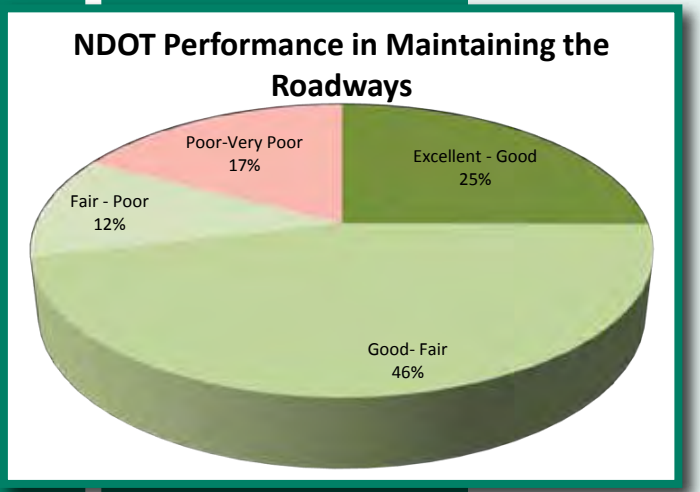
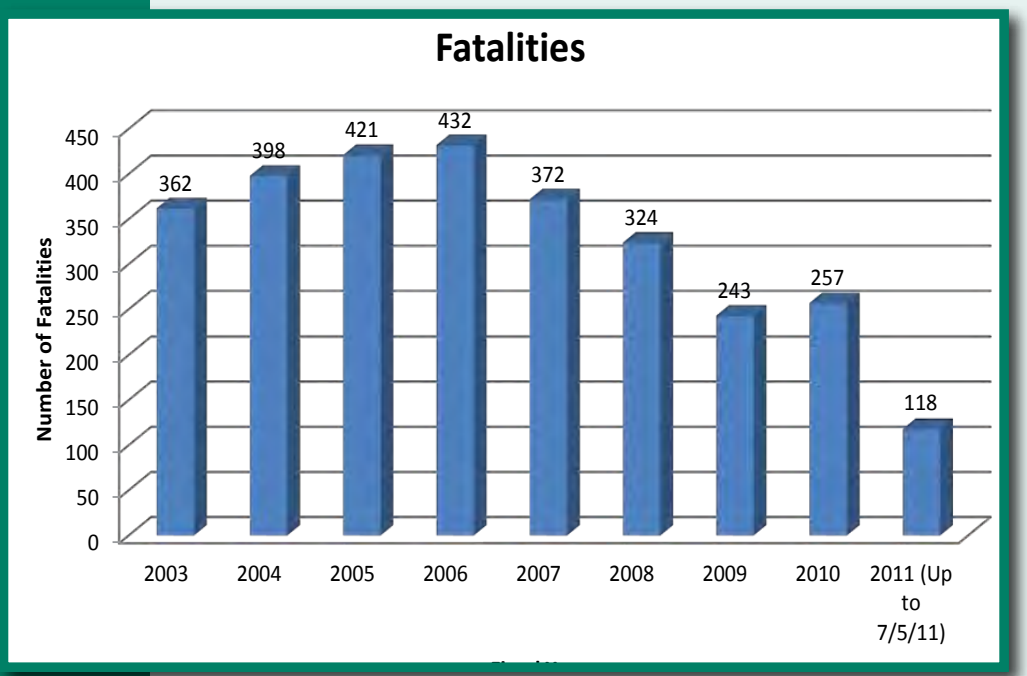
NEVADA DEPARTMENT OF TRANSPORTATION



2011 PERFORMANCE MANAGEMENT REPORT



December 2011

Susan Martinovich, P.E.
Director

Brian Sandoval
Governor

2011 PERFORMANCE MANAGEMENT REPORT

Prepared by the
Performance Analysis Division
NEVADA DEPARTMENT OF TRANSPORTATION
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State of Nevada Transportation Board Members

Brian Sandoval	Chairman/Governor
Brian Krolicki	Vice Chairman/Lt. Governor
Catherine Cortez Masto	Attorney General
Kim Wallin	State Controller
Frank Martin	Member - District 1
Len Savage	Member - District 2
Tom Fransway	Member - District 3

NDOT Administration

Susan Martinovich	Director
Scott Rawlins	Deputy Director and Chief Engineer
Rudy Malfabon	Deputy Director Southern Nevada
Bill Hoffman	Assistant Director Engineering
Rick Nelson	Assistant Director Operations
Tracy Larkin-Thomason	Assistant Director Planning
Scott Sisco	Assistant Director Administration

NDOT Staff Involved

Alauddin Khan –Chief Performance Analysis Engineer
Amir Soltani – Chief of Project Management
Anita Bush – Chief Maintenance and Operations Engineer
Christi Thompson – Chief of Administrative Services
Chuck Reider – Chief Traffic/Safety Engineer
Jeff Shapiro – Chief Construction Engineer
Kimberley King –Human Resources Manager
Manuel Correa – Safety and Loss Control Manager
Mark Elicegui – Chief Bridge Engineer
Mike Stair – Equipment Superintendent
Paul Saucedo – Chief of Right-Of-Way
Randy Travis – Chief Traffic Information System
Reid Kaiser – Chief Materials Engineer
Sean Sever – Chief of the Communications Office

DEPARTMENT VISION, MISSION, AND GOALS

MISSION

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

VISION

The Department is the nation's leader in delivering transportation solutions, improving Nevada's quality of life.

MISSION, VISION GOALS, and VALUES

STRATEGIC PLAN GOALS

Optimize safety

Be in touch with & responsive to customers

Innovate

Be the employer of choice

Deliver timely & beneficial projects & programs

Effectively preserve & manage our assets

Efficiently operate the transportation system

CORE VALUES

Integrity – Doing the right thing

Honesty – Being truthful in our actions and our words

Respect – Treating others with dignity

Commitment – Putting the needs of the Department first

Accountability – Being responsible for our actions

INTRODUCTION

NDOT's Performance Management is a collaborative process in which all major divisions of the department are involved in monitoring their annual and ultimate performance targets resulting in a customer-oriented, balanced, effective, efficient, transparent and performance-based decision making process. It is a dynamic process and improvements are incorporated into the performance management process as needed. 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 system performance, 3) helps identify and implement efficient and cost effective performance-based programs, 4) links projects to the vision, mission, and goals of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering high quality projects.

The Nevada 2007 Legislative Assembly Bill 595 requires the Department to develop a performance management plan for measuring its performance, which must include performance measures approved by the Board of Directors of the Department. The specific requirements of the Assembly Bill 595 are as follows:

1. **Section 47.2 – Annual Report on Performance Measures and General Project Information**

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 current status of meeting those goals
- Schedule, scope, cost and progress of any current or proposed highway project
- 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 Cost-Benefit Analysis for capacity projects that cost at least $25 million (NRS 408.3195).**

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

3. **Section 55.3 – Annual Report on projects funded through the Las Vegas Convention and Visitors Authority funding.**

   The report will include funding, descriptions, status, timelines, and information on the completed projects, if any (NRS 244A.638). 4. 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. Submit report to the Governor and the Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

PERFORMANCE MANAGEMENT DASHBOARD
(Executive Summaries)

EXECUTIVE SUMMARY

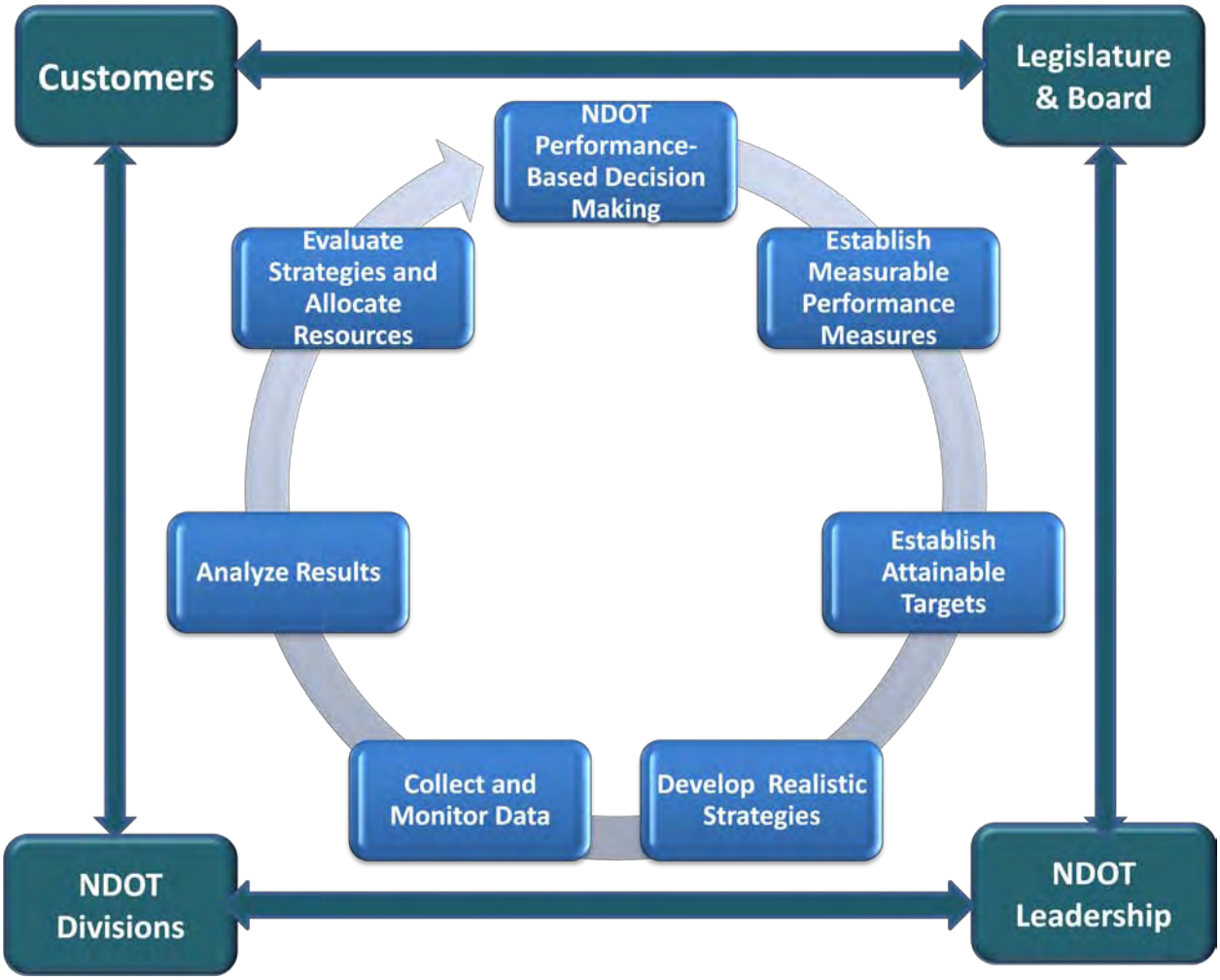
NDOT's Performance Management is a collaborative process in which all the major divisions of the department are involved in monitoring their annual and ultimate performance targets resulting in a customer-oriented, balanced, effective, efficient, transparent and performance-based decision making process. It is a dynamic process and improvements are incorporated into the performance management process as needed. 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 system performance, 3) helps identify and implement efficient and cost effective performance-based programs, 4) links projects to the vision, mission, and goals and objectives of the department, 5) helps align performance targets with customer expectations, and 6) helps in delivering high quality projects.

NDOT has established 15 performance measures to track, monitor, and report performance of 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 senior management is actively involved in the performance management process and supports the performance management process by conducting quarterly performance management 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 responsible for their division's performance, helps diagnose and address problems faced by the divisions in meeting their targets, and effectively communicates its performance-based decision making process to the public and the legislature.

In Fiscal year 2011, NDOT continued to monitor its performance-based management process. The performance management dashboard, and the detailed data trends sections of this report provides further information regarding NDOT's performance in Fiscal Year 2011.

NDOT STRATEGIC PERFORMANCE MANAGEMENT PROCESS

NDOTs Strategic Performance Management process is guided by comprehensive input from 1) our customers in the form of surveys and direct two-way communications, 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 process that includes identifying realistic and specific performance measures, establishing measurable and attainable targets, developing comprehensive and effective strategies to help achieve the targets, quarterly data collection and monitoring, and evaluating strategies to help allocate our resources most effectively and efficiently. The following graph shows the performance management process,



PERFORMANCE MEASURES

1.Reduce Work Place Accidents

2.Provide Employee Training

3.Improve Employee Satisfaction

4.Streamline Agreement Process

5.Improve Customer and Public Outreach

6.Reduce and Maintain Traffic Congestion

7.Streamline Project Delivery- Bidding to Construction

8.Maintain State Highway Pavement

9.Maintain Department Fleet

10.Maintain Department Facilities

11. Continuity of Operations

12.Reduce Fatal Crashes

13.Project Delivery- NEPA to Bid Opening

14.Maintain State Bridges

15.Streamline Permitting Process

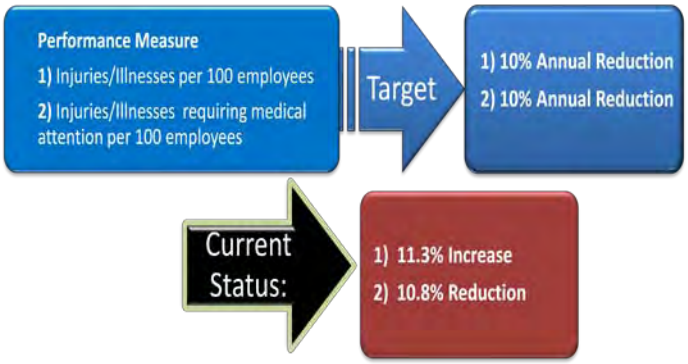
PERFORMANCE DASHBOARD

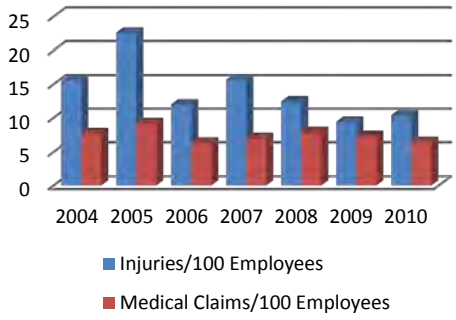
The following Performance Management Dashboard provides an executive summary of each of the 15 performance measures and shows the status of the performance measure in Fiscal Year 2011. Detailed information regarding each performance measure is provided in the "Performance Management Detailed Data Trends" section of this report.

1. Reduce Work Place Accidents

Executive Summary: This Performance Measure has two parts to measure both the rate of work place injuries/illnesses and the severity of employee workplace injuries/illnesses. Comparing Calendar Year 2010 to Calendar Year 2009, work place accidents increased by 11.3% and medical claims reduced by 10.8%. The total number of work place injuries increased by 19.

For detailed information about performance measure 1, please refer to page 19.





2. Provide Employee Training

Executive Summary: During FY 2011, NDOT provided 723 training sessions for employees with required training. Additionally, many employees participated in voluntary training courses.

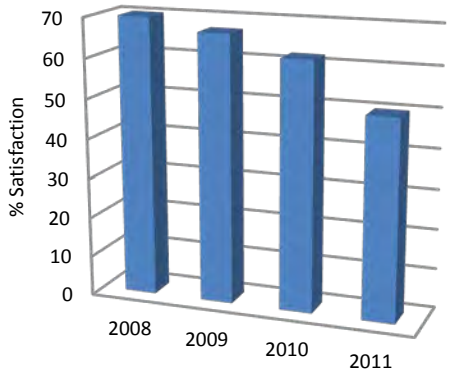
For detailed information about performance measure 2, please refer to page 23.

3. Improve Employee Satisfaction

Executive Summary: Percentage of Employees Satisfied with the NDOT work environment.

The percentage of employees surveyed who are extremely or somewhat satisfied with NDOT is currently 50%.

For detailed information about performance measure 3, please refer to page 27.

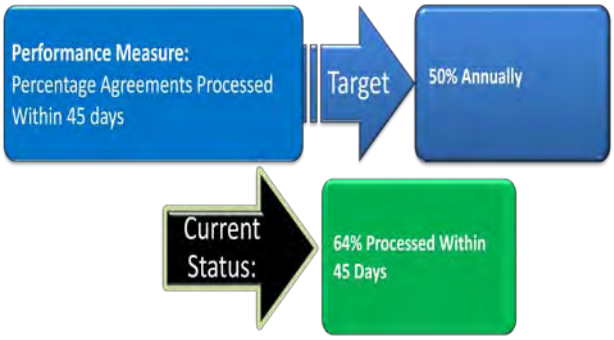


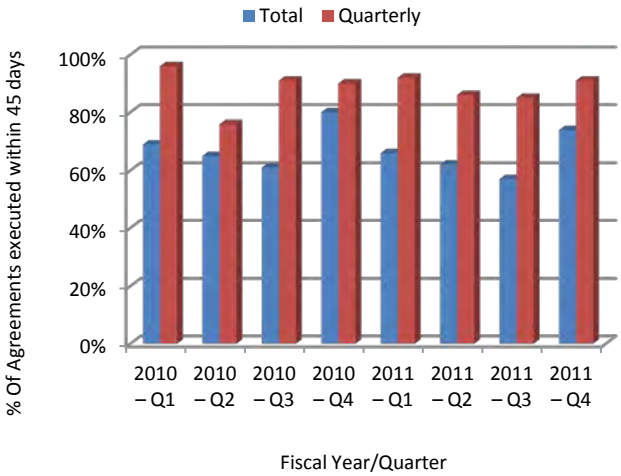
4. Streamline Agreement Process

Executive Summary: During FY 2011, NDOT processed 64% of all agreements within 45 days.

The total number of agreements processed was 253.

For detailed information about performance measure 4, please refer to page 31.





5. Improve Customer and Public Outreach

Executive Summary: A new customer satisfaction survey is being developed and will be made available when completed. The data shown is the most recent available from a customer satisfaction survey which took place between October 2008 and August 2009. For detailed information about last customer satisfaction survey, please refer to page 34.

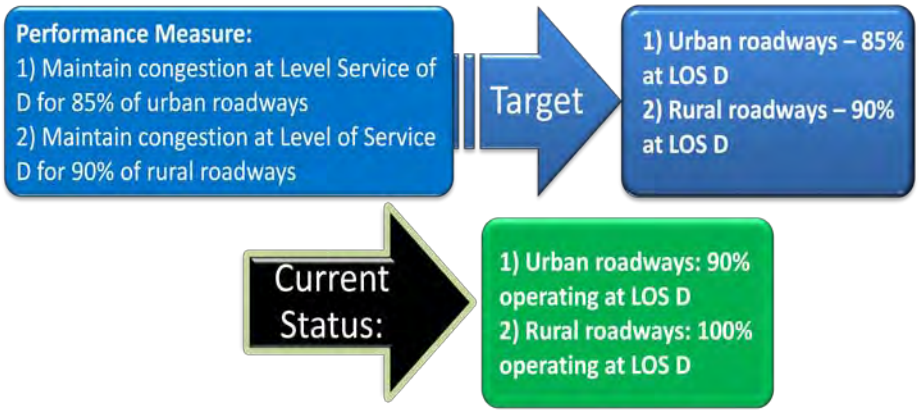
6. Reduce and Maintain Congestion Levels on the State Maintained Roadway System

Executive Summary: During FY 2011, NDOT developed its first system-wide Congestion Monitoring and Tracking System that is used in determining the congestion on the state maintained roadways in the core urban and rural areas. This established the base conditions for the Level of Service monitoring system.

