setting

long-range goals and planning for the achievement of those goals. The plans will include priorities with options for variables such as condition, occupancy, critical operations, etc. The plans will be prepared for NDOT's Director's Office to approve and advance for funding.

The need to perform reactive maintenance in an unplanned manner is highly disruptive to a strategic capital improvement program. NDOT is taking steps to increase routine and preventative maintenance efforts in order to prevent unplanned failures. The biennial budget request for FY24 and 2025 included increased maintenance funding for the Districts.

Long-term Strategies

Staffing challenges limit the volume and speed of work that the Architecture Section can deliver. Contract staff have been helpful, but they come with risk due to uncertainty in contract duration. The life span of major facilities capital projects is generally five years at the minimum, but the current staffing contract is only funded for about three years. Once a project is in motion for that period of time, it is very difficult to simply stop the project if the contract project managers are no longer available. Due to the workload of the office, it is not possible to reassign projects to other project managers if the contract is not renewed for the contract project managers. Based on these risks, we intend to pursue all available avenues to acquire full-time state positions to augment Architecture staff over the long-term. NDOT requested six new staff of the legislature in the 2023 session, four of which will add a net increase in capacity (two replace positions, which have been staffed for decades on staffing contracts).

NDOT will continue reassessment of facilities maintenance strategies. Improvements to facilities maintenance – particularly, preventive maintenance – are essential to halt the current pattern of using assets to failure. This will increase the level of service provided by the NDOT facilities, and also assist with keeping unplanned catastrophic failures from interfering with a long-term strategic capital improvement program. Reorganizing and augmenting maintenance staff are viewed as essential components of this effort.

We are working on refinements to improve the efficiency of our assessment data to better enable the prioritization of projects. System improvements to maintain the performance measure are being enacted to reduce the potential for discontinuities and reconciliation of data sets as was observed recently. Additional efforts are being extended to increase the project capacity of the Division to assist in reducing the backlog of necessary projects and deficient facilities throughout the state.

Does This Performance Measure Effectively Measure What Is Desired?

No. By their nature, capital projects often require years to plan, fund, and construct, and therefore it is ordinary for very few changes occur to the performance measure data within a state fiscal year, although the reality is that significant progress is being made. The condition factors are correlated to maintenance at least as strongly as they are to the capital program, but this office does not engage in maintenance and so we have limited ability to achieve the improvement targets. NDOT will identify different performance goals to effectively measure its program.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

No. The reporting timeline either needs to be increased or capital project milestones need to be tracked in order to monitor and evaluate performance.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

We are currently evaluating several alternatives to see if there is a better and more simple way to report our performance. We are also evaluating our current building data to explore feasible alternatives. The next facilities condition analysis will be conducted during calendar years 2025 and 2026. The time between now and then will provide opportunity for contemplation of revisions and the FCA can be scoped according to those revisions to include additional or revised data set that will be needed for a new performance measure.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve Targets. If so, Explain.

During this reporting period, we are still seeing long manufacturing lead times. Electrical and plumbing equipment continue to be very difficult to obtain.

Will Meeting the Next Yearly Target Have a Fiscal Impact? If so, Explain.

Yes. There are fiscal impacts associated with the funding for needed projects, resources needed to deliver them, and hard and soft costs associated with loss of use of building assets.

Funding:

The estimate of the total backlog of vertical capital improvement needs exceeds $1 billion. The vast majority of this is comprised of the need to rehabilitate/reconstruct the existing maintenance station inventory and construct new maintenance stations. Statewide, there are approximately 343 maintenance station structures (305 tracked in PM 10) at 64 sites with an average age of 47 years. The oldest are 83 years. In addition to the needs of the maintenance stations, new administration facilities are needed to accommodate the staffing needs of NDOT as change has occurred at a rate that has not

been matched by construction of new building assets. There are approximately 119 rest area structures (40 tracked in PM 10) on 37 sites with an average age of 35 years (33 years for the reportable structures). The oldest are 57 years.

In summary, the total need is very large due to decades of minimal capital improvement spending and lack of a formal, long-range capital plan.

Resources:

Beyond the need to plan for the actual construction of these and other projects, planning to adequately align the staffing of Architecture to the need is critically important. Both the type and number of staff in the Architecture Section are significantly mismatched to Architecture's role and workload.

Next Year's Target:

0.75

Note that next year's target is not expected to increase due to the fact that the projects anticipated to be completed during FY25 are not expected to trigger changes to the data tracked by this performance measure.

11. Emergency Management, Security and Continuity of Operations

PERFORMANCE MEASURE:

This Performance Measure involves tracking the percentage of emergency plans that have been completed; training and education that has been provided to appropriate personnel; and emergency plans that have been tested, exercised, and updated to accommodate changes in the Departmental processes and policies and to reflect any changes to Federal and State guidelines. Training and updates are to be completed within a 4-year period. The Performance Measure 11 plans include:

- NDOT Emergency Operations Plan (EOP)
- NDOT Physical Security Plan (PSP)

Current Year Target:

100%

Ultimate Target:

100%

Performance Champion/Division:

Maintenance and Asset Management

Support Divisions:

All NDOT Divisions

Overview and Plan Support:

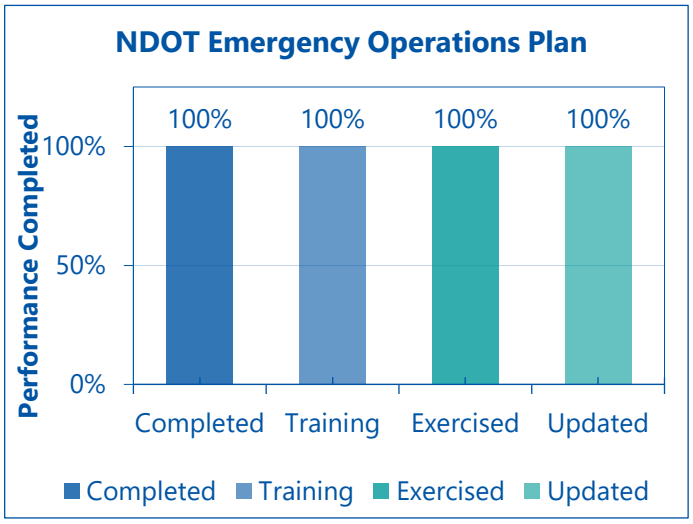
NDOT's emergency plans provide clear guidance on how NDOT will continue to perform critical functions and operations in the event of an emergency or disaster. The EOP provides a structure, processes, and procedures for the Department to continue operations in support of the state during catastrophic emergencies, including those effecting the Department directly. The PSP provides guidance for handling physical security threats to the Department directly as well as the Department providing support to others during homeland security type events.

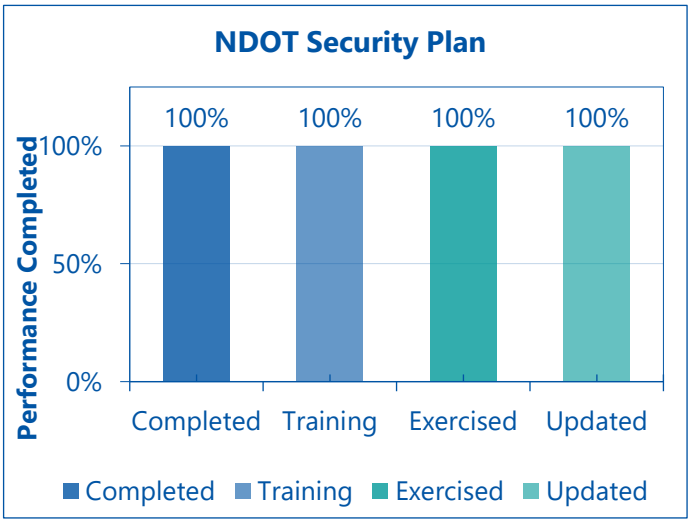
Being prepared and ready for an emergency is paramount to keeping systems operating during such times, as well as being in a position to respond to health and safety issues. Completing the Performance Measure 11 tasks helps NDOT meet its "Vision, Mission, and Core Values", and "Our Goals".

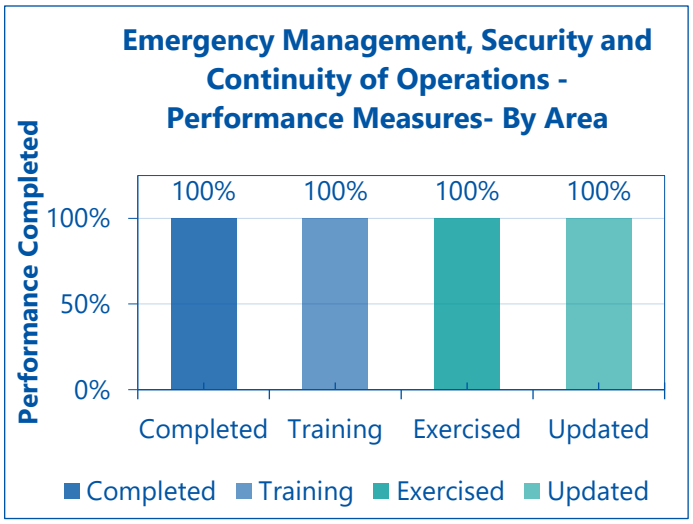
Measurement and Supporting Data:

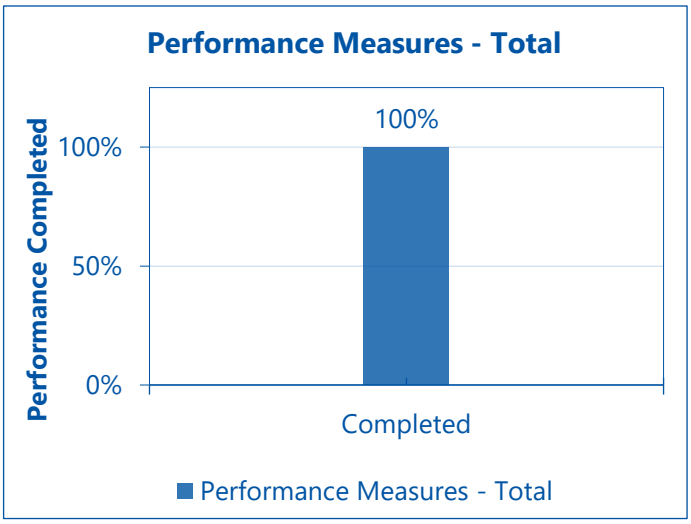
FY24 - 7/1/2023 Through 6/30/2024

Plan	NDOT Emergency Operations Plan (EOP)	NDOT Physical Security Plan (PSP)	% Compliant
Were PM Requirements Met by Providing Training Within Last 4 Years	Y	Y	100%
Date of Last Training	02/09/2023	09/27/2022	100%
Were PM Requirements Met by Providing Exercises Within Last 4 Years	Y	Y	100%
Date of Last Exercise	12/31/2022	9/15/2022	100%
Were PM Requirements Met by Updating Plans Within Last 4 Years	Y	Y	100%
Date of Last Updates	05/02/2024	01/21/2021	100%









EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Yes

Which Strategies Were in Place During the Current Data Reporting Period?

Strategies applied during the current data reporting period included:

- Exercise and training planning strategies were in place this reporting period.
- Tracking the percentage of emergency plans that have been completed.
- Conducting, participating in, and tracking training and education that has been provided to appropriate personnel.
- Conducting, participating in, and tracking emergency plan testing, exercising, and updating.
- Conducting real-life training throughout the quarter as part of NDOT's assistance with State recovery related to flooding, active shooters and wildfires.
- Conducting "hotwashes" following real events to determine successful practices and challenges in NDOT's emergency plans.
- Compiling After Action Reports following emergency plan testing and exercising to document what went well and identifying areas for improvement.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

All strategies have been successful. Due to the number of real events this year, including the severe weather associated with Hurricane Hilary (August 2023) and monsoonal rain (September 2023), which caused catastrophic flooding, an active shooter at UNLV (December 2023), wildfires and heat waves (June 2024), the most successful strategy has been to conduct "hotwashes" following real emergency events. Lesson learned from the real events include successful processes such as the need for internal NDOT coordination calls including all involved Division and District personnel; more stringent contracting ensuring federal regulations are met throughout the response and recovery process; including district management in coordination calls with the Federal Emergency Management Agency (FEMA), the Nevada Division of Emergency Management (NDEM), and county emergency management agencies; and restrictions and limitations on reimbursement funding for pre-positioned equipment. Lessons learned from these "hotwashes" will be incorporated into the EOP and in the various training sessions in order to improve NDOT's response to emergencies. Additionally, the Emergency Management Section 1) provided "just in time" training to staff from all three districts for response to real life events; 2) hosted coordination

meetings (which incorporated EOP training and exercising) with the Directors Office, District II, District I and various Headquarters (HQ) Divisions (Financial Management, Administrative Services, Hydraulics, Environmental, etc.) to address sharing District personnel in emergencies and to continue improving the emergency memo to standardize NDOT response and recovery; 3) initiated regular meetings with CalTrans emergency management regarding emergency and disaster issues, which affect both states; and 4) attended NDEM-hosted State Emergency Operations Center training in preparation for full-scale exercises and real events.

Which Strategies Were Not Successful and Why?

All strategies were successful.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

The table below outlines the proposed schedule for maintaining compliance with this performance measure with respect to the EOP. Regular exercises and training will remain a fundamental part of this section's strategy.

EOP Compliance Projection for Next State Fiscal Year

	Date Due	FY25 Q1 Jul 21 - Sep 21	FY25 Q2 Oct 21 - Dec 21	FY25 Q3 Jan 22 - Mar 22	FY25 Q4 Apr 22 - Jun 22
Training	2/9/2027	District 1 Training	District 3 Training	HQ/Senior Management Training	District 2 Training
Exercises	12/31/2026	District 1 Exercise	District 3 Exercise	HQ/Senior Management Training	District 2 Exercise
Updates	05/02/2028	Contact List Update	Full EOP Update	Contact List Update	Contact List Update

The NDOT security audit was completed at the end of FY20. Pertinent security issues raised in the security audit report, such as video surveillance upgrades, fence and gate security measures, and building observation practices, will be incorporated into the PSP. The chart below outlines the proposed schedule for maintaining compliance with this performance measure with respect to the PSP.

PSP Compliance Projection for Next Fiscal Year

	Date Due	FY25 Q1 Jul 23 - Sep 23	FY25 Q2 Oct 23 - Dec 23	FY25 Q3 Jan 24 - Mar 24	FY25 Q4 Apr 24 - Jun 24
Training	09/27/2026	District 1 Training	District 3 Training	HQ/Senior Management Training	District 2 Training
Exercises	9/15/2026	District 1 Exercise	District 3 Exercise	HQ/Senior Management Exercise	District 2 Exercise
Updates	1/21/2025	Draft PSP Update	Full PSP Update	Critical Infrastructure List Update	None

Long-term Strategies

The Emergency Management Section plans to continue providing quarterly training each year and to continue working with District and HQ personnel to enhance the NDOT EOP and the NDOT PSP over time. With the pandemic having entered recovery mode, training and exercises will be conducted in-person and virtually as appropriate.

Does This Performance Measure Effectively Measure What Is Desired?

Yes.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Yes. Monitoring and evaluating this performance measure ensures that, at least quarterly, we inspect existing processes. Adjustments are made, if necessary, to improve these processes.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

No.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

Yes. Although the Emergency Management Section has been able to meet the performance measure targets, training and exercises have generally been conducted virtually in place of traditional tabletop style events. This has caused difficulties in the quality of communications during the events as the moderator of the events has not always been able to see the participants, and therefore does not have the same ability to recognize body language indicating confusion, disagreement, or further interest in a particular topic. However, post Covid-19, in-person meetings are becoming more common.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

No fiscal impact is anticipated.

Next Year's Target:

The target for next period is unchanged from the previous reporting period: 100%.

12. Reduce Fatal & Serious Injury Crashes

PERFORMANCE MEASURE:

Number of fatalities, fatality rate, number of serious injuries, serious injury rate, and the number of non-motorized fatalities and serious injuries on Nevada's streets and highways.

Current Year Target:

All targets are based on 2021-2025 Nevada's Strategic Highway Safety Plan (SHSP) Goals to reduce fatalities and serious injuries. The 2023 targets were identified in the 2022 Highway Safety Improvement Program (HSIP) annual report submitted to the Federal Highway Administration (FHWA). The performance measures were developed using the best available crash data from 2017-2021 and calculated with crash data from 2019-2023.

Ultimate Target:

Zero.

Performance Champion/Division:

Traffic Safety Engineering

Support Divisions:

All NDOT Divisions.

Overview and Plan Support:

All drivers and highway system users should expect a safe highway system. The 2021-2025 SHSP focuses on the 6 "E's" of traffic safety: Equity, Engineering, Education, Enforcement, Emergency Medical Services/Emergency Response/Incident Management, and Everyone. Through the efforts of the 6 E's fatal crashes can be eliminated. The strategies for this performance measure are defined in the Nevada 2021-2025 SHSP and align with the Department of Transportation Strategic Plan goals.

Measurement and Supporting Data:

These measurements are in line with FHWA and the National Highway Traffic Safety Administration (NHTSA) reporting requirements. The evaluation of performance for 2023 includes crash data for 2017-2021. The data in this report uses a five-year rolling average.

EVALUATION OF PERFORMANCE MEASURE

Annual Target Met?

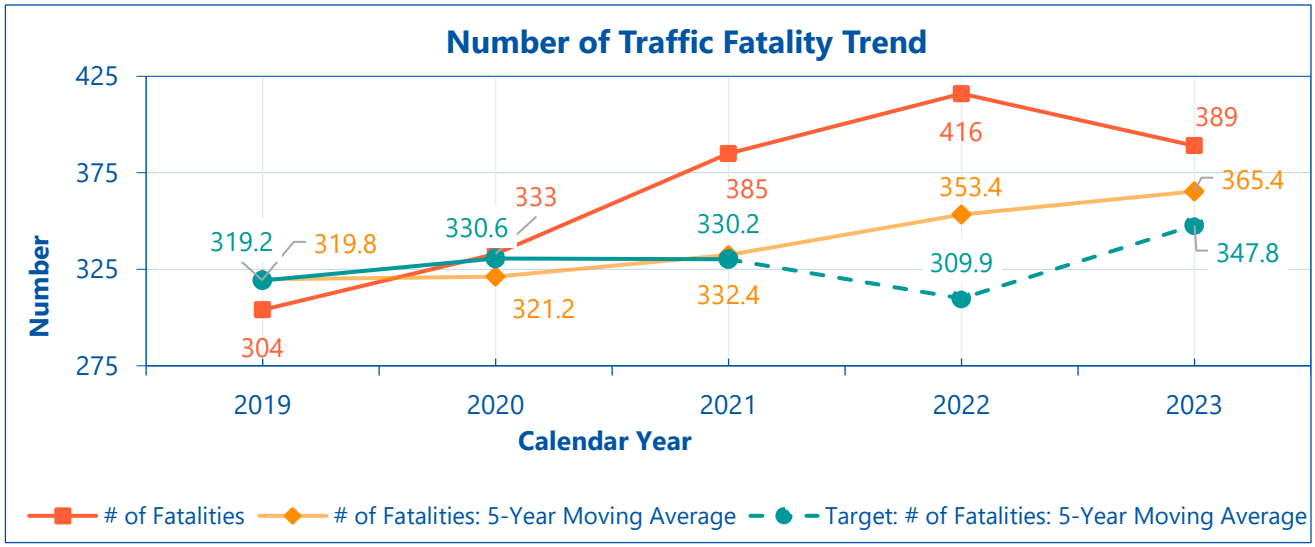
See individual targets on following pages.

Measure 1: Number of Fatalities – Target not met

The 2023 target was based on the five-year rolling average calculated using data from 2017-2021 and published in the 2022 HSIP Report per FHWA guidance. The actual number is calculated using the five-year rolling average from 2019-2023 data. The year- to-year data is included for transparency.

Target Rolling Average – 347.8 or less

Actual Rolling Average – 365.4

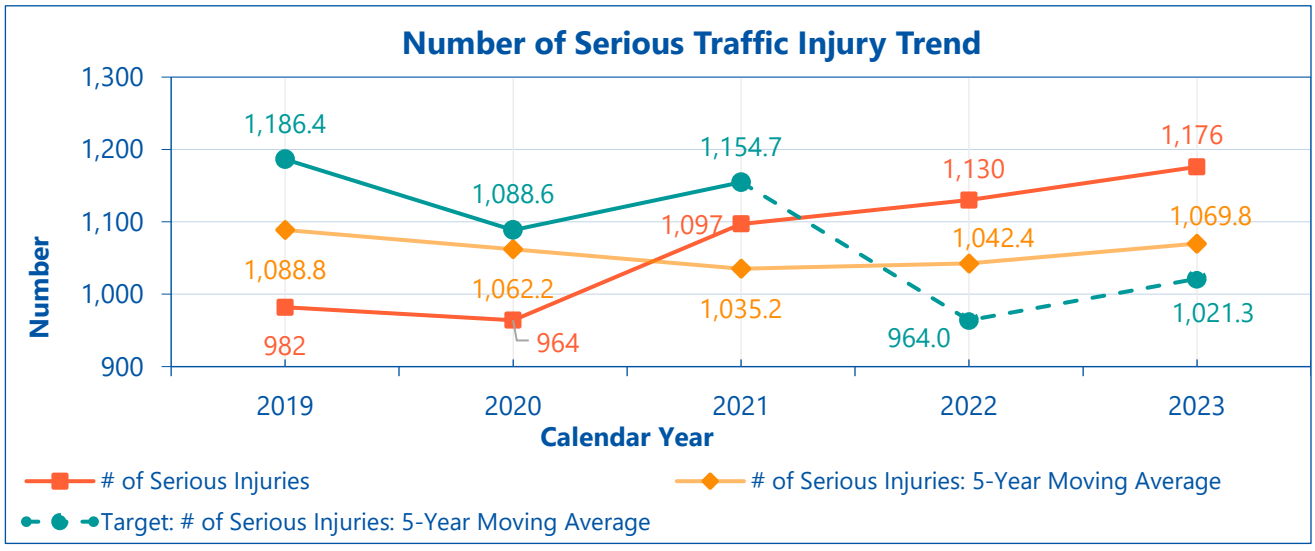


Measure 2: Number of Serious Injuries – Target not met

The 2023 target was based on the five-year rolling average calculated using data from 2017-2021 and published in the 2022 HSIP Report per FHWA guidance. The actual number is calculated using the five-year rolling average from 2019-2023 data. The year- to-year data is included for transparency.

Target Rolling Average – 1021.3 or less

Actual Rolling Average – 1069.8

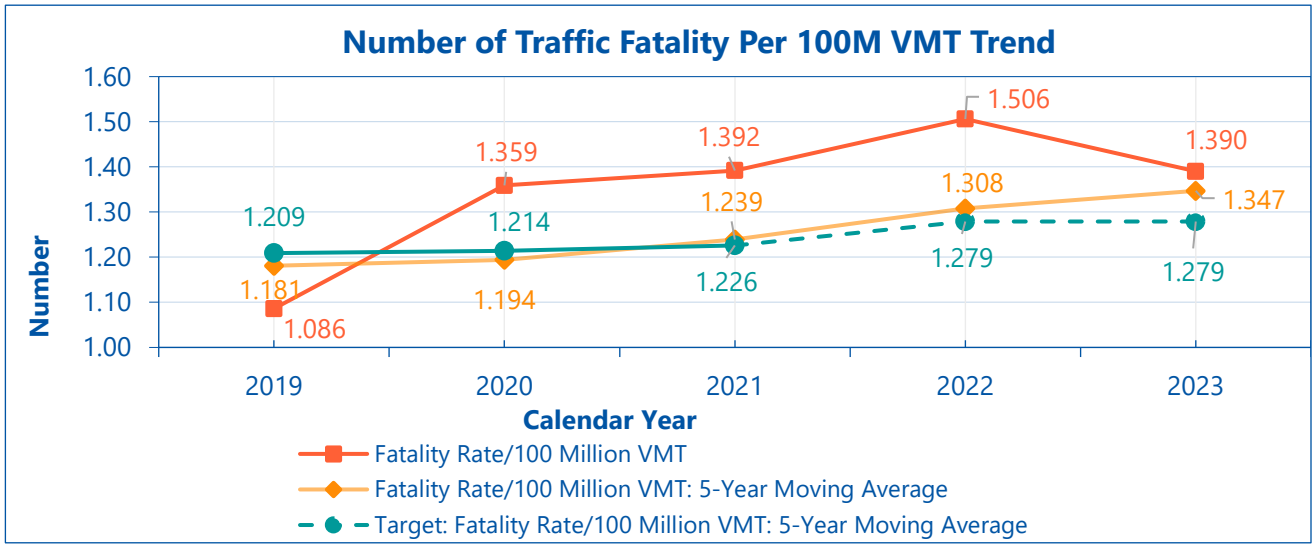


Measure 3: Number of Fatalities Per 100M Vehicle Miles Traveled (VMT) – Target not met

The 2023 target was based on the five-year rolling average calculated using data from 2017-2021 and published in the 2022 HSIP Report per FHWA guidance. The actual number is calculated using the five-year rolling average from 2019-2023 data. The year- to-year data is included for transparency.