System wide congestion will be visually displayed using Geographic Information System.

For detailed information about performance measure 6, please refer to page 37.

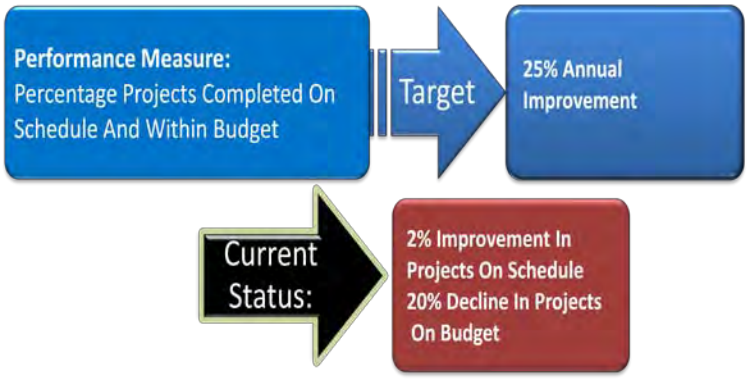
Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

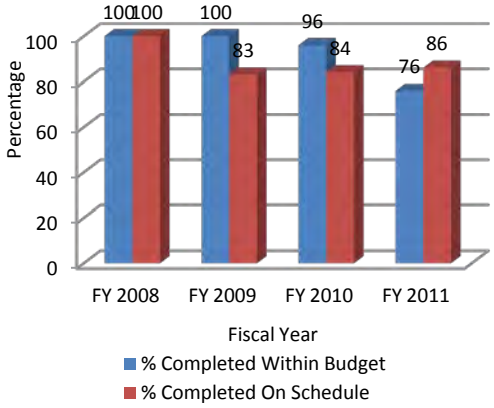


7. Streamline Project Delivery – Bid opening to construction completion

Executive Summary: During FY 2011, NDOT managed to keep 86% of its projects on schedule and 76% of the projects within budget on average. The total number of projects tracked was 77. Projects tracked now include all open projects instead of just those completed.

For detailed information about performance measure 7, please refer to page 42.

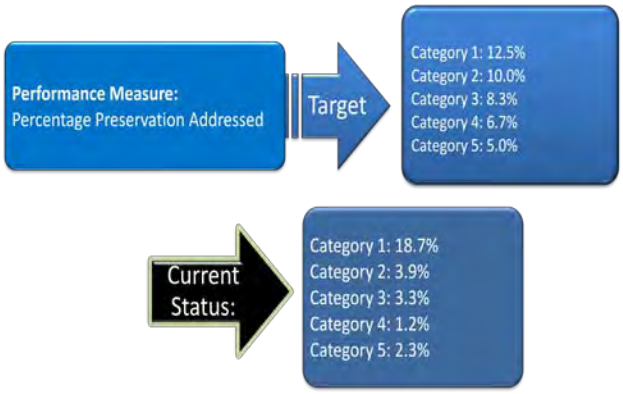


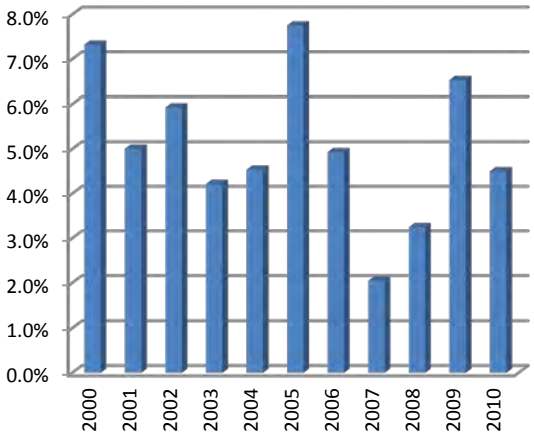


8. Maintain State Highway Pavement

Executive Summary: During FY 2011, NDOT was able to address the preservation needs of category 1 highways and was unable to address the need of categories 2-5 highways.

For detailed information about performance measure 8, please refer to page 47.

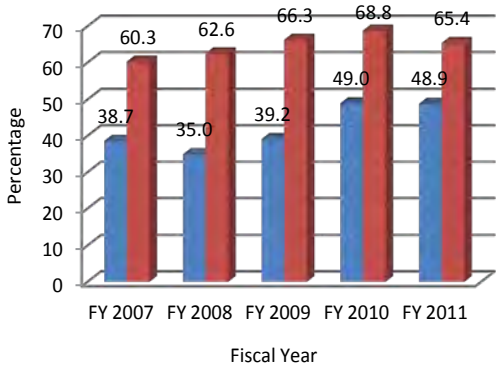




9. Maintain NDOT Fleet

Executive Summary: During FY 2011, the percentage of the NDOT mobile equipment fleet requiring replacement decreased by 0.13% over the prior year. The percentage of the fleet in compliance with preventive maintenance requirements to ensure that the expected life of our vehicles is not compromised decreased by 3.42% over the prior year.

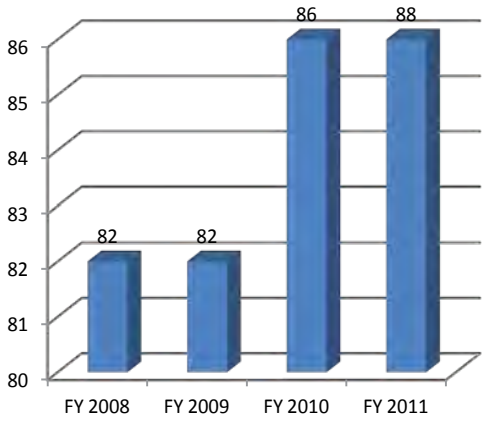
For detailed information about performance measure 9, please refer page 54.



10. Maintain NDOT Facilities

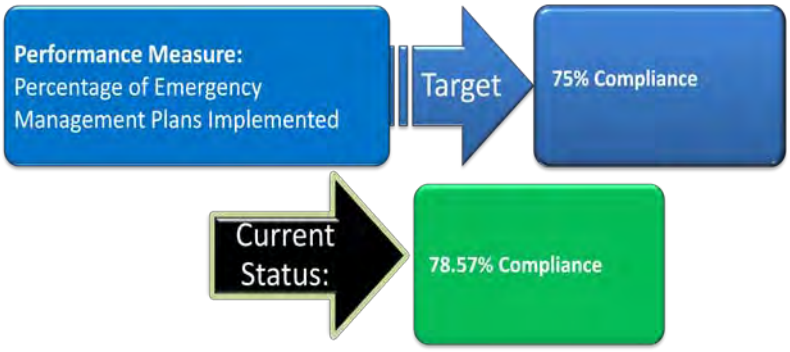
Executive Summary: During FY 2011, NDOT prepared plans for projects which will bring the department closer to compliance at 86% with all the regulatory building and safety codes. Three projects will address safety, energy, and code compliance issues.

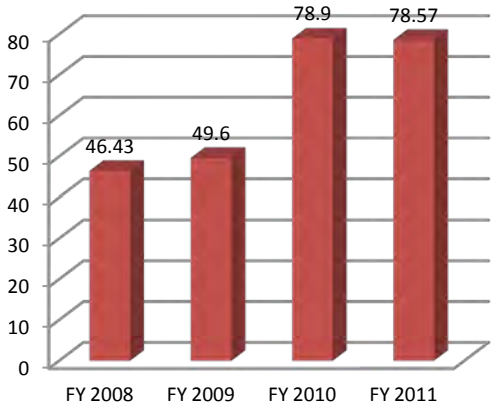
For detailed information about performance measure 10, please refer to page 57.



11. Emergency Management, Security, and Continuity of Operations

Executive Summary: During FY 2011, we focused on exercising and updating our Emergency Operations and Security Plans. With seven distinct emergency plans, we have determined that it is beneficial to the Department to combine several plans. This will make it easier for Department personnel to locate, use and understand the plans. Our performance measures require us to train, exercise and update our Emergency Operations and Security Plans on a two year cycle. We are at a 78.57% compliance level, which did meet our goal for the year of 75% compliance. For detailed information about performance measure 11, please refer to page 61.

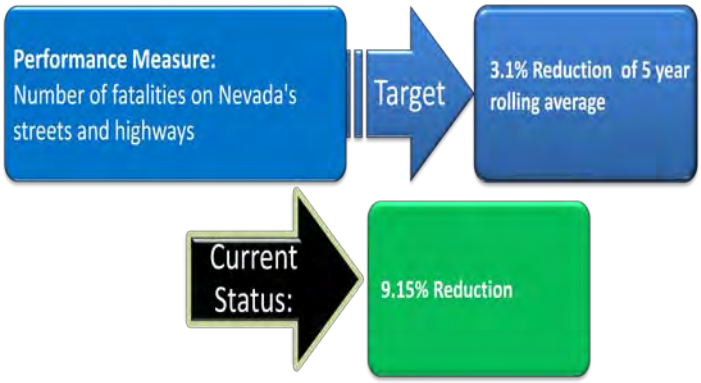


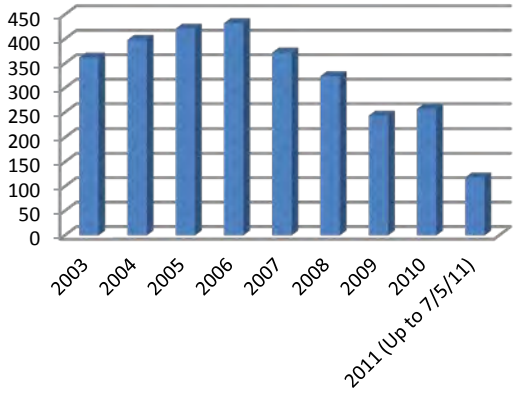


12. Reduce Fatal Accidents

Executive Summary: During FY 2011, NDOT continued to work with our partners to implement the strategies of the Strategic Highway Safety Plan. There were 118 fatalities in 2011 in Nevada as of July 5, 2011.

For detailed information about performance measure 12, please refer to page 64.

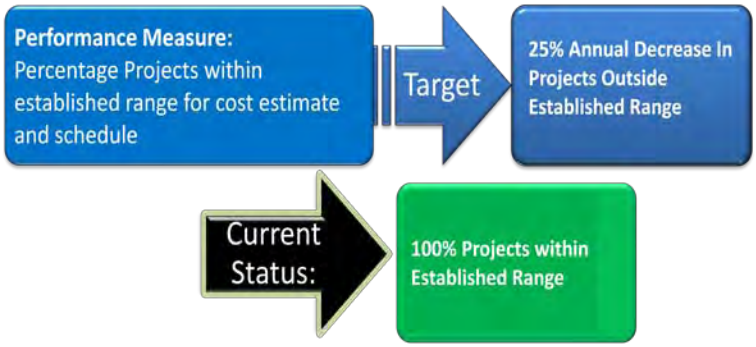




13. Streamline Project Delivery - NEPA Approval to Bid Opening

Executive Summary: Changes to Performance Measures have been developed and will be implemented in FY 2012.

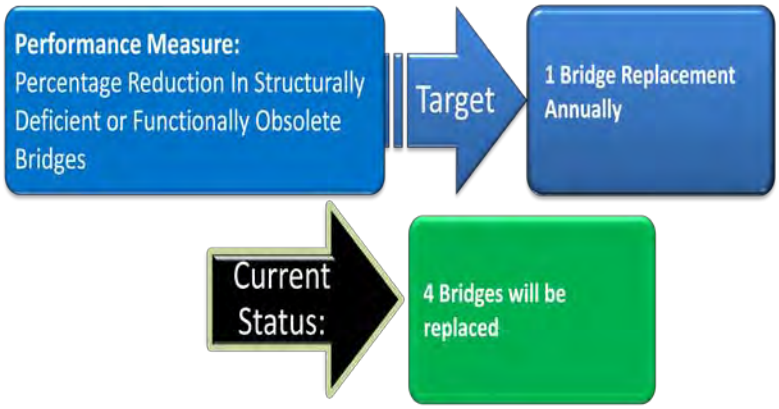
For detailed information about performance measure 13, please refer to page 68.

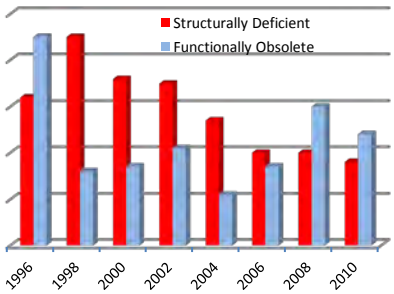


14. Maintain State Bridges

Executive Summary: During FY 2011, NDOT plans replacing 4 bridges which are structurally deficient or functionally obsolete.

For detailed information about performance measure 14, please refer to page 69.

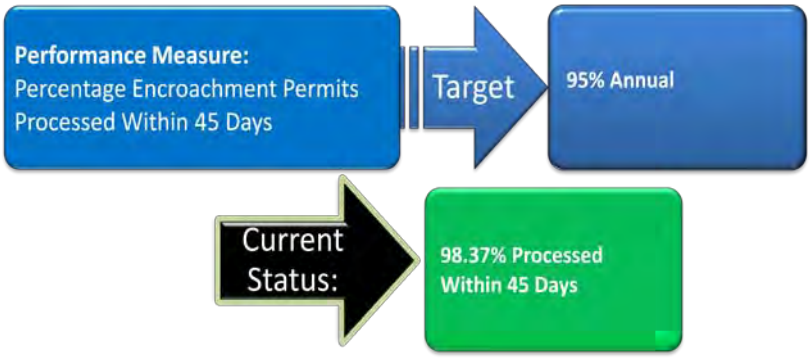




15. Streamline Permitting Process

Executive Summary: During FY 2011, NDOT Right-Of-Way Division processed 98.37% of encroachment permits within 45 days. The new Transportation Policy (TP) 10-1-3 ENCROACHMENT PROCESSING TIME SCHEDULE was signed by the Director and implemented.

For detailed information about performance measure 15, please refer to page 73.



DETAILED PERFORMANCE MANAGEMENT DATA

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

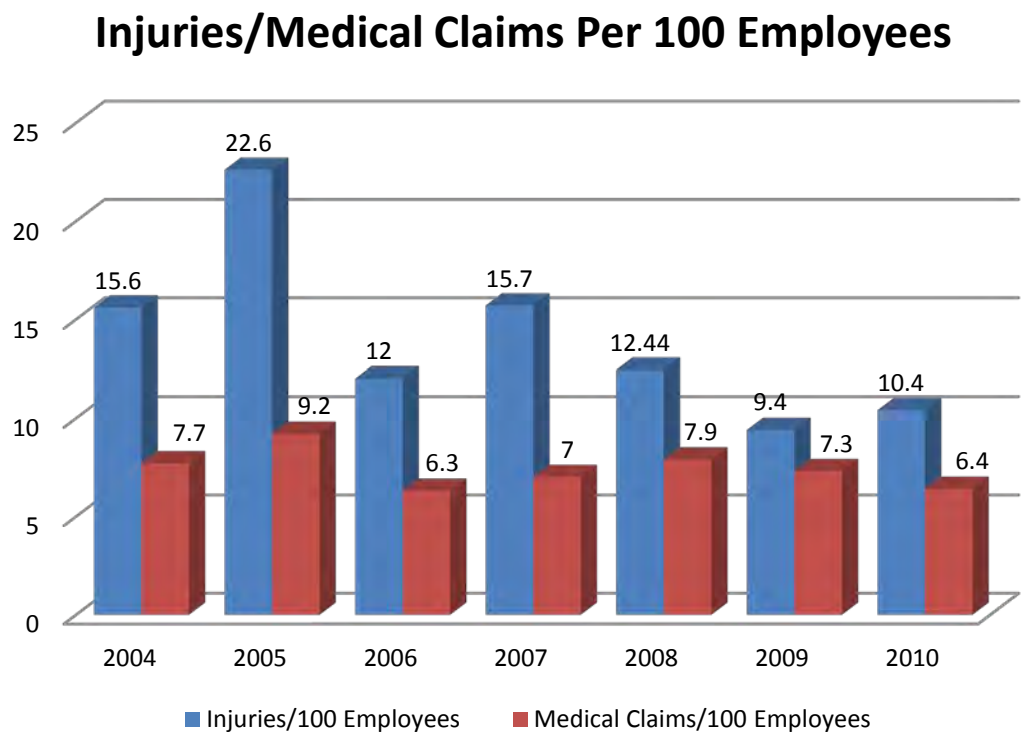
1. The rate of work place injuries and illnesses per 100 employees.
2. The rate of medical claims per 100 employees for work place injuries and illnesses requiring medical attention.

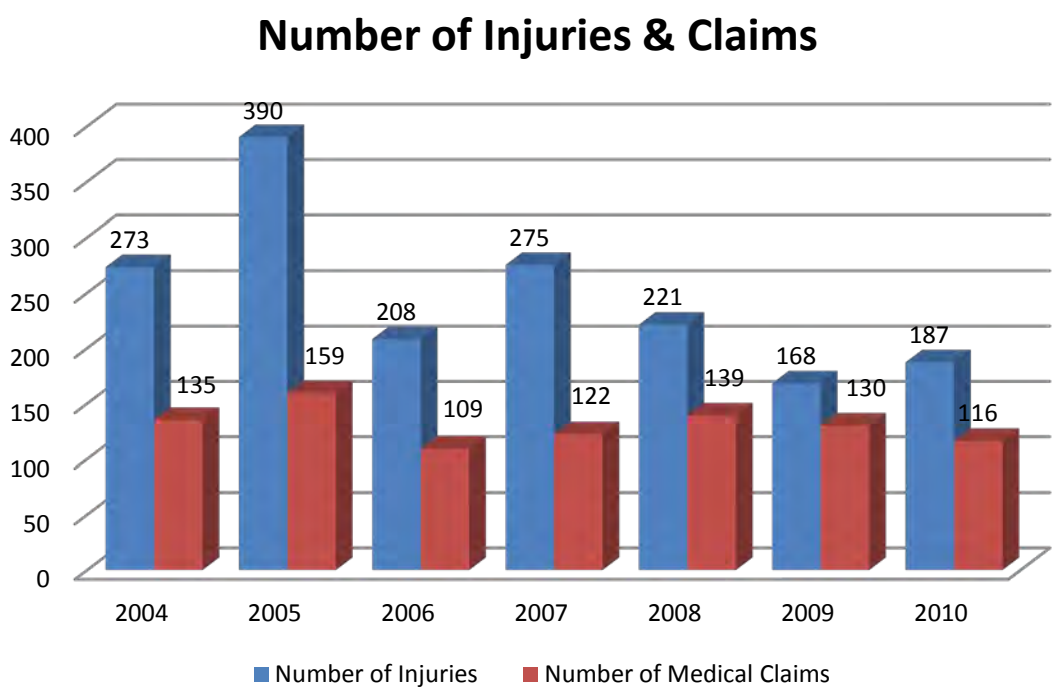
The rate of injuries is reported as the number of work place injuries and illnesses per 100 employees and number of injuries and illnesses requiring medical attention per 100 employees as documented through annual OSHA 300 Log Reporting data. Data is based on calendar year per federal reporting requirements.

Annual Target: 10 % Reduction **Ultimate Target:** Zero

Measurement and Supporting Data:

Calendar Year	2004	2005	2006	2007	2008	2009	2010	
Number of Injuries	273	390	208	275	221	168	187	
Injuries/100 Employees	15.6	22.6	12	15.7	12.44	9.4	10.4	
Number of Medical Claims	135	159	109	122	139	130	116	
Medical Claims/100 Employees	7.7	9.2	6.3	7	7.9	7.3	6.4	





Baseline is the average of 2004-2009 values. Data is reported on a calendar year pursuant to OSHA requirements Claim costs include all medical expenses and any reserves. The number of injuries reported for CY2010, increased by 19. This is an 11% increase over the number of injuries reported in CY09, thus the target to reduce injuries by 10% was not met by the end of the year for total injuries. The medical claim indicator met the target and the number of medical claims continues to decrease. This is an indication that a number of injuries reported were not serious enough to require medical treatment. Further, the average claim cost decreased by 18% which may indicate the injuries were less severe than those incurred in CY2009; however, further analysis of the claim cost data would be necessary as the vendor for claims management and reporting changed in 2010.

The majority of injuries sustained in 2010 were due to slips, trips or falls; caught between or struck by; and lifting which are three of the top four causes of injuries per federal OSHA. The number of injuries due to environmental hazards/exposures doubled in 2010 over those types of injuries in 2009. Many of these injuries are due to the employee failing to read the chemical datasheet (MSDS) prior to using a particular product and the supervisor's failure to insure the employee understood the MSDS and followed directions. The number of injuries due to being caught between tripled in 2010 in comparison to similar injuries that occurred in 2009. These are primarily due to placing hands and fingers between operating tools and equipment; a disproportion number were mechanics. In summary, one may surmise that while more employees are filing reports of injury, they are being more careful and thus those injuries are less serious.

Strategies for Improvement for FY2011:

Short range to next reporting:

1) Continue efforts to increase outreach in order to keep safety in the forefront and on employees minds; 2) Identify means to improving current databases and update the information so that relevant reports can be generated for management and regulatory agencies as required; 3) Based on injury data analysis, increase safety training in Hazard Communications for all NDOT staff and Hand Tool Use, placing an emphasis on mechanics; and 4) Continue cooperative efforts with the

Training Section to increase use of the NDOT Learning Portal for safety training, including learning to develop webinars and online training specific to NDOT safety and insuring implementation and delivery to staff is initiated.

Long range:

1) Implement additional means to reach staff with increased safety messages in order to bring safety to the forefront of employee thoughts and actions, including but not limited to a quarterly or bi-monthly newsletter; brief communication to targeted work groups pertaining to safety issues specific to them; participating in NDOT academies and annual meetings as workload permits; and updating Safety SharePoint site. 2) Increase ratio of staff in the Safety and Loss Control Section to total number of NDOT employees, which has had three staff since 1969. This will provide improved support and consultation services to the Divisions and Districts on a consistent and continued basis and aid in maintaining agency compliance with State and federal safety regulations. This is requisite if the department's safety program is to perform at optimum and to attain compliance with State and federal safety requirements. A new position was included in the NDOT budget for Legislative review and approval. 3) To evaluate the benefit of an Employee Safety Survey in order to assess the agency's culture or attitude as it pertains to safety; and to develop and distribute an Employee Safety Survey and to evaluate the responses to determine areas of need within the safety program.

Were the targets met? No

What 'Strategies for Improvement' were successful?

Increased communications such as a safety calendar and bi-monthly safety e-mails have increased safety awareness and have prompted unsolicited input from workers which may help to improve the safety program. Filling the vacant safety specialist position in 2009 increased the safety presence in the field and the increased communications have been received well by District maintenance staff.

Analysis of 2009 and 2010 injury data was conducted and the results indicated a continued high incidence of back injuries. Training opportunities were evaluated by agency safety staff in 2009 and it was determined that a course by PowerLift™ would best accommodate NDOT's needs. Training materials were purchased and Train-the-Trainer instruction was provided to 10 agency safety staff in June 2010. Implementation and course effectiveness of the training continued into FY2011. During this time, training needs for CPR/First Aid and AED also came to light. Due to attrition, the Districts did not have adequate staff certified to teach CPR/First Aid and AED use. All were relying heavily on the M&T's Chemical Hygiene Coordinator, whose workload would not always accommodate training needs. Steps were taken to obtain Instructor Trainer certification for this individual to train District safety staff and other pertinent staff to teach CPR/First Aid and AED use. This was completed and two of the Districts have safety staff certified to teach CPR/First Aid and AED use to their employees. AED trainer units were also purchased by and for District safety staff in those locations that have AEDs.

Cooperative efforts between the Training Section and Safety and Loss Control to implement a learning management system to track all training were successful. Several mandatory safety courses were identified in the system, specifically targeting new hires or new supervisory staff.

What 'Strategies for Improvement' were not successful? Why?

Implementation of a learning management system (NDOT Learning Portal) took longer than anticipated due to the lack of staff and support services and learning the new procedures and processes is challenging, as is any new process or procedure. Additionally, some staff do not have or are not familiar with computers, so online training is not an option for them. This is especially applicable to rural maintenance stations.

Efforts to update the vehicle and worker compensation databases have been hindered by lack of staff with experience in database development, time and resources.

Instructor led safety training has not increased and cannot be increased without increased safety staff with the experience to provide professional-level safety training on a frequency as required by OSHA.

What new 'Strategies for Improvement' will be initiated in FY2012?

Short range to next reporting: Continue outreach efforts and supporting the Training Section in implementation and use of the NDOT Learning Portal. Efforts include developing a Safety Training Matrix for all employees. To re-evaluate the reporting criteria for FY2012 in order to insure data presented is easily understood and of value to those reviewing the reporting. Claim costs has been added to the data but the agency has no control over the actual claim acceptance nor medical treatment as this is a third-party administration service overseen by the Division of Risk management for the State. Strategies may include analysis to determine whether leading indicators such as the impact of safety training could be used rather than lagging indicators such as injury data.

Long range: 1) To identify specific safety training that can be conducted by existing staff and take cooperative steps to insure courses are conducted, including Hazard Communications refresher, CPR/First Aid and New Employee Safety Orientation. 2) To take steps to update both the vehicle and worker compensation databases in insure accurate and consistent reporting. This may require IS support or outside consulting services. 3) To continue efforts to increase safety staff and if necessary and fiscally possible, contract for services to assist with continued program implementation. 4) As time and resources permit, to continue efforts to develop and distribute an Employee Safety Survey in order to assess the agency's culture or attitude as it pertains to safety; and to evaluate the responses to determine areas of need within the safety program.

Does this performance measure effectively measure what is desired? Yes

Is there a better performance measure that should be considered? To be discussed.

Will meeting the next yearly target have a fiscal impact? If so, explain. There will be no increase to the Safety and Loss Control budget due to the proposed measures to decrease on-the-job injuries. If the new position is approved by the Legislature, there will be associated personnel, travel and operating expenses; however, those expenses will not impact the State general fund.

2. PROVIDE EMPLOYEE TRAINING

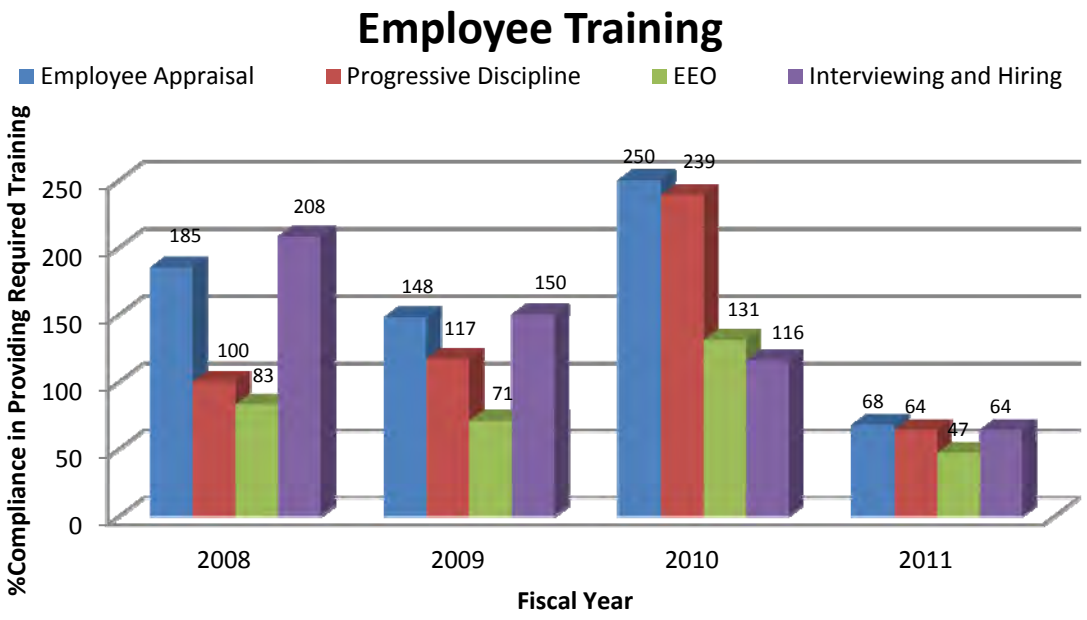
Performance Measure:

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

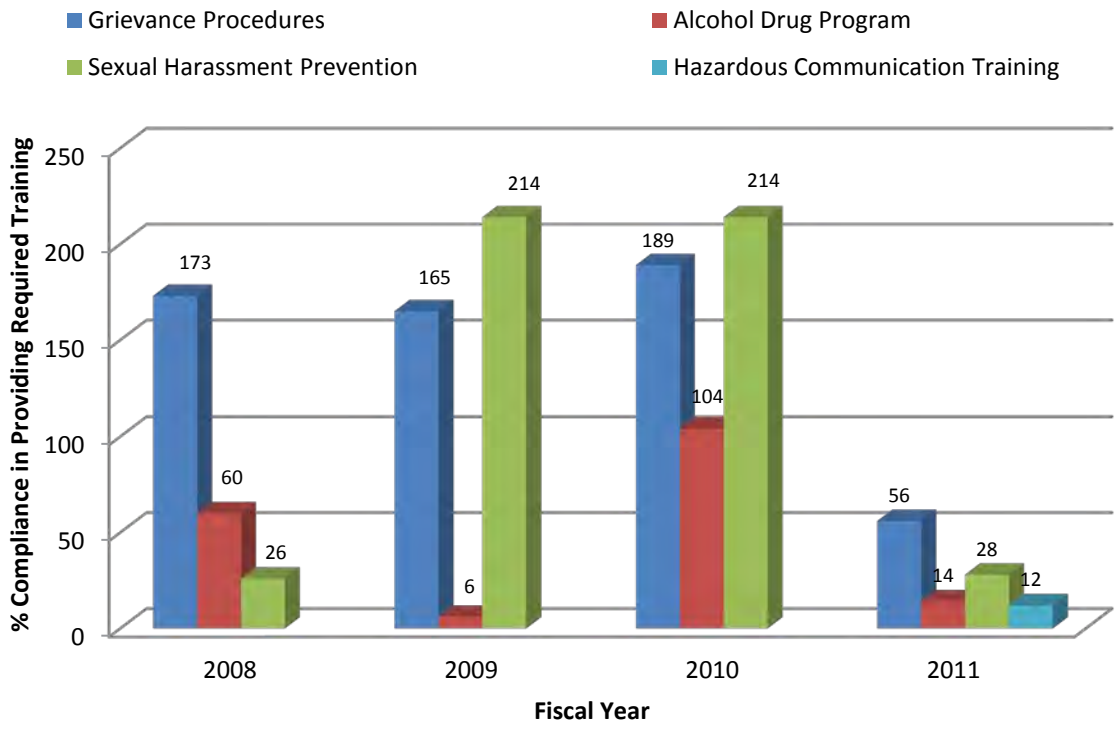
Annual Target: 100% Compliance for all required training

Measurement and Supporting Data:

Requirement	Annual Requirement	% Trained for FY 2008	% Trained for FY 2009	% Trained for FY 2010	Annual Requirement	% Trained for FY 2011
Employee Appraisal	48	185	148	250	153	68
Progressive Discipline	48	100	117	239	153	64
EEO	48	83	71	131	153	47
Interviewing and Hiring	48	208	150	116	153	64
Grievance Procedures	48	173	165	189	153	56
Alcohol Drug Program	48	60	6	104	153	14
Sexual Harassment Prevention	877	26	214	214	819	28
Hazardous Communication Training					114	12



Employee Training (Cont'd)



Strategies for Improvement:

Short range to next reporting:

In September, 2010, NAC 284.498 was revised to require Supervisors/Managers to retake certain Supervisory and Management classes every three years instead of every nine years. Therefore, a percentage of these NDOT supervisors and managers, who were in compliance under the previous regulations, were out of compliance post September, 2010. Because of the large number of employees who are out of compliance due to the revised code, the Training Section has devised a strategy to accelerate the level of compliance.

All NDOT employees attended the class "Sexual Harassment Revisited" in the spring of 2009. To ensure that all NDOT employees would have the opportunity to renew their training in the spring of 2011, the Training Section launched a major effort to schedule the required number of classroom training events for over 1700 NDOT employees in May, June, and July, 2011. To make these classes available to accommodate every employee's schedule and work location, the refresher classes have been presented statewide in all districts and work shifts to push for 100% compliance.

Long range:

Competency Training of the workforce keeps employees safe and helps to reduce injuries, lost time, and litigation. Competency Training also provides the skills and abilities which enable employees to achieve higher job performance. This benefits the Department and Nevada's citizens by

providing a safe, high-quality, transportation infrastructure. This performance measure has a positive impact on all of the Department of Transportation's Strategic Plan goals, especially: Optimize Safety, Be the Employer of Choice, Deliver Timely and Beneficial Projects and Programs, Effectively Preserve and Manage Our Assets, and Efficiently Operate the Transportation System. Both NAC and Division Matrix training are addressed by the Training Section competency training programs.

Were the targets met?

Due to the revision of the legislative requirement for mandatory Supervisory and Management training, we were not able to reach 100% compliance. Because of the large number of employees who are now out of compliance due to the revised code, the Training Section has devised a strategy to accelerate the level of compliance.

Which *Strategies for Improvement* were successful?

The following Strategies for Improvement were successful: In the fall of FY11, the Training Section began raising awareness of the recent revision in regulation NAC 284.498 which specifies that mandatory classes are now required to be refreshed on a shorter 3-year training cycle; targeting the audience of employees who need to take refresher training with a messaging campaign to encourage compliance; increasing the frequency of the mandatory classes that NDOT offers to enable our employees who were in compliance under the old regulations to be in compliance with the shorter 3-year refresher cycle.

Which *Strategies for Improvement* were not successful and why?

The Training Section recognizes that on-line training is not a convenient or desirable form of training for crews in the three districts for a variety of reasons:

- Online Training requires the use of computers to view training media. Most crews share one to two computers, thus crew members do not have easy access to a computer.
- Online training requires an intermediate level of computer skill to effectively utilize computers and navigate applications. Crew members often have a beginner to basic level of computer ability, and due to their job functions, do not have the opportunity to practice and reinforce computer skills.
- A personal NDOT email address is required to receive automatic email confirmations from the learning management system (known as the NDOT Learning Portal). Many crew members are not issued an NDOT email address, which prevents them from receiving course e-mail messages.
- Online Training is most effective in work environments where employees are able to remain at their computer workstations for 1 to 3 hours at a time to interact with the online class. Crew members are rarely able to spend up to 3 hours at a time on a computer.
- Online Training is ideally suited for employees who work somewhat independently from other employees, so they can take a class when they have time available. Crew members customarily work with other crew members during their shift to accomplish tasks as a team.

If one team member is absent while they are individually participating in an online class, the whole crew is negatively affected.

What new *Strategies for Improvement* will be initiated in FY2012?

To accommodate the inability of NDOT crews to effectively utilize Online Training classes for their job-related training needs, the Training Section will be implementing new training strategies to resolve this in FY12. Specifically, an analysis of all mandatory crew-related training will be developed and instructor-led classes will be offered in a classroom setting or via video-conference. This will enable an entire crew to participate in required classes at one time, thus satisfying the mandatory job-related training requirements without any of the conditions imposed by Online Training.

The Training Section has devised a strategy to accelerate the level of employee compliance with state-mandated training. We plan to continue our promotional campaign to raise awareness for NDOT employees to achieve the requisite level of compliance with state mandated training courses, and to offer more frequent classes to enable employees to be in compliance with the new 3-year training cycle.

To enable NDOT employees to track their own training refresher needs and plan accordingly, automated tracking and reporting of state-required refresher classes will be implemented in The Learning Portal LMS.

In a continuing effort to increase state-mandated training compliance, the Training Section will increase communication to all NDOT employees though flyers and monthly newsletters.

The Training Section will design, develop, and present NDOT customized versions of two mandatory supervisory classes – Drug and Alcohol Testing, and Equal Employment Opportunity. In FY2011, The NDOT received Delegation Authority from Nevada Department of Personnel to present these two classes utilizing HRD Training Section resources. This will benefit the NDOT by allowing more training events in all NDOT districts, thereby increasing the compliance level.

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:

Percentage rating obtained from employees' satisfaction surveys.

Annual Target: Overall rating 75% **Ultimate Target:** Overall rating of 80%.

Measurement and Supporting Data:

Percentage of employees who are extremely or somewhat satisfied with NDOT	
FY 2008	70%
FY 2009	67%
FY 2010	62%
FY 2011	50%

Was the annual target met?

No. Fifty percent (50%) of employees are extremely or somewhat satisfied with the Nevada Department of Transportation as an employer as compared to sixty-two percent (62%) last year and sixty-seven (67%) the prior year and seventy percent (70%) in the base year.

The 2008 Performance Measure Survey was launched on July 14, 2008 and closed on August 15, 2008; 764 employees responded to the 2008 survey. The 2009 Performance Measure Survey was launched on July 13, 2009, and closed on August 2, 2009; 616 employees responded to the 2009 survey. The 2010 Performance Measure Survey was launched on May 18, 2010 and closed on June 25, 2010; 905 employees responded to the 2010 survey. The 2011 Performance Measure Survey was launched on June 23, 2011, and closed on July 15, 2011; 598 employees responded to the 2011 survey. Employee participation in the survey decreased this fiscal year. Feedback from several of the survey responses indicate that employees do not feel that their voices are heard, since they perceive that change has not been made.