Target Rolling Average – 1.279 or less

Actual Rolling Average – 1.347

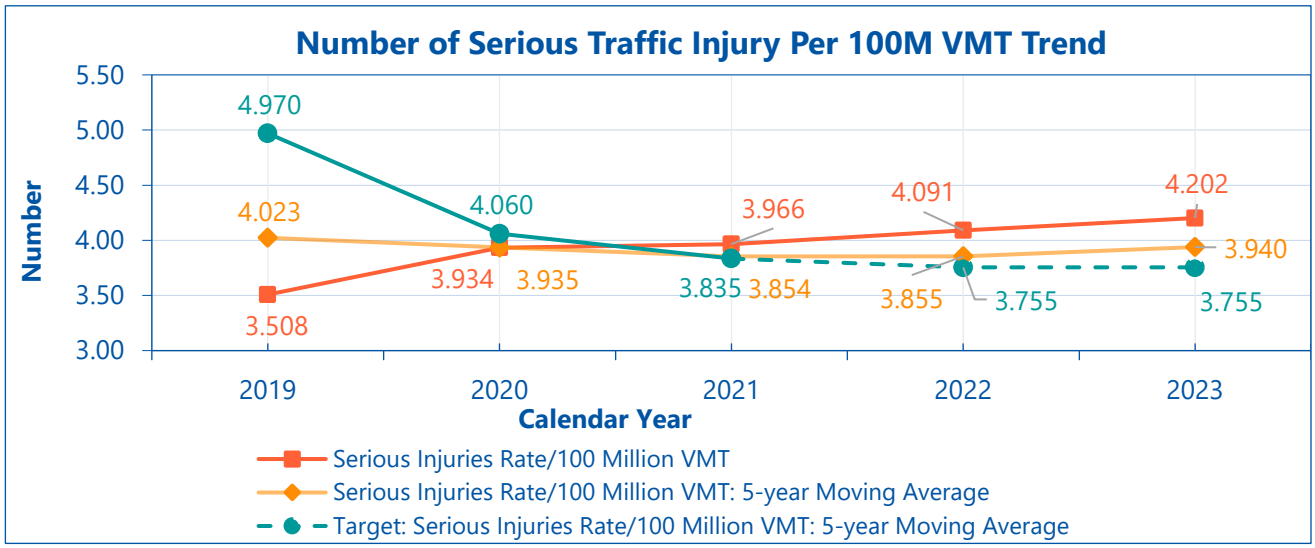


Measure 4: Number of Serious Injuries Per 100M Vehicle Miles Traveled (VMT) – Target not met

The 2023 target was based on the five-year rolling average calculated using data from 2017-2021 and published in the 2022 HSIP Report per FHWA guidance. The actual number is calculated using the five-year rolling average from 2019-2023 data. The year- to-year data is included for transparency.

Target Rolling Average – 3.755 or less

Actual Rolling Average – 3.940

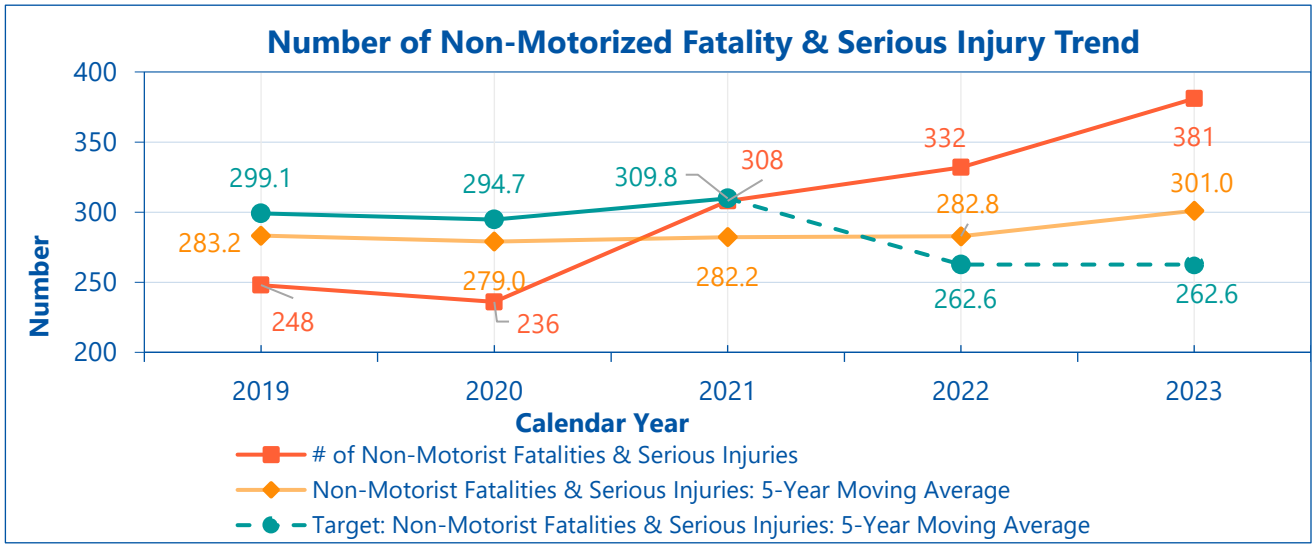


Measure 5: Number of non-Motorized Fatalities and Serious Injuries – Target not met

The 2023 target was based on the five-year rolling average calculated using data from 2017-2021 and published in the 2022 HSIP Report per FHWA guidance. The actual number is calculated using the five-year rolling average from 2019-2023 data. The year- to-year data is included for transparency.

Target Rolling Average – 262.6 or less

Actual Rolling Average – 301.0



Which Strategies Applied During the Current Data Reporting Period Were Successful?

Strategies for Performance Measure 12 are identified in the Nevada 2021-2025 SHSP. The SHSP is a data-driven, multi-year, comprehensive plan that identifies and analyses highway safety problems and opportunities on all public roads with cooperation from public and private stakeholders.

SHSP strategies include:

- Low-cost improvements to keep vehicles in their lane
- Crash data analysis to identify high crash locations at intersections and along corridors
- Systemic safety improvements identified as FHWA Proven Safety Countermeasures
- Develop Safety Management Plans (SMPs) to analyze select corridors
- Perform Road Safety Audits (RSAs) to identify opportunities on Nevada's roadways

Which Strategies Were Not Successful and Why?

Due to the systemic nature of current safety strategies, it is difficult to measure effectiveness or ineffectiveness of strategies. Additional data and analysis opportunities are under consideration. Strategies

are measured using fatal and serious injury crash data. Nevada, like most of the nation, has experience a significant increase in fatal and serious injury crashes. Strategies identified in this document are showing success, but that success, is not captured in this measure.

Strategies for Performance Measure 12 are identified in the Nevada 2021-2025 SHSP. The SHSP is a data-driven, multi-year, comprehensive plan that identifies and analyses highway safety problems and opportunities on all public roads with cooperation from public and private stakeholders.

Strategies for Improvement Planned for Next Reporting Period

Short-term Strategies

Continue to invest Nevada's HSIP Core Federal-Aid funds on strategies that will reduce fatalities and serious injuries as identified in the 2021-2025 SHSP.

Develop a Safe Systems Approach that can be implemented throughout the Department. The FHWA states that Safe System Approach aims to eliminate fatal and serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and secondly keeps impact energy on the human body at tolerable levels.

Implement the Speed Management Action Plan and looked at the way speeds are set on Nevada's roads. The plan uses the best available data on speed and crashes to develop strategies and actions that will reduce speed and speeding related fatalities and serious injury crashes on Nevada's roadways. This plan was completed in 2022, and implementation is ongoing.

Understand the trends in crash data and develop a safety analysis process to prioritize projects for the One Nevada Plan and potential Safety Project selection.

Long-term Strategies

Complete the Model Inventory of Roadway Elements Fundamental Data Elements as required for federal funding and use those data elements to predict safety issues for long term project prioritization.

Improve data driven processed by adding MIRE FDEs and equity data into existing network screening process.

Support data driven local safety projects identified through local safety planning efforts.

Does This Performance Measure Effectively Measure What Is Desired?

This performance measure is based off a five-year rolling average using the best available crash data. This

performance measure aligns with FHWA reporting requirements outlined in the HSIP. This measure does not include reporting of safety accomplishments.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

The performance measure matches the goals in the HSIP and 2021-2025 SHSP.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

Yes. We are considering tracking systemic improvements in the system, as those should have a direct correlation to the reduction of fatal and serious injuries.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

The Covid-19 pandemic has had an impact on Nevada's ability to achieve targets. Nevada, like much of the nation, has seen unprecedented fatal and serious injury crashes on the highway system. The performance measure is based on a five-year rolling average and the spike of fatal and serious injury crashes observed in 2020, 2021, and 2022 will be felt for years to come.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

No. NDOT will continue to prioritize safety on Nevada's roadway system. This performance measure includes data from public roads in Nevada, not just NDOT maintained roads. There are several factors that are out of control of the Department. These factors are addressed in the 2021-2025 SHSP and are critical to reach Nevada's goals of zero serious injuries and fatalities on Nevada's roadways.

Next Year's Target (2024):

All targets are based on Nevada's 2021-2025 SHSP Goal of Zero Fatalities and included in the 2022 Nevada HSIP report, which include all state and local roads. These targets were set in the 2023 HS IP Report. Targets are set with five-year rolling average from 2018-2022.

Measure 1: Number of Fatalities – 387.2 or less

Measure 2: Number of Serious Injuries – 1049.3 or less

Measure 3: Number of fatalities per 100M VMT – 1.435 or less

Measure 4: Number of serious injuries per 100M VMT – 3.979 or less

Measure 5: Number of non-Motorized Fatalities and Serious Injuries – 312.9 or less

13. Project Delivery - Schedule and Estimate for Bid Advertisement

PERFORMANCE MEASURE:

This performance measure was established to track project delivery performance within the federal fiscal reporting year (FFY), October 1, 2023, to September 30, 2024. This measure is quantified by:

1) Schedule: The percentage of scheduled projects advertised within the established federal fiscal reporting year.
2) Project Cost: The percentage of engineers' estimates within a range of the awarded contract estimate. The comparison ranges include:
    a. Intermediate (60% Design) engineer's estimate is within 15% of the awarded contract estimate
    b. Final (100% Design) engineer's estimate is within 10% of the awarded contract estimate

Current Year Target:

80%

Ultimate Target:

80%

This performance measure incorporates most project contracts advertised for construction by the Department through the electronic bidding process. Projects administered through a separate process are not captured in this metric. This includes capital improvement projects managed by the Architectural Division and contracts, which cost under $250,000.

The methodology to complete this performance measure is to establish a baseline list of scheduled projects at the start of the FFY (October 1). These project schedules and costs are tracked throughout the year to award. Projects added after October 1st, that are expected to be advertised prior to September 30th, are also tracked and reported for cost performance.

The reason for tracking projects according to the federal fiscal year timeline is because a large percentage of the Department's programs are delivered using federal funds. The Department tries to use all available federal funding each year. Doing so enables the Department to request, and in most cases receive, additional obligation authority, enabling more federal funds to be spent on additional projects. For example, the Department was able to receive an additional $73.8 million in federal "August Redistribution" funds this reporting year.

Performance Champion/Division:

Roadway Design, Scheduling and Estimating Section

Support Divisions:

ADA, Bridge/Structures, Hydraulics, Landscape and Aesthetics, Maintenance and Asset Management: District Betterment, Project Management, Stormwater, Traffic Operations, Traffic Safety Engineering, Transportation Multimodal Planning.

Overview and Plan Support:

This performance measure works towards meeting NDOT's Strategic Plan number 2 goal: "Optimize Mobility". This goal centers on implementing initiatives aimed at bolstering overall system efficiency for all users. It encompasses infrastructure and non-infrastructure projects and integrates efficiency measures, operational enhancements, and advanced technologies. With the effective planning and delivery of contracts, more lane miles will be preserved and improved, mobility and travel time will be enhanced, multi-modal accommodations will be provided, freight and economic networks will be accounted for, and the needs of the environment and communities will be understood. NDOT will be able to consistently coordinate with other state agencies, federal and local public entities, and the public, to reach these goals.

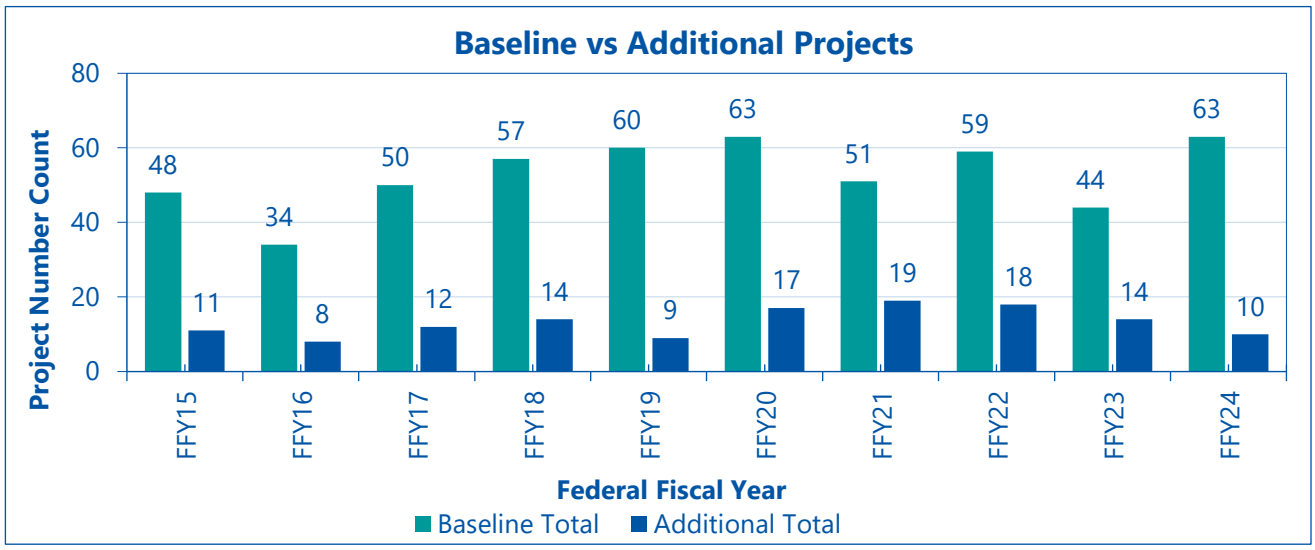
Measurement and Supporting Data:

1. Schedule Data:

At the beginning of the reporting period, 63 baseline projects were scheduled for FFY24; of the 63 baseline projects, 19 were advertised.

Aside from the baseline, an additional 10 non-baseline projects were delivered for FFY24 resulting in a combined total of 29 projects delivered.

	Baseline	Additional	Total
Delivered	19	10	29
Not Delivered	44		44
Total	**63**	**10**	**73**



Seven of the ten projects added after Baseline establishment were Betterment projects. Not only does this program run on a state fiscal year cycle of July 1st to June 30th, but their pace for project development and delivery occurs in a shorter timeframe to fulfill more immediate pavement and maintenance needs. For example, Contract 4523 was in response to an area seeing increased fatalities. District, in coordination with Traffic Safety Engineering and Scoping, utilized Safety Funding to improve the signs and striping for passing zones along nearly 64 miles of US 95 in Nye County. This is an example of the Department's flexibility and expedited response to keep roads safe and connected.

2. Project Cost Data:

Looking at the combined baseline and non-baseline delivered projects, 73 projects were expected to be awarded. Of the 73 projects, 24 projects were delivered and have project cost data available. The following details note the breakdown for why the remaining 49 projects were not delivered or do not have cost data:

- 4 are currently pending bid opening at time of reporting*,
- 1 was advertised but cancelled before bid opening,
- 8 cancelled or combined with another project, and
- 32 delayed due to funding limitations and resource reallocation

* The project has been advertised before reporting cut-off date and bid opening occurs after the reporting cutoff date. This means the project has been scheduled and delivered for this federal fiscal year, but the awarded contract cost data is not available to report on yet. October 11, 2024 was determined to be the cutoff date for data collecting to meet the Performance Measure reporting deadline.

The 24 projects awarded within the reporting deadline were tracked for their cost estimate performance with the following results:

- Intermediate (60% Design) Engineer's Estimate is within 15% of the Awarded Contract Estimate:
  - 8 project estimates within the 15% threshold
  - 16 project estimates outside the 15% threshold
- Final (100% Design) Engineer's Estimate is within 10% of the Awarded Contract Estimate:
  - 9 project estimates within the 10% threshold
  - 15 project estimates outside the 10% threshold

Many factors impact project costs, like Contract 4527 for Phase 2 of Ely Downtown Complete Streets. The estimate for this project had been adjusted multiple times over the years of the design for Phase 1 and 2. Since Phase 1 was delivered under a different project delivery method, Construction Manager At Risk (CMAR), the estimates for Phase 2 were expected to be lower with utilizing the Design-Bid-Build delivery method, typically a more cost effective option. During Phase 1 construction and Phase 2 design, the pandemic and national inflation of prices occurred skewing the accuracy of estimating data. This project also had complicated design elements including a full depth roadbed reconstruction with a change in vertical profile, reconstruction for ADA compliant sidewalks, replacing stormwater drainage systems, truckline conduit for ITS infrastructure like lighting and flashing beacons, landscape irrigation features requiring a pavement suspension system and relocation of City of Ely's sewer and water infrastructure to accommodate all this. On top of the advanced design work, this project is located in a more rural area of the state limiting possible contractors' availability with the same complexities of a design in a downtown urban setting.

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

1. Schedule:

The target of 80% of scheduled projects to be delivered within FFY24 was not met.

The established baseline list of scheduled projects included 63 projects. Of the 63 scheduled projects, 19 were delivered/advertised within the reporting year resulting in a 30% delivery success.

The projects that didn't reach the performance metric for schedule delivery were delayed for multiple reasons. The most common reasoning is as follows:

- Funding and budget limitations
- Resource shortages causing Division delivery delays
  - Acquiring mapping
  - Right-Of-Way acquisitions
  - Scope changes
- Project phasing or delay needed for coordination with other work within project limits

It was also noted that of the 44 baseline projects not delivered, 23 of them did not have an estimate submitted when scheduled and expected to be delivered in FFY24. This may indicate that half of the projects planned to be delivered were not ready or a high enough priority for the year.

2. Project Cost:

The Intermediate Estimates compared to Awarded Estimates: the project cost target of 80% was not met.

- Of the 29 delivered projects, 5 do not have project cost data available yet, 8 Intermediate Design Estimates were within 15% of the Awarded Estimate; 33% of the projects were within the cost comparison target.

The Final Design Estimates compared to Awarded Estimates: the project cost target of 80% was not met.

- Of the 24 delivered projects with cost data available, 9 Final Design Estimates were within 10% of the Awarded Estimate; 38% of the projects were within the cost comparison target.

The most common explanation for cost estimating inconsistencies this FFY was project scope changes after intermediate design, resulting in the Final and Awarded Estimates falling outside the target thresholds. Examples of scope change include design strategy changes, addition/removal of scope elements, specification changes, project phasing and alteration of project limits.

The last two reporting years saw significantly low number of bidders on projects, with major projects receiving one bidder. This year there is an average of 3 bidders per project for the 24 projects with bid data. All projects received at least 2 bids and three projects received 5 bidders for projects throughout the state, in Searchlight, Yerington and Tonopah. This is a positive turn in bidder data as receiving more bids will also provide the Department with more bid data for future project estimating during preliminary to final designs.

Upon further examination of the data, we noted the following trend with estimate comparisons:

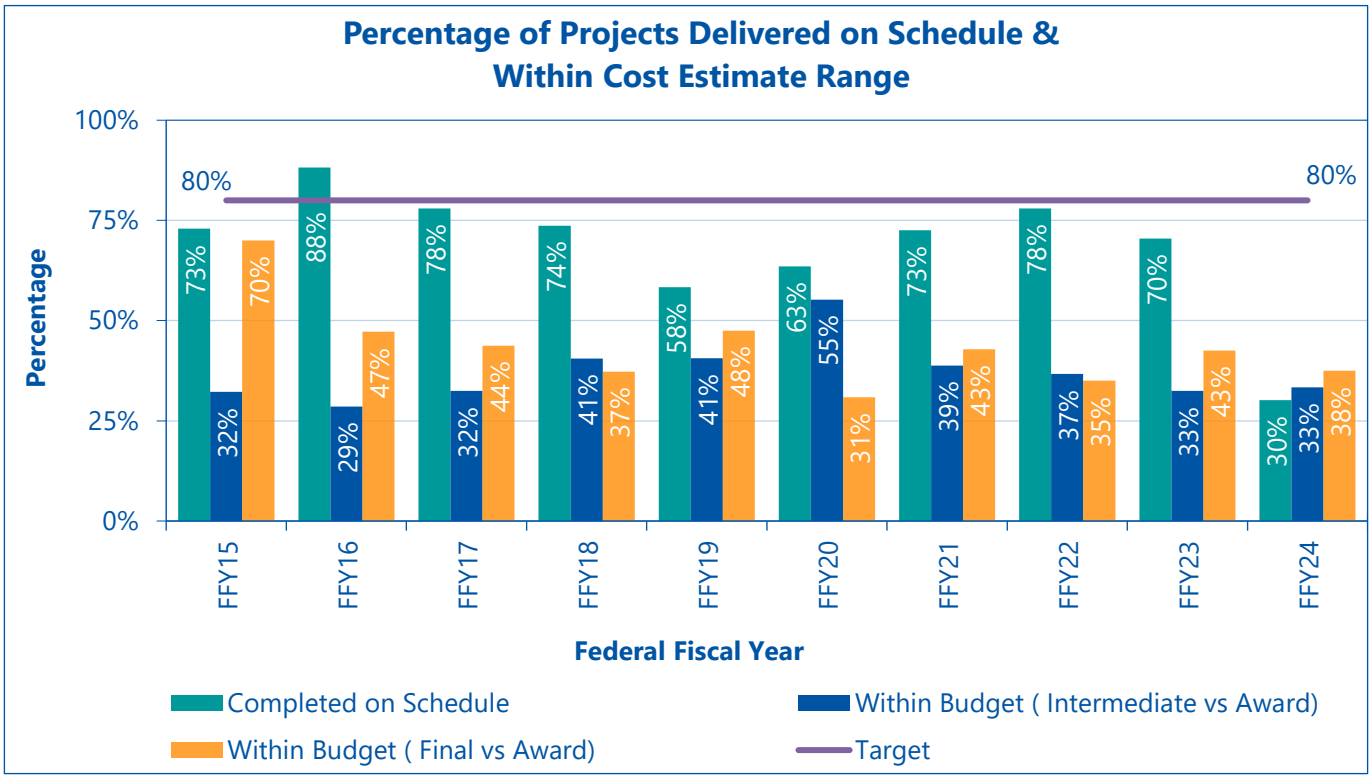
- 11 Intermediate Design Estimates were above the Awarded Contract Estimate, 13 were below
- 15 Final Design Estimates were above the Awarded Contract Estimate and 9 were below

The above estimate fluctuations resulted in the total costs for Awarded projects having an average 14% difference from the Intermediate Design Estimates and a 28% difference from Final Design Estimates.

Estimate Version	FFY22	FFY23	FFY24
Total of All Project Costs - Intermediate	$341,434,233	$466,162,976	$214,743,792
Total of All Project Costs - Final	$367,370,634	$552,293,658	$179,290,330
Total of All Project Costs - Awarded	$404,837,234	$639,332,329	$248,415,683
% Difference Between Awarded and Intermediate	16%	27%	14%
% Difference Between Awarded and Final	9%	14%	28%

*All project costs for delivered projects with cost data available for all estimate versions.

The graph below shows the performance for both project delivery scheduling and cost estimating



Which Strategies Applied During the Current Data Reporting Period Were Successful?

Multiple strategies were practiced or implemented during the reporting period to continue improving processes and moving towards achieving our performance measure targets. The Scheduling and Estimating Section continued to work with supporting Divisions and program Champions to solicit each programs' desired projects for the upcoming reporting period. This process has the advantage of allowing each program the ability to include its project priorities. However, we have discovered that there can be inconsistencies and varying levels of project scope development when projects are scheduled in this manner, potentially resulting in a project being included in the October baseline when it may not have been thoroughly evaluated for scope, cost, risks, and readiness to ensure the feasibility of delivering the project for the reporting year.

Roadway Design hosts a monthly project status meeting with other Divisions to discuss scheduled projects and to give internal stakeholders an opportunity to learn from one another. In these meetings, representatives can share their challenges, and the respective Divisions are able work together to discuss opportunities and possible solutions.