What 'Strategies for Improvement' were successful?

The Nevada Department of Transportation implemented strategies to improve communication by management from the top down to keep our employees informed and to update our Transportation Policies and create new work manuals. The strategies that appeared to have positive results in the previous year, resulted in a decrease this year. Employees who strongly or somewhat agree that management communicates the missions/goals of the Nevada Department of Transportation have decreased four percent (4%) this year and a two percent (2%) decrease from the baseline year. Employees who strongly agreed or somewhat agreed that management applies policy decisions consistently throughout the Nevada Department of Transportation has decreased four percent (4%) from last year with an overall increase of four percent (4%) from the base year.

What 'Strategies for Improvement' were not successful? Why?

The overall target was to increase employee satisfaction from the sixty two percent (62%) to seventy-five percent (75%.) A review of the comments from employees indicates that forty percent (40%) were dissatisfied with furloughs, pay and/or benefits. This was an additional increase from the twenty-seven percent (27%) that responded in the 2010 survey and the eighteen percent (18%) of respondents who commented on furloughs, pay, and or benefits in the 2009 survey. Employees who would recommend the Nevada Department of Transportation to a friend as a good place to work decreased from seventy-five percent (75%) in 2008 and forty-two percent (42%) in 2010, to forty-one percent (41%) in 2011.

The current economic environment and overall decrease in State pay and benefits have a direct impact on the satisfaction of the Department employees. Many employees indicated that they are upset that the Department employees are required to take furloughs when these furloughs do not benefit the General Fund. In fact, there is no savings since the money is spent on contractors and contractor employees instead of Department employees. The Director's Office has explained that the Governor considers all State Employees as part of the same team and is the reason that we are taking furloughs. Employees have indicated to management that the Nevada economy would be better served by paying State employees for those jobs, because the contractors cost more than State employees. Employees are also upset about the rising costs of health care accompanied by reduced benefits and the increased cost of retirement benefits. These concerns are affecting employee and work place morale.

Employee survey comments indicate that they are unhappy with the amount of work they are being required to pick up due to turnover and vacancies in the department. The feedback also indicates that there are claims of inequity of pay for employees because of the restrictions on accelerated salaries for new hires and the lack of merit increases.

What new 'Strategies for Improvement' will be initiated in FY2012?

Short range to next reporting:

1. Continue communications from management to employees including the Director's Report and Division Head Staff Meetings.
2. Continue to update Transportation Policies and new work manuals.
3. Finalize the Nevada Department of Transportation Ethics Policy.
4. Encourage and require supervisory training in compliance with regulations that include communication, management styles, and coaching. This strategy directly correlates with Performance Measure #2.

Long range:

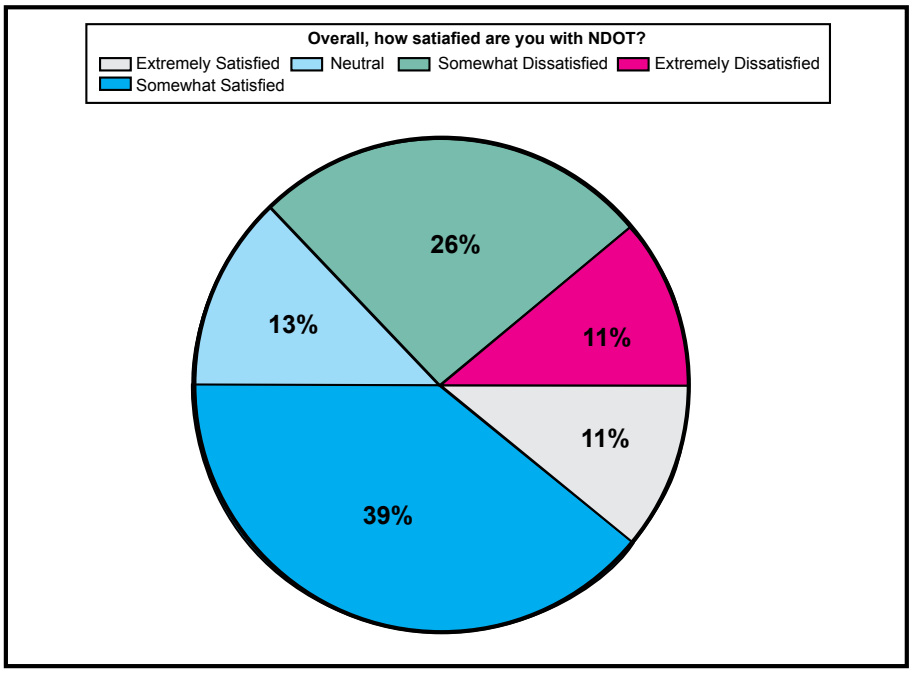
Continue conducting and analyzing annual satisfaction surveys and makes appropriate recommendations to the Director's Office for addressing employee satisfaction.

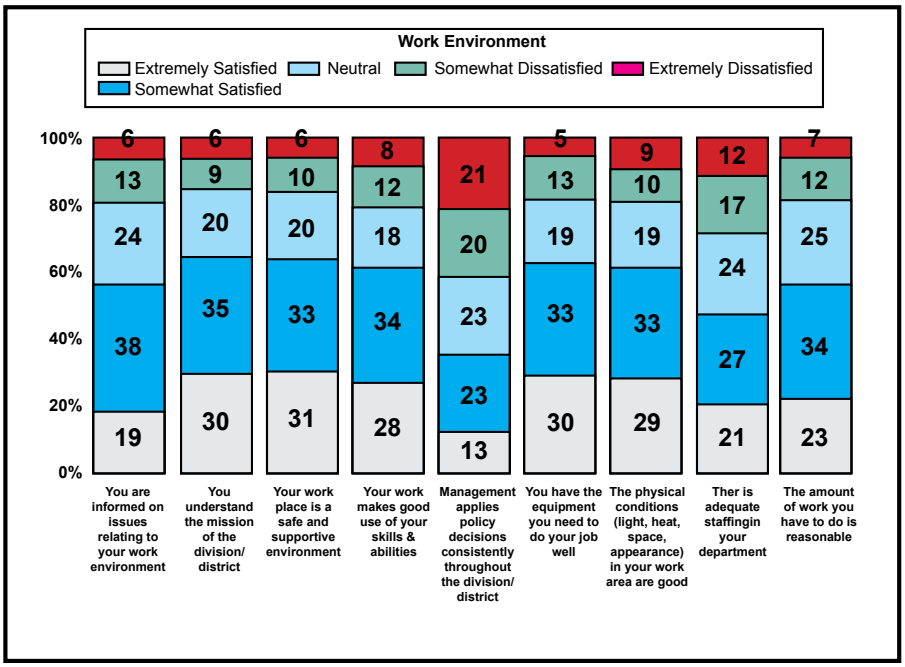
Does this performance measure effectively measure what is desired?

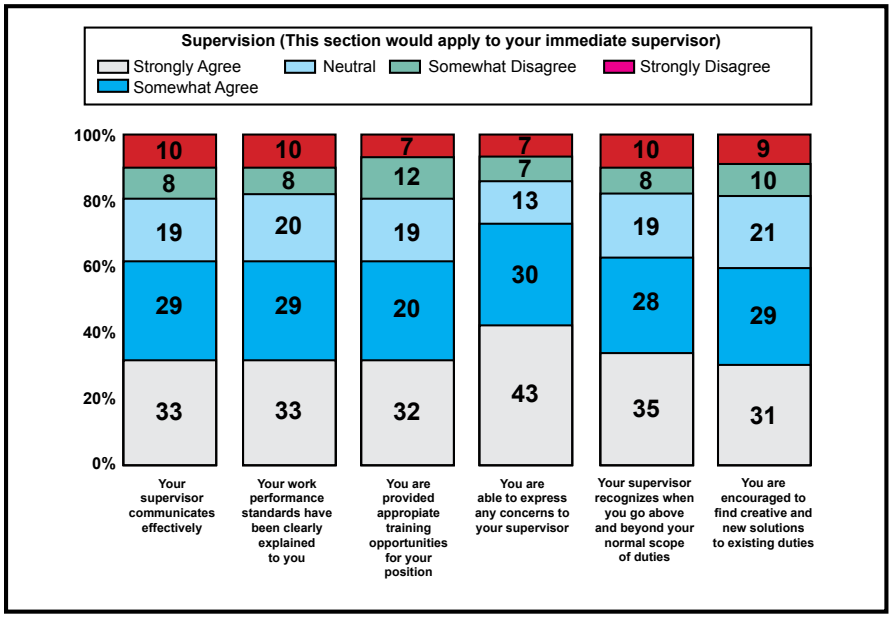
This performance measure works towards meeting the Nevada Department of Transportation's Strategic Plan goals to: optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system.

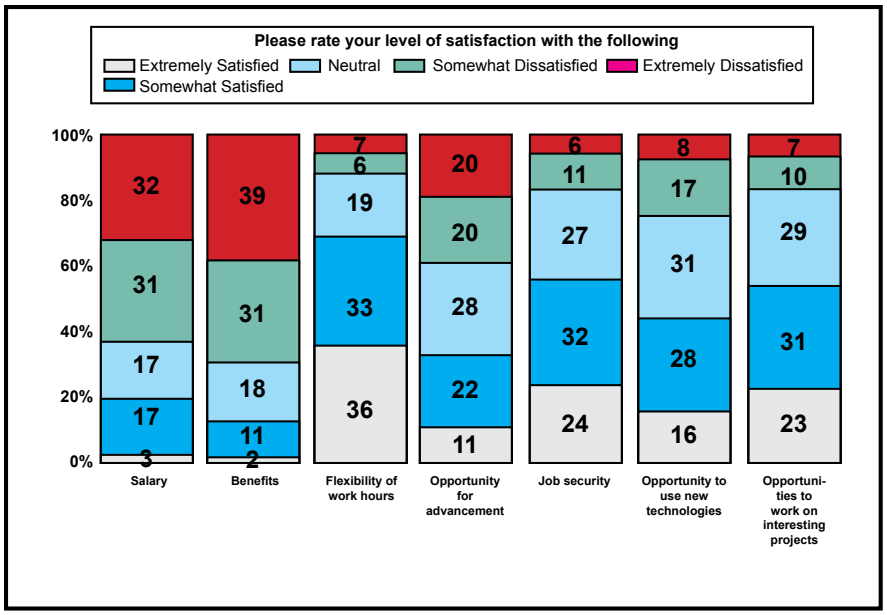
Is there a better performance measure that should be considered? No; however, employee's job satisfaction hinges in part on pay and benefits. Until pay and benefits are restored we may not see improvement in the results of the survey.

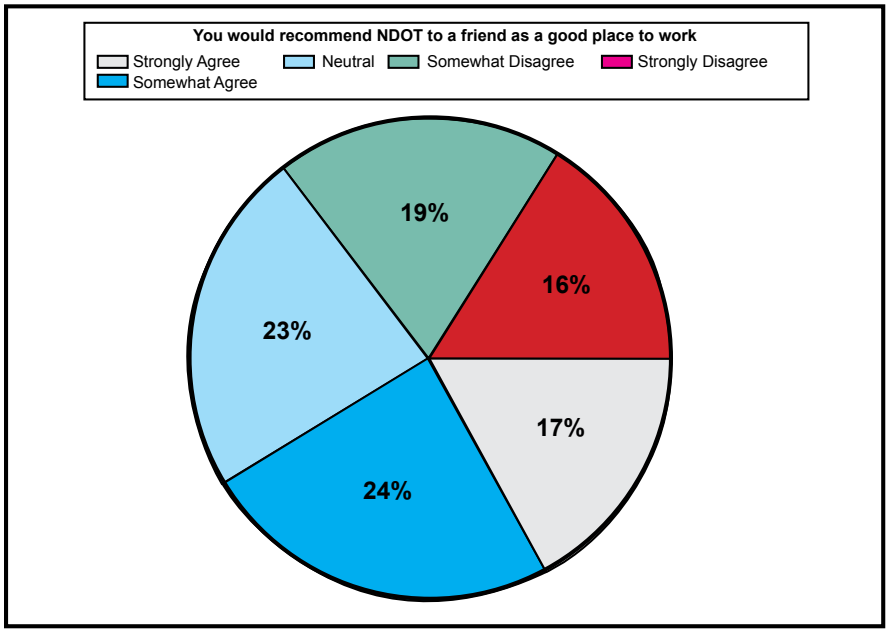
Will meeting the next yearly target have a fiscal impact? If so, explain. No






Supervision (This section would apply to your immediate supervisor)
Strongly Agree
Neutral
Somewhat Disagree
Strongly Disagree
Somewhat Agree
100%
80%
60%
40%
20%
0%
10 8 19 29 33
10 8 20 29 33
7 12 19 20 32
7 7 13 30 43
10 8 19 28 35
9 10 21 29 31
Your supervisor communicates effectively
Your work performance standards have been clearly explained to you
You are provided appropiate training opportunities for your position
You are able to express any concerns to your supervisor
Your supervisor recognizes when you go above and beyond your normal scope of duties
You are encouraged to find creative and new solutions to existing duties


Please rate your level of satisfaction with the following
Extremely Satisfied
Neutral
Somewhat Dissatisfied
Extremely Dissatisfied
Somewhat Satisfied
100%
80%
60%
40%
20%
0%
32 31 17 17 3
39 31 18 11 2
7 6 19 33 36
20 20 28 22 11
6 11 27 32 24
8 17 31 28 16
7 10 29 31 23
Salary
Benefits
Flexibility of work hours
Opportunity for advancement
Job security
Opportunity to use new technologies
Opportuni-ties to work on interesting projects


You would recommend NDOT to a friend as a good place to work
Strongly Agree
Neutral
Somewhat Disagree
Strongly Disagree
Somewhat Agree
19%
16%
23%
17%
24%

4. STREAMLINE AGREEMENT EXECUTION PROCESS

Performance Measure:

Percentage of Agreements executed within 45 days from when division submits agreement to the date when it is fully executed.

Annual Target: 50%

Ultimate Target: 95%.

Strategy Plan Support:

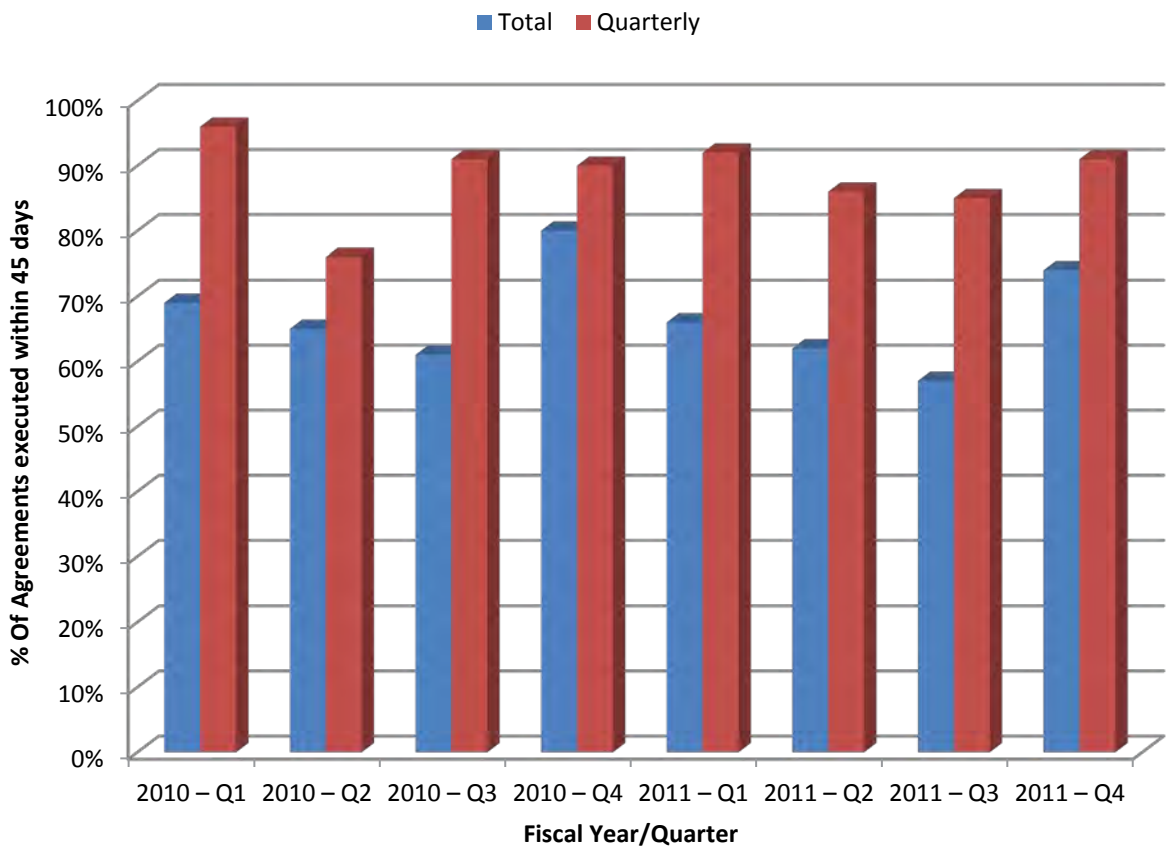
Agreements are the core of all of our business practices, and must be completed prior to any action being taken. A delay has a tremendous impact in the operations of the Department. This performance measure works toward meeting the Department of Transportation Strategic Plan goals as follows: Speeding up the agreement process will help deliver timely and beneficial projects and programs. It also assists with being responsive to our customers. A change in process with some agreements going to the Transportation Board before execution will increase the days from submission to execution. This process change will not go into effect until the next quarter.

Summary:

For the fourth quarter of Fiscal Year 2011 the average days from submission to execution was 44 days. Average days for agreements both submitted and executed within the second quarter was 19 days. 27 of the 128 agreements executed in the quarter were with governmental agencies or Transit Commissions. Ten percent of the 80 agreements submitted and executed in the quarter were with governmental agencies or Transit Commissions. For the fiscal year 2011 the average days from submission to execution was 47 days.

Measurement and Supporting Data:

	Number of agreements executed	Percentage within 45 days	Number submitted and executed	Percentage within 45 days
1st Qtr FY 2010	139	66	73	92
2nd Qtr FY 2010	151	62	58	86
3rd Qtr FY 2010	115	57	42	85
4th Qtr FY 2010	128	74	80	91
Total	533		253	



Strategies for Improvement: As applicable

Short range to next reporting:
Train new staff and assign divisions to staff. Continue to monitor processing of agreements by tracking the progress on the agreement log. This includes following up if an agreement appears to be in one area for longer than the average time. Continue updating agreement manuals, agreement shells and forms. Conduct additional agreement training for Department staff, consultants, contractors, and local government agencies.

Long range:

Formally assess the agreement process every three years.

Were the targets met? Yes, made over 50%

What 'Strategies for Improvement' were successful?

Difficult to measure. The agreement tracking log seems to help. It is possible to calculate how long different types of agreements take to process.