The Department has invested in the establishment of a data-driven metric for defining project prioritization with the One Nevada Plan. During FFY24 the One Nevada Plan experienced further development and definition of workflows, roles and responsibilities and is currently in its early implementation stage with multiple Divisions participating throughout the Department. This collaboration between all project delivery Divisions is expected to improve the established scope and schedule for projects along with the costs of those projects.

Finally, it is important to note that any initiative introduced into the project delivery process will take time to demonstrate its effectiveness. Every project has a different trajectory, and it may take years of tracking to ascertain the gains of any strategy or change.

Which Strategies Were Not Successful and Why?

We have yet to note any specific strategies that can be quantified as not successful. Several strategies are either in development or are in the implementation stage. The Department is starting to see the initial outcomes of the revised preservation project initiatives, and they are resulting in noticed improvement as 5 of the current Pavement Improvement Program projects have been included into the 4 year STIP. The change in the approach to schedule these projects is expected to improve the delivery metric. The true success has yet to be determined.

Incorporation of Betterment projects in this reporting may be reconsidered for future reporting. The Betterments program runs on a state fiscal year cycle of July 1st to June 30th, and their pace for project

development and delivery occurs in a shorter timeframe to fulfill more immediate pavement and maintenance needs. Seven of the ten projects added after Baseline establishment were Betterment projects, and 27 of the 44 baseline projects that failed delivery were Betterments projects.

Strategies for Improvement Planned for Next Reporting Period:

Neither scheduling nor cost estimating targets were met this FFY. Moving forward, there are several initiatives being developed both Department-wide and at the Division level that we believe will help us meet proposed targets in the future.

Short-term Strategies

1. Schedule

The principal reason for variability in project schedules is due to changes in project deliverability, in turn leading to a change in priorities. 10 projects were added to the schedule within the same FFY they were executed. In comparison, the previous year 14 were added to the schedule. The Department will focus on early identification of characteristics that have the potential to impact a project's readiness and deliverability. The consultant lead readiness effort, changes in the preservation project delivery establishment, and an overall focus on readiness is expected to improve our delivery performance.

One focus area the Planning and Scheduling & Estimating Divisions are working on is the synchronization of the October baseline with the One Nevada Plan process and the Annual Work Program (AWP)/Statewide Transportation Improvement Program (STIP) to ensure priorities are aligned. With this, the Department should have a more consistent and reliable project delivery schedule and funding.

The first module of the Masterworks enterprise project management and funding system is now in full use. The system's scheduling, estimating, bid letting, and financial management components of project tracking are now being learned by users. With a bit more time for system refinement and user training, this new system offers opportunities for streamlining processes, project status transparency, and creating greater project oversite for all Divisions.

As mentioned above, the Planning Division is actively implementing the One Nevada Plan. This is a data-driven method to prioritize and harmonize funding for projects throughout the Department. Once fully implemented, the One Nevada Plan is expected to create greater confidence in our short-term and long-term project delivery planning.

Additional short-term strategies for improving project scheduling performance include:

- Educating supporting Divisions regarding their role in establishing and meeting performance measures to establish uniformity and consistency for project scheduling submission timelines
- Clarifying roles and needs for submitting a project scheduling and programming form
- Synchronize October baseline development with the One Nevada Plan process and the AWP/STIP annual approval to ensure project readiness and priorities are aligned
- Develop a consensus and uniformity in understanding complete/multi-disciplined scope projects
- Evaluate Scope Budget Change process to recognize opportunity to reduce possibility of project delays due to major scope changes

2. Project Cost:

Cost estimate accuracy is a moving target. It is subject to uncontrollable variables such as changing markets, construction and materials innovations, other existing and planned projects, and changes in community development patterns. The Design Division, in partnership with the Construction Division and FHWA, is actively reviewing bid item costs and changing estimation strategies. The Department adjusted how it calculates mobilization as well as escalation factors for asphalt, emulsified asphalt, and fuel in hopes of accounting for the current economic trends.

The Department adjusted how it calculates mobilization as well as escalation factors for asphalt, emulsified asphalt, and fuel in hopes of accounting for the current economic trends. This year the Department began altering how fuel escalation is being applied. Previously, a blanket of 0.5% fuel escalation on all bid items was included. Future projects will have a fuel escalation percentage added based on the applicable bid items that require the fuel escalation.

Design strategy changes throughout the life of a project's design are expected. However, improvements can be made by identifying the final strategy earlier in the process, in turn allowing for more time to manage project risks that potentially impact schedule and cost. Enhanced Scoping in the early stages of a project concept will improve this. The One Nevada process has this element incorporated in the planning and project development workflow.

Additional short-term strategies for improving project cost performance include:

- Educating supporting Divisions regarding their role in establishing and meeting performance measures to establish uniformity and consistency for project scheduling submission timelines
- Continue improving Division coordination to:

- Coordinator needs within project areas
- Further document project scope elements, unknowns, risks, and other readiness factors that may affect cost estimates

- Prioritize projects for resource management
- Prioritize projects to meet funding levels
- Evaluate project bundling earlier to optimize construction costs and resources
- Consensus and uniformity in understanding complete/multi-disciplined scope projects
- Evaluate Scope Budget Change process to recognize opportunity to reduce possibility of project cost increased due to scope changes

Long-term Strategies

1. Schedule

A significant and pivotal long-term strategy will be the implementation of the One Nevada Plan. This plan will introduce a cohesive metric and established conduit for transportation needs to be analyzed, prioritized, and delivered. Over time as the One Nevada project development workflows are consistently practiced by all programs, the Department can expect more consistency in project development, scheduling, resource allocation, coordination, and funding.

Another strategy will be to coordinate with all Divisions delivering projects to ensure they are following established project delivery workflows and quality assurance milestones. A large percentage of the Department's bid contracts follow a project development workflow including milestone discipline reviews and QA/QC checks that ensure accurate contract plans, specifications and estimate. Not all Divisions follow the same workflow, therefore it would likely benefit our delivery and estimating performance to work with those Divisions to follow the established project delivery workflows.

2. Project Cost

The implementation of the One Nevada Plan is anticipated to provide a more comprehensive project list that better establishes needs, scope, risks, and readiness. With more coordination and analysis at the early project development stages, the Department can expect more accurate cost estimates.

Another strategy we are considering is researching the potential benefits and drawbacks of consolidating the core project estimating responsibilities within a focused team that would consistently apply estimating methodology to our projects and improve our overall estimating

performance. This estimating focused team would also be responsible for developing and managing applicable estimating methodology such as the construction cost index, which will better the Department in anticipating and reacting to construction market trends and projecting project cost.

Does This Performance Measure Effectively Measure What Is Desired?

The metrics established provide the explicit results directly and accurately; however, the larger discussion of measuring the performance of project delivery is complex and nuanced with multiple uncontrollable, compounding and interconnected factors.

1. Schedule

This measure provides a snapshot of projects planned to be executed within a federal fiscal year; however, it does not accurately depict the lifecycle of a project including but not limited to:

- Re-advertisements
- Supplementals
- Change Orders
- District Betterments utilizing state funding and tracking funding according to the state fiscal year (July 1 to June 30). This is a contributing factor as to why many of these projects are not captured on the October 1 baseline. The Betterment program is organized around a different timeline.

2. Project Cost

This metric shows the accuracy of Intermediate and Final Design estimates and how they compare to the Awarded Estimate. This metric does not provide a comprehensive picture of the overall design versus completed construction costs. The initial planning level costs through completion of construction are also not captured.

Another element that should be considered when reviewing the current metric is that the Awarded Estimate does not necessarily provide an average of what the market rate would be. For example, consideration of the second or third bidders would provide a different perspective of the design engineer's estimate.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Monitoring and evaluating project delivery is critical to the Department's success in fulfilling NDOT's Strategic Plan. There are many processes and stakeholders involved with project development and delivery. The Scheduling and Estimating Section continues to work with these stakeholders to make additional process improvements and to move towards achieving our performance metrics.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

As mentioned above, a comprehensive evaluation of project delivery is complex. There are opportunities to review project delivery from different parts of the development process and with different comparisons. All of which would provide different insights and opportunities for change. For example, adding the Final Design Estimate as a comparison criterion has given us a more consistent measure of cost estimation at the end of the project development process. With the implementation of the One Nevada Plan process, consideration of evaluating our cost estimation performance at earlier project development milestones, such as planning/STIP level estimates, would be of a benefit to establishing a more confident fiscally constrained STIP.

Identifying unforeseen changes to projects, changes in priorities, mandates, funding impacts, and specific project development issues, will help us better identify where improvements need to be made. A supplemental measure to consider might be to measure project delivery based on the percentage of program funding obligated per the Department's transportation goals for the year. If the Department is unable to deliver a scheduled project, might there be a comparable project (similar program/location/funding/scope) that could be delivered as a replacement.

The Department is currently evaluating its Strategic Plan and Performance Measure Indicators across the Department. Under the Strategic Goal to Optimize Mobility, this Project Delivery Performance Measure has the following recommendations:

- Measure 1: Project Delivery measure of percentage of scheduled projects delivered within the planned year. The recommendation is to keep this measure and consider adjusting the target. Our current target of 80% is significantly higher than other State Transportation Agencies.
- Measure 2a: Project Cost Intermediate estimate is within 15% of the awarded contract estimate. The recommendation is to remove this measure as it is not indicative of the final estimate versus award. The Scheduling and Estimating team would still monitor this measure internally during project delivery.
- Measure 2b: Project Cost Final estimate is within 10% of the awarded contract estimate. The recommendation is to keep this measure and modify the target. The target should be aligned with FHWA guidance on Engineer's Estimates.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes. Meeting the yearly targets will allow the Department to optimize project funding and deliver more projects.

Next Year's Target:

As mentioned earlier, the Department is currently evaluating its Strategic Plan and Performance Measure Indicators across the Department. Below are the proposed targets for consideration in 2025 reporting:

- Measure 1: Project Delivery measure of percentage of scheduled projects delivered within the planned year. The recommendation is to keep this measure and consider adjusting the target to 70%. Our current target of 80% is significantly higher than other State Transportation Agencies.
- Measure 2a: Project Cost Intermediate estimate is within 15% of the awarded contract estimate. The recommendation is to remove this measure as it is not indicative of the final estimate versus award. The Scheduling and Estimating team would still monitor this measure internally during project delivery.
- Measure 2b: Project Cost Final estimate is within 10% of the awarded contract estimate. The recommendation is to keep this measure and modify the target to 50% to align with FHWA guidance on Engineer's Estimates.

14. Maintain State Bridges

PERFORMANCE MEASURE:

The Department's performance measure associated with the maintenance of state bridges includes bridge condition ratings, separated by those assets on the National Highway System (NHS) and those not on the system (non-NHS). In alignment with the established national performance measures, this will include percentages of the inventory considered to be in "good" and "poor" condition.

Data in the NDOT bridge inventory is collected in accordance with the National Bridge Inspection Standards (NBIS) and is reported to the National Bridge Inventory (NBI). For each bridge, the condition rating is determined for three primary elements: deck, superstructure, and substructure. Bridge-sized culverts have a single, independent rating. NBI general condition ratings are assessed on a scale that ranges from 0 (failed condition) to 9 (excellent condition). The lowest of the three ratings for bridges, or the single rating for culverts, is used to represent the overall condition of the structure. Ratings of 7 or better, represent a bridge that is in good condition and ratings of 5 or 6 represent a bridge in fair condition. If any of the condition ratings are 4 or below, the bridge is in poor condition. A structure deemed to be in poor condition is classified as structurally deficient (SD). Percentage of the overall inventory in each category is determined by square foot area of the bridge deck.

Bridge data referenced in the report is based on the annual federal reporting "snapshot" taken at the end of March every year. In years past, a snapshot of the inventory was taken at the time data was requested for the various reports the Department produces (facts book, preservation report, performance management report). However, this created confusion because the inventory changes continuously throughout the year, so that each report included different data. The data in the performance management report reflects all changes to the inventory from the previous calendar year. The data provided in this report represents calendar year 2023.

Current Year Target:

As part of the NDOT Transportation Asset Management Plan (TAMP), the Department has established performance goals related to the overall condition of the State's bridge inventory. These performance targets include maintaining an inventory that has greater than 35% of bridges in good condition and less than 7% in poor condition. Maintaining an inventory with less than 10% of bridges classified as structurally deficient is a federally mandated performance requirement. NDOT has established these goals as part of the annual and long-term targets.

Previous performance measures considered the number of structurally deficient bridges that were replaced or rehabilitated annually. While this is no longer a direct performance measure, it contributes to the overall goal of minimizing the percentage of bridges in poor condition and will continue to be listed annually to help provide some context for the bridge condition ratings.

Ultimate Target:

The ultimate target is to eliminate structurally deficient bridges from the inventory, and to extend the service life of the Department's bridges.

As part of the TAMP, the Department has committed to the established performance goals for the next 10 years.

Performance Champion/Division:

The Structures Division is the Performance Champion for this performance measure.

Support Divisions:

The maintenance of state bridges is supported by those Divisions involved with the Department's preservation program – the Design and Materials Divisions – as well as the Department's three Maintenance Districts. Along with the Structures Division, these groups plan and execute bridge maintenance and preservations activities state-wide.

Overview and Plan Support:

These performance measures work towards meeting the Department of Transportation Strategic Plan goals of putting safety first and efficiently operating and maintaining the transportation system in Nevada. These goals can be met in the following ways: safety for the motoring public will be optimized by replacing structurally deficient bridges. The Bridge Division will seek and implement innovative solutions to the challenges faced by the Bridge Program. The Division will deliver timely and beneficial bridge projects and programs. Meeting this performance measure will help to efficiently preserve and manage Department assets.

Measurement and Supporting Data:

All supporting data is extracted from the Department's annual reporting to the National Bridge Inventory. Inspections are performed in accordance with established federal guidelines, and the Department is responsible for performing these inspections state-wide. While this data is constantly changing, as required inspections of our infrastructure occur and new bridges are added to the inventory, an annual snapshot is

taken every year in March and submitted to, and subsequently approved by, the Federal Highway Administration (FHWA).

Tables have been included to allow for ease of tracking. The tables do not include structures that are subject to routine preservation and maintenance activities (such as expansion joint replacement, repair of deck cracking, etc.) that are typically included in preservation or District Betterment projects.

Table 1 includes the condition ratings of all state-maintained bridges in the inventory. A small percentage of structures owned by other entities have been included in this data because they are part of the NHS. While the FHWA's emphasis is primarily on the NHS, the Department's long-term goal is to meet the established performance measures for both the NHS and non-NHS state-owned structures.

Table 2 lists all projects that have rehabilitated or replaced a state-owned bridge. Bridge replacements and major repairs generally have a direct impact on the established performance goals by increasing the percentage of the bridge inventory in good condition and decreasing the percentage of the bridge inventory in fair or poor condition, thereby improving the overall health of the inventory state-wide. In addition, the Department continues to replace scour susceptible bridges to improve the resiliency of our transportation network in response to disruptive natural events such as floods, wildfires and earthquakes.

Table 3 includes other significant structural work performed by the Department. These projects are often eligible for federal funding but may not directly contribute to the established performance measures. As noted, these are primarily seismic retrofits or bridge replacements. The Department's on-going efforts to retrofit seismically deficient bridges are an important part of our annual work plan, but seismic deficiencies alone do not relate to a structurally deficient classification and do not meet the performance criteria. The table also includes the replacement of structurally deficient bridges that are owned by other agencies. While it is essential these bridges be replaced, they do not meet the performance criteria, which only addresses Department owned structures.

Table 4 includes a historic listing of structurally deficient bridges.

Table 1: Bridge Condition Ratings

Calendar Year	2019	2020	2021	2022	2023	Target
Good Condition NHS	41.0%	46.2%	49.6%	52.1%	52.7%	> 35%
Good Condition non-NHS	44.1%	48.2%	52.1%	53.9%	54.4%	> 35%
Poor Condition NHS	1.0%	0.9%	1.1%	0.6%	0.6%	< 7.0%
Poor Condition non-NHS	0.9%	2.0%	0.7%	0.5%	0.8%	< 7.0%

Table 2: Structurally Deficient Bridge Rehabilitation/Replacement

Calendar Year	Bridge Quantity	Structure #'s	County	Contract # Award Date	Description of Work/Comments
2019	1	B-639	EL	3758-2/7/19	Replace SD bridge on SR226
2020	4	I-1306	WA	3819-4/13/20	Replace SD bridge on US395
		B-28	PE	3846-10/23/20	Replace SD bridge on SR396
		B-3226	CH	3842-9/14/20	Repair SD bridge on US95
		I-889	EU	3849-11/9/20	Replace bridge over I-80
2021	2	I-1440 H-1450	CL	3856-3/8/21	Replace SD bridges on I-515
	1	B-180	NY	3868R-12/13/21	Replace SD bridge on US6
2022	1	B-452	EL	3924-7/11/22	Replace bridge (scour)
	1	B-422	HU	3932-7/21/22	Replace bridge (scour)
2023	1	G-29	PE	3959-3/13/23	Replace SD bridge on FR
	1	I-808	HU	3978-7/10/23	Replace bridge on I-80
	1	B-608	CH	3996-12/11/23	Replace bridge on US50

Table 3: Additional Bridge Improvement Projects

Calendar Year	# Of Bridges	Owner	Structure #'s	County	Contract #/ Award Date	Description of Work/Comments
2019	1	LY	B-1615	LY	-	Replace 1 SD bridge
2021	1	NDOT	G-947/I-947	CL	3856-3/8/21	Seismic Retrofit
2022	4	NDOT	I-700E/W	WA/LY	3935-11/18/22	Seismic Retrofit
			I-717E/W			
			H-844E/W			
			I-740E/W			

Table 4: Historic Listing of Structurally Deficient Bridges

Calendar Year	Total State-Owned Bridges	State Owned Structural Deficient Bridges	Comments
2006 Baseline	1,045	20	2007 Report
2008	1,056	20	2009 Report
2010	1,064	18	2011 Report
2012	1,116	19	2013 Report
2014	1,154	15	2015 Report
2016	1,163	12	2017 Report
2018	1,208	15	2019 Report
2020	1,221	12	2021 Report
2022	1,240	8	2023 NBI Reporting
2023	1,239	7	2024 NBI Reporting

NOTES:

Bridge counts shown were previously based on the number of SD bridges as reported in the biennial NDOT State Highway Preservation Report. To provide the most current information, this chart now reflects data from the annual NBI reporting to the FHWA.

A description of Structurally Deficient bridges from the 2023 Nevada State Highway Preservation Report is included below for information.

"Bridges are considered Structurally Deficient (SD) if significant load-carrying elements are found to be in poor or worse condition due to deterioration and/or damage, or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing intolerable traffic interruptions."

Because the term "Structurally Deficient" causes undue concern, FHWA is considering changing the terminology. The term does not imply that the bridge is unsafe. Safety and maintenance concerns are identified during regularly scheduled inspections.

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Yes, the Department met the performance goals established in the Transportation Asset Management Plan.

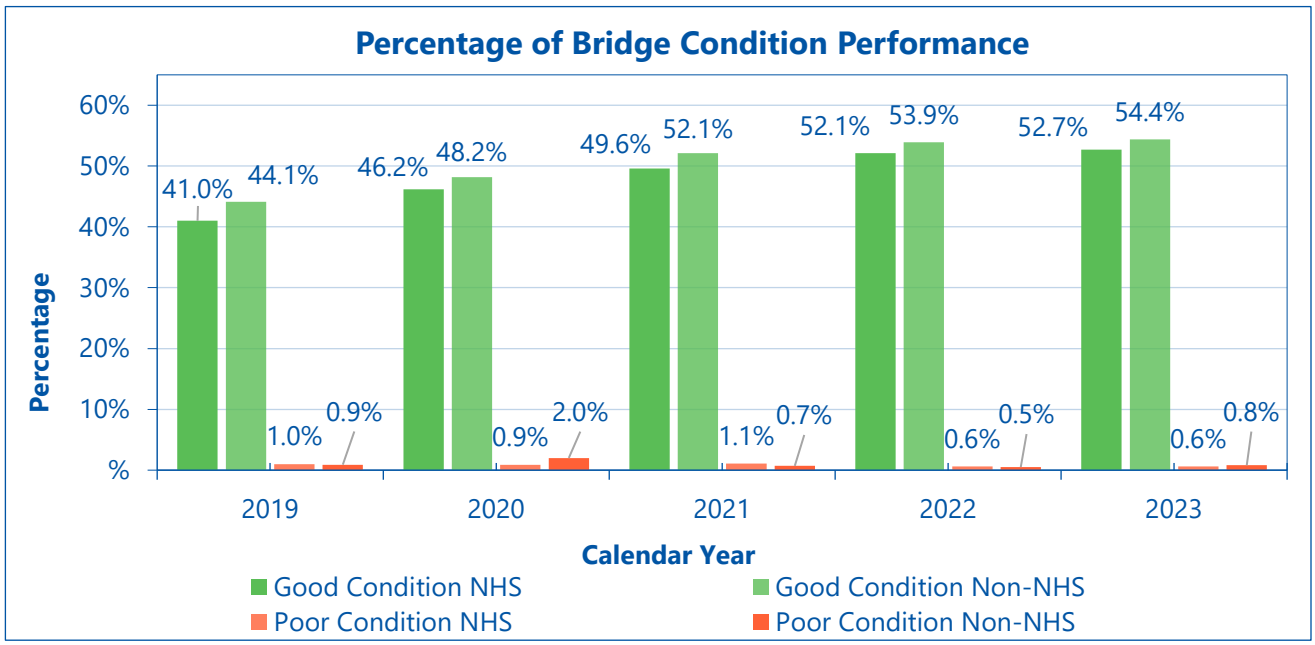


Figure 1: Percentage of Bridge Condition Performance

The Department has replaced a number of bridges since the TAMP baseline was established leading to a net decrease in the overall number of structurally deficient bridges. The seven SD structures listed in the 2023 NBI reporting – which correspond to the percentage of bridge deck area in poor condition - include three NHS and four non-NHS bridges statewide. The Department is uniquely positioned, as all state-owned SD bridges are in various stages of planning, design, or construction. The following summary provides a description of these structures, separated by urban and rural demographics.

Clark County

- B 1516S – Reinforced box culvert to be included in upcoming fiscal year 24/25 rehabilitation program.

Washoe County

- G 751 – Bridge provides access to Lockwood, east of Sparks, crossing the railroad. The structure is currently included as part of the Department's bridge replacement program.
- H 866E – The Nugget Viaduct replacement is included in future phases of the Reno Spaghetti Bowl project.

Other Counties

- B 1119 – To address structural deterioration and scour concerns, the replacement of the Halleck Road bridge, crossing the Humboldt River east of Elko, is nearing completion of the design phase of the project.

- G 58 – Bridge located on a frontage road in Elko County, west of Wendover, crossing the railroad. Structure is currently planned for removal.
- G 928E – The deck replacement and superstructure rehabilitation of this I-80 bridge, east of Wells, is currently anticipated as part of the fiscal year 25/26 NDOT rehabilitation program.
- I 1255 – Steel bridge carrying West Winnemucca Boulevard over I-80 suffered a significant high load hit in 2022. Repairs have been completed and the update to the bridge inventory is pending.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

The overall good condition of our inventory has allowed us to shift from a previous "worst first" approach to a more proactive preservation approach. The Department recognizes that our aging inventory is trending more rapidly from good to fair and we realize the importance of extending the service life of our structures. To meet the targets established in the TAMP, we are addressing this decline on several fronts.

We are not only analyzing our inventory from a state-wide perspective, but also a regional perspective to focus our efforts on those structures that would benefit most from preservation activities. Future Department preservation projects are playing a larger role in accomplishing necessary work on our major corridors and we are actively programming and planning projects outside of these areas to protect the health of the inventory. The Structures Division and Districts continue to work closely to prioritize necessary bridge work in every county. Analysis has shown that the bridge decks are primary drivers for overall bridge condition, and we recognize that preservation starts with construction. Requirements for regional multi-layer and polymer overlays on new bridge decks have been added to the NDOT Structures Manual to aid in preserving and extending the service life of our bridges.

Which Strategies Were Not Successful and Why?

Not applicable. The Department met and exceeded the performance goals established in the Transportation Asset Management Plan.

Strategies for Improvement Planned for Next Reporting Period:

Short-term Strategies

Evaluate programmed projects for possible preservation actions, corrective maintenance and risk reduction activities and include these activities into project scope as appropriate. NDOT Bridge Division provides information regarding state bridge policies and practices to local agencies to cooperate with and assist them.

Long-term Strategies

Along with the Department's previously established funding commitments, recent passage of the Infrastructure Investment and Jobs Act (IIJA) has provided additional resources for the expansion of NDOT's bridge rehabilitation and preservation program. Included in the infrastructure bill are specific federal formula funding amounts for each state as well as small and large bridge grant opportunities.

Included in Table 5 are bridge condition ratings separated by urban and rural areas throughout the state. As noted previously, the current condition of the state-owned bridge inventory is very good, with projects planned for all structurally deficient bridges. This has provided the Department a tremendous opportunity to approach our bridge preservation program more proactively and replace structures prior to the development of a poor condition rating.