What 'Strategies for Improvement' were not successful? Why? The average processing time seems to vary mostly by the number of Local Public Agency and RTC agreements. New legislation makes it necessary to update forms/shells, etc. again. Staffing shortage has been a consideration

this last quarter. As of July 11, 2011, all positions have been hired and as everyone becomes trained it should help.

What new 'Strategies for Improvement' will be initiated in FY2012?

Short range to next reporting: We hope to put training materials and manuals on SharePoint after they are updated for new changes. We are assigning divisions to specific Program Officers.

Long range strategy:
Continued training.

Does this performance measure effectively measure what is desired? Yes.

Is there a better performance measure that should be considered? No.

Will meeting the next yearly target have a fiscal impact? If so, explain.
Unknown.

5. IMPROVE CUSTOMER SATISFACTION

A new customer satisfaction survey is being developed and will be made available when completed. The data shown is the most recent available from a customer satisfaction survey that was completed in October 2009.

Performance Measure:

Numerical ratings obtained from public opinion and customer/user surveys.

Annual Target: Annual increases in public opinion and customer/user ratings.

Ultimate Target: Increases in public opinion and customer/user ratings.

Overview of performance measure:

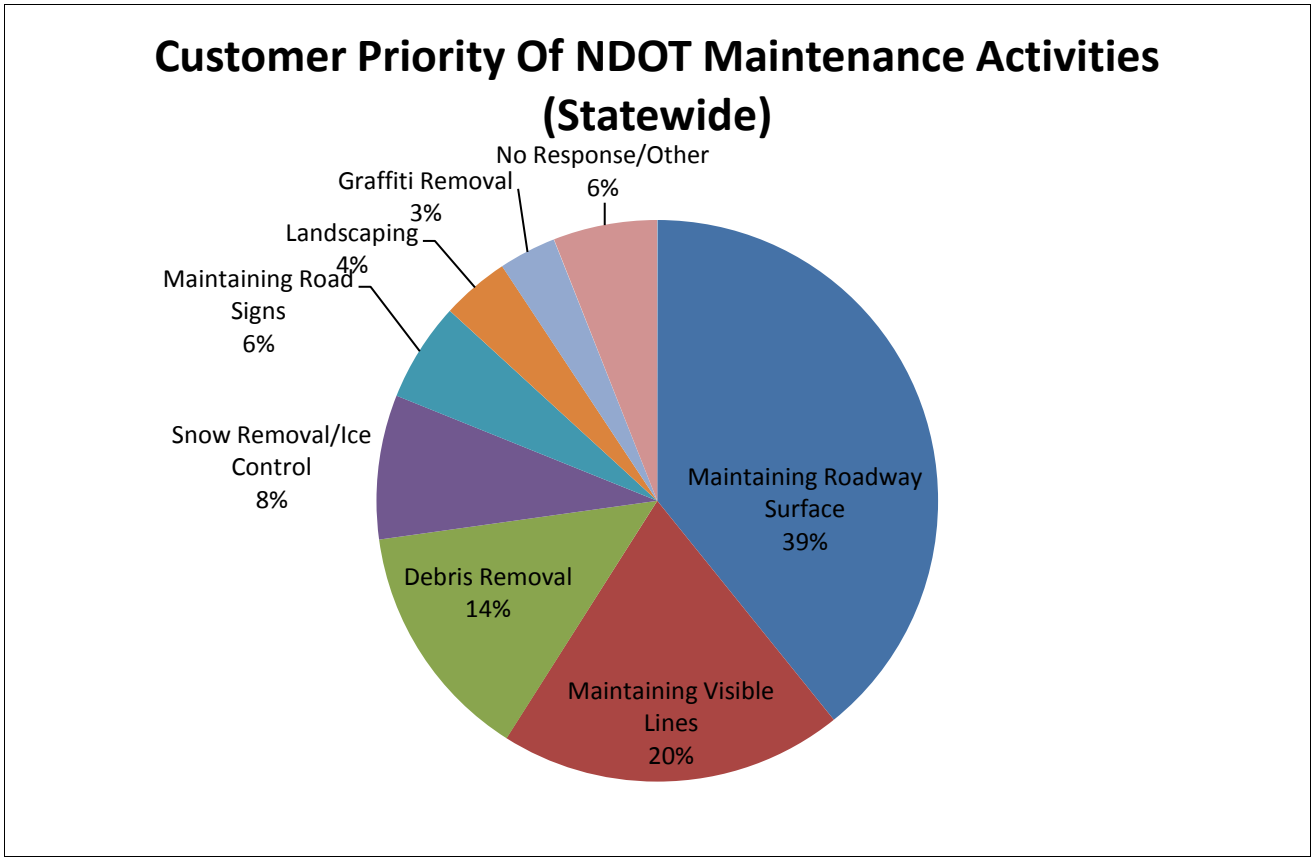
Public opinion, users (customers) as well as elected officials surveys will assess public information, outreach activities, and how well the Department is performing in the eyes of our customers. It is important to know that we are doing right things to be transparent, accountable, and efficient. This performance measure works toward meeting the Department of Transportation Strategic Plan goals to be in touch with and responsive to our customers.

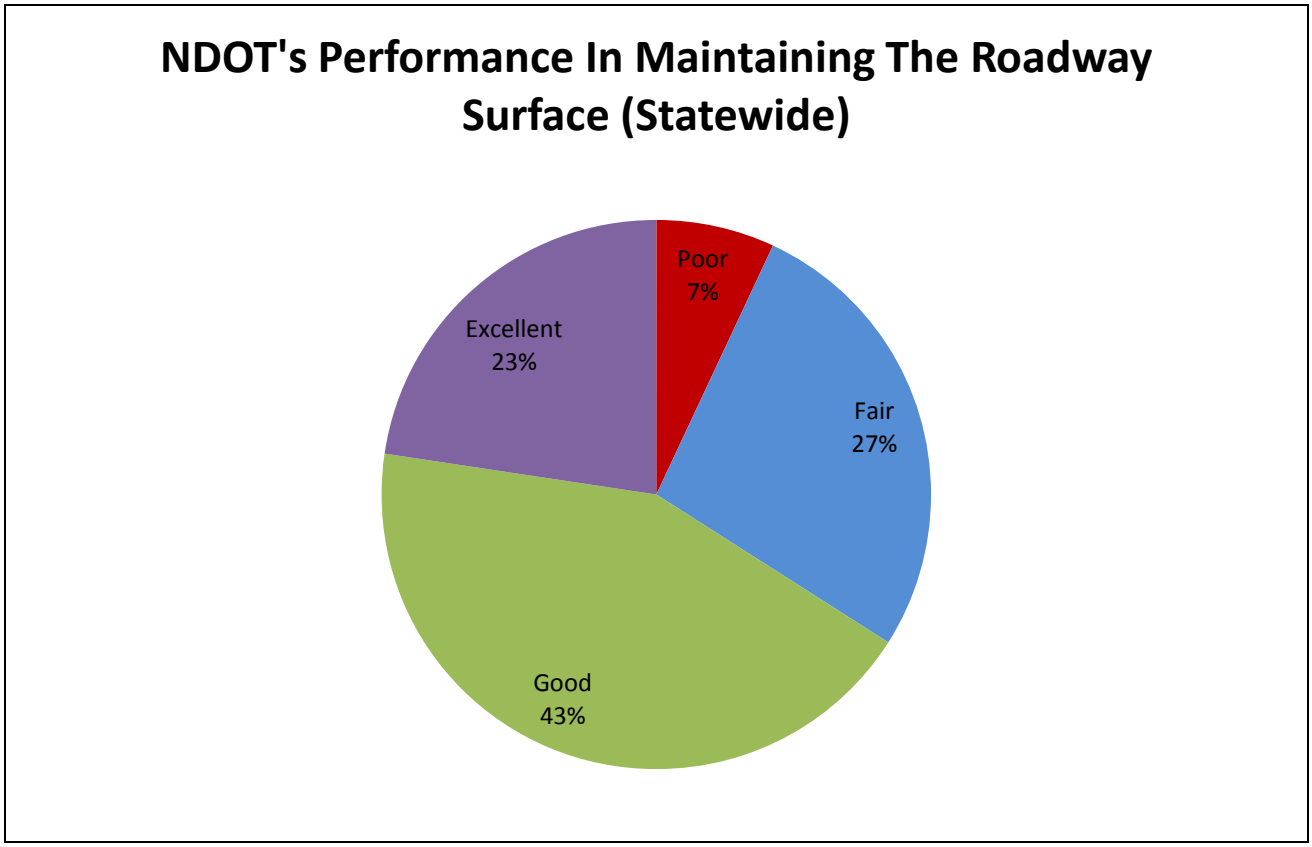
Measurement and Supporting Data:

This is a new, annual measure, based on a customer satisfaction survey of Nevada residents conducted by the University of Nevada, Reno, in conjunction with a Maintenance and Operations Division. Data collection (phone interviews) took place between October 2008 and August 2009, and the report was issued at the end of October 2009. Nevada household residents were randomly selected to participate in the survey and were screened to determine their eligibility to participate. All respondents were over the age of 18 and must have *driven* a motor vehicle in the past month. The results are deemed accurate to the 95% confidence level, which means that 95% of the time, the scores will fall within the range indicated. This is typical of most public opinion surveys. In all, there were 1,013 respondents. Of the respondents, 73.2% were from District 1, where 73% of Nevada adults reside, 23.7% were from District 2, where 24% of Nevada adults reside, and 3.1% were from District 3, where about 3% of Nevada adults reside. In all, 51% of the respondents were male and 49% female.

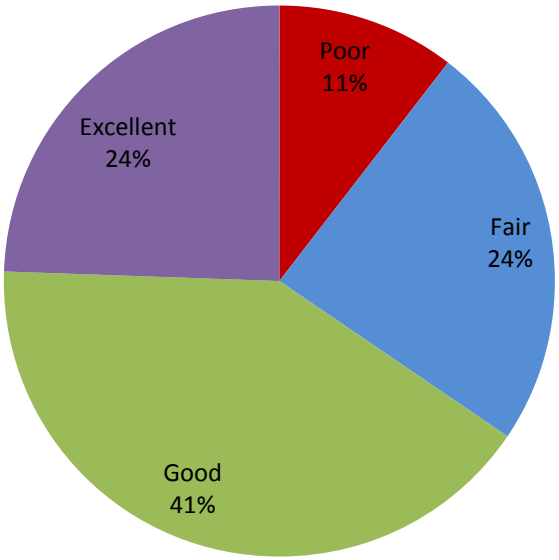
Summary of the results of the survey dealing with customer service use and satisfaction:

The following graphs start with a pie chart showing the customer priority of the activities performed by the Nevada Department of Transportation. The subsequent pie charts show how the public rated NDOT's performance on the top three priorities as seen by the public which are our customers. The data for the pie charts showing NDOT's performance came from a 2009 Customer Satisfaction Survey conducted by The Center for Research and Analysis at the University of Nevada, Reno.

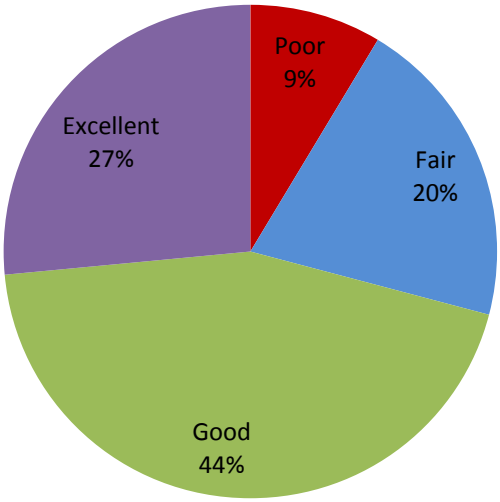

Customer Priority Of NDOT Maintenance Activities (Statewide)
No Response/Other 6%
Graffiti Removal 3%
Landscaping 4%
Maintaining Road Signs 6%
Snow Removal/Ice Control 8%
Debris Removal 14%
Maintaining Visible Lines 20%
Maintaining Roadway Surface 39%


NDOT's Performance In Maintaining The Roadway Surface (Statewide)
Poor 7%
Fair 27%
Good 43%
Excellent 23%

NDOT's Performance In Maintaining Visible Lines On The Roadway (Statewide)



NDOT's Performance In Removing Debris From The Roadway (Statewide)



6. Reduce and Maintain Congestion Levels on the State Maintained Roadway System

Performance Measure:

Urban roadways – Maintain congestion at Level of Service D for 85% of State urban roadways

Rural roadways – Maintain congestion at Level of Service D for 90% of State rural roadways

Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

Current Status: For urban areas in Nevada, the percentage of roadway mileage with LOS D or better is 90%, with a total of 755 miles urban roads, and 678 miles with LOS D or better.

The percentage of rural roadways mileage with LOS D or better is 100%, with a total of 4304 miles rural roads, and 4304 miles with LOS D or better.

Ultimate Target: Reduce congestion by 1% per year to reach the ultimate target of 90% of State urban roadways at Level of Service D, and 95% of State rural roadways at Level of Service D

Strategy Plan Support:

This performance measure is one of the most important performance indicators of the NDOT maintained roadway system. It integrates the outcome of our overall investments into one measure that is a direct result of the collaborative efforts of the various divisions of NDOT. It will help reduce congestion and will help identify bottleneck locations on the NDOT maintained roadway system, which will be prioritized for improvements depending upon the funding and resources availability. It works towards meeting the Department of Transportation Strategic Plan to efficiently operate the transportation system by reducing the level of congestion and increasing safety.

This Congestion Monitoring System will be an evolving process and will be updated regularly as more data is integrated into it from the Southern Nevada RTC's Freeways and Arterials System of Transportation, and the Washoe County's future Traffic Management Center, Synchro models, and other sources as needed.

Summary:

During FY 2010, NDOT developed its first system-wide Level of Service Monitoring and Tracking system that is used in determining the congestion on the state maintained roadways in urban and rural areas. This established the base conditions for the Level of Service monitoring system.

System wide congestion will be visually displayed using Geographic Information System.

Supporting Documentation:

Highway Capacity Manual, AASHTO, Daily Traffic Volume Data, Peak Hourly Volume Data, Truck Percentages, Service Flow tables, Commuter and Non-Commuter Traffic, Roadway Terrain and Grades, Directional Factors, Hourly Factors, Functional Class, Number of Lanes, Free Flow Speed data, Peak Hour Factors, and Peak Service Flow Rates

Were the targets met?

System wide baseline performance measure has been determined that will be used to determine meeting the established targets.

Does this performance measure effectively measure what is desired?

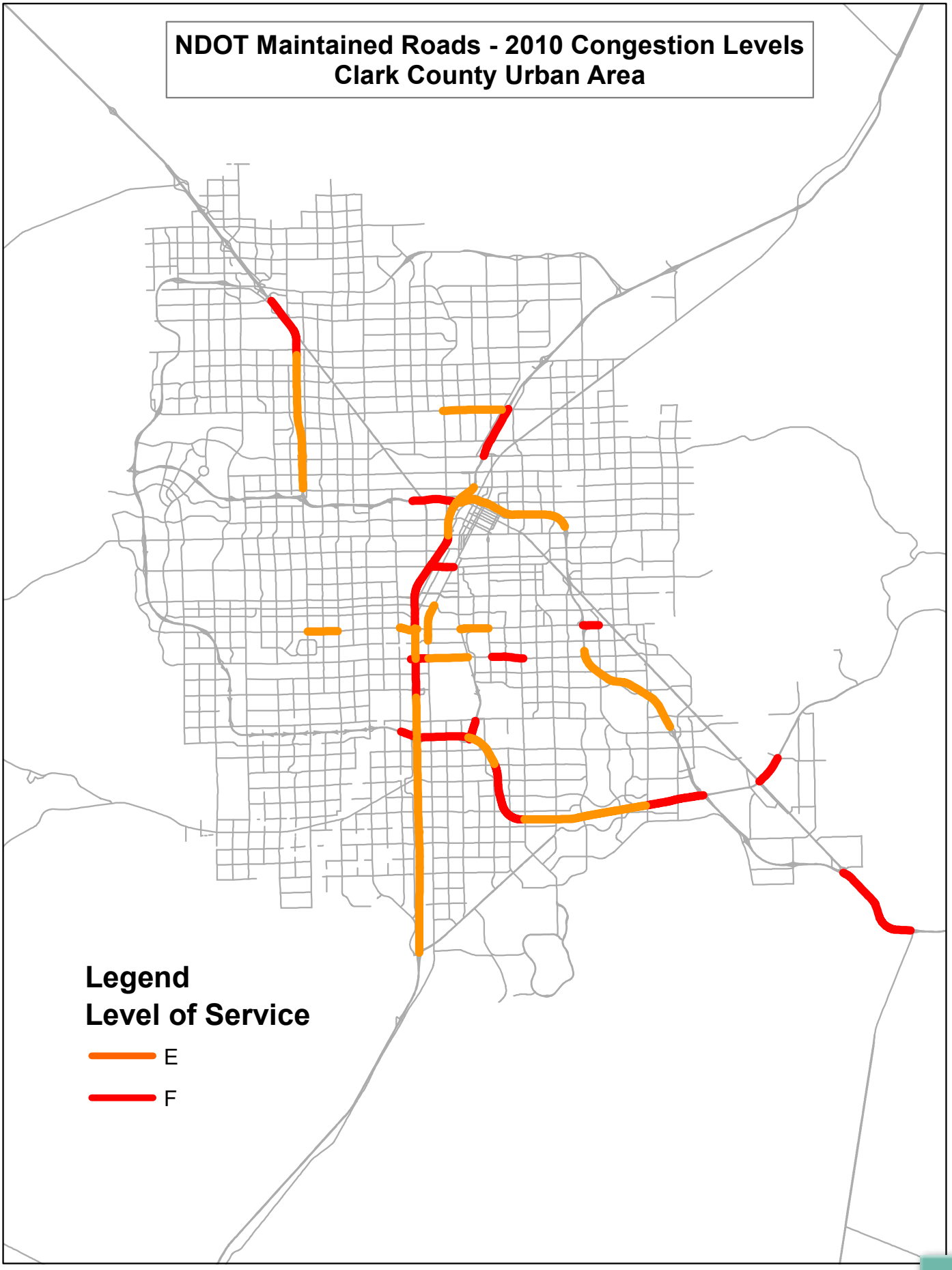
Yes.

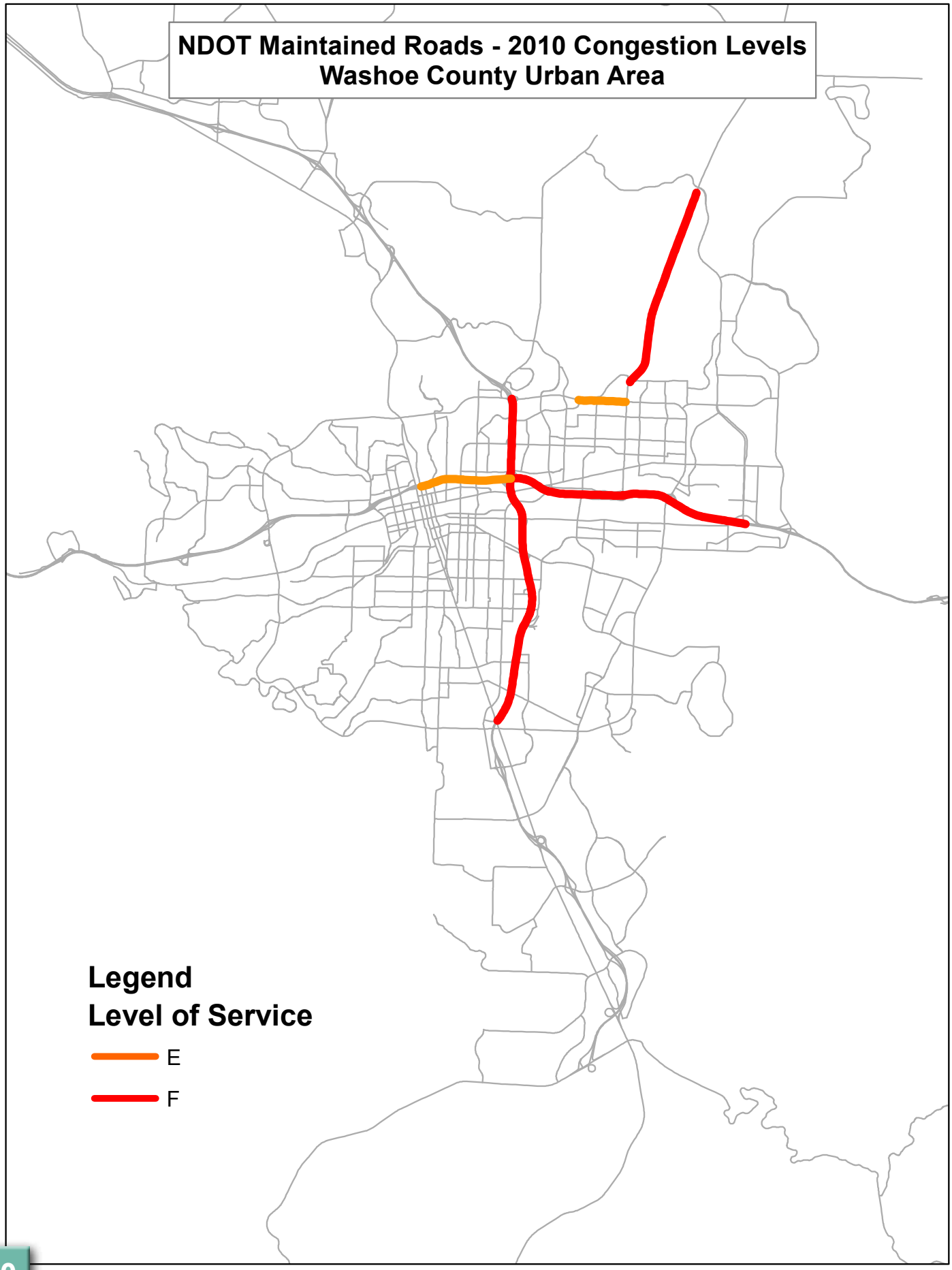
Is there a better performance measure that should be considered?

This performance measure can be supplemented by other indicators such as travel time reliability and vehicle hours of delay saved in the core urban areas when more data becomes available.

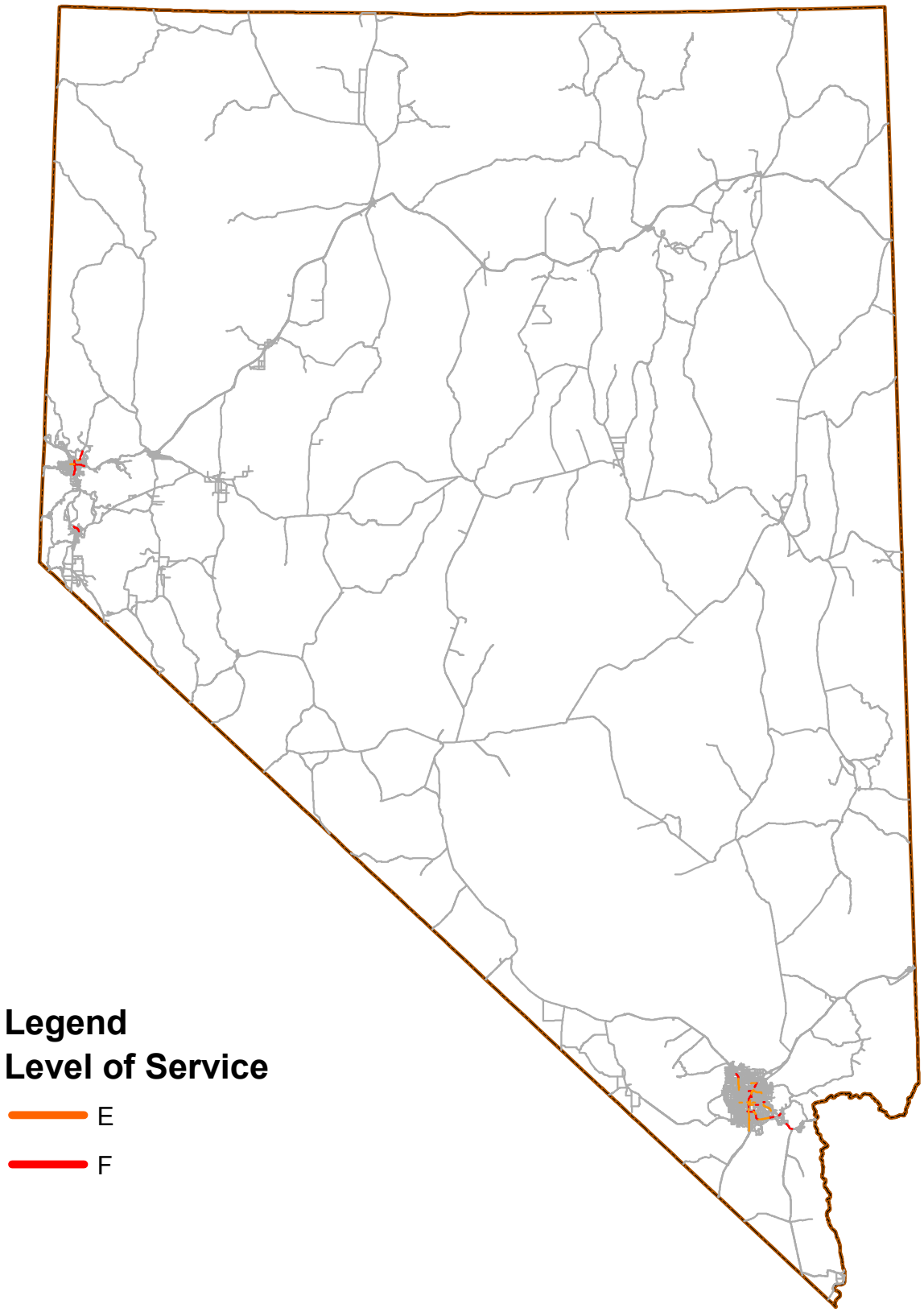
Will meeting the next yearly target have a fiscal impact?

Yes. Improving congestion by 1% by year will require investments into the roadway system. The fiscal impact of such improvements will be determined accordingly.


NDOT Maintained Roads - 2010 Congestion Levels
Clark County Urban Area
Legend
Level of Service
E
F


NDOT Maintained Roads - 2010 Congestion Levels
Washoe County Urban Area
Legend
Level of Service
E
F

Statewide NDOT Maintained Roads - 2010 Congestion Levels



7. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FROM BID OPENING TO CONSTRUCTION COMPLETION

Performance Measure:

Percentage of projects within established range of cost estimate and schedule to completion

Annual Target: 80% **Ultimate Target:** 80%

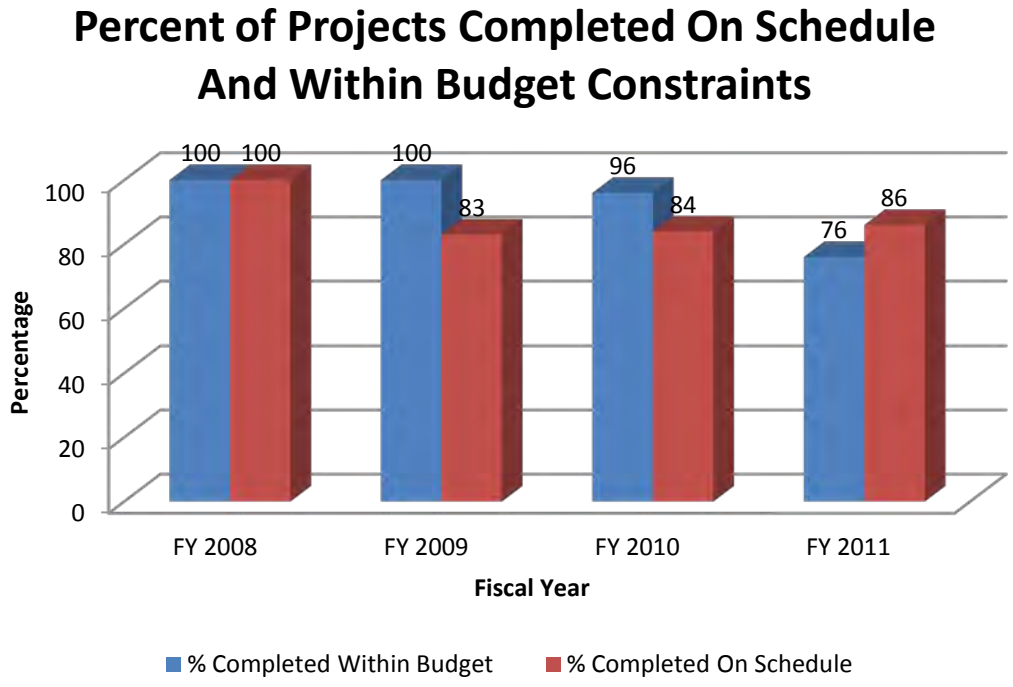
Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals by providing timely and beneficial construction projects. This measure helps to optimize safety for road users, be in touch with and responsive to our customers (road users), and efficiently operate the transportation system.

Measurement and Supporting Data:

FY 2011 ended with 76% projects reported complete within budget and 86% reported complete within schedule. Historical numbers are shown in the table below:

	Percentage Projects Within Budget	Percentage Projects On Schedule
FY 2008	100	100
FY 2009	100	83
FY 2010	96	84
FY 2011	76	86



77 Open Contracts were reviewed this quarter for budget performance. 39 Active Contracts were reviewed for schedule performance.

- **Budget:** 18 Contracts are considered to be over budget. 14 Contracts have had Change Orders in excess of 3% of bid price (3154, 3267, 3292, 3302, 3327, 3350, 3360, 3361, 3367, 3373, 3378, 3391, 3394 and 3402). 4 Contracts have had overruns primarily in Plant mix surfacing quantities (3290, 3351, 3362, and 3399). Preliminary closeout audit on Contract 3290 indicates significant overpayment, which, when returned will bring project back within budget. Contract 3327 has had significant overruns on aggregate bases and plant mix open graded surfacing.

- **Schedule:** 7 Contracts are considered to be behind schedule.
    - Contract 3377 was delayed by utility conflicts.
    - Contract 3394 was delayed due to a desert tortoise permitting issue. Tortoise fencing along the east side also needs to be relocated due to a conflict with a NV Energy Easement that is not shown in the plans.
    - Delays on Contracts 3392, 3407 and 3408 may be a result of Contractor inefficiencies.
        - The contractor on Contract 3392 was one month late in starting the project and did not complete the project in the Working days allotted.
        - A stakeout mistake on a structure footing on 3407 has also contributed to delay.
        - Contract 3408 also encountered a significant overrun in structure excavation and Working Days will be added to address this.
    - Contract 3420 is adding electrical work and 10 Working Days by Change Order.
    - Contract 3438 is delayed due to delivery of electrical equipment.

Strategies for Improvement:

Short range to next reporting:

- Improve the quality of design to reduce problems during construction.
- Minimize change orders which extent the project duration.
- Provide better coordination with parties involved in concurrent work.
- Provide realistic project schedules
- Work with Project Management Division on Project Management Plans for construction phases.
- Continue to implement detailed written procedures on performance measure
    - Construction Budget
    - Procedure to develop Projected Completion Date
    - Define what constitutes being behind schedule as work progresses
    - Involve Construction Crews in Performance Measure
- Continue to monitor Change Order types and numbers and look for trends.

Long range:

- Continue and enhance training of personnel. Develop Change Order Training (8 Hours) to include basic negotiation skills.
- Develop better methods for tracking Contract expenses
- Develop more realistic Contract estimated budget ranges
- Develop more sophisticated methods for project scheduling
- Work with Project Management and technical Divisions to develop Change Order processes. Develop methods to evaluate and obtain proper approvals on "value added" changes to minimize unnecessary cost overruns.

Were the targets met?

Yes with exceptions. Fourth Quarter FY 2010 we began reporting on all open Contracts or Projects. This quarter reflects measurement on 77 open contracts for budget performance and 39 active contracts for schedule performance. Strict interpretation of an ultimate goal of 100% with 25% improvement may not be achievable or realistic. AASHTO's March 2006 report on *Measuring Performance among State DOTs* indicates schedule and budget performance of 43% - 78%, depending on how the goal is being measured, for the 7 states in the study. Compared to the states in the AASHTO study NDOT may be doing well in this regard. The goal of 80% is being considered for ultimate / annual goal. This is slightly higher than the goals established in AASHTO's March 2006 report, which uses up to 10% contingencies in the study. Separate goals may need to be established for budget and schedule performance. Based on the AASHTO study, a goal of 80% for budget performance may be to high since the contingencies used by NDOT are more than half that of the contingencies used by AASHTO. Schedule performance reviews on all open Contracts. That will be changed from reviewing all active Contracts. This change is expected to reduce the percentage of projects meeting schedule performance criteria on future reports.

What 'Strategies for Improvement' were successful?

It is difficult to identify a short term strategy that was "successful". We look at all open projects now which will provide more accurate results on performance. As our documentation is a paper based system the review is very cumbersome. This office is actively involved with improving the quality of design, minimizing change orders, encouraging coordination and developing realistic project schedules on a daily basis as part of our core mission. The bulk of this effort, with the exception of change orders, is focused through the Constructability Section. The Administration Section as well as the Chief and Assistant Construction Engineers also take an active role in Change Orders. Division resources continue to be stressed beyond capacity in FY 2011 due to current fiscal crisis, ARRA national reviews, construction claims, construction activities and other issues. We have not been able to expend enough resources to develop better methods for tracking Contract expenses or to develop more sophisticated methods for project schedules because the resources are not available.

What 'Strategies for Improvement' were not successful? Why? See above.

What new 'Strategies for Improvement' will be initiated in FY 2012?

Short range to next reporting:

- Partnering: The Department began using a new Partnering specification in January 2009 where Partnering is now required on all projects bid over $10 million. The Partnering Guide has been distributed and initial training was completed with contractors and NDOT field staff in all three Districts in winter of 2010 – 2011. Construction Division will continue to promote Partnering as "NDOTs way of doing business." Refresher training is planned for the winter of 2011-2012. Research indicates that projects that are formally partnered do in fact have a greater tendency to meet schedule and budget goals.

- Change Orders: Greater emphasis will continue to be placed on timely preparation and submission of Contract Change Orders. Construction Division will begin developing detailed guidelines on change order negotiations and preparation and cost justification. Performing extra work without an approved "Prior Approval" or and executed Contract Change Order is against policy and makes it difficult to control project costs.

- Contract Closeouts: Efforts are ongoing to streamline closeouts. A final policy with specific timelines was issued on August 12, 2010. The policy was discussed at the 2011 Resident Engineer Conference. Construction Division will begin measuring performance in FY 2012.

Long range strategy:

Long range strategies include requesting new technology in FY 2011. The Construction Division currently uses SurTrak 3.0a (2001). Primavera no longer supports the software. The Construction Division is working with Information Services Division to purchase Primavera P6, which is the latest version of the scheduling software. Bids for 31 licenses have been received by the Department of Purchasing and the software will be tested and implemented when it is received. P6 includes new features such as Earned Value Analysis capabilities. It can also be configured to summarize data in dashboards for executive reporting. P6 will increase our ability to actively monitor schedule performance.

Does this performance measure effectively measure what is desired?

Not really in regards schedule performance. An Earned Value Analysis approach may provide more realistic indicator on performance. Still evaluation of schedule performance can be subjective given normal variations that occur on a construction project. The Construction Division will begin addressing this.

Is there a better performance measure that should be considered?

This performance measure is not a direct measure of NDOT's performance due to many factors beyond our control (increased / decreased competition, contractor bids, market forces, acts of god,

contractor expertise, etc..). But time and money are important factors in any construction project. And they are an important indicator of NDOT's performance and we need to continue to measure it.

Setting a quarterly / annual goal for all projects is recommended (i.e. 80% on time and within budget). The ultimate target of 100% may not be achievable. The Construction Division intends on reviewing performance measure research by AASHTO and will survey WASHTO states on their methods to measure performance. If applicable, a new target will be proposed in FY 2012.

There are other Performance Measures that need to be considered which would be helpful to improve NDOT's performance.

- Number of actual materials tests vs. required materials tests. The paper based nature of the test reports makes evaluating this measure on a systematic approach cumbersome. The Quality Assurance Section has begun looking into developing systems to electronically report the data. This will allow greater efficiency in reporting overall performance. Due to the fiscal crisis and restrictions in staff resources an implementation date for measuring performance has not been established.

- Number / Amount of Change Orders per Contract

- Construction Engineering Costs (Total, Per Project, Per Crew). The Constructability Section is looking into available data in NEATS and systems like it. The data is not easily retrievable and assistance outside the Division is required. Due to the fiscal crisis and restrictions in staff resources an implementation date for measuring performance has not been established.

- Straight Time vs. Overtime.

- Contract Closeouts. The Construction Division published a contract closeout policy and schedule on August 12, 2010. This will enable the Division to begin measuring performance on closeouts.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. Monitoring schedule and budget performance have fiscal impacts due to contractor payments, increased labor costs, increased administration costs, etc… They must be monitored to minimize those impacts.

The proposed measures above could also have fiscal impacts. Not meeting testing frequencies could allow non-conforming materials to be incorporated into the work which could impact performance and increase future maintenance costs. Unchecked overtime could lead to increased workplace injuries or health problems impacting staffing due to lost time absences and increased medical costs. Expediting the closeout process will reduce interest payments to contractors.

8. MAINTAIN STATE HIGHWAY PAVEMENT

Performance Measure:

Percentage of state maintained roadways receiving annual preservation in accordance with the Department's pro-active pavement preservation program.