Table 5: Bridge Condition Ratings

Condition	Items	Clark	Washoe	Other	Total
Good	Area (Sq. Ft.)	6,002,979	1,499,861	1,146,151	8,648,991
	Percentage	58.3%	45.3%	42.6%	53.1%
Fair	Area (Sq. Ft.)	4,284,897	1,756,932	1,505,177	7,547,006
	Percentage	41.6%	53.1%	55.9%	46.3%
Poor	Area (Sq. Ft.)	9,611	54,193	39,083	102,887
	Percentage	0.1%	1.6%	1.5%	0.6%
Total Area	Area (Sq. Ft.)	10,297,487	3,310,986	2,690,411	16,298,884

Table 6 provides an age profile of all structures in the TAMP inventory. As mentioned previously, the TAMP inventory includes all state-owned bridges with the addition of a small number of NHS bridges owned by other agencies. There are currently 1,369 bridges state-wide, of which, over forty percent exceed fifty years of age – surpassing the original design service-life. To determine mid and long-term priorities, the inventory was analyzed based on age and structural condition. The resulting list was utilized to develop scoping efforts for bridge replacements state-wide.

Table 6: TAMP Bridge Age Profile

Age	0-10 Years	11-20 Years	21-30 Years	31-40 Years	41-50 Years	51+ years	Total per Condition
Count	155	162	185	150	139	578	1,369
Percentage	11.3%	11.8%	13.5%	11.0%	10.2%	42.2%	
Deck Area (sq. ft.)	2,199,838	3,300,636	2,724,757	2,929,923	1,701,310	3,442,420	16,298,884
Percentage	13.5%	20.3%	16.7%	18.0%	10.4%	21.1%	

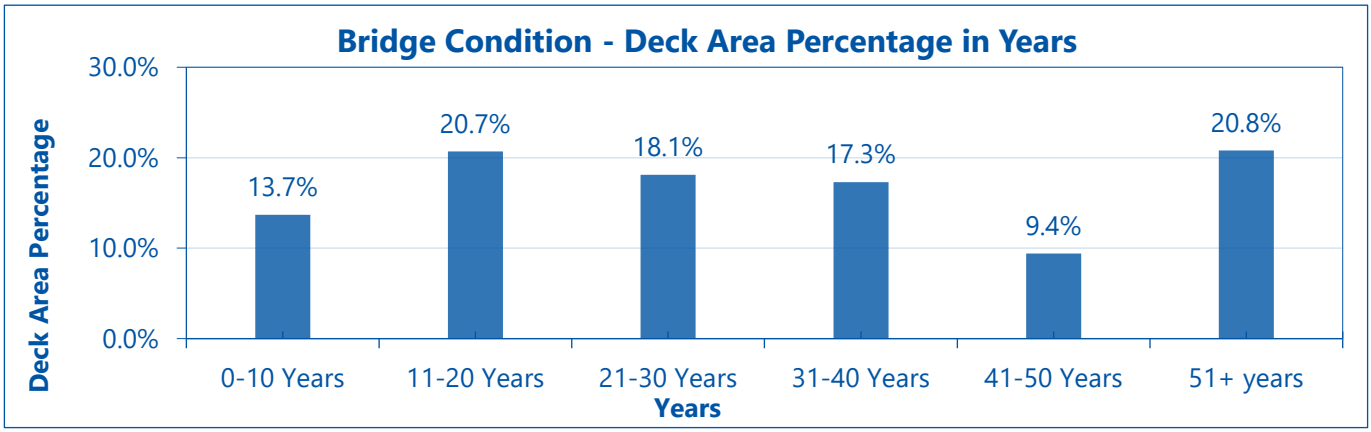


Figure 2: Bridge Condition – Count of Bridges in Years

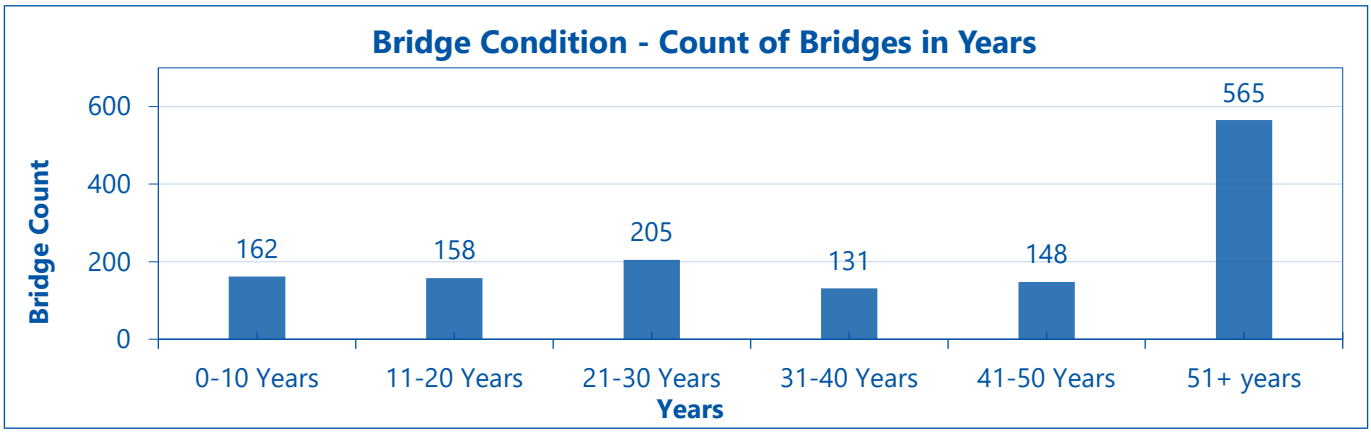


Figure 3: Bridge Condition – Deck Area Percentage in Years

While none of the targeted structures were considered deficient – defined by a primary component condition rating of four or less – most of the structures have a rating of five or an age that is well beyond the design service life. This review yielded a list of structures state-wide that were candidates for upcoming bridge replacement or rehabilitation. The list was further refined by correlating these structures with other proposed projects within the Department. This included projects in the

Department's rehabilitation program, as well as larger projects like the Las Vegas Viaduct replacement and future phases of the Spaghetti Bowl. Work that could be included in other projects was removed from this effort.

A project study identifying the scope, schedule and budget was subsequently initiated to determine reasonable alternatives for delivery. Feasible project delivery dates were determined considering environmental, Right-Of-Way, utility, and railroad impacts. Based on established timeframes for these processes, options were developed for delivery over the next five to seven years. The following provides a general overview of the consolidated list of proposed replacements.

Clark County

Proposed replacements in the southern portion of the state include two structures on the I-15 north of Las Vegas. While a significant percentage of the bridge inventory resides in Clark County, the overall condition of these bridges is very good. On average, the bridges in Clark County are nearly twenty years newer than all other bridges state-wide. This is due in large part to the Department's efforts to improve the I-15 corridor. Projects including the I-15 North and South Design-Builds as well as Project NEON and the Tropicana interchange have provided significant improvements to the structural condition ratings of bridges in the Las Vegas Valley. Most structures identified in the initial screening process will be included as part of the future Las Vegas Viaduct replacement and potential projects in the Central Corridor study area along with future phases of Project NEON. The Las Vegas Viaduct replacement alone includes the replacement of more than one million square feet of bridge deck area.

Washoe County

The most significant structural replacements are proposed in the Reno area as Washoe County currently has the highest percentage of bridge deck area in poor condition. This includes two bridge replacements in Lockwood and a series of replacements west of Reno to the California border.

The Lockwood bridges have been placed in the outer funding years as they are also included as part of the I-80 corridor study from Vista to USA Parkway and realignment of the structures may be necessary to accommodate the planned I-80 modifications.

The Reno bridge replacements include structures on I-80 from Mae Anne Avenue headed west to the Truckee River crossings. All these structures are condition-based replacement candidates, several of which are very large structures. To include all proposed replacements in one bridge-bundling contract may not be feasible financially, so the replacements have been divided into two projects. These projects are appealing candidates for potential grant opportunities utilizing IIJA funding.

Other Counties

Northern Nevada projects primarily include the replacement of deteriorated reinforced concrete box culverts. While these could be replaced individually, there is opportunity to combine several replacements in a bundled project. Several of the structures are near Eureka and would likely benefit from combined traffic control and consistent construction administration.

Does This Performance Measure Effectively Measure What Is Desired?

Yes. The performance measure allows us to track the overall condition of our bridge inventory and comply with current federal requirements.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Monitoring these performance measures on an annual basis helps the Department prioritize projects to utilize available funding most efficiently.

Is there a More Effective Performance Measure That Should Be Considered? If so, Explain.

In compliance with federal regulations, bridge conditions in the TAMP are based on the four primary component ratings. To aid in the preservation of our bridge assets, it may be valuable to evaluate the element condition rating of structural components that are critical to extending the service life of a structure and maintaining a state of good repair. An evaluation of components such as bridge decks could provide a more detailed look at where to focus future preservation efforts.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

To date, the Covid-19 pandemic has had little impact on meeting our performance measures.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Yes, an increasing investment in bridge preservation funding will be necessary in coming years to alleviate current backlog and address the anticipated growing rehabilitation and replacements needs of the state's aging inventory. The Department has committed to provide additional bridge preservation funding and, through the One Nevada Plan, looks to prioritize and utilize this investment in the most efficient way possible, to preserve the service-life of structures state-wide.

Current federal infrastructure funding will also aid in meeting the funding requirements necessary to preserve the state's bridge inventory.

Next Year's Target:

While additional bridges from our aging inventory will likely be added to the list in coming years, we anticipate meeting the current target without need of adjusting the established performance measure.

15. Streamline Permitting Process

PERFORMANCE MEASURE:

Percentage of permits issued or rejected within 45 days of receipt in accordance with Transportation Policy (TP) 1-10-3 "Encroachment Permit Processing Time Schedule".

Current Year Target:

95%

Ultimate Target:

95%

Performance Champion/Division:

Right-Of-Way Division

Supporting Divisions:

NDOT District Permitting Offices and Permit Reviewers from the following sections/Divisions: Construction, Environmental Services, Hydraulics, Materials, Planning, Project Management, Roadway Design, Safety Engineering, Stormwater, Structures, Traffic Operations, and the Federal Highway Administration.

Overview and Plan Support:

In accordance with Transportation Policy (TP) 1-10-3 "Encroachment Permit Processing Time Schedule", this performance measure identifies a goal for the Right-Of-Way Division to process 95% of encroachment permits within 45 days. TP 1-10-3 sets a 45-working-day process for all accepted encroachment permit applications.

Measurement and Supporting Data:

Encroachment Permits are processed using the Integrated Right-Of-Way Information Network (IRWIN). The measurement and data for this reporting is generated from the IRWIN program based on information input and dates of work from District Permits staff during the processing of encroachments permits.

The data provided by the IRWIN report effectively provides adequate date and timeframe information to show if improvements are necessary to achieve the target goal. Delays in permit processing may have potential impacts to Department projects scheduling Statewide.

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

No. All three Districts' annual reports a 94.4% of all permits processed were completed within 45 days or less, which is less than the target of 95%. The annual performance measure for each District is as follows:

- District 1 accepted 603 permits and processed 539 permits, achieving 96.9%
- District 2 accepted 324 permits and processed 306 permits, achieving 93.5%
- District 3 accepted 66 permits and processed 49 permits, achieving 73.5%

Which Strategies Were in Place During the Data Reporting Period?

Permit Committee meetings with District permitting offices to ensure consistent processing procedures.

The ongoing District level permit meetings have been effective in identifying areas of improvement and establish better communication between Headquarters and the District offices.

Which Strategies Were Successful?

Ongoing District-level meetings have been effective in identifying areas for improvement and establishing better communication between Headquarters and the District offices.

Which Strategies Were Not Successful and Why?

None. The implemented strategies have been successful.

Strategies for Improvement Planned for Next Reporting Period

Short-term Strategies

Short range plan includes maintaining regularly scheduled permit meetings with the District Permitting offices to ensure consistency in processing permits Statewide.

Long-term Strategies

The implementation of new software for the Department is being considered that will include a permit processing workflow to enhance staff productivity among the various Department Divisions that review and approve permits.

Does the Performance Measure Effectively Measure What Is Desired?

Yes. The established 95% processing rate within 45 days is reasonable and effectively evaluates the desired goal of efficiently issuing encroachment permits. Several factors have a potentially negative impact on our ability to meet the performance measure, including attrition of experienced permitting staff and reviewers.

Demand for permits is driven by the public. High numbers of permit applications require more staff time to meet ever-increasing demand.

Does Monitoring and Evaluating This Performance Measure Improve Your Process?

Yes. The Performance Measure keeps the permitting process accountable and clearly identifies any deficiencies that would require further investigation.

Is there a More Effective Performance Measure That Should Be Considered? If so, Explain.

No. 95% has proven to be a high, but reasonable standard that is sometimes unattainable due to increased permit applications from the public sector and current staffing levels.

Have Staff Vacancies Across the Department Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

Yes, staff turnover at the District level as well as the Department level continues to impact the desired target. Onboarding and training new staff could impact future target levels.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

There is no anticipated direct fiscal impact for next year. However, low staffing levels will negatively impact any ability to timely process permits and collect permit fees.

Next Year's Target:

95%

16. Reduce Greenhouse Gas Emissions

PERFORMANCE MEASURE:

Percentage of reduction in Greenhouse Gas (GHG) emissions within the Department's operations.

This measure was added to the annual reporting cycle in April 2020 to support the overall GHG reduction from the transportation sector as reported by the Nevada Annual Greenhouse Gas Inventory Report.

Current Year Target:

Fiscal years (FY) 2019 through 2024 are evaluated to establish a baseline to measure and assess future GHG reduction goals.

Ultimate Target:

Support statewide GHG reduction initiatives to achieve 28% economywide reduction by 2025 and 45% by 2030 compared with the 2005 baseline.

Performance Champion/Division:

The Environmental and Planning Divisions' management teams.

Support Divisions:

All Divisions and District offices.

Overview and Plan Support:

NDOT proposed GHG emissions reduction as a new performance measure for the NDOT's Annual Performance Management Report in support of Nevada's statewide climate goals. The Nevada Transportation Board of Directors adopted this measure on April 13, 2020. The Department is committed to providing leadership in reducing GHG emissions by implementing a combination strategy in our operations, planning, design, construction, and maintenance of existing and future transportation systems. This commitment is to fulfill the Nevada Department of Transportation's 2025-2029 Strategic Plan's Mission: "Provide, operate, and preserve a reliable and sustainable transportation system that enhances safety, quality of life, and economic development through innovation and collaboration".

During FY24, NDOT took the following actions to establish future performance targets and implemented several specific GHG reduction measures within our operations. These actions are part of our ongoing commitment to reducing GHG emissions.

- Continued to perform annual GHG inventory for the NDOT Administrative Operations for fiscal years (FY) 2019 to 2024, resulting in an 18.7% reduction overall. The inventory included fuel usage (staff commuting, business travel, equipment operation), energy usage (electricity, natural gas, HVAC/refrigeration), and waste and material recycling.

- Improved electronic reporting tool to facilitate annual waste management and material recycling inventory in Districts 2 and 3 in FY24.
- Implemented measures from the NDOT GHG Emission Reduction Implementation Plan, including procuring more energy-efficient lighting fixtures (O-5 and DC-11), increasing solar lighting and energy capacities where applicable (DC-4), allowing the use of Portland Limestone cement to reduce GHG emissions on road projects (DC-2), and other design (DC-3 and DC-10) and traffic management measures (DC 5 to DC-9).

GHG emissions and implementation action plans are monitored and continue to be refined in FY25.

Measurement and Supporting Data:

NDOT continues to use the EPA Simplified Greenhouse Gas Emission Calculator, Version 6 (August 2020 – June 2024), released by the EPA Center for Corporate Climate Leadership, to estimate GHG emissions for the Department's operations in FY19 through FY24. Table 1, shown below, presents GHG emissions from FY19, FY23, and FY24 for comparison purposes. A graphical representation of GHG emissions from NDOT operations over time (FY19-FY24) is shown in Figure 1. Several gaps in data sources are noted below.

Table 1. GHG Emissions FY19 - FY24 in Metric Tons of CO2 Equivalent (Mt CO2e)

Parameters	FY19	FY23	FY24	FY23-FY24 Change, %	FY19-FY24 Change, %
Stationary Source [a]	3,036.9	2,673.0	2,305.6	-13.7%	-24.1%
Mobile Source	20,385.9	16,773.6	16,130.5	-3.8%	-20.9%
Biofuel [b]	287.3	194.3	238.6	22.8%	-17.0%
Refrigeration/AC [c]	389.7	1,478.0	1,258.8	-14.8%	223.0%
Electricity Purchase	6,011.4	5,480.5	5,175.1	-5.6%	-13.9%
Business Travel	163.3	137.5	127.6	-7.2%	-21.9%
Commuting	6,170.8	3,256.6	3,398.3	4.4%	-44.9%
Waste Generation	1,445.3	1,283.2	1,921.0	49.7%	32.9%
Sum of Mt CO_{2e}	**37,603.3**	**31,082.4**	**30,555.6**	**-1.7%**	**-18.7%**

Notes:

a. NV Energy bills (NVE) for February 2024 were not available for several District 3 facilities at the time of reporting.

b. Emission offsets from biofuel fractions (E85, B20) are quantified but are not included in the total GHG emissions estimates.

c. Incomplete inventory for refrigeration and AC equipment is an ongoing effort for District facilities. AC units from

Department's vehicles and mobile equipment were added from FY21 to FY23. Emission estimates is lower in FY24 due to reduced Global warming potential values assigned to refrigerants in the June 2024 update to the EPA Simplified Greenhouse Gas Emission Calculator.

GHG emissions from the NDOT operations in FY24 were reduced by 18.7% compared with the baseline 2019 fiscal year (also a 1.7% decrease compared to FY23). Most of the reduction between 2019 and 2024 can be attributed to reductions in overall energy and fuel usage (stationary and mobile sources), lower electricity usage, and fewer business trips. Estimated emissions from business travel decreased by more than 7% between FY23 and FY24 and decreased by nearly 22% compared to the FY19 base year, suggesting the use of virtual (or hybrid) meetings by Department staff, where applicable, continue to be effective.

While there are areas that show a general increase in GHG emissions between FY23 and FY24, it's important to note the factors contributing to these changes. For instance, staff commuting to and from the worksite saw a 4.3% emission increase due to the full implementation of the "return to the workplace" policy during the second half of the fiscal year 2024. However, GHG emissions associated with staff commuting still decreased by 45% compared with the baseline 2019 fiscal year. Staff vacancies and the continuing hybrid telework policy during the first half of the fiscal year are factors contributing to this difference. Improved documentation of waste generation, disposal, and recycling in Districts 2 and 3 has contributed to the estimated 50% increase in GHG emissions in FY24 compared to FY23.

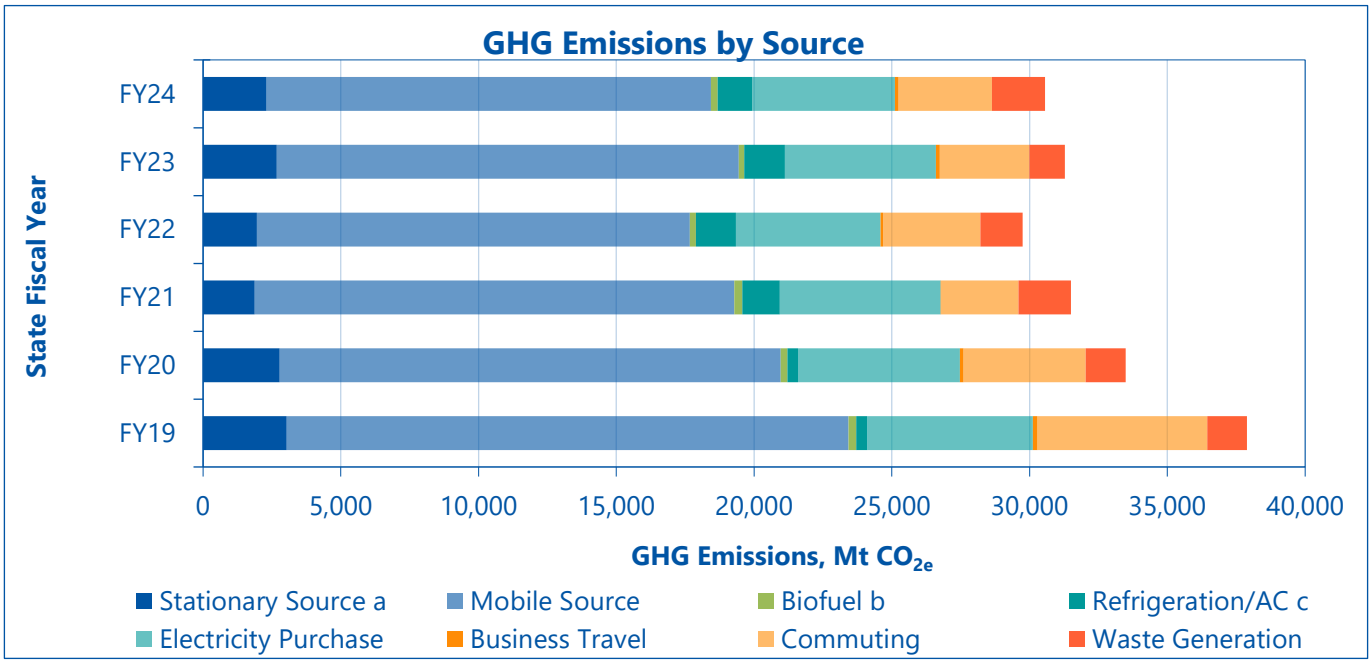


Figure 1. GHG Emissions from NDOT Operations by Fiscal Year and Source Type

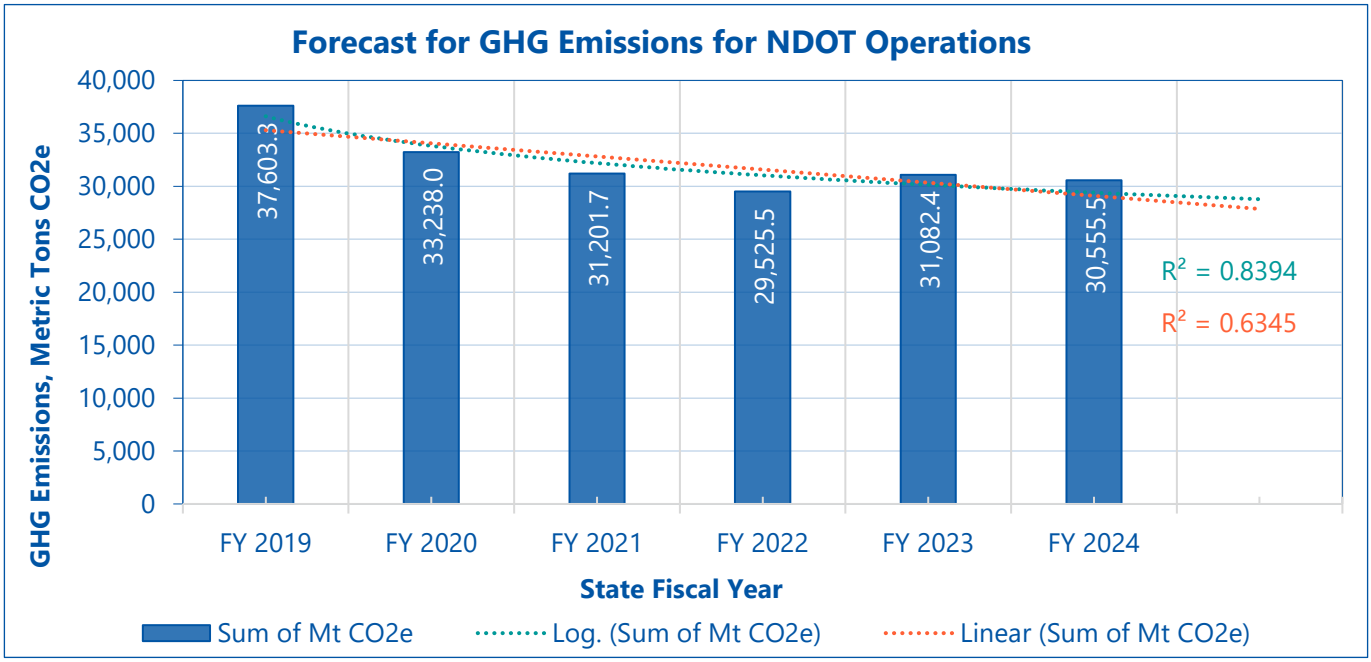


Figure 2. Forecasts for GHG Emissions from NDOT Operations

Figure 2 presents the trend and forecasting of GHG emissions within the NDOT operations using Logarithmic and Linear trendlines. The logarithmic trendline is a better fit (R2 = 0.8394) for forecasting GHG emissions reduction to FY29. In FY23, the Department estimated GHG emissions would level off, around 31,000 Mt CO2e per year in FY24 and beyond unless significant fuel and electricity reduction measures can be realized. For FY24, the Department documented the total GHG emissions at 30,555 Mt CO2e, a 1.7% emission decrease from FY23.

Some opportunities for reducing energy usage are not just possibilities but important strategies. These include increasing the use of solar-generated power at Intelligent Transportation Systems (ITS) and Nevada Shared Radio System sites, improving fuel efficiency and alternative fuel vehicles (AFV) for the Department fleet, and continuing to invest in energy efficiency at the NDOT facilities. These measures are not just beneficial but necessary for our sustainability goals.

Data collection challenge: Missing and late invoices for energy usage have significantly delayed data collection and required a significant amount of staff time to track down. Incomplete inventory for AC units from District facilities is noted under Table 1. Both challenges continue to affect inventory accuracy and efficiency. As a result, the Department will continue to explore ways to improve data collection for these parameters in FY25.

EVALUATION OF PERFORMANCE MEASURE:

Annual Target Met?

Not applicable. A specific performance target for GHG reduction in the NDOT operations has yet to be set due to data gaps identified during the inventory and the extended impacts of the 2019 pandemic on NDOT operations. Although Figure 2 suggests that the GHG emissions in the NDOT operations may have stabilized between FY23 and FY24, baseline inventory measuring will continue to be refined through FY25 (the first full year after return to the workplace) to develop realistic performance targets.

Which Strategies Applied During the Current Data Reporting Period Were Successful?

The Department's GHG Reduction Strategic Plan was finalized in February 2021. Twenty-four GHG reduction measures were identified. The GHG reduction measures have begun since FY22, and many are continuing into FY25:

- O-5 and DC-11 (Energy-efficient roadway lighting): The Department has continued implementing more efficient LED (light-emitting diode) lighting specifications for all new installations and replacement on all maintenance contracts. LED lighting specifications were implemented in twenty contracts initiated between 2021 and 2023. When all projects are completed, the Department estimates a GHG reduction of nearly 579 Mt CO2e per year — equivalent to removing about 138 cars from the road each year[1]. The Department will continue to include lighting replacement using LED lights in multiple ITS maintenance contracts.

  Note: 1 - Emissions and equivalency estimates used EPA GHG Equivalencies Calculator (2024).

- DC-2 (Consider GHG emissions in pavement and material selections): In November 2022, the Department began allowing the replacement of ordinary Portland Cement (OPC) with Portland Limestone cement (PLC), which contains 5% to 10% additional natural limestone powder. When fully implemented, PLC will decrease our carbon dioxide emissions by about 4,000 tons (3,628 Mt CO2e) per year – equivalent to removing about 870 cars from the road for the year.

- DC-3 (Right-Of-Way vegetation management): On a project implementation level, NDOT Landscape and Aesthetics continue to refine seed mix (plant species) that perform best for any given environment. The seeding task force will further this effort by identifying strategies to improve the success rate for re-vegetation in our Right-Of-Way. As the driest state, Nevada presents unique challenges in using plant material to reduce CO2 effectively. However, a healthy stand of native sagebrush, along with other native and adapted species, will take in carbon from the atmosphere. The carbon is sequestered and prevented from releasing into the atmosphere as CO2 through the process of decomposition within the soil. The healthier the roadside vegetation is, the more effective the sequestration will be. This is realistic for the north, whereas planting drought-tolerant trees in urban areas in southern Nevada continues to be the most effective measure of reducing GHG.

- DC-4 (Alternative energy capture: Solar): Traffic Operations currently has eleven (11) remote (NSRS) sites with solar lighting capacities. The Department has installed 241.5 kW of solar capacity at NSRS and ITS sites. In FY25, two (2) more remote sites are planned with solar capabilities (adding 57 kW), and four (4) sites will receive upgrades (adding 112 kW).
- DC-5 (Reduce GHG through traffic management and control): Integrated corridor management is being addressed in the Statewide ITS and ATM (Active Traffic Management) Master Plan. Project concept recommendations are complete and are being placed on the State Transportation Improvement Plan (STIP). This will be an ongoing annual effort.
- DC-6 (Improve traffic flow and reduce congestion and idling): Traffic Operations continues to design the shortest idle times and detours in our traffic control and traffic management plans. This is an ongoing effort to address all projects with traffic control and traffic management plans.
- DC-7 (Provide real-time travel information to reduce congestion): Real-time traveler information is provided through a 511 Service Provider contract. The Department updated the 511 System in the Fall of 2022. The current system will be in place through 2026, with the option to extend the service provider contract through 2030.
- DC-9 (Minimize traffic delays and vehicle miles traveled (VMT) during the construction phase): TSMO strategies to reduce traffic delays and vehicle miles traveled through construction work zones are an ongoing process via Smart Work Zones, 511 Traveler Information, Dynamic Message Signs, Traffic Incident Management Plans, and Temporary Traffic Control Plans.
- DC-10 (Reuse/recycle materials): This will continue to be implemented project-by-project. Recycled asphalt paving (RAP) will continue to be used on contracts.

Note: 1 - Emissions and equivalency estimates used EPA GHG Equivalencies Calculator (2024).

Which Strategies Were Not Successful and Why?

Implementation of GHG reduction measures was initiated in FY22 and is ongoing.

- O-1 (Procure more energy-efficient movable appliances and electronics): Buildings and Grounds staff completed an inventory of small devices at the NDOT Headquarters in FY22. Due to staff vacancies and workload, further evaluation to implement centralized break areas and procure energy-efficient appliances was not implemented in FY24.
- O-4 (Implement policies to support telecommuting or compressed workweeks): NDOT's telecommuting policy ended in January 2024, resulting in 585 staff members who previously qualified for hybrid telecommuting returning to the office full-time (or working a compressed 4-10 schedule). This resulted

in a 4 % increase in GHG emissions in FY24 compared to FY23. With reduced vacancies and full return to the workplace, the Department anticipates GHG emissions from staff commute would increase further in FY25.

Strategies for Improvement Planned for Next Reporting Period:

GHG reduction strategies officially implemented are in the Department's GHG Reduction Strategic Plan as scheduled for FY22-FY25. The following are some of measures included in that plan.

Short-term Strategies

- Asset Management: Switching light fixtures to LED and replacing equipment at HQ and other facilities to improve energy efficiency continue to be implemented. Improved record-keeping will better document energy savings and resulting GHG reductions (O-1 through 3). The following projects are ongoing, completed, or planned for FY25:
  - The fleet's electric vehicle (EV) charger was installed at Hot Springs in June 2024. The Carson HQ EV charger unit is planned to be installed in FY25.
  - New natural gas-fired unit heaters are replacing the boilers in the main equipment shop and machine shop in Sparks on Galletti Way.
  - The roof at Hot Springs in Carson is being replaced, and more insulation will be added.
  - The Searchlight maintenance station south of Las Vegas is being reconstructed. The new, larger facility will have high energy-efficient equipment.
- Equipment (O-3): Increasing the use of energy-efficient or alternative fuel light-duty vehicles (AFV). In FY24, estimated offsets through the use of biodiesel (B20) and Ethanol (E85) fuels were 239 Mt CO2e.
- Reducing business travel for in-person meetings will continue to support GHG reduction. Department staff (both employees and contractors) continue to use virtual and hybrid meetings post-COVID to realize GHG reduction benefits. In FY24, emissions from business travel were reduced by 7.1% compared to FY23. Emissions from documented business travel were reduced by almost 22% compared to the FY19 base year.
- Recycled materials in waste management and construction have a significant impact on offsetting GHG emissions. Reusing and recycling construction materials, include reclaimed asphalt pavement (RAP), Portland cement concrete pavement (PCCP), and fly ash. The Materials and Design Divisions will continue to promote and implement recycled materials to improve function and durability and reduce the carbon footprint of our Department's operations. (O-6 and DC-10).

Long-term Strategies

- Roadway Design: Incorporating landscape vegetation in roadway design will help offset GHG emissions. (DC-3)
- Planning: Develop new transportation projects with GHG reduction and sustainability as key components. Recent Board approval of the One Nevada Plan and STIP, which includes priorities directly related to GHG reduction, is an important initial step toward incorporating GHG reduction into the Department's planning process. (P-1)
- Planning: Develop transportation planning documents to address GHG reduction. For example, the rail plan aims to reduce the number of semi-trucks traveling on our roadways. (P-2)
- Planning: Include quantitative GHG assessment of projects' modal types for consideration in planning studies and decisions. An emphasis on bike and pedestrian connectivity and implementing Complete Streets projects is projected to reduce vehicle emissions. (P-2)
- Environmental Planning: NDOT is now including quantitative analysis of alternatives for GHG impacts for major projects following the National Environmental Policy Act (NEPA) Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (2023). The Department anticipates two NEPA documents with quantitative GHG analyses in FY25. (P-4)

Does This Performance Measure Effectively Measure What Is Desired?

The performance measure is anticipated to allow the Department to track the effort as desired and help meet statewide GHG goals. In addition, Departmental tracking and monitoring of GHG reduction strategies will assess the strategy's effectiveness, and modifications will be made to ensure accurate and effective measurement.

Does Monitoring and Evaluating This Performance Measure Improve Your Business Process?

Currently, the Department continues to monitor baseline emissions and evaluate the impact of post-pandemic operations in FY22-FY25. With continued monitoring and refinements, we expect to achieve sufficient accuracy in emission estimates to make meaningful process improvements.

Is There a More Effective Performance Measure That Should Be Considered? If so, Explain.

Not applicable. The Department continues to evaluate baseline GHG emissions and refine reduction strategies.

Has the Covid-19 Pandemic Affected This Performance Measure or Your Ability to Achieve the Targets? If so, Explain.

Social distancing implemented during the pandemic significantly reduced GHG emissions from business travel and staff commuting. This is a positive outcome for the GHG reduction initiative. GHG emissions in FY24 from business travel and staff commuting remain lower (22% and 45%, respectively) compared to FY19 (pre-pandemic). This suggests improved processes and efficacies gained during the pandemic continue to be effective.

Will Meeting the Yearly Target Have a Fiscal Impact? If so, Explain.

Replacing equipment with energy- and fuel-efficient alternatives will have a fiscal impact initially. Where possible, the existing/authorized operating budget will be utilized to fund purchases. Modifications to construction and maintenance practices or materials may incur higher costs for the Department and our construction contractors and consultants. Quantitative tracking of Department GHG emissions will utilize existing personnel, processes, and systems where applicable. The 2023 Legislature approved a new Air-Quality/GHG staff specialist position within the Environmental Division to support coordination, monitoring, and implementation. The position was filled in April 2024. The Department continues to work on specific guidance and establish yearly targets and fiscal implications.

Next Year's Target:

Due to continuing data gaps in the inventory, a performance target has yet to be established for FY24. Therefore, the Department will continue to monitor annual GHG emissions in the NDOT operations through FY25 to develop a realistic future reduction performance target.

Applicable Directives

from the Transportation Board/Legislature

Applicable Directives from the Transportation Board/Legislature

The 2023 Legislature passed two bills that may affect elements of this report in future years:

AB 184 establishes a voucher incentive program called the Clean Trucks and Buses Incentive Program in which the Division of Environmental Protection of the State Department of Conservation and Natural Resources will, within the limits of money available for such purposes, issue vouchers to approved contractors to redeem with the Division for offering certain price incentives to certain entities for the sale of eligible zero-emission medium-duty and heavy-duty vehicles. NDOT is serving as the steward of the funds for this program. This effort could increase the amount of non-SOV travel that we see in future reports.

SB 107 requires the Department of Transportation to establish a program to allow a contractor who has been awarded a contract for work on a highway to obtain a permit for the use of a law enforcement vehicle owned by the Nevada Highway Patrol that: (1) is clearly marked as such; (2) is equipped with flashing lights (3) has been rendered incapable of being driven. This bill also provides that a contractor may only use: (1) the flashing lights if construction workers are present; and (2) the law enforcement vehicle if the contractor has requested the presence of an authorized emergency vehicle operated by a Nevada Highway Patrol Officer and neither an officer nor an authorized emergency vehicle could be made available in the area where the work is being performed. This is expected to improve safety metrics for employees and the traveling public by providing additional enforcement in work zones. Work zones are critical areas for safety with workers and drivers both at heightened risk. Rural areas are present a challenge for safety due to the deadly nature of the high-speed crashes that may occur.

State Highway Fund

Annual Revenue and Expenditures

State Highway Fund Annual Revenue and Expenditures

Assembly Bill 595 in the 2007 Legislative Session included the requirement for the Department to report on the funding sources, amount, and expenditures (Section 47.2).

The Following Three Tables Provide the Required Information:

1) Schedule of Revenues and Receipts – Budgetary Basis
2) Comparative Schedule of Expenditures and Disbursements – Budgetary Basis
3) State Highway Fund Balance – Budgetary Basis

The first table reports that the total FY23 revenues into the State Highway Fund were approximately $1.294 billion while the second table contains the total FY23 actual expenditure of approximately $1.405 billion. These two tables also include other detailed financial data about transportation-related revenues and expenditures.

The third table indicates the Highway Fund Balance was $324,267,391 at 2023 fiscal year-end. This balance is approximately $110.3 million lower than the 2022 year-end balance of $434,568,946. Please note that the 2024 fiscal year-end balance will be available when the State of Nevada 2024 Comprehensive Annual Financial Report has been completed.

State of Nevada Highway Special Revenue Fund

Schedule of Revenues and Receipts

Budgetary Basis for the Fiscal Years Ending June 30, 2023, 2022 and 2021

(In Thousands)

State User Taxes	FY23	FY22	FY21
Gasoline Taxes	$227,027	$226,299	$212,106
Motor Vehicle Fees and Taxes			
Vehicle Registration & Bicycle Safety Fees	$132,584	$133,830	$127,779
Basic Government Service Tax	$81,108	$79,295	-
Motor Carrier Fees	$45,621	$45,337	$42,591
Driver's License Fees	$22,899	$23,350	$27,255
Special Fuel Taxes	$115,338	$118,689	$111,612
Total Motor Vehicle Fees and Taxes	$397,550	$400,501	$309,237
Total State Revenue	$624,577	$626,800	$521,343
Federal Aid Reimbursement			
Department of Interior	-	-	-
Federal Aviation Administration	$2	$316	$284
Federal Emergency Management Administration	-	-	$14
Federal Highway Administration	$431,967	$319,040	$272,740
Federal Rail Administration	-	-	-
Federal Transit Administration	$5,620	$10,930	$13,620
Total Federal Aid	$437,589	$330,286	$286,658
Miscellaneous Receipts			
Departments of Motor Vehicles & Public			
Safety Authorized Revenue	$122,563	$116,448	$146,158
Appropriations from Other Funds	$22,855	$-294	$2,637
Proceeds from Sale of Bonds	-	-	$160,009
Agreement Income	$11,956	$12,149	$14,052
Interest	$12,751	$4,165	$3,720
Sale of Surplus Property	$885	$2,377	-
AB595 Property Tax	$32,841	$29,407	$27,108
AB595 Bond Revenue	-	-	-
Other Sales & Reimbursements	$28,055	$28,242	$22,779
Total Miscellaneous Receipts	$231,906	$192,494	$376,463
Total Revenue and Receipts - Budgetary Basis	**$1,294,072**	**$1,149,580**	**$1,184,464**

State of Nevada Highway Special Revenue Fund

Comparative Schedule of Expenditures and Disbursements

Budgetary Basis for the Fiscal Year Ending June 30, 2023, 2022 and 2021

(In Thousands)

	FY23			FY22	FY21
	Budgeted	Actual Using Budgetary Basis	Variance Increase (Decrease)	Actual Using Budgetary Basis	Actual Using Budgetary Basis
Department of Transportation					
Labor	$176,694	$146,573	$30,121	$143,118	$141,447
Travel	$3,056	$2,443	$613	$2,258	$1,161
Operating	$99,645	$92,559	$7,086	$78,482	$77,760
Equipment	$21,822	$12,755	$9,067	$10,690	$27,282
Capital Improvements	$1,025,013	$774,453	$250,560	$589,500	$510,826
Bond Expenditures	$2,900	$2,819	$81	$90,709	$67,278
Other Programs	$37,094	$10,796	$26,298	$14,013	$14,858
Total Operations	$1,366,223	$1,042,398	$323,825	$928,770	$840,612
Cost of Fuel Sold to Other Agencies	$3,330	$3,019	$311	$2,691	$1,864
Total Department of Transportation	$1,369,553	$1,045,417	$324,136	$931,461	$842,476
Department of Motor Vehicles (see Note)	$223,475	$158,042	$65,433	$146,958	$123,842
Department of Public Safety (see Note)	$126,052	$82,444	$43,608	$81,919	$108,485
	$349,527	$240,486	$109,041	$228,877	$232,327
Appropriations To Other Funds					
Board of Examiners	-	-	-	-	-
Department of Administration	-	-	-	-	-
Transportation Services Authority	$2,689	$2,567	$122	$2,440	$2,400
Public Works Board	$5,055	$5,043	$12	$4,009	$3,358
Traffic Safety	-	-	-	-	-
Investigations	$500	$443	$57	$302	$350
DMV Training Division	$1,393	$1,317	$76	$1,191	$1,492
Transfer to Treasurer	$4,154	$4,154	-	$4,155	$4,150
Governments Office of Finance IT Project	$1,640	$1,640	-	$1,065	$6,078
Fleet Services Capital Purchase	-	-	-	-	-
Legislative Counsel Bureau	$29,710	$29,370	$340	-	$-1,546
Department of Information Technology	-	-	-	-	-
Total Appropriations to Other Funds	$45,141	$44,534	$608	$13,162	$16,282
Other Disbursements					
Transfer to Bond Fund	$80,000	$74,438	$5,562	$74,529	$75,418
Total Other Disbursements	$80,000	$74,438	$5,562	$74,529	$75,418
Total Expenditures & Disbursements Budgetary Basis	**$1,844,222**	**$1,404,874**	**$439,347**	**$1,248,029**	**$1,166,503**

State of Nevada State Highway Fund Balance

Budgetary Basis for the Fiscal Year Ending June 30, 2023, 2022 and 2021

	Actual		
Items	**FY21**	**FY22**	**FY23**
Beginning Fund Balance:			
General Obligation Bonds	$0	$93,125,362	$2,818,743
Restricted Funds	$105,442,342	$179,369,574	$193,417,605
Other Highway Fund	$372,461,622	$248,122,459	$238,338,136
Total Beginning Fund Balance:	$477,903,965	$520,617,395	$434,574,484
Add:			
Revenues	$1,024,062,447	$1,149,177,819	$1,294,567,876
Bond Proceeds	$160,403,618	$402,008	$-
Total Additions:	$1,184,466,065	$1,149,579,827	$1,294,567,876
Deduct:			
Department of Transportation non-bond Expenditures	$774,070,944	$839,507,500	$1,041,722,787
Department of Transportation. Bond Expenditures	$67,278,256	$90,708,628	$2,818,743
Expenditures & Appropriations to Other Agencies	$324,644,896	$317,812,149	$360,333,439
Total Deductions:	$1,165,994,096	$1,248,028,277	$1,404,874,969
Adjusting Entries:			
Controller's Office CAFR Adjustments	$24,241,462	$12,400,000	$-
Estimated Reversion to Fund	$-	$-	$-
Total Adjusting Entries:	$24,241,462	$12,400,000	$-
Ending Fund Balance:			
General Obligation Bonds	$93,125,362	$2,818,743	$0
Restricted Funds	$179,369,574	$193,417,605	$118,374,107
Other Highway Fund	$248,122,459	$238,332,598	$205,893,284
Total Ending Fund Balance:	$520,617,395	$434,568,946	$324,267,391

The fiscal year 2024 Annual Comprehensive Financial Report (ACFR) for the state has not been completed yet, so the balance could not be reconciled with the ACFR.

Major Projects

Annual Status Report

Typical Project Development Process

The Department's project development process typically consists of four major phases: planning, environmental clearance, final design, and construction. These phases are described in more detail below. The development process is based on federal and state laws and regulations, engineering requirements, and a Departmental review and approval process. This section provides an overview of the four-phase process, identifies major milestones within the phases, and describes the information developed during each phase.

Project Planning Phase

In this phase, the project needs are analyzed, and conceptual solutions are developed. Project descriptions, costs, and schedules are broadly defined. The planning phase typically addresses such issues as number of lanes, location and length of project, and general interchange and intersection spacing. The intent of this phase is to develop the most viable design alternatives, and to identify the best means to address risks and uncertainties in cost, scope and schedule.

Environmental Clearance Phase

For the environment clearance phase, major projects are subject to the National Environmental Policy Act (NEPA) to address potential social, environmental, economic and political issues.

During this phase, studies are conducted to define existing conditions and identify likely impacts and mitigations so the preferred design alternative can be selected from among various alternatives. In this phase, the project scope is more fully defined, Right-Of-Way issues are generally identified, project costs and benefits are estimated, and risks are broadly defined.

Finally, a preliminary project schedule is determined. After this phase, major projects are divided into smaller construction segments to address the project's social, environmental, economic and political issues as well as funding availability and constructability.

Final Design Phase

During this phase, a design of the selected alternative identified during the environmental clearance phase is finalized. In this phase, the project scope is finalized, a detailed project design schedule and estimate is developed, and project benefits are fully determined. The Right-Of-Way requirements are also determined

and acquisition is initiated. Additionally, utility relocations are initiated toward the end of the final design phase. At the end of this phase the project design and cost estimate are complete, and the project is advertised for construction.

Construction Phase

During this phase, projects are constructed based on the final design plans. Depending on the nature of the project, utilities relocation might occur during early stages of this phase. Due to the complexity of major projects, a detailed construction schedule, traffic control plans, and environmental mitigation strategies are developed in consultation with the selected contractor.

Project Status Sheet Explanation

The information contained on the project status sheet is centered on the Department's project development process. This process typically consists of the four major phases: planning, environmental clearance, final design and construction. Additional details of these phases are contained in the Major Projects Summary Sheets, which details the project development process utilized by the Department of Transportation.

The project status sheets contain several items of information as follows:

Project Description:

Contains the preliminary project scope, which generally identifies features of the project i.e., length, structures, widening, and interchanges, and directs the project development process.

Project Benefits:

Summarizes the primary favorable outcomes expected by delivering the project.

Project Risks:

Identifies the major risks that might impact project scope, cost, and schedule. Unforeseen environmental mitigation, Right-Of-Way litigation, and inflation of construction materials or land values are only a few items that can adversely affect project development.

Schedule:

Provides the time ranges for the four primary phases of project development: planning, environmental clearance, final design, and construction. Generally, the schedule by state fiscal years, reveals the time range for starting or completing a phase. It indicates the starting range early in the development process and completion range later in the process.

Project Costs:

Project cost ranges are provided by activity: 1) engineering activities that includes planning, environmental clearance and final design costs, 2) Right-Of-Way acquisition, and 3) construction. Costs are adjusted for inflation to the anticipated mid-point of completing a phase.

What's Changed Since Last Update?

Contains summaries of the project scope, cost, and schedule changes, if any.

Financial Fine Points:

Includes the total expended project costs and summary of financial issues.

Status Bars at the Bottom of the Form:

Shows the percentage of completion for the primary project development activities that are in progress: planning, environmental clearance, final design, Right-Of-Way acquisition, and construction.