Annual Target:

Category 1:	12.5%	$123 million
Category 2:	10.0%	$95 million
Category 3:	8.3%	$71 million
Category 4:	6.7%	$26 million
Category 5:	5.0%	$20 million

Ultimate Target:

Perform annual rehabilitation as necessary to maintain the existing condition of the roadway network and perform rehabilitation necessary to eliminate the accumulated backlog.

Strategy Plan Support:

Proactive pavement rehabilitation is the most cost-effective way to use limited funding. Proactive pavement rehabilitation means working on the roads in a timely and economical manner to maintain the roadway network in a desired condition. Reactive pavement rehabilitation means waiting until the pavement has deteriorated past the acceptable level and then removing the failed roadway and reconstructing a new roadway in its place. Being proactive instead of reactive is 4 to 6 times more cost effective in utilizing transportation funding.

This performance measure works towards meeting the Department's Strategic Plan goal to effectively preserve and maintain NDOT's assets.

For the Department to maintain the roadway network in its current condition, a specific percentage of rehabilitation work must be performed on the roadways each year. This specific percentage is the Annual Target. A backlog of work accumulates when the Annual Target is not met each year. To reduce the backlog, rehabilitation work in excess of the annual target must be performed.

Measurement and Supporting Data:

The following tables illustrate the efforts of the Department to rehabilitate the network of roadways for which NDOT is responsible. Each table represents one calendar year of information. Rehabilitation needs are calculated on a 2-year cycle to allow time for efficient planning and design of projects. This 2-year cycle is broken down annually for the purpose of reporting this performance measure. Construction of the projects is performed on a yearly basis.

	2010 PERFORMANCE (January 1 – December 31)									
	REPORTED DECEMBER 31, 2010									
Road Prioritization Category	**Centerline Miles**	**Annual Vehicle Miles of Travel**	**Annual Need**	**Backlog of Need**	**Total Need**	**Annual Target**		**Amount Budgeted/ Planned 1**	**Actual Annual Rehabilitation**	**Was Target Met?**
						%	**Cost in millions**			
1	676	6,167,678,495	26.8%	14.8%	41.6%	12.5%	$123	11.1%	18.7% 2	yes
2	918	3,575,001,917	20.9%	20.1%	41.0%	10.0%	$95	0.0%	3.9%	no
3	1,220	4,153,323,032	4.0%	29.0%	33.0%	8.3%	$71	1.8%	3.3% 3	no
4	857	257,111,924	12.0%	29.6%	41.6%	6.7%	$26	0.0%	1.2%	no
5	1,724	3,303,355,934	19.1%	----	19.1%	5.0%	$20	0.0%	2.3%	no

All percentages are based on the amount of miles in each Roadway Prioritization Category.

1 *"Amount Budgeted" does not include "Additional $100 Million Project List" and other stimulus funding.*

2 *0.3% of work performed in Category 1 was not included in the "Total Need". This work does* ***not reduce*** *the "Backlog of Need" for this Category. Project is as follows:*
• US095 CL 85.011 – CL 85.274 and CL 88.932 – 91.983, 2.315 miles leading into and leading out of the required segment was advertised as part of a capacity project.

3 *0.9% of work performed in Category 3 was not included in the "Total Need". This work does* ***not reduce*** *the "Backlog of Need" for this Category. Project is as follows:*
• US093 EL 43.946 – 54.566 was advertised because the Hot In-Place Recycle that was attempted in 2003 failed and a new rehabilitation strategy will be implemented.

	2011 PERFORMANCE (January 1 - June 30)									
	REPORTED JUNE 30, 2011									
Road Prioritization Category	**Centerline Miles**	**Annual Vehicle Miles of Travel**	**Annual Need**	**Backlog of Need**	**Total Need**	**Annual Target**		**Amount Budgeted/ Planned 1**	**Actual Annual Rehabilitation**	**Was Target met?**
						%	**Cost in millions**			
1	676	6,167,678,495	4.2%	22.9%	27.1%	12.5%	$123	4.9%	1.4%	N/A
2	918	3,575,001,917	3.7%	37.1%	40.8%	10.0%	$95	4.5%	8.2%2	N/A
3	1,220	4,153,323,032	8.9%	29.7%	38.6%	8.3%	$71	0.0%	2.0%	N/A
4	857	257,111,924	1.5%	40.4%	42.0%	6.7%	$26	0.0%	1.9%3	N/A
5	1,724	3,303,355,934	-----	16.8%	16.8%	5.0%	$20	0.0%	0.0%	N/A

All percentages are based on the amount of miles in each Roadway Prioritization Category.

1 *"Amount Budgeted" does not include "Additional $100 Million Project List" and other stimulus funding.*

2 *3.6% of work performed in Category 2 was not included in the "Total Need". This work does* ***not reduce*** *the "Backlog of Need" for this Category. Project is as follows:*

- *US093, Clark County, from Buchanan Intersection to Hoover Interchange. 5.278 miles of rehabilitation was advertised as part of a capacity project. This section of the roadway was not due for rehabilitation until 2012.*
- *US095, Nye County, from 0.613 miles North of SR160, Pahrump Valley Rd, to 1.301 miles South of the Amargosa Valley Junction. 14.445 miles of this rehabilitation was pulled from the 2012-2013 additional 3R projects list and expedited due to state stimulus funding. This section of the roadway was not due for rehabilitation until 2012.*
- *US095, Esmeralda County, from US06 to the Esmeralda/Mineral County Line. 13.662 miles of this rehabilitation was pulled from the 2012-2013 additional 3R projects list and expedited due to state stimulus funding. This section of the roadway was not due for rehabilitation until 2012.*

3 *Work performed in Category 4 was not included in the "Total Need". This work does* ***not reduce*** *the "Backlog of Need" for this Category. Project is as follows:*

- *SR373, Nye County, from the CA/NV State line to US095 at Amargosa Valley Junction. 16.304 miles was rehabilitated as an overlay project after a CIR project that advertised in 2008 was determined structurally inadequate.*

Column 1 "Road Prioritization Category": This is the category that each road has been assigned to based on the amount of traffic and the number of trucks that the road carries. The following table shows examples of roads in each category:

Road Prioritization Category	Description	Roadway Examples
1	Interstates, Freeways, and All Other Controlled-Access Highways (Includes FC1, 11, 12)	I-15 in southern Nevada and I-80 across northern Nevada
2	Non-controlled Access Highways with: ADT > 10,000	US 50 in western Nevada and US 93 in northern Nevada
3	Non-Controlled Access Highways with: 1,600 < ADT and NHS Routes with ADT=<10,000	Snyder Avenue in Carson City and Industrial Way in Clark County
4	Non-Controlled Access Highways off the NHS with: 400 <ADT<=1600	Franktown Road in Washoe County and Deer Creek Road near Mt. Charleston.
5	Non-Controlled Access Highways off the NHS with: 400 =< ADT	Gabbs Valley Road in Mineral County and Lee Canyon Road in Clark County

Column 2 "Total Centerline Miles": This is the total number of miles that has been assigned to each category. This number may change on a year to year basis when new roads are constructed or if sections of state roads are exchanged with local public agencies. Total centerline miles for 2010 and 2011 are based on 2007 data.

Column 3 "Annual Vehicle Miles Travel": This is the total number of miles traveled by all vehicles on each category of roads.

Column 4 "Annual Need": This describes the percentage of roadways in the individual Categories that become due for rehabilitation each year. In Categories 1 through 4 the Annual Need is based on projects that have reached the critical age for rehabilitation or projects that have reached the critical condition for rehabilitation. In Category 5, the Annual Need is based on projects that have reached the critical condition for rehabilitation. This need is recalculated each 2-year period and therefore no amount is shown in the Annual Need column in the table for 2011.

Column 5 "Backlog of Need": This column represents the percentage of the roadways that were not rehabilitated at the appropriate age. Each year that the Annual Needs are not fully funded, the unfunded rehabilitation rolls over into the Backlog of Need column for the following year. In Categories 1 through 4 the Backlog of Need is based on projects that have reached the critical age for rehabilitation, and projects that have reached the critical condition for rehabilitation. In the 2011 table, Category 5, the Backlog of Need is based on the Annual Need for 2010 minus the amount of work that was performed in 2010. Work performed on this Category in 2011 will be reflected in the 2012 table.

Column 6 "Total Need": This is the percentage of work that could be done to bring the entire Roadway Prioritization Category up to optimum condition. Optimum condition is the condition that would cost the least amount of funding to rehabilitate on a predetermined cycle.

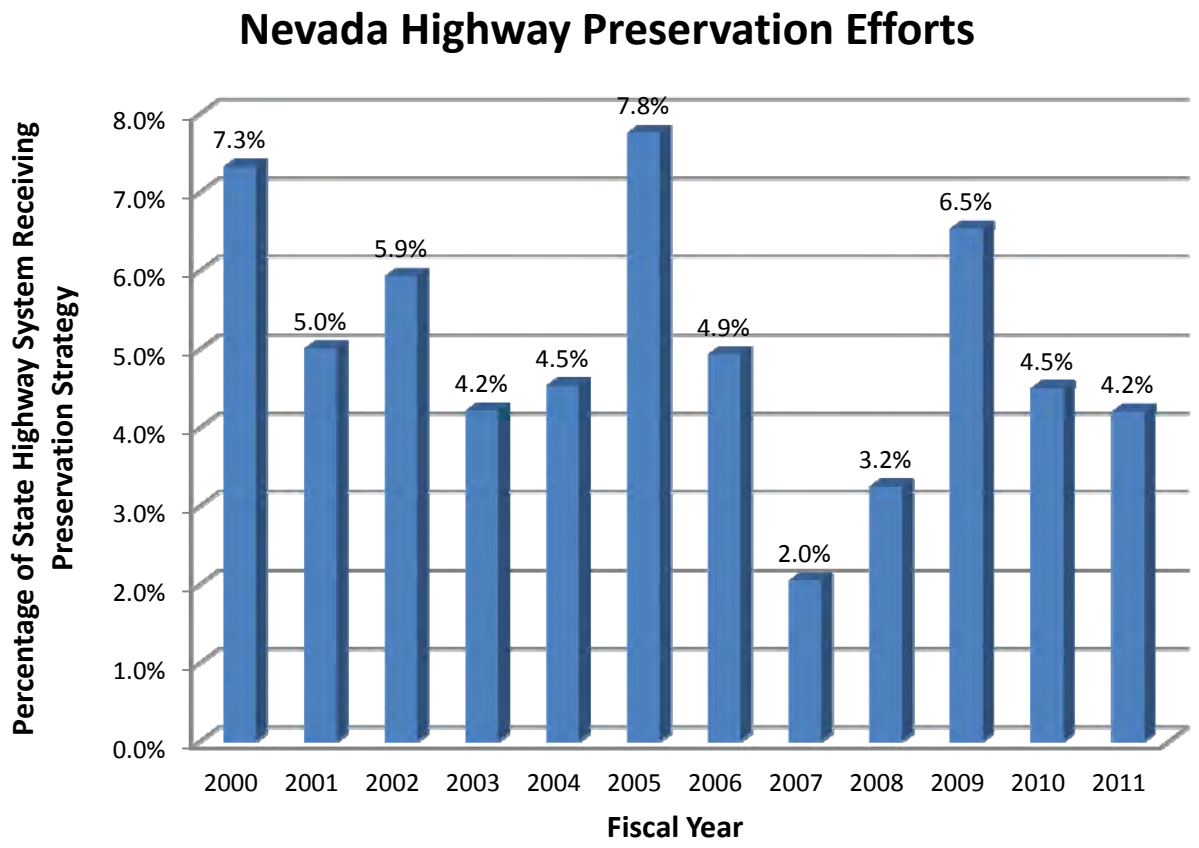
Column 7 "Annual Target": This column is a standard percentage for each Category based on necessary rehabilitation cycles. The percentages are 12.5% for Category 1, 10% for Category 2, 8.3% for Category 3, 6.7% for Category 4 and 5% for Category 5. These percentages are established by the following method:
100% ÷ the Category rehabilitation cycle in years = Annual % of Category needing rehabilitation

Example: Category 2 roads have a rehabilitation cycle of 10 years. Therefore:
100% ÷ 10 years = 10% annual rehabilitation needs for Category 2
In other words, 10 percent of Category 2 roads must be rehabilitated each year to maintain all of the Category 2 roadways in their current condition. To improve the system, additional work must be done in excess of 10%. A lack of funding in any Category will cause the overall condition of the Category to decline. However, based on the anticipation of limited funding, the Department may decide to perform a higher percentage of work on Category 1 and 2 roads than on Category 3, 4 and 5 roads. This is due to the higher cost of replacing the more heavily travelled roads if they are neglected. Higher cost includes the cost of raw materials and the impacts to interstate travel and commerce.

Column 8 "Amount Budgeted/Planned": This is the percentage of roadways that is approved for rehabilitation per roadway prioritization category. This amount may be less than the Annual Need due to funding restrictions, priorities or other decisions.

Column 9 "Actual Annual Rehabilitation": This number is used to track the actual percentage of structural 3R rehabilitation that is performed on the system. This information is updated quarterly and is based on the advertised date of each contract. Additional work may be performed in a category based on additional funding that becomes available after the "Amount Budgeted/Planned" is established.

Column 10 "Was Target Met?": This column indicates whether the annual target was met.



Strategies for Improvement:

Short Range to next reporting:

1. Maintain Category 1 and 2 roadways at a high level of service by applying timely rehabilitation treatments.
2. Maintain Category 3, 4 and 5 roadways at a lower but acceptable level of service by applying rehabilitation treatments as funding allows.

Long Range:

1. Maintain Category 1 and 2 roadways at a high level of service by applying timely rehabilitation treatments.
2. Maintain Category 3, 4 and 5 roadways at a good level of service by applying rehabilitation treatments.
3. Monitor the effects of rehabilitation and preservation versus the actual needs of the system and make any necessary updates and adjustments to the rehabilitation program.
4. Work to provide sufficient funding to reach the ultimate target.

Annual Evaluation of Performance Measure

Was the annual target met?

Yes for Category 1, but no for Categories 2 through 5. Current funding levels do not allow for meeting the annual target in each Category.

What 'Strategies for Improvement' were successful?
Realizing that current funding does not allow for meeting all of the annual targets, Category 1 roadways were made a priority, preserving the infrastructure that has the highest cost of replacement. Categories 2 through 5 roadways were addressed according to allowable funding.

Long range strategies are currently in the implementation stage and are expected to be successful.

What 'Strategies for Improvement' were not successful?
None

What new 'Strategies for Improvement' will be implemented in FY 2012?

Short range to next reporting:

No additional strategies are planned.

Long Range:

No additional strategies are planned.

Does this performance measure effectively measure what is desired?

Based on the deterioration rates of State maintained roadways, the annual and ultimate targets accurately represent what work is needed for each year. The amount of backlog represents the amount of work needed to restore the roadway network to optimum levels.

Is there a better performance measure that should be considered?

Other performance measures exist and have been investigated by the Department. This measure closely relates to the system that the Department has established for rehabilitating its roadways.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes, the impact of under-funding the annual needs of the system will lead to an increased backlog and deterioration of the entire roadway network. Proactively applying rehabilitation and preservation to the State maintained roadway network can extend life and reduce costly reconstruction projects by 4 to 6 times. Costly reconstruction projects not only impact the Department's budget, but impact the travelling public for longer periods of time due to longer construction projects.

9. MAINTAIN NDOT FLEET

Performance Measures:

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 have reached the age or mileage that requires replacement. In Fiscal Year 2010 the Equipment Division initiated a Rebuild Program that extends the life of equipment for an additional life span. Equipment that has reached or exceeded replacement criteria is rebuilt to like-new condition for considerably less than the cost of purchasing new equipment. The Rebuild Program also assists in assuring that NDOT is adequately equipped for its work effort in maintaining public safety.

(2) Percentage of fleet in compliance with condition criteria – this measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements so that the expected life span of our vehicles is not compromised. As the fleet is maintained on the mileage and/or hourly requirements, compliance has been met.

Annual Target:

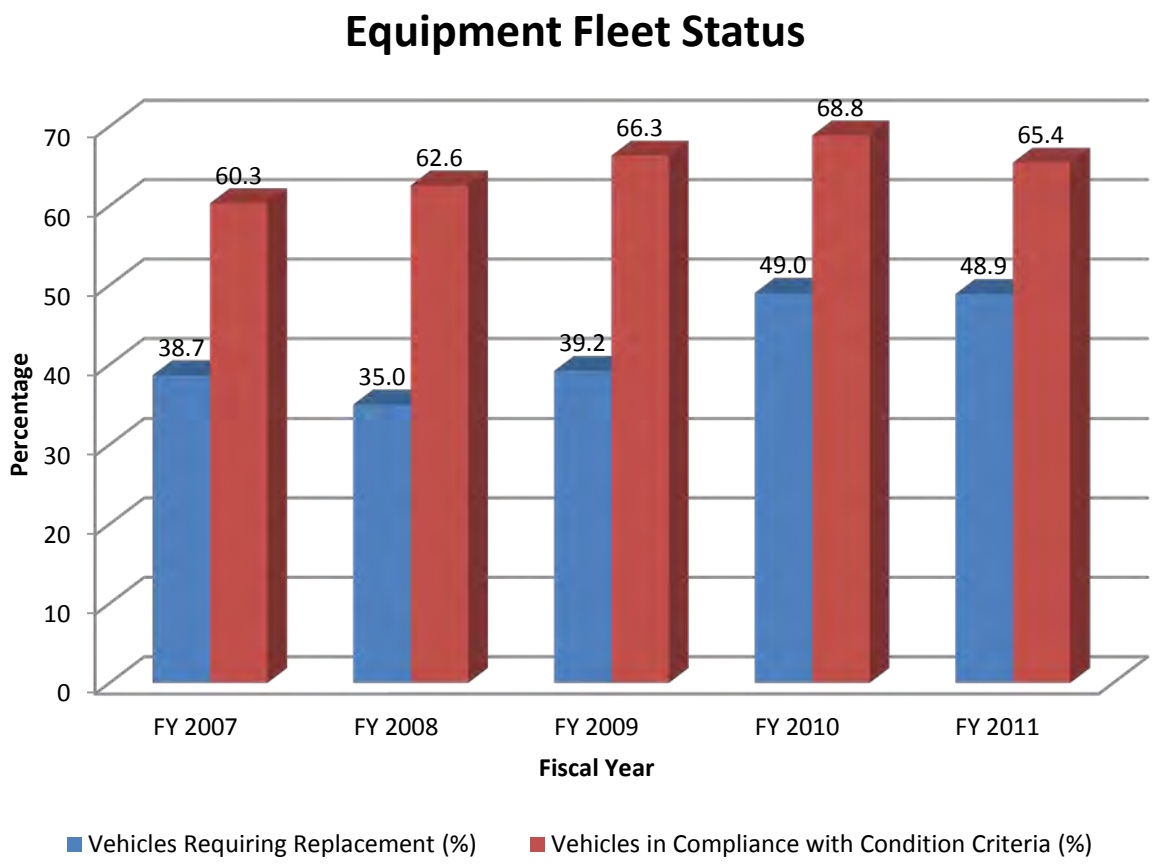
1) Declining Rate of 1% per year
2) Increasing rate of 1% per year.