Major Projects

Summary Sheets

Major Projects

Southern Nevada Projects

I-15 PROJECTS

I-515 PROJECTS

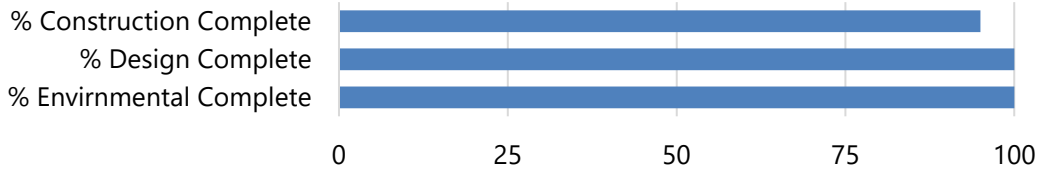
Northern Nevada Projects

I-15 North – Phase 3

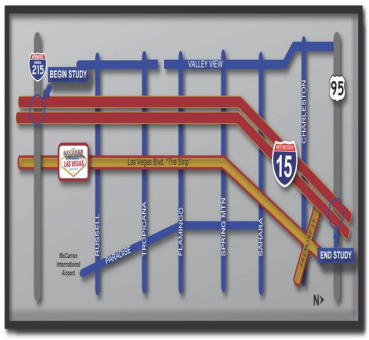
Location	Speedway Blvd to Garnet Interchange		
Sponsor	NDOT		
Project Manager	Christine Chia, P.E.		
Phone	775-888-7767		

Project Description	■ Last phase of improvements associated with the I-15 North Corridor Environmental Assessment. Original project limits were from Speedway Boulevard to Apex Interchange (May 2007 Environmental Assessment). Project limits were extended 6.1 miles to the north from the Apex Interchange to the Garnet Interchange (US 93) ■ Widen I-15 from four to six lanes from Speedway Boulevard Interchange to the Garnet Interchange, approximately 10.7 miles ■ Project also includes: drainage improvements, bridge rehabilitation and widening, highway maintenance facility, landscape and aesthetic enhancements, improved and additional lighting, and truck parking
Project Benefits	■ Improve safety ■ Improve travel time reliability ■ Improve access to areas planned for development in North Las Vegas ■ Improve operations
Project Risks	■ Timely completion of construction

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Complete **Final Design:** Complete **Construction:** 2022-2025	**Engineering:** $3.4 - $4.9 million **Right-Of-Way:** $1.5 - $2.0 million **Construction:** $79.3 - $93.3 million **Total Project Cost:** $84.2 - $100.2 million	**Scope:** Lowering of Las Vegas Blvd Under Apex Bridge **Schedule:** No Change **Cost:** No Change

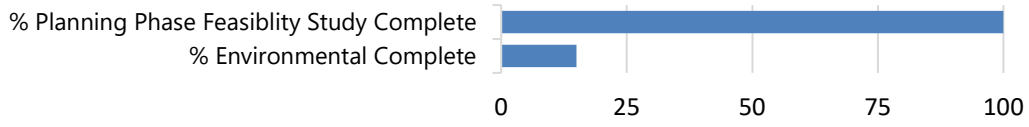
Financial Points (Key Assumptions)	■ Total funding expended for design, environmental, Right-Of-Way: $ 4,685,000 ■ Total funding expended for construction: $64,700,000 ■ Total funding expended for construction engineering: $13,950,000
Completion Scale	

I-15 Central Corridor

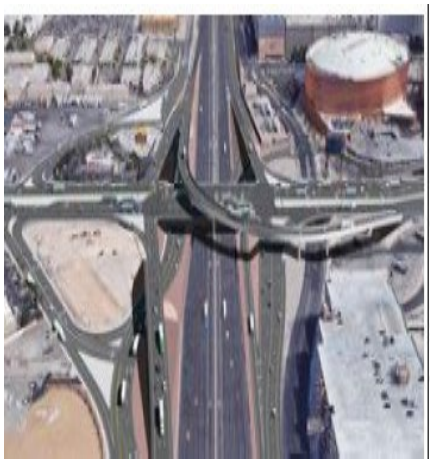
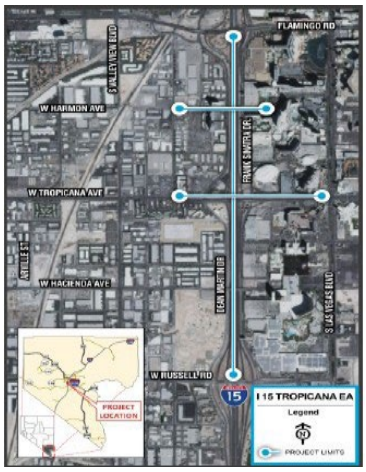
Location	Flamingo Rd to Sahara Ave		
Sponsor	NDOT		
Project Manager	Christine Chia, P.E.		
Phone	775-888-7767		

Project Description	■ Environmental study along I-15 from Flamingo Road to Sahara Avenue. ■ Enhance access and mobility within the I-15 corridor. ■ Evaluate extension of Martin Luther King Jr Boulevard. ■ Define needs and examine potential improvements to the I-15 within the resort corridor area. ■ Engage stakeholders in an environmental study and alternative analysis that meets project goals. ■ Create a phased implementation strategy and prioritization for future construction.
Project Benefits	■ Improve safety ■ Improve travel time reliability ■ Improve capacity ■ Improve access
Project Risks	■ Consensus building among the stakeholders. ■ Funding uncertainty. ■ Economic development along the corridor could require design changes affecting scope, schedule and budget

Schedule	Project Cost Range	What's Changed Since Last Update
Feasibility Study: 2019-2027 **Environmental:** 2023-2028 **Final Design:** TBD **Construction:** TBD	**Engineering:** TBD **Right-Of-Way:** TBD **Construction:** TBD **Total Project Cost:** TBD	**Planning Phase:** Feasibility Study completed Fall 2021 **Environmental Phase:** Began Spring 2023 **Scope, Schedule, Cost:** No Change

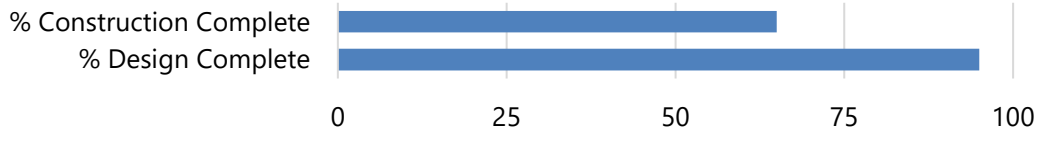
Financial Points (Key Assumptions)	■ Total funding: TBD
Completion Scale	

I-15 Tropicana Interchange Reconstruction

Location			
Sponsor	NDOT		
Project Manager	Dallan Affleck, P.E.		
Phone	702-671-8879		

Project Description	■ Demolish and reconstruct the Tropicana Avenue interchange at I-15 ■ Grade separate the intersection of Tropicana Avenue and Dean Martin Drive ■ Construct HOV ramps at Harmon Avenue ■ Extend the Active Traffic Management System South on I-15 ■ Pavement preservation Warm Springs to Harmon
Project Benefits	■ Improve operations, safety, and mobility ■ Provide for future expansion of I-15 ■ Improve travel time reliability
Project Risks	■ Mega project schedule impacts ■ Stakeholders buy-in ■ Right-Of-Way ■ Utility conflicts and coordination

Schedule	Project Cost Range	What's Changed Since Last Update
Environmental FONSI: Feb., 2, 2020 **RFQ:** Sept. 2020 **RFP:** January 2021 **Design Build Contractor award:** Nov/Dec 2021 **Construction:** 2022-2025	**Engineering:** $8 - $12 million **Right-Of-Way:** $40 million **Construction:** $305 million **Total Project Cost:**	**Scope:** No change **Schedule:** Updated to reflect design and construction progress **Cost:** No Change

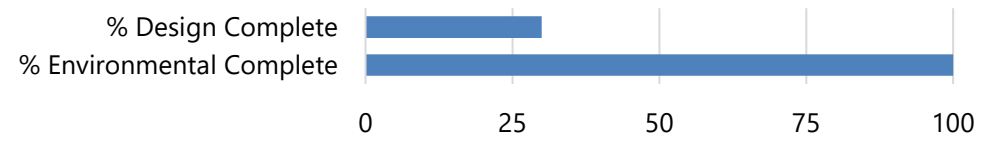
Financial Points (Key Assumptions)	■ N/A
Completion Scale	

I-15 South – Via Nobila Interchange

Location	Formerly Bermuda Road		
Sponsor	City of Henderson		
Project Manager	Mauricio Cardenas, P.E.		
Phone	702-671-8867		

Project Description	■ The I-15 South Corridor Environmental Assessment from Sloan to Tropicana was completed in 2008 and broke the corridor into nine (9) project elements to address funding and constructability opportunities. ■ Construction of a new interchange at Via Nobila (formerly Bermuda Road) was one of the project elements identified in the original Environmental Assessment.
Project Benefits	■ Increase capacity ■ Improve safety ■ Improve access ■ Improve travel time reliability
Project Risks	■ Unit price and property escalation may affect project cost ■ Funding uncertainty

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Environmental assessment re-evaluation completed 2021 **Final Design:** TBD **Construction:** TBD	Estimates per August 2022 CRA **Engineering:** $9 - $17 million **Right-Of-Way:** $2 - $4 million **Construction:** $43 - $78 million **Total Project Cost:** $56 - $98 million	**Scope:** No Change **Schedule:** No Change **Cost:** No Change

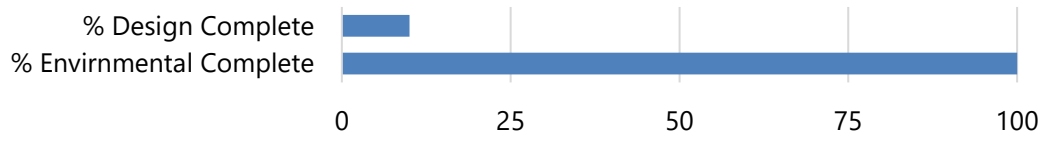
Financial Points (Key Assumptions)	■ Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
Completion Scale	

I-15 South – Pebble Road Overpass

Location			
Sponsor	Clark County		
Project Manager	Mauricio Cardenas, P.E.		
Phone	702-671-8867		

Project Description	■ The I-15 South Corridor Environmental Assessment from Sloan to Tropicana was completed in 2008 and broke the corridor into nine (9) project elements to address funding and constructability opportunities. ■ Construction of an overpass at Via Nobila Pebble Road and I-15 was one of the elements identified in the original Environmental Assessment.
Project Benefits	■ Improve access ■ No connections to I-15, so interstate traffic will not be negatively impacted
Project Risks	■ Unit price and property escalation may affect project cost. ■ Lack of funding may push this project well into the future.

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Completed 2021 **Final Design:** TBD **Construction:** TBD	Estimates per August 2022 CRA **Engineering:** $3 - $4 million **Right-Of-Way:** $.6 - $.75 million **Construction:** $17 - $21 million **Total Project Cost:** $21 - $25 million	**Scope:** No change **Schedule:** No Change **Cost:** No Change

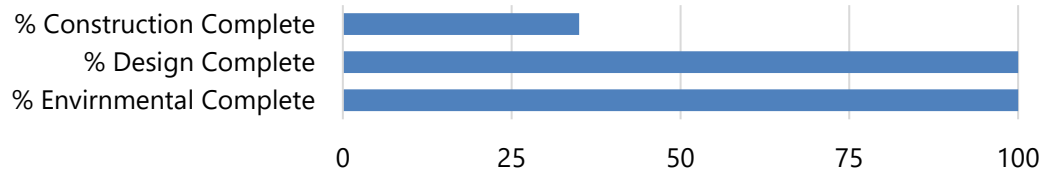
Financial Points (Key Assumptions)	■ Funding not available ■ Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million ■ Funding Source (2021 EA Update): Clark County Fuel Revenue Index Funding
Completion Scale	

I-15 South – Phase 2

Location	Sloan Rd to Blue Diamond (SR-160)
Sponsor	NDOT
Project Manager	Mauricio Cardenas, P.E.
Phone	702-671-8867

Project Description	■ The I-15 South Corridor Environmental Assessment from Sloan to Tropicana was completed in 2008 and broke the corridor into nine (9) project elements to address funding and constructability opportunities. ■ This is one project element identified in the original Environmental Assessment. ■ The original project identified widening on I-15 between Sloan Rd and Blue Diamond Rd from 6 to 10 lanes for a total length of 8.2 miles.
Project Benefits	■ Improve capacity ■ Improve safety ■ Improve access ■ Improve travel time reliability
Project Risks	■ Complexity in maintaining traffic staging, coordinating with adjacent projects such as High-Speed Rail and reducing impacts to traveling public.

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Environmental Assessment re-evaluation of the corridor completed 2021 **Final Design:** Complete **Construction:** Ongoing	Estimates per August 2022 CRA **Engineering:** $10 - $13 million **Right-Of-Way:** $0 **Construction:** $73 million **Total Project Cost:** $85 - $90 million	**Scope:** No change **Schedule:** No Change **Cost:** No Change

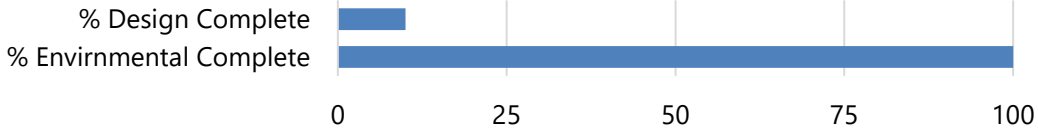
Financial Points (Key Assumptions)	■ Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
Completion Scale	

I-15 South – Via Inspirada Interchange

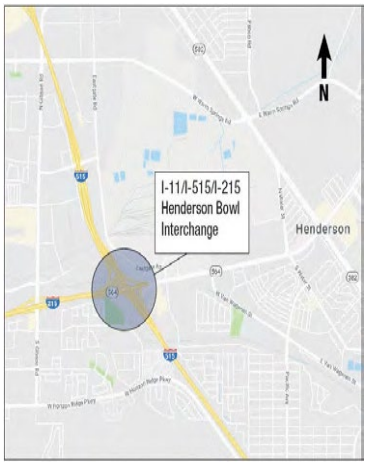
Location	Formerly Sloan Rd
Sponsor	City of Henderson
Project Manager	Mauricio Cardenas, P.E.
Phone	702-671-8867

Project Description	■ The I-15 South Corridor Environmental Assessment from Sloan to Tropicana was completed in 2008 and broke the corridor into nine (9) project elements to address funding and constructability opportunities. ■ Construction of a new interchange at Via Inspirada (formerly Sloan Rd) was one of the project elements identified in the original Environmental Assessment. ■ Because of the length of time since the original Environmental Assessment was completed, the corridor is being re-evaluation to address any changes that may have occurred and determine how those changes impact the future of the corridor.
Project Benefits	■ Improve capacity ■ Improve safety ■ Improve access ■ Improve travel time reliability
Project Risks	■ Unit price and property escalation may affect project cost.

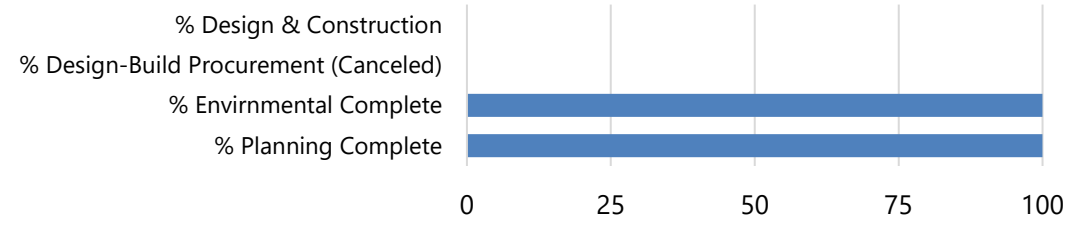
Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Environmental Assessment re-evaluation of the corridor completed 2021 **Final Design:** TBD **Construction:** TBD	Estimates per August 2022 CRA **Engineering:** $8 - $14 million **Right-Of-Way:** $54 - $69 million **Construction:** $43 - $74 million **Total Project Cost:** $105 - $157 million	**Scope:** No change **Schedule:** No Change **Cost:** No Change

Financial Points (Key Assumptions)	■ Funding not available until 2045 per current Financial Plan. ■ Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
Completion Scale	

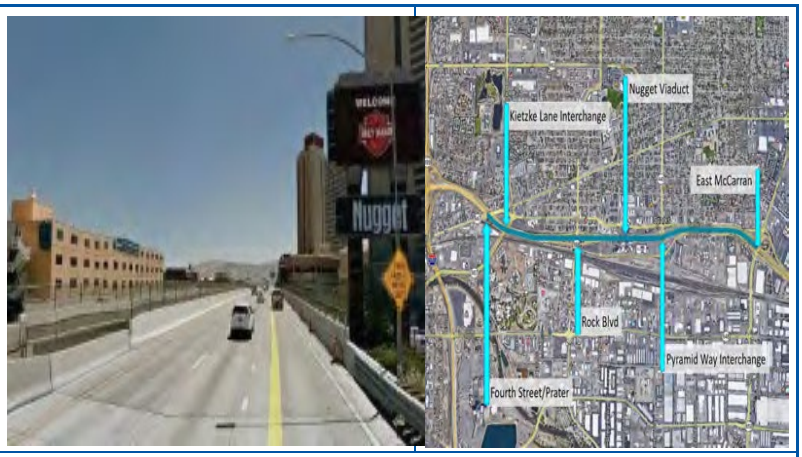
Henderson Interchange

Location			
Sponsor	NDOT		
Project Manager	Dallan Affleck, P.E.		
Phone	702-671-8879		
Project Description	■ The project limits extend south along I-11 to Horizon Drive, north along I-515 to Galleria Drive, west along I-215 to Valley Verde Drive, and east along Lake Mead Parkway to Van Wagenen Street. ■ This project will reconstruct the Henderson Interchange to include operational and safety improvements and restore lost connectivity. Moving forward the project will be completed in phases. Phasing options are currently under review.		
Project Benefits	■ Improved operations ■ Improved travel time reliability ■ Improved safety		
Project Risks	■ Negative environmental impacts – Hazardous Materials ■ High project cost		

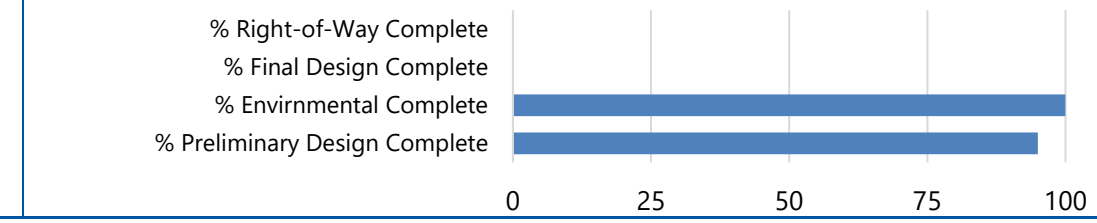
Schedule	Project Cost Range	What's Changed Since Last Update
Planning: COH PEL 12/2018 – 3/2020 **Environmental:** NEPA 6/2020 – 10/2022 Design **Build Procurement:** 12/2022 – 8/2024 – Canceled. Interim Phasing Design - TBD **Construction:** TBD	Environmental: $4 million **Engineering:** TBD **Right-Of-Way:** TBD **Construction:** TBD **Total Project Cost:** TBD	**Scope:** TBD **Schedule:** TBD **Cost:** TBD

Financial Points (Key Assumptions)	■ Design Build Procurement has been Canceled – Proposed Pricing was outside the Department's Budget ■ Moving forward the project will be completed in smaller interim phases. Phasing options are currently under review.
Completion Scale	

Reno Spaghetti Bowl – Phase 2 Nugget Viaduct

Location	East of I80/I580/US395 Interchange to East McCarran Blvd (SR659)	
Sponsor	NDOT	
Project Manager	Fred Shakal, P.E.	
Phone	775-888-7589	
Project Description	■ This project is the second phase of the Reno Spaghetti Bowl (RSB) I80/I580/US395 System Interchange Improvements to address necessary operational improvements in the Truckee Meadows area ■ The current scope of work for this project includes conducting a feasibility study for the replacement of the Nugget Viaduct and preliminary design for necessary improvements for the eastern leg of the Reno Spaghetti Bowl FEIS limits ■ Improvements include reconstructing I-80 from east of the Spaghetti Bowl to East McCarran Blvd ■ Replace I-80 Bridge H-866 E/W over the Nugget Casino ■ Construct new interchange at Kietzke Lane ■ Reconstruct Rock Blvd. and Pyramid Way Interchanges	
Project Benefits	■ Improve safety ■ Improve travel time reliability ■ Optimize local and regional system connections ■ Improved freeway operation	
Project Risks	■ Funding uncertainty for construction ■ Consensus building among stakeholders	

Schedule	Project Cost Range	What's Changed Since Last Update
Environmental: Complete **Preliminary Engineering and Design:** TBD **Final Design and ROW:** TBD **Construction:** TBD	**Engineering:** TBD **Right-Of-Way:** TBD **Construction:** TBD **Total Project Cost:** TBD	**Scope:** No Change **Schedule:** No Change **Cost:** No Change

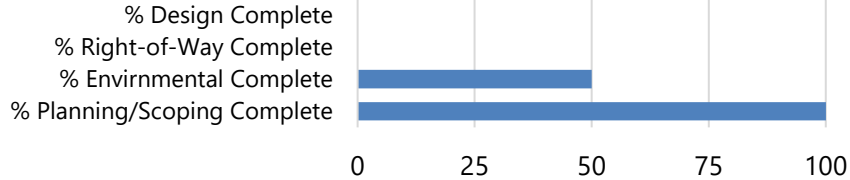
Financial Points (Key Assumptions)	■ State funds programmed to conduct preliminary engineering including feasibility study to determine estimated costs for design, Right-Of-Way, and construction.
Completion Scale	

I-80 East

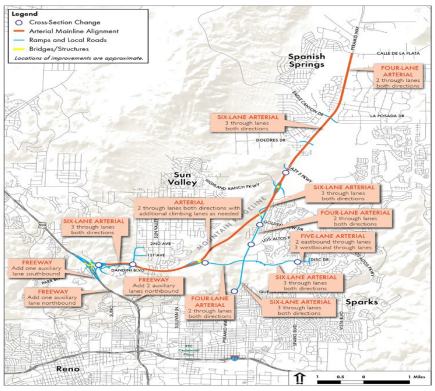
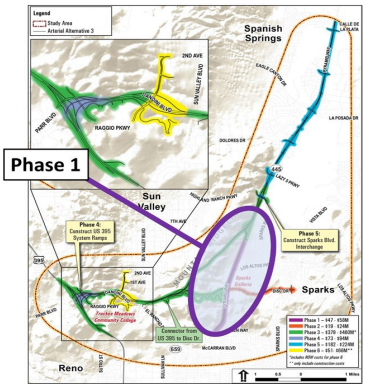
Location	Vista Blvd to USA Parkway (SR439)		
Sponsor	NDOT		
Project Manager	Chris Kuhn, P.E.		
Phone	775-888-7728		

Project Description	■ This project consists of corridor improvements on 13.1 miles of I-80 between Vista Blvd. and USA Parkway ■ Freeway capacity improvements include widening I-80 in each direction from two to three lanes ■ Freeway safety improvements include widening shoulders for emergency access ■ Interchange improvements will enhance acceleration lanes/merging distances and freeway access management ■ The current scope of work on the project is to implement the necessary studies, outreach, and documentation to fulfill the NEPA requirements as well as to develop preliminary design alternatives
Project Benefits	■ Improve Safety and Emergency Service Access ■ Improve Travel Time Reliability ■ Improve Freight Movement ■ Accommodate Future Planned Growth ■ Improve Operations and Maintenance
Project Risks	■ Funding uncertainty for project construction ■ Environmental study outcomes could impact schedule ■ Challenging topography between steep rock slopes, the Truckee River and the UPRR adjacent to I80 ■ Utilities located adjacent to I80 could impact schedule and budget

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** NEPA initiated 2023 **Intermediate Design:** TBD **Final Design & ROW:** TBD **Construction:** TBD	Design Phase Estimates **Engineering:** TBD **Right-Of-Way:** TBD **Estimated Construction Costs:** $500 million	**Scope:** No Change **Schedule:** No Change **Cost:** No Change

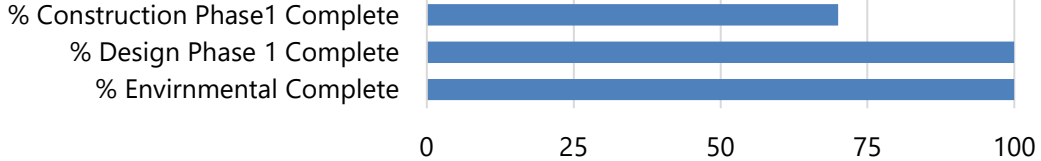
Financial Points (Key Assumptions)	■ Environmental effort programmed to use state funds. ■ Preliminary Engineering funding TBD. ■ Funding for Construction not yet identified.
Completion Scale	

SR445 Pyramid Highway/US 395 Connection

Location			
Sponsor	Washoe County RTC and NDOT		
Project Manager	**RTC:** Amanda Callegari, P.E. **NDOT:** Nanette Maxwell, P.E.		
Phone	775-301-8891		

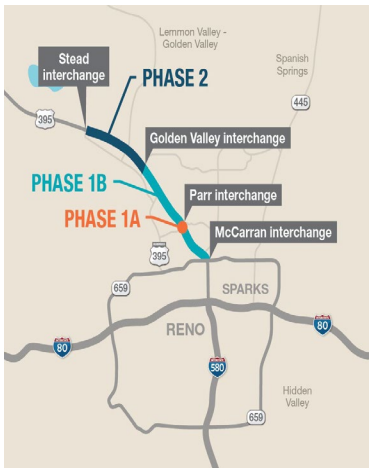
Project Description	■ Calle de la Plato to La Posada- Transition from 4 Lane Arterial to 6 lane freeway La Posada to Sparks Blvd. - Develop Pyramid alignment into 6 lane freeway with frontage roads. ■ Continue 6 lane freeway from Sparks Blvd. to Disc Dr. either on the Pyramid alignment with frontage roads or on a separate alignment to the west. ■ Extend 6 lane freeway through Sun Valley to US-395. ■ Widen and improve Pyramid highway from Disc Dr. to Queen Way. ■ Widen and extend Disc Dr. to Vista Blvd. ■ NEPA completed by Washoe RTC. ■ This project will be delivered in 6 phases. ■ Phase 1 from Queen Way to Golden View Drive -Final Design complete; Construction is on-going
Project Benefits	■ Address travel time reliability and safety along the Pyramid Highway and McCarran Blvd. corridors. ■ Provide alternative access to freeway system. ■ Improve safety.
Project Risks	■ Construction in a dense urban residential area. ■ Funding sources for all phases not identified. ■ Complex Right-Of-Way and utility issues may impact schedule and costs.

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** 2010-2018 **Final Design:** Phase 1 – complete 2022, Phases 3 and 5 – Preliminary, Phases 2, 4 and 6 – TBD **Construction:** Phase 1 – Spring 2023, Phases 2-6 – TBD	Planning Phase Estimates **Engineering:** $40 - $60 million **Right-Of-Way:** $100 - $150 million **Construction:** $410 - $660 million **Total Project Costs:** $550 - $870 million	**Phase 1 – Queen Way to Golden View Drive:** Final Design – complete Construction – on-going **Phase 3 & 5:** Started Preliminary Design

Financial Points (Key Assumptions)	■ Total project cost for Phase 1: $69,100,000 ■ BULD Grant received for Phase 1 Construction - $23,000,000 ■ Other funding source for Phase 1 Construction: STBG, HIP, State, and Local
Completion Scale	

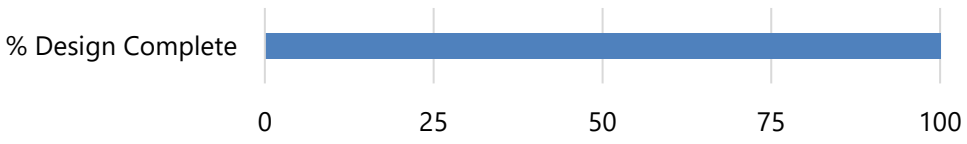
US 395 North Valleys – Phase 1B

Location	US 395, McCarran Blvd. to Golden Valley Rd.
Sponsor	NDOT
Project Manager	Robert Vrooman, P.E.
Phone	775-888-7317



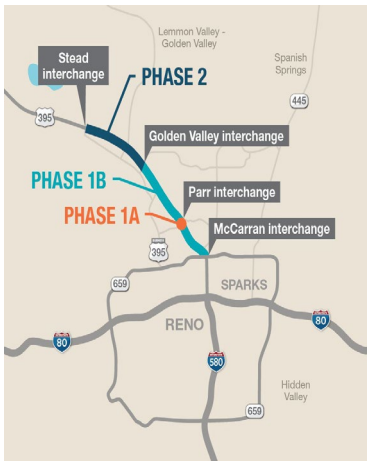
Project Description	■ US 395 is the major connection between Reno/Sparks and Golden Valley, Lemmon Valley, and Cold Springs areas. This route serves as the main connection to northeastern California. ■ This is the second phase of the US 395 North Valleys Projects. Phase 1B begins just north of McCarran Boulevard and ends just south of Golden Valley Road interchange. ■ This phase will include a third southbound travel lane, auxiliary lanes between the interchanges in both the northbound and southbound directions, new braided ramp at Panther Valley and the rehabilitation of the existing roadway
Project Benefits	■ Increase capacity to accommodate projected traffic ■ Improve travel time reliability ■ Improve safety
Project Risks	■ Bridge widening within UPRR Right-Of-Way

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Intermediate Design Submittal:** January 2022 **Advertise:** April 2023 **Construction Contract Award:** September 2023	**Engineering:** $4 - $6 million **Construction:** $230 million **Total Project Costs:** $240 - $250 million	Work on the Braided Ramp at the Panther Valley/Golden Valley Interchange has begun. The Panther Valley NB on and off ramps have been closed and will re-open in Fall 2025. Work will continue through late 2025 and early 2026.

Financial Points (Key Assumptions)	
Completion Scale	

US 395 North Valleys – Phase 2

Location	US 395, Golden Valley Rd. to Stead Blvd. & N. Virginia Blvd.
Sponsor	NDOT & RTC WASHOE
Project Manager	Robert Vrooman, P.E.
Phone	775-888-7317



Project Description

- US 395 is the major connection between Reno/Sparks and Golden Valley, Lemmon Valley, and Cold Springs areas. This route serves as the main connection to northeastern California.
- US 395 North Valleys, Phase 2 will include a third southbound general-purpose lane and auxiliary lanes between Golden Valley Road and Lemmon Valley Drive.
- Between Lemmon Valley Drive to Stead Boulevard, Phase 2 will include a general-purpose lane in both the northbound and southbound direction.
- In 2022 the project was awarded a Federal INFRA Grant for nearly $89M. The grant added work on North Virginia Street to construct multi-modal and safety related improvements as well as to provide additional funding for the Phase 2. The work on North Virginia Street will take place between N. McCarran Blvd. and "Old" Virginia Intersection.

Project Benefits

- Increase capacity to accommodate projected traffic
- Improve travel time reliability
- Improve safety

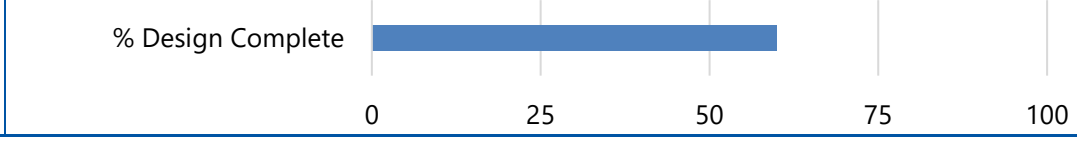
Project Risks

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Final Design Submittal:** April 2024 **Right-Of-Way/Environmental:** Begun September 2023 **Advertise:** November 2025	**Engineering:** $8 - $10 million **Construction:** $180 - $210 million **Total Project Costs:** $188 - 220 million	**Scope:** No Change **Schedule:** No Change **Cost:** Adjusted to reflect updated Engineering and Construction costs.

Financial Points (Key Assumptions)

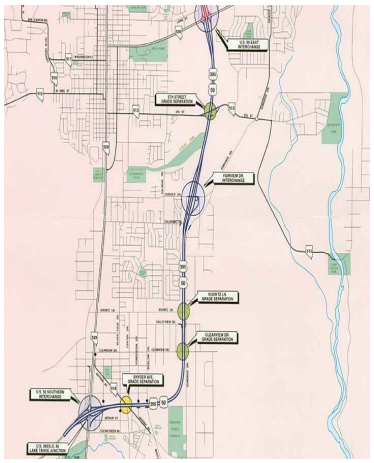
- The project's budget and scope has been revised for the addition of the North Virginia Improvements and the STIP has been updated reflecting these changes.

Completion Scale



US 395 Carson City Freeway – Phase 2B

Location	South Carson St. to Fairview Dr.
Sponsor	NDOT
Project Manager	Nanette Maxwell, P.E.
Phone	775-888-7742



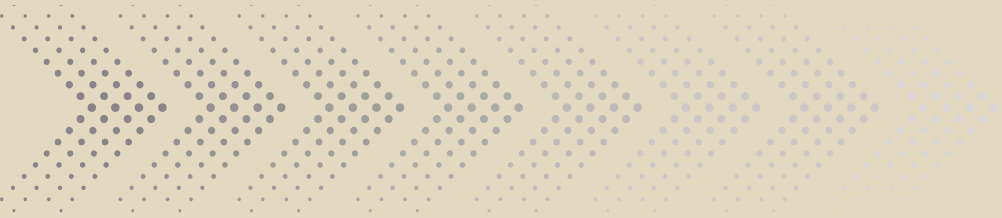
Project Description	■ This project will be delivered in four packages. Construction is complete for Phase 2B Packages 1, 2, & 3. ■ Phase 2B Package 4 will construct the South Carson Interchange and complete the remainder of the project.
Project Benefits	■ Improve travel time reliability on Carson Street through Carson City and local streets along the freeway corridor. ■ Provide flood control protection. ■ Improve opportunities for economic development along the corridor and downtown.
Project Risks	■ Project completion date will depend on the availability of funds. ■ Concurrent utility relocation will be required. ■ Changes in design standards could affect schedule and budget. ■ New development along the corridor

Schedule	Project Cost Range	What's Changed Since Last Update
Planning: Complete **Environmental:** Complete **Final Design:** Phase 2B Pkg 1, 2 & 3 are complete Pkg 4 – TBD **Construction:** Phase 2B Pkg 1, 2 & 3 are complete Pkg 4 – TBD	Final Design Phase Estimates **Engineering:** $11 - $13 million **Right-Of-Way:** $30 - $32 million **Construction:** $100 - $150 million **Total Project Costs:** $150 - $200 million not including Pkg 4	**Scope:** Pkg 4 will complete the remainder of the freeway **Schedule:** TBD **Cost:** No Change

Financial Points (Key Assumptions)	■ Total funding expended: $200 million ■ Construction funding source for Phase 2B-4: TBD
Completion Scale	% Construction 2B-4 Complete % Design 2B-4 Complete % Construction 2B-4 Complete 0 25 50 75 100

Appendices

Appendix A



Benefit-Cost Analysis of Capacity Projects

The Department is required under NRS 408.3195 to conduct benefit cost analysis for larger highway capacity projects. Specifically, prior to submitting a project to the Nevada Transportation Board of Directors for approval, the Department will prepare such a written analysis for highway projects that will increase capacity on the State Highway System and cost at least $25 million. Subsequently, this analysis was done and is being reported on active projects before the Department requests the Board to approve funding for construction, including Right-Of-Way acquisition and utility work. The Benefit-Cost (B/C) ratio calculations are being done on the larger capacity projects that are expected to be funded for construction within 10 years and, thereby, appear in the Transportation System Projects document. Furthermore, B/C analysis has been done for some projects that do not meet the minimum dollar threshold, but the information will be beneficial to management for decision making purposes. The Department has a policy (TP 1-11-1) that guides the B/C analysis Program.

The B/C ratios for several projects have been determined for FY15 to present. The following table reports the B/C ratio results for major projects. An attempt has been made to include B/C ratios for entire projects and not the ratios of individual phases except in cases that are appropriate.

Major Projects	B/C Ratio	Fiscal Year
I-15 North Phase 4 – I-15/CC-215 Interchange – Alternative 1	1.37	2015
I-15 North Phase 4 – I-15/CC-215 Interchange – Alternative 2	1.66	2015
I-215 from I-15 to Windmill Lane (Airport Connector)	2.6	2015
US 95 NW Phase 3A; CC 215 from US 95 to Tenaya Way MP CL 0.88 - N/E & W/S Ramps and S/B collector road	1.2	2015
SR 593, Tropicana Ave. at SR 604 Las Vegas Blvd. (Replace Escalators)	1.2	2015
US95/CC215 Interchange and Associated Improvements (Phases 3C, 3D/E)	3.36	2017
I-15/US 93 Interchange (Garnet Interchange) Reconstruction and US 93 Capacity Improvements	2.64	2017
I-515 Alternatives Development Study Project 1	2.9	2017
I-515 Alternatives Development Study Project 2	0.4	2017
I-515 Alternatives Development Study Project 3	2.8	2017

Resuming the previous table.

Major Projects	B/C Ratio	Fiscal Year
I-515 Alternatives Development Study Project 4	6.8	2017
I-515 Alternatives Development Study Project 5	0.3	2017
I-515 Alternatives Development Study Project 6	1.2	2017
I-15 South Phase 2A/2B Widening	0.2	2018
I-15 South Bermuda Road Interchange	-0.1	2018
I-15 South Sloan Road Interchange	-0.1	2018
Reno Sparks Freeway Traffic Study (Total US 395 Improvements)	8.8	2018
I-15 North Corridor Improvement Phase 3 Project from Speedway Boulevard to Garnet Interchange	3.8	2019
I-15 Tropicana EA project	10.31	2019
Pyramid Highway Improvement Project (Phase 1)	1.57	2019
I-515 Charleston Boulevard Interchange Project	1.98	2020
I-15 Flamingo to Sahara Feasibility Study-Alternative 1	1.33	2021
I-15 Flamingo to Sahara Feasibility Study-Alternative 1-Shift	1.05	2021
I-15 Flamingo to Sahara Feasibility Study-Alternative 2	0.99	2021
I-15 Flamingo to Sahara Feasibility Study-Alternative 2-Shift	0.87	2021
I-80 East: Vista Blvd. to USA Parkway (SR 439)	0.07	2022
Henderson Interchange	1.52	2022
Total US 395 Improvements	8.8	2022
Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway Interchange and Connecting Road Improvements, Phase 1	1.8	2023
Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway Interchange and Connecting Road Improvements, Phase 2	1.2	2023
Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway Interchange and Connecting Road Improvements, Phase 3	1.4	2023
Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway Interchange and Connecting Road Improvements, Phase 4	1.7	2023
Interstate 80/Interstate 580/US Highway 395 Freeway-to-Freeway Interchange and Connecting Road Improvements, Phase 5	1.4	2023

Discussion of the Calculations of Costs and Benefits

Introduction

The determination of the benefit and costs has received considerable use for many decades. The process was first proposed by a French engineer by the name of Dupuit in 1844. The method provides an analysis framework whereby many benefits and costs are quantified. It has become a widely used tool and enables the decision-making process of ranking projects to become more transparent. For the private sector it is a tool to guide private investment and has been certainly helpful to assist in assessing the cost effectiveness of public projects. For the public sector, normally economic efficiency is the primary objective, but the public sector needs to consider economic equity as well. As the social and environmental factors became important, the economic analysis of projects came more complex and, therefore, more difficult.

The application of the B/C ratio calculations for this Annual Report compares each proposed project with a set of factors that are converted to monetary values. This appendix discusses the input data needed to conduct a B/C ratio calculation, which includes travel time benefits, crash cost benefits, motor vehicle emission cost benefits, vehicle operating cost benefits, and capital cost. In addition, the limitation of the B/C analysis is presented.

Benefit-Cost Analysis Assumptions and Parameters

The typical project life was assumed to be 20 years, i.e., benefits and costs accrued during a period of 20 years after the opening of the project are accounted for in the benefit/cost analysis. However, when the cost of the structural components of a project was a significant portion (greater than 25 percent) of the total project costs, a 40-year project life was assumed.

Travel Time Benefits:

For the value of travel time, personal travel was 50% of local mean wage while business travel by truck/bus drivers was 100% of local mean wage plus fringe benefits. The wage values came from the Occupational Employment and Wage Statistics published by the U.S. Bureau of Labor Statistics in May 2023. A 50% fringe was used because it was an average of several labor groups. Table E-1 lists the travel costs in different areas including Metropolitan Statistical Areas (MSA).

Table E-1 Travel Costs (2023 USD)

Statistical Area	Mean Wage ($/hour)	Personal Travel ($/hour)	Business Travel ($/hour)
Nevada	$28.32	$14.16	$42.48
Las Vegas-Henderson– Paradise MSA	$27.82	$13.91	$41.73
Reno MSA	$29.80	$14.90	$44.70
Carson City MSA	$29.84	$14.92	$44.76
Nonmetropolitan Area	$28.29	$14.15	$42.44

Source: Occupational Employment and Wage Statistics published by U.S. Bureau of Labor Statistics in May 2023, https://www.bls.gov/oes/tables.htm.

Average vehicle occupancy is shown in Table E-2.

Table E-2 Average Vehicle Occupancy

Vehicle Type	Average Occupancy* (National Wide)	Las Vegas – Paradise MSA**	Reno – Sparks MSA**
Passenger Vehicles (Weekday Peak)1	1.48	1.53	1.31
Passenger Vehicles (Weekday Off-Peak)	1.58	1.49	1.40
Passenger Vehicles (Weekend)	2.02	n/a	n/a
Passenger Vehicles (All Travel)	1.67	1.51	1.36

* Source: Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2023, Table A-3: Average Vehicle Occupancy Rates for Highway Passenger Vehicles

** Vehicle occupancy rates are provided by RTC Washoe and RTCSNV.

Crash Benefits:

Freeways and Expressways with controlled access normally have lower crash rates than local streets and roads with little or no access control. Consequently, by increasing freeway capacity more travelers will benefit from lower accident rates. The rates are illustrated in Tables E-3 and E-4.

Table E-3 FY23 Nevada Crash Severity Numbers of the Larger Counties

Location	% Of Total Crashes	Number Of Crashes	PDO[1]	Injury	Fatal	Crash Rates[2]
Clark County	75.04%	40,491	11,321	28,897	273	214.25
Washoe County	14.35%	7,743	3,686	4,004	53	196.11
Carson City / Douglas County	2.99%	1,615	994	610	11	179.34

Notes:

1. Property Damage Only.

2. Crash rates expressed in crashes per 100,000,000 vehicles miles traveled.

Source: NDOT Traffic Safety Division updated in November 2024.

Table E-4 FY23 Crash Totals by County, Rates, Annual Vehicle Miles Traveled, and Population

County	Total Crashes	% Of Total Crashes	Total AVM	% Of Total AVM	Population	Crash Rate
Carson	1,015	1.86%	427,362,439	1.53%	58,036	235.16
Churchill	453	0.84%	344,786,280	1.23%	25,803	131.39
Clark	40,491	75.04%	18,898,691,042	67.53%	2,336,573	214.25
Douglas	610	1.13%	473,185,516	1.69%	49,545	128.91
Elko	981	1.82%	884,753,085	3.16%	54,293	110.88
Esmeralda	79	0.15%	134,294,176	0.48%	736	58.83
Eureka	96	0.18%	170,282,355	0.61%	1,917	56.38
Humboldt	308	0.57%	398,099,114	1.42%	17,136	77.37
Lander	117	0.22%	155,129,196	0.55%	5,769	75.42
Lincoln	166	0.31%	149,092,074	0.53%	4,452	111.34
Lyon	665	1.23%	555,787,100	1.99%	62,583	119.65
Mineral	109	0.20%	188,558,079	0.67%	4,528	57.81
Nye	655	1.21%	656,984,187	2.35%	55,720	99.70
Pershing	101	0.19%	314,077,386	1.12%	6,364	32.16
Storey	150	0.28%	85,885,368	0.31%	4,177	174.65
Washoe	7,743	14.35%	3,948,310,334	14.11%	498,022	196.11
White Pine	232	0.43%	199,253,539	0.71%	8,522	116.43
Total	53,961	100%	27,984,531,270	100%	3,194,176	176.56

Source: the NDOT Traffic Safety Division updated in November 2024.

1) Crash rates expressed in crashes per 100,000,000 vehicles miles traveled.

2) July 1, 2022 - June 30, 2023.

The crash costs per event (i.e., cost per fatality, cost per serious injury A, and others) were derived using Highway Safety Manual's Crash Cost Estimates. Consumer Price Index (CPI) and Employment Cost Index (ECI) were obtained from the Bureau of Labor Statistics (BLS) website, https://www.bls.gov. The crash costs per event then were converted and rounded into 2023 dollars using BLS CPI data. The crash costs per event were converted to costs per crash to correspond with the data on crash reduction. Costs per crash are higher than costs per event because, for example, a fatal crash can involve multiple injuries; therefore, the cost of a single crash is likely higher than one event. Table E-5A shows the crash cost assumptions.

Table E-5A Crash Cost Assumptions

Crash Severity	Crash Cost per Event[1]
Fatal (K)	$7,587,157
Suspected Serious (A)	$399,795
Suspected Minor (B)	$145,991
Possibly/Claimed (C)	$82,009
Property Damage Only (PDO)	$13,197

1) Source: Highway Safety Manual's Crash Cost Estimates converted into 2023 dollars using BLS CPI data.

Table E-5B shows the monetization values for injury crashes and fatal crashes, that are based on an estimate of approximately 1.44 injuries per injury crash and 1.09 fatalities per fatal crash, based on an average of the most recent five years of data in NHTSA's National Crash Statistics. The fatal crash value is further adjusted for the average number of injuries per fatal crash.

Table E-5B Recommended Monetized Value(s)

KABCO Level	Monetized Value (2022 $)[1]
O – No Injury	$5,000
C – Possible Injury	$111,700
B – Non-incapacitating	$233,800
A – Incapacitating	$1,188,200
K – Killed	$12,500,000
U – Injured (Severity Unknown)	$217,600
# Accidents Reported (Unknown if Injured)	$5,000

1) Source: Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2023, Table A-1: Value of Reduced Fatalities, Injuries, and Crashes.

Motor Vehicle Emissions and Costs:

The most common local air pollutants generated by transportation activities are Sulfur Dioxide (SO2), Nitrogen Oxides (NOX), Fine Particulate Matter (PM), and Volatile Organic Compounds (VOC). The recommended economic values for reducing emissions of various pollutants are shown in Appendix A, Table A-6 in Benefit-Cost Analysis Guidance for Discretionary Grant Programs published by USDOT in December 2023.

Vehicle Operating Costs Parameters:

Local data is encouraged to use on vehicle operating costs where available, appropriately documenting sources and assumptions. For analyses where such data is not available, the non-fuel costs for light duty vehicles can be estimated by the American Automobile Association (AAA)'s "Your Driving Costs" based on the average of three sedan categories (small, medium, and large).

The non-fuel costs for trucks can be estimated by values from the American Transportation Research Institute (ATRI), the research arm of the American Trucking Associations Federation. ATRI has conducted several analyses of the operational costs of trucking. These studies use costs derived directly from the trucking industry motor vehicle fleet operations. The operating costs reported include a number of categories associated with travel time and fuel operating costs in addition to non-fuel operating costs. These values include operating costs that vary with vehicle miles traveled such as fuel, maintenance and repair, tires, depreciation, and additionally, in the case of trucks, truck/trailer lease or purchase payments, insurance premiums, and permits and licenses. The values exclude other ownership costs

that are generally fixed or that would be considered transfer payments, such as tolls, taxes, annual insurance, license, financing charges, and registration fees. For commercial trucks, the values also exclude driver wages and benefits, which are already included in the value of travel time savings. Vehicle non-fuel operating cost assumptions are summarized in Table E-6.

Table E-6 Vehicle Non-fuel Operating Costs

Vehicle Non-fuel Operating Costs	Cost Per Mile (2022 $)
Light Duty Vehicle	0.52
Commercial Truck	1.32

Source: Benefit-Cost Analysis Guidance for Discretionary Grant Programs, USDOT, December 2023, Table A-4: Vehicle Operating Costs.

Fuel consumption rates are suggested to be estimated from the California Air Resources Board Emission Factors 2014 (EMFAC2014) model. On December 30, 2014, the California Air Resources Board updated EMFAC from the previous version, EMFAC2011. EMFAC2014 also improves upon EMFAC2011's modeling structure.

Fuel costs used in the BCA model represent the out-of-pocket fuel costs paid by consumers. The American Automobile Association (AAA) Daily Fuel Gauge Report can be used as the source for fuel data (http://gasprices.aaa.com/?state=NV). It is suggested the price of mid-grade fuel for automobile fuel costs and the price of diesel fuel for truck fuel costs. The fuel cost calculation excludes federal, state, and local taxes. These taxes are transfer payments and user fees for funding transportation improvements. Fuel taxes can be broken into three components: Federal fuel excise taxes, State fuel excise taxes, and State and local sales taxes. Federal and state motor fuel taxes can be found from the U.S. Energy Information Administration (https://www.eia.gov/petroleum/). Nevada state local taxes can be found from the Facts & Figures book published annually by NDOT.

Capital Expenditures:

The capital cost of a project is the sum of the monetary resources needed to build the project (or program of projects). Capital costs generally include the cost of land, labor, material and equipment rentals used in the project's construction. In addition to direct construction costs, capital costs may include costs for project planning and design, environmental reviews, land acquisition, utility relocation, or transaction costs for securing financing. Costs should be recorded in the year in which they are expected to be incurred, regardless of when payment is made for those expenses.

Operating and Maintenance Expenditures:

Operating and maintenance (O&M) costs cover a wide array of costs required on a continuing basis to support core transportation functions. The ongoing O&M costs of the project throughout the entire analysis period should be included in the BCA and should be directly related to the proposed service plans for the project. O&M costs should be projected for both the no-build baseline and with proposed improvement project. For projects involving the construction of new infrastructure, total O&M costs will generally be positive, reflecting the ongoing expenditures needed to maintain the new asset over its lifecycle. For projects intended to replace, reconstruct, or rehabilitate existing infrastructure, however, the net change in O&M costs under the proposed project will often be negative, as newer infrastructure requires less frequent and less costly maintenance to keep it in service than would an aging, deteriorating asset. Note also that more frequent maintenance under the baseline could also involve work zone impacts that could be reflected in projected user cost savings associated with the project.

Residual Value and Remaining Service Life:

The analysis period used in the BCA should be tied to the expected useful life of the infrastructure asset constructed or improved by the project. Where some or all project assets have several years of useful service life remaining at the end of the analysis period, a "residual value" may be calculated for the project at that point in time. This could apply to both assets with expected service that lives longer than the analysis period, and shorter-lived assets that might be assumed to have been replaced within the analysis period. A simple approach to estimating the residual value of an asset is to assume that its original value depreciates in a linear manner over its service life. Those residual values would then be discounted to their present value using the discount rate applied elsewhere in the analysis. The projected residual value of a project should be added to the numerator when calculating a benefit-cost ratio for a project.

Discussions and Limitations

In general, it is difficult to convert all diverse costs and benefits into monetary values. At times funding limitations might require the selection of an alternative that does not have the highest B/C ratio, simply because there is not sufficient funding. While the B/C ratio calculation reported herein is an excellent parameter to help select projects or alternatives, it does have limitations.

One limitation deals with the project cost impact on humans; therefore, a factor, i.e., community impact, will need to be addressed.

Another limitation deals with the system impact of large highway capacity projects. Correcting a significant urban freeway congestion problem at a site moves the primary 'bottleneck' (site of

congestion) to another location. Such a project will probably have considerable benefit within the project limits, but might not provide much, if any, overall system improvement.

Another limitation with a benefit-cost analysis is that many times a project will have an economic development benefit component. This economic development component is very difficult to quantify monetarily. Different items that can be considered when trying to estimate the economic development component include the number of marginal jobs that a project will enable to be created, the increase in property values along a project, the amount of new tax revenues generated for all levels of government because of the project, and the marginal increase in total Nevada gross product. Each of these items is problematic to estimate by themselves, then to try to estimate the change in these items induced because of transportation projects becomes extremely difficult. For these reasons, the economic development component is not normally considered in a typical NDOT benefit-cost analysis.

Nationally, discount rates vary from zero to 7% and sometimes higher. The baseline discount rate of 7% is used because of OMB (Office of Management and Budget) Circular A-94 and is applied to all benefit/cost analyses. A three percent discount rate is recommended for performing sensitivity analyses to determine the impact of changes in the discount rate on the B/C ratio. All monetized values used in a BCA should be expressed in a common base year, with the effects of inflation netted out. OMB Circular A-94 and OMB Circular A-4 recommend using the Gross Domestic Product (GDP) Deflator as a general method of converting nominal dollars into real dollars. The GDP Deflator captures the changes in the value of a dollar over time by considering changes in the prices of all goods and services in the U.S. economy. If the method of Consumer Price Index is used as the deflator, it should be explicitly indicated, and the index values used to make the adjustments should be provided in the BCA.

The final limitation is the level of favorable public opinion toward a project. If there is a negative public perception toward a project, even if the perception is not justified, a high priority score might not suffice for a project to proceed toward implementation. In summary, even a good project needs public support; consequently, the level of public acceptance will be documented, most likely during the NEPA process.

Once the projects have been prioritized, they must be distributed among the various funding categories, meaning that a lower priority project might be funded before a higher priority because it is in a category with much more funding. Additionally, a lower priority project might be simple and easy to design, and build compared with a large-scale project might have major mitigation issues. In this case, the lower priority would likely be constructed first.

Appendix B

Project Priority Rationale

Introduction

Every year, the Department is responsible for the programming of federal and state funding for a wide range of transportation improvement projects across the state. Allocating these significant resources in an equitable, efficient, and effective manner requires a multifaceted approach. The Department has adopted flexible, yet accountable procedures to meet the needs of the traveling public, advance the Department's goals and priorities, and address the needs of a myriad of constituencies across the state.

The Transportation Board provides oversight on the project selection process. The Board approves the Annual Work Program (AWP), and Short and Long-Range Elements. This Board also accepts, as approved by the Federal Highway Administration, the Statewide Transportation Improvement Program (STIP).

The Department's future transportation project priority rationale is guided by the One Nevada Transportation Plan, which is NDOT's performance-based long-range transportation plan. The One Nevada Transportation Plan provides a framework for identifying future transportation needs, establishing project prioritization practices, and guiding future decision-making. The Plan includes an overarching vision and is the foundation for the continuous transportation planning process. The One Nevada goals are:

- Enhance Safety
- Preserve Infrastructure
- Optimize Mobility
- Transform Economies
- Foster Sustainability
- Connect Communities

The One Nevada Transportation Plan has moved into the implementation phase, which is focused on streamlining and advancing transportation needs through the project development process to implementable projects.

Long-Range
Need Identification

Needs Validation

Unified Project Concept (UPC)
Database

Mid-Range
Program Level
Screening

STIP & AWP
Project Prioritization

STIP & AWP
Harmonization

The above graphic represents how the One Nevada Process is being used to guide NDOT's transportation investments. This transparent process will help validate transportation investment decisions by demonstrating how specific projects support the goals for the state's transportation network. There is a basic premise that validated needs are advanced into concepts and re-evaluated on their ability to meet NDOT's goals before they become funded projects.

Bridge Program

Highway assets are managed using two systems: A pavement management system and a bridge management system. Both systems provide an inventory of existing assets, their condition, needed repairs, and repair priorities. The bridge management system aids in identifying bridges in need of replacement and rehabilitation. Federal funds are available to replace and rehabilitate substandard publicly owned highway bridges. While the primary focus of this program is to replace or rehabilitate bridges, these funds can also be used for:

- Conducting federally mandated inspection on all existing bridges
- Compiling federally mandated inventory information
- Upgrading bridges to resist seismic activity
- Mitigating potential scouring of bridge supports due to flooding

Eligible expenses are funded at ninety-five percent federal funds with a five percent match by the bridge's owner.

There are 2,153 bridges in the Nevada DOT bridge inventory. Of these, 1,239 are owned and maintained by the Department, 842 bridges are maintained by Nevada Counties and Cities, 48 are maintained by other local agencies. Private entities maintain 10 bridges, Railroads maintain 6, and 8 bridges are maintained by other state agencies.

Priority of replacement and rehabilitation projects are based on a bridge's condition rating. For each bridge, the condition rating is determined for three primary elements: deck, superstructure and substructure. Bridge-sized culverts have a single, independent rating. National Bridge Inventory general condition ratings are assessed on a scale that ranges from 0 (failed condition) to 9 (excellent condition). The lowest of the three ratings for bridges, or the single rating for culverts, is used to represent the overall condition of the structure. Ratings of 7 or better, represent a bridge that is in good condition and ratings of 5 or 6 represent a bridge in fair condition. If any of the condition ratings are 4 or below, the bridge is in poor condition.

State Highway Preservation Program

The Department maintains 5,396 centerline miles of highways. The total number of miles fluctuates annually as new highways are constructed and others are eliminated due to relinquishment and road transfer activities to counties and cities, prompted by the 1999 Assembly Concurrent Resolution (ACR) 3. These highways carry 49 percent of Nevada's traffic and 72 percent of the heavy trucks. The Department is responsible for protecting highway assets and preserving existing highways. The Pavement Management System provides an inventory of existing assets, their condition, needed repairs, and repair priorities. The basic principle of pavement preservation is that timely lower-cost improvements will save money and better serve the public. At present, approximately $210 million is needed annually for pavement preservation projects to maintain the quality of highway pavements at acceptable levels. To preserve the state highway system at low cost, action plans are used that optimize the use of available funds. The Department's action plan in priority order is as follows:

- Apply timely overlays on Interstate and other Principal Arterials, Minor Arterials, and other moderate to high volume roads.
- Further develop economical repair strategies for our low-volume roads.
- Continue coordinating and integrating routine pavement maintenance activities with planned overlay and reconstruction work.

Within this action plan, individual projects are prioritized based on pavement age, traffic volume, axle loads, and condition. From this analysis, an action list is formulated based on the financial consequences of not doing the project. Further assessment data is collected from field surveys in conjunction with District-engineer offices. Collaboratively, repair strategies are formulated along with an appropriate funding level to accomplish the Department's preservation and other goals.

Highway Safety Improvement Program

The Highway Safety Improvement Program is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. The program is legislated under Section 148 of Title 23, United States Code and regulated under Part 924 of Title 23, Code of Federal Regulations.

The Department is tasked with a data-driven, strategic approach to improving highway safety on all public roads in Nevada. The Highway Safety Improvement Program consists of several components, namely:

1) Maintaining a geolocated database of all crashes
2) Analyzing data to determine high crash sites
3) Conducting Safety engineering studies to develop highway safety improvements
4) Establishing priorities for implementing safety improvements
5) Programming and implementing highway safety improvement projects
6) Federal reporting for all Highway Safety Improvement Program activities
7) Evaluating crashes before and after the implementation of safety improvements
8) Determining the overall effectiveness of the prescribed safety improvements

The Department cooperates with a variety of stakeholders to implement the Nevada Strategic Highway Safety Plan under the Highway Safety Improvement Program. Stakeholders include state, federal, local and tribal safety partner from "the 6 E's of Traffic Safety" – Equity, Engineering, Enforcement, Emergency Response, Education, and Everyone. These partnerships are essential to reach the goal of zero fatalities on Nevada's roads.

Programs and projects are developed on systemic and systematic principles. Systemic projects are proactive and look at the use of proven safety countermeasures throughout the system where systematic project are reactive and based on crash data. Programs and projects will align with the Strategic Highway Safety Plan Critical Emphasis Areas goals.

Transportation Alternatives Program (TAP)

The TAP is a competitive grant program designed to help create safer, more walkable streets, including pedestrian and bicycle infrastructure, Safe Routes to School programs, and other local community projects. Nevada's statewide TAP is administered by the Nevada Department of Transportation and aligns directly with the One Nevada goals to enhance safety, preserve infrastructure, optimize mobility, and connect communities.

To be eligible, activities must fall within three broad categories: 1) Transportation infrastructure (including engineering, environmental analysis, and construction phases); 2) Planning and 3) Non-infrastructure projects (efforts related to Education, Encouragement, and Equity for students' grades K-8).

Eligible applicants include local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts or schools, tribal governments, MPOs with populations over 200,000, nonprofit organizations and other local or regional governmental entities with responsibility for oversight of transportation or recreational trails.

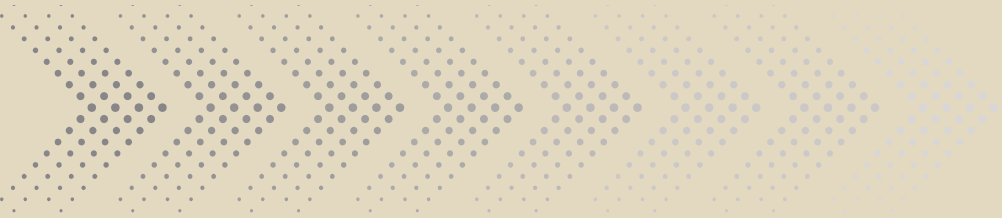
Eligible projects include planning, design or construction for bicycle and pedestrian facilities, sidewalks, trails, lighting, signals, traffic calming, ADA, turnouts, overlooks and viewing areas, historic preservation related to historic transportation facilities, recreational trails, Safe Routes to School for grades K-12 (infrastructure, non-infrastructure, and coordinators), vulnerable road user safety assessments, vegetation management, environmental mitigation related to stormwater, water pollution prevention, wildlife crossings, and habitat connectivity, rails to trails, and community improvement activities related to the inventory removal or outdoor advertising).

Proposed TAP projects are solicited through a competitive process, facilitated by the NDOT, and ranked by a TAP evaluation committee. Members of this committee represent a wide range of interests such as active transportation, safety, traffic operations, and other State agencies such as Nevada State Parks. TAP funds may be used to reimburse eligible project costs incurred by grantees, in accordance with local public agency agreements between the project sponsor agency and NDOT. Federal funding covers up to 95% of project costs with 5% of costs provided by local project sponsors.

TAP funding is also made available through regional competitive solicitations conducted by the Regional Transportation Commission of Washoe County (Washoe RTC), the Regional Transportation Commission of Southern Nevada (RTCSN), and the Tahoe Regional Planning Organization (TRPA).

More information about Nevada's TAP program can be found by going to www.nevadadot.com/tap.

Appendix C



Performance Management Plan

Goal of the Plan

The Performance Management Plan aims to support the Nevada Department of Transportation staff and Director's Office with implementing transportation performance measures requirements through communication of strategic goals and distinct activities, and schedule established by the Department. The plan enables the Department to fulfil the requirement of NRS 408.133 primarily and aligns with the performance management requirements in the Moving Ahead for Progress in the 21st Century (MAP-21) and Fixing America's Surface Transportation (FAST) Acts.

The Performance Management Plan emphasizes the Department's goals as stated in the Strategic Plan to be achieved through successful implementation of performance management and activities aimed at achieving those goals. This plan covers the entire performance management process and other related actions that result in producing the Annual NDOT Performance Management Report, improve individual business unit processes and outcomes, identify resource needs and allocation, and improve the Department as a whole.

This plan compartmentalizes the relevant sections of NRS 408 as follows:

- Section 47.2 – Annual report on performance measures and general project information
- Section 47.3 – Annual Report on benefit-cost analysis for capacity projects that cost at least $25 million
- Section 55.5 – Quarterly report on general project information for the Blue- Ribbon task force projects and any proposed super and mega highway projects

The fulfilment of all these requirements is documented in the Annual Performance Management Report.

Performance management at NDOT has significantly improved over the last four years. As Performance Measures Champions become increasingly aware of the importance of measuring their performance and incorporating performance management concepts and practices, this growth will continue. Also, this growth can be attributed to the Director's Office support and empowering Division Heads and staff to take ownership of the program. This plan is a living document for the Department and will remain aligned to the greatest extent possible with the One Nevada Plan, the Transportation Asset Management Plan, the Department Strategic Plan, and other plans and related documents developed by the Department and FHWA, supporting and or requiring performance management application.

Background

The Department has developed performance measures for the sixteen major Divisions to facilitate the accomplishment of the Department's Mission and achieve its Strategic Plan goals. These goals are as follows: Please see the details of this Report on page 2.

1) Improve Safety for the Traveling Public and NDOT Workforce
2) Optimize Mobility
3) Preserve Assets
4) Create a Great Place to Work

Performance measures are designed to quantify progress in achieving these goals, as well as assisting Divisions in improving on their business processes and outcomes. The sixteen performance areas are listed below. The performance management plan is broken into sections for enhanced clarity and transparency. The plan undergoes yearly evaluation and update to ensure significant changes, issues, or Transportation Board or Legislative directives that happen during the year are addressed in the subsequent performance management cycle.

Also, Congress established seven national goals and FHWA established national performance measures for the Federal-aid highway program as stated in Section 1203 of MAP-21, as amended by the FAST Act. Performance management requirements were established that address safety, infrastructure condition, system performance, traffic congestion, on-road mobile source emissions, and freight movement.

It is the intention that through performance management and this performance management plan desired outcomes will be achieved that collectively will aid in the realization of some or all of the Department's goals.

Performance Management: Desired Outcomes

Investments Accountability

- Transportation funding is limited therefore we thrive to use it wisely and maximize the return on the investment
- Performance-based decisions driven by data and logic

Enhance Efficiency and Consistency

- Defendable project selection process and better project selection across the state
- Repeatable processes that can be applied over time and in different parts of the state
- Minimizes risk
- Outcomes can be measured

Increasing Coordination Amongst Divisions

- Division Heads/Performance Champions share in the responsibility to support the Department's goal through their decision-making as they manage their performance measures
- Data sharing and periodic meetings are keys to successful coordination. The performance management process requires and enhances coordination.

Tracks and Monitors Department-Wide Performance

- Through tracking of performance measures metrics, we can tell how we are doing

Improving Transparency

- By publicizing our performance
- Aligns performance targets with customer expectations

Increasing Our Understanding of What Works

- What investment strategies are useful in achieving the targets set and the desired outcomes?
- Performance management process provides us with an opportunity to develop knowledge base further

Communicating Our Efforts to the Transportation Board of Directors, the Legislature, and the Public

- Performance management and reporting helps us communicate how we are doing to our stakeholders
- The story we need to tell is not only what we are able to do but also what we are unable to do with existing resource constraints. This informs discussions on future funding levels

Performance Measures Development

The Department has put policy (TP 1-11-2) and procedures in place to help guide the compilation and reporting of performance measures, the retention of supporting documentation, and the review of calculations and methodologies. These procedures ensure the accuracy and reliability of results.

There are sixteen performance measures that have been developed by the Department:

1) Reduce Workplace Accidents
2) Provide Employee Training
3) Improve Employee Satisfaction
4) Streamline Agreement Process
5) Improve Customer and Public Outreach
6) Improve Travel Reliability & Reduce Delay
7) Streamline Project Delivery – Bidding to Construction Completion
8) Maintain State Highway Pavement
9) Maintain NDOT Fleet
10) Maintain NDOT Facilities
11) Emergency Management, Security and Continuity of Operations
12) Reduce Fatal & Serious Injury Crashes
13) Project Delivery – Schedule and Estimate for Bid Advertisement
14) Maintain State Bridges
15) Streamline Permitting Process
16) Reduce Greenhouse Gas Emissions

During the performance measures development process, the Director's Office works with the respective Division Heads in formulating their respective performance measure(s) and designates the Division Head as the Champion for that performance measure. During the formulation of performance measures, it is intended for every performance measure to support at least one of the Department's strategic goals. Also, because the Department is required to report to the Federal Highway Administration (FHWA) on (MAP-21/FAST ACT) performance measures developed by FHWA that support the goals of the U. S. DOT Strategic Plan, on performance indicators as agreed between the NDOT and FHWA, and on performance measures in the Transportation Asset Management Plan, effort is made to align these performance measures as much

as possible to streamline the process, increase efficiency, and minimize resource utilization. The performance management process also takes into consideration the requirements of the sections of NRS 353 that deals with performance measures NDOT Financial Management reports to the Governor's Finance Office and the Legislature. However, the need for alignment and streamlining does not take precedence over meeting the Department's nor U. S. DOT's strategic goals.

NDOT Performance measures must be approved by the Transportation Board of Directors before adoption. Following is the process to add or change any performance measure:

- If a new measure is added there must be explanations why the measure is added
- If a measure is changed there must be explanations why it is being changed, and provide data for the measure as it was before and as it is after the change for the first year
- If a measure is eliminated there must be explanations why the measure is being eliminated, and provide data for the first year

After initial approval, a performance measure cannot be changed or modified without submitting it to the Board with proper justification for the change or modification.

Target Setting

After development and adoption of performance measures, the setting of targets begins. Individual Performance Measure Champion/Division Head in consultation with his or her Assistant and Deputy Director determine the target for their performance measure(s).

Widely accepted and performance management practices and target setting rules like the SMART rule are applied when setting targets:

- Specific
- Measurable
- Attainable
- Realistic
- Time-bound

Each Performance Champion develops the methodology for setting their target. The method used in the target setting could be based on policy, trends analysis, risk-based, or statistical or other methods.

However, whichever philosophical approach is used considers the ability of the Department to attain the target, a determination of the most likely outcome, or a commitment to improved outcome irrespective of the probability of not meeting the target. Also, regardless of which approach is used, ease of application, technical robustness, ease of communication, and policy objectives consideration are desired outcomes that any approach must achieve to be considered viable.

After targets are developed and set, they are reviewed and endorsed by the Director's Office.

As with the NDOT performance management process, the target setting process is reviewed and evaluated each year as new and additional data become available, new insights are gained, and the state of the practice improves as knowledge expands. Targets can be adjusted or modified each year and does not require Transportation Board approval.

Implementation – Tracking

After performance measures have been assigned and targets set, the tracking and evaluation of the performance measure begins. Performance Champions develop short-term and long-term strategies to improve business processes and outcomes that translate to progress in achieving established performance targets.

Data collection and metric monitoring are the next steps in the process. Champions perform periodic data collection to determine the status or progress of their performance measure by comparing the data gathered on the metric compared to where it needs to be with respect to the target. Specific staff is assigned the responsibility of gathering data and monitoring the status of the performance measure throughout the year and keeping the Division Head updated. At the end of the performance period the Division Head analyzes the results and evaluates the strategies that are in place to determine if they are successful or not. If some or all strategies are successful, they are kept in place for the next performance period, but if they are not successful, they are abandoned or modified, or new strategies are developed altogether based on insights from the analyses.

Performance Measures Data

Data collected for tracking and evaluating performance measures must be stored properly and made available if requested. This data is also used as supporting documentation in the yearly report write-up and must be forwarded to the Performance Analysis Division. Because performance measures are evaluated for different yearly cycles (state fiscal year, federal fiscal year, calendar year), care is taken to ensure that data collected and used for evaluating any performance measure is stamped for that particular cycle.

Although comprehensive reports are not required on a quarterly basis from all the Divisions assigned performance measures, Divisions are required to collect and submit raw data each quarter that is used to determine the progress of the performance measure at that time relative to the end of the performance period.

These quarterly performance data are reviewed and forwarded to the Director's Office. The data is organized and store in a data repository in the Performance Analysis Division as soon as they are received.

The Performance Analysis Division maintains this data that goes back at least five years. This data is used to create trend charts, crosscheck other information, and used for integrated analyses.

Compiling the Annual Performance Management Report

NRS 408.133 requires the Director of the Department to submit the Annual Performance Management Report to the Transportation Board of Directors and the Legislative Counsel Bureau not later than December 31 each year.

Although the performance management cycle is year-round, the compilation of the Annual Performance Management Report begins in May. The Performance Analysis Division chief communicates with all Performance Champions to determine availability in scheduling the yearly Champions Meeting with the Director's Office. Each performance measure Champion is allotted thirty minutes for each performance measure. Because there are sixteen performance measures this meeting is scheduled for a total of ten hours including transition times between performance measures. Depending on the Director's availability, this meeting could spread out over multiple days.

The purpose of the annual Champions Meeting with the Director's Office is to discuss performance achievement and shortcomings, performance measures and related issues, applied strategies, resource capacity and other obstacles, and performance stories derived during the performance period.

At the meeting, the Performance Analysis Division Head provides Performance Measure Champions a copy of their previous year's report, the report template for submitting their report for the current performance period (year) and, announces the end of August as the deadline to submit the current year's performance measures report.

The Performance Analysis Division receives, and reviews Divisions performance measures reports as they are submitted by each Division. Assistant Directors receive a copy of the report submitted by their Division for review. Review comments from the Assistant Directors are sent back to the respective performance Champion and the Performance Analysis Chief for notified about the comments or proposed changes. The

performance measures' reports from the Divisions are also sent to the Communications Division liaison staff for review. After all reviews and updates are complete, the compilation of all the reports begins. The Performance Analysis Division ensures uniformity and consistency of the report by incorporation some of the guidelines stated in the Communications Division's report development draft guide document. Charts, graphs, and infographics are also developed for easy reading and report presentation.

The report is divided into seven major sections:

1) Vision, Mission, Core Values and Our Goals
2) Performance Management Dashboard (Executive Summaries)
3) Detailed Performance Measures Reports and Data
4) Applicable Directives from The Transportation Board/Legislature
5) State Highway Fund Annual Revenue and Expenditures
6) Major Projects Annual Status Report
7) Appendices

After compilation of the annual report by the Performance Analysis Division, the Word file is sent to the Multimedia Section for final formatting and addition of the front and back cover pages with pictures. The Word file must be sent to the Multimedia Section by the second week of November. Multimedia will complete its work within three working days and submit a draft report to the Performance Analysis Division for proofing, which should take at most two days. Comments are sent back to the Multimedia Section and a draft report is produced before the middle of the third week of November and sent to the Director's Office for review. The Director's Office reviews the draft report and sends comments on the Performance. The Performance Analysis Division then incorporates and documents the comments and sends the updated information to the Multimedia Section for final update after, which the Board Draft copy is produced by the end of the third week of November in preparation for the Board Package for the December Board Meeting.

Performance Management Reporting

The Multimedia Section produces the report in both electronic and hard copies in PDF format.

The draft report is included in the December Board Package, which is sent to the Transportation Board of Directors. After the December Board Meeting, comments from the Transportation Board of Directors related to the report are gathered and addressed and the final draft report is completed and sent to the Communications Director for transmittal to the Legislative Council Bureau by December 31, and also posted on the NDOT website.

Annual Performance Management Report Development Timeline

Activity	Start by Date	End by Date
Annual PM Champions Meeting Schedule Set Up	1-May	15-May
PM Champions Meeting with the Director's Office	15-Jun	30-Jun
Submission of Division's Report to Performance Analysis	1-Jul	31-Aug
Division Report Review	7-Jul	15-Sep
Compilation of Reports	16-Sep	31-Oct
Request for Safety Data	15-Sep	1-Nov
Request for Financial Data	15-Oct	7-Nov
Request for Major Projects Information	15-Oct	1-Nov
Inclusion of Requested Information	2-Nov	7-Nov
Advanced Formatting of Report by Multimedia	8-Nov	11-Nov
Proofread Draft Report from Multimedia	12-Nov	14-Nov
Draft Report Update	15-Nov	16-Nov
Draft to Director's Office for Review	16-Nov	20-Nov
Address Director's Office Comments	21-Nov	23-Nov
Produce Draft Report for Board Package	24-Nov	25-Nov

Prepared by the

Performance Analysis Division
Nevada Department of Transportation

1263 South Stewart Street. | Carson City, NV 89712