Ultimate Target:

1) 10%
2) 95% rate of compliance for mileage/hourly requirements

Measurement and Supporting Data:

	Replacement Criteria Measured Annually	Condition Criteria Measured Annually	Change	
FY 2007	38.65 %	60.30 %		
FY 2008	34.96%	62.55 %	-3.69%	+2.25 %
FY 2009	39.18 %	66.30 %	+4.22 %	+3.75 %
FY 2010	49.01%	68.84 %	+9.83 %	+2.54 %
FY 2011	48.88%	65.42%	-0.13%	-3.42%



Strategies for Improvement:

Short range to next reporting:

1) a. Revise replacement criteria by increasing usage criteria in selected class codes

   b. Removing age criteria in other specified class codes.

   c. Implement policy controls for equipment replacement.

2) a. Analyze quarterly Preventive Maintenance (PM) due and accomplished on core fleet.

   b. Develop enforceable policy for non-compliance of PM standards.

Long range:

1) a. Reduce fleet size by usage assessments.

   b. Minimize retention of replaced vehicles.

2) a. Perform annual fleet condition audit.

   b. Develop Predictive Maintenance Program.

Was the annual target met?

No on 1. Yes on 2.

What 'Strategies for Improvement' were successful?

(A) Minimize retention of replaced vehicles

(B) 1. Analyze quarterly Preventive Maintenance (PM) due and accomplished on core fleet.

2. Perform annual fleet condition audit.

What 'Strategies for Improvement' were not successful? Why?

(A) Strategies to reduce replacement deficit were detrimentally effected from a loss of funds.

What new 'Strategies for Improvement' will be initiated in FY2011?

Short range to next reporting:

(A) Removing age criteria in specified class codes.

(B) Develop enforceable policy for non-compliance of PM standards.

Long range:

(A) Reduce fleet size by usage assessments.

(B) Develop Predictive Maintenance Program.

Does this performance measure effectively measure what is desired?

Yes

Is there a better performance measure that should be considered?

No

Will meeting the next yearly target have a fiscal impact? If so, explain.

(A) Yes

(B) No

10. MAINTAIN NDOT FACILITIES

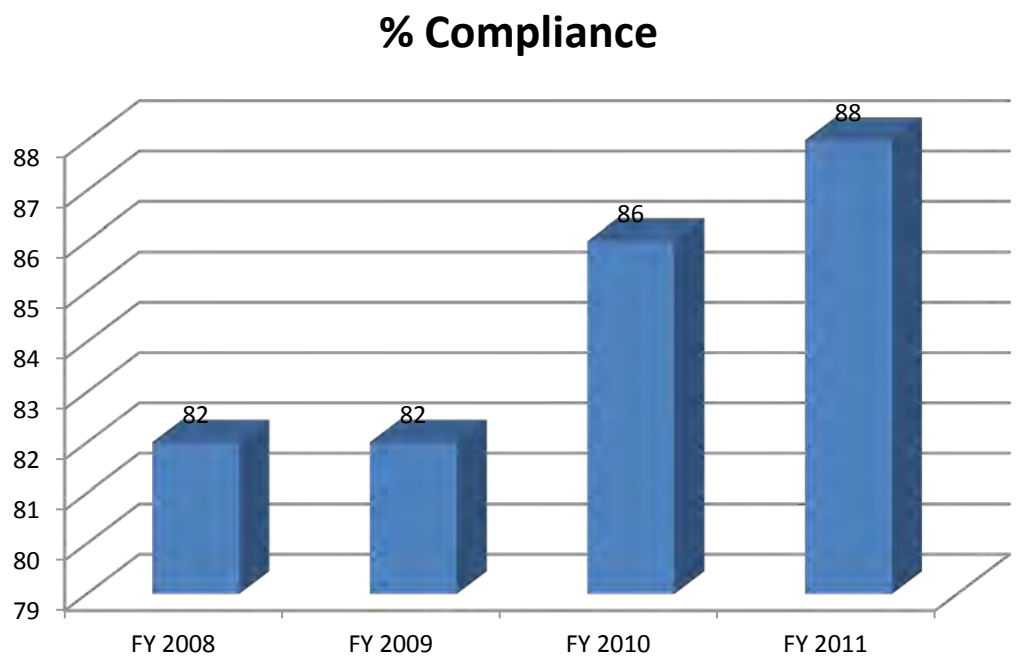
Performance Measure:

Percentage of building facilities that comply with regulatory building and safety codes.

Annual Target: Increase by 3% **Ultimate Target:** 100%

Measurement and Supporting Data:

FY 2007	82 %
FY 2008	82 %
FY 2009	82%
FY 2010	86%
FY 2011	88%



Strategies for Improvement:

Short range to next reporting:

Currently, 88% of our facilities are compliant with regulatory building and safety codes. This is the same as last reporting period.

*Recently projects that addressed electrical safety (GFI plugs and disconnect switches) were completed in the 2011- 4th quarter. However, the number of items completed is not enough to raise the overall percentage at this time. These projects were: Ruby Valley and Big Smokey - GFI's in all residences.

*Additionally, the 3 District Facility Managers and HQ B&G met with Maintenance Division staff to discuss integrating safety inspections into Performance Measure #10. A method of tracking and measuring the progress of correcting these items will follow in subsequent updates.

Our short-range strategies are to continue our efforts in prioritizing our condition assessment data and scheduling deferred maintenance work. We have assessed and prioritized ADA deficiencies in Highway Rest Areas, as well as, other NDOT Facilities. Design work for these projects commenced in FY 09 and will continue into FY 2011 and 2012. We have developed and designed and completed several projects from our initial assessment and scoping report.

Long range:

Our long range plan is to develop a "true" Performance Management System for our NDOT Facilities by developing Outcome Based Measures that focus on Building Maintenance and Preservation and clearly convey a "Value" and prioritized system of project delivery. This will require condition assessments, documentation, and database management systems and processes if we want to properly focus our efforts on an efficient Facilities Management Program.

Was the annual target met?

No – Three projects were completed which greatly improved our performance measure. The biggest improvement was fully sprinklering the HQ Lab Building. Small electrical items continue to be completed and taken off the list.

What 'Strategies for Improvement' were successful? Streamlining our evaluation and assessment processes has proven to be very beneficial. Use of in-house assessment databases, and adding the performance measure component has already been extremely valuable in the prioritization process.

What 'Strategies for Improvement' were not successful? Why? N/A

What new 'Strategies for Improvement' will be initiated in FY2012

Short range to next reporting: We're developing an automated facilities condition assessment and reporting program. We're currently studying other public agencies systems, processes and programs.

Long range: Defined work plan with prioritized projects, tied to Architecture's budget, will be used as a roadmap for successful accomplishment of goals and objectives.

Does this performance measure effectively measure what is desired? - No

The history of NDOT's performance measure #10 Maintain Department Facilities:

- The performance measures methodology used in the 2010 Performance Management Report were based on the Facility Assessment document done by Carter Burgess in 2005. It measured the number of deficiencies and code violations in Priority 1, Priority 2, and Priority 3. An Excel assessment spreadsheet was created to track the number of code deficiencies (please see attached). It explains what's included in the different Priority numbers and also has breakdowns of the conditions (ADA, Maintenance, Sprinklers, Roof).

The current method presents the following challenges:

- Not all activities/ expenditures are captured in Performance Measure.
- Codes change often and there are many regulations by different entities.
- District/ Building and Grounds involvement is not captured.
- It's reliant on a 6 year old report that does not include rest areas.
- District annual inspection reports are not considered.

The following questions to be considered:

- Which codes/ inspection reports should be used?
- Which facilities should be included? Should we include Rest Areas? Should it be only occupied buildings?
- The number of code violations found in the yearly inspections should indicate a trend on how well we comply to building and safety codes.

Is there a better performance measure that should be considered? Yes, and we're evaluating what it should be. Integration of safety reports at the 3 Districts and HQ building is evaluated at this time.

Will meeting the next yearly target have a fiscal impact? If so, explain. No – There are numerous new facilities will be completed next fiscal year that are not accounted for in current Performance Measure.

11. Emergency Management, Security and Continuity of Operations

Performance Measure:

Percent of emergency plans that have been completed, training and education have been provided to appropriate personnel, the plans have been tested and exercised and the plan has been updated to accommodate changes in departmental processes, federal guidelines, etc. Training and updates should be completed on a biennial basis. Plans include:

Continuity of Operations Plan

State Level Emergency Operations Plan

District Level Emergency Operations Plan

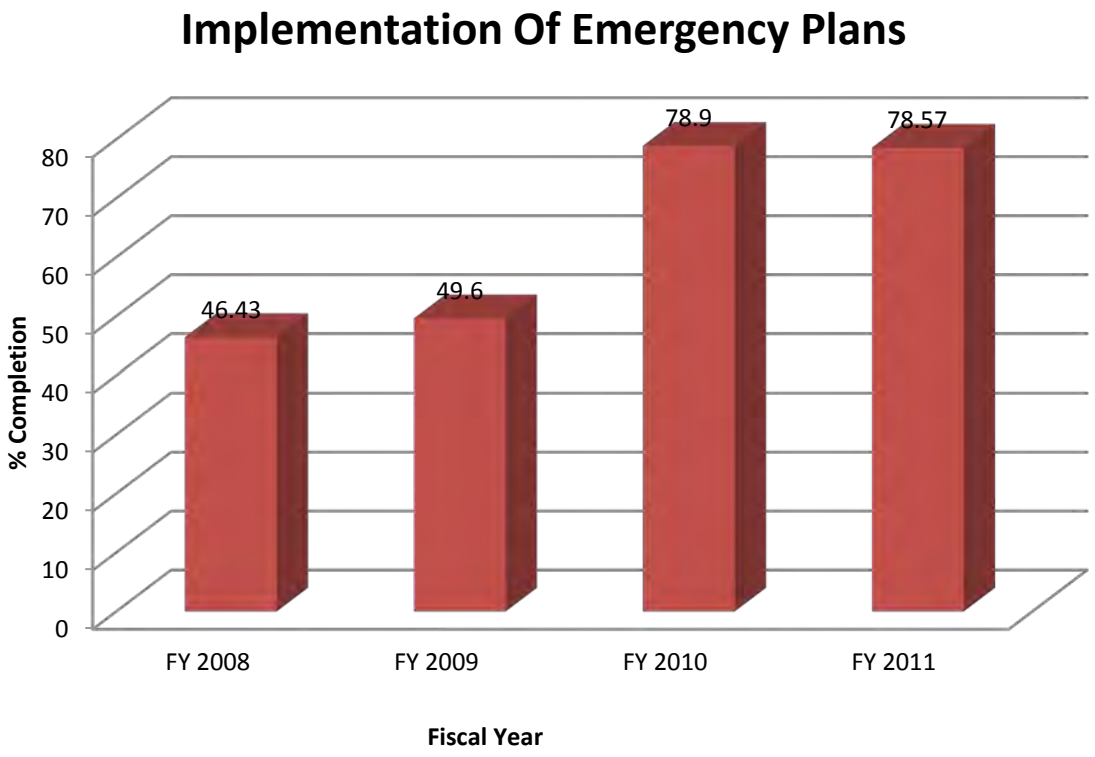
Southern Nevada Evacuation Plan

Infrastructure Security Plan

Mobile Fleet Security Plan

Department Buildings and Facilities Access Management Plan

Annual Target: 75% **Ultimate Target:** 100%



Strategy 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. Being prepared and ready for an emergency is paramount for keeping systems operating during such times, as well as being in a position to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to:
• Optimize Safety
• Be in touch with and responsive to our customers
• Innovate,
• Deliver timely and beneficial projects and programs,
• Effectively preserve and manage our assets
• Efficiently operate the transportation system.

Summary:

We are in the final stages of negotiating with a vendor for the Continuity of Operations Plan (COOP) RFP. Soon we will enact a signed agreement. The schedule anticipated for completion of the plan, training and an exercise is 18 months after the contract is signed. Therefore, full compliance with the Performance Measure should be reached around December of 2012.

We have also started participating in a statewide Continuity of Operations Planning effort to ensure coordination between NDOT's COOP and other plans developed throughout the state.

During this past quarter we have been preparing for our major upcoming exercise, Operation "White Tiger". This will be a large, functional exercise including the NDOT Emergency Operations Center, the three District Emergency Operations Centers, and the State Emergency Operations Center.

Training:

During this year we provided training to both headquarters and district personnel on the State Level and district level Emergency Operations Plan. Training was provided headquarters personnel who are assigned to specific units within the NDOT EOC structure regarding their roles in the NDOT EOC. Training was provided to District 1 on the overall structure and function of the NDOT EOC.

Various NDOT division and district staff attended training provided by other agencies, such as the Division of Emergency Management and FEMA.

Exercises:

The Maintenance and Operations Division,-Security/Emergency Management Section conduct two emergency exercises each year. Exercises conducted by NDOT within the last fiscal year were held in July 2010 (Improvised Nuclear Device), April 2011 (Nevada Viper/Sidewinder *'11 and* Operation Safe Route), and June 2010 (District 1 Workshop). These exercises were used to evaluate the NDOT State Level Emergency Operations Plan and the District Level Emergency Operations Plan. Each exercise resulted in the creation of an After Action Report/Improvement Plan which was used to update the exercised plan.

NDOT personnel also attended several exercises conducted by other agencies to coordinate NDOT response.

Strategies for Improvement:

Short range to next reporting:
An emergency exercise will be held in District II on February 2, 2011. An After Action Report will be created which will provide direction for updating the District Level Emergency Operations Plan.

Long range:
Exercises will continue to be held twice each year, with the After Action Reports being used to update our Emergency Operations and Security plans. Training will be provided in preparation for these exercises, as well as after the exercises to mitigate areas of improvement indentified in the exercises.

Were the targets met?
Yes

What 'Strategies for Improvement' were successful?
Conducting exercises successfully tests and provides training for NDOT personnel on disaster response activities. It also provides valuable feedback needed to update our plans and procedures. Regular exercises will remain a fundamental part of our strategy. Training is also being provided to the Districts at an accelerated pace based on their requests and feedback received from the exercises.

What 'Strategies for Improvement' were not successful? Why?
After evaluating the tasks required to attain our FY11 goals, we realized our workload exceeds our staffing resources. It required more time than we originally estimated to obtain a contractor to assist with the development of the NDOT Continuity of Operations Plan, and will have to revise our estimated time for 100% compliance.

What new 'Strategies for Improvement' will be initiated in FY2012?
Short range to next reporting:
The strategies implemented to date have been successful in achieving our performance measures. We will continue to combine Emergency Operations and Security plans as much as possible to reduce the number of plans to be exercised and updated.

Long range strategy:
We have received approval for the Continuity of Operations Plan (COOP) outsourcing request. This will move us forward toward our FY11 goal of 100% completion on our Performance Measures by June 30th, 2011, however we will not be able to meet the goal. We will request changing the goal of 100% compliance to December 2012 to reflect the estimated time frame for completion of the COOP with contractor assistance.

Does this performance measure effectively measure what is desired?
Yes

Is there a better performance measure that should be considered?
This Performance Measure will be revised by the December reporting period to reflect the merging of separate plans. The Mobile Fleet Security Plan has already been incorporated into the Infrastructure Security Plan, and the Continuity of Operations Plan. The District Level Emergency Operations Plan and the Southern Nevada Evacuation Plan are to be merged into the State Level Emergency Operations Plan.

Will meeting the next yearly target have a fiscal impact? If so, explain.

No fiscal impact is anticipated.

12. REDUCE FATAL CRASHES

Performance Measure:

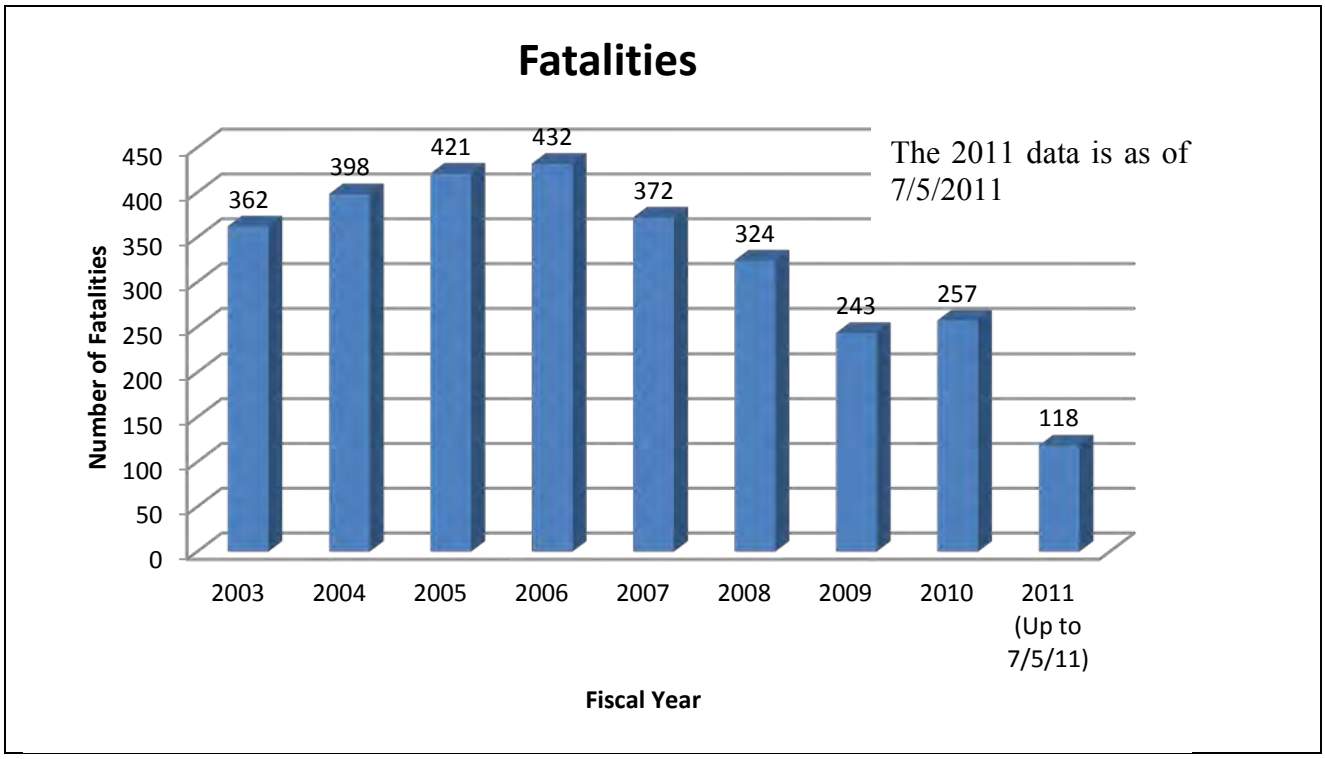
Number of fatalities on Nevada's streets and highways.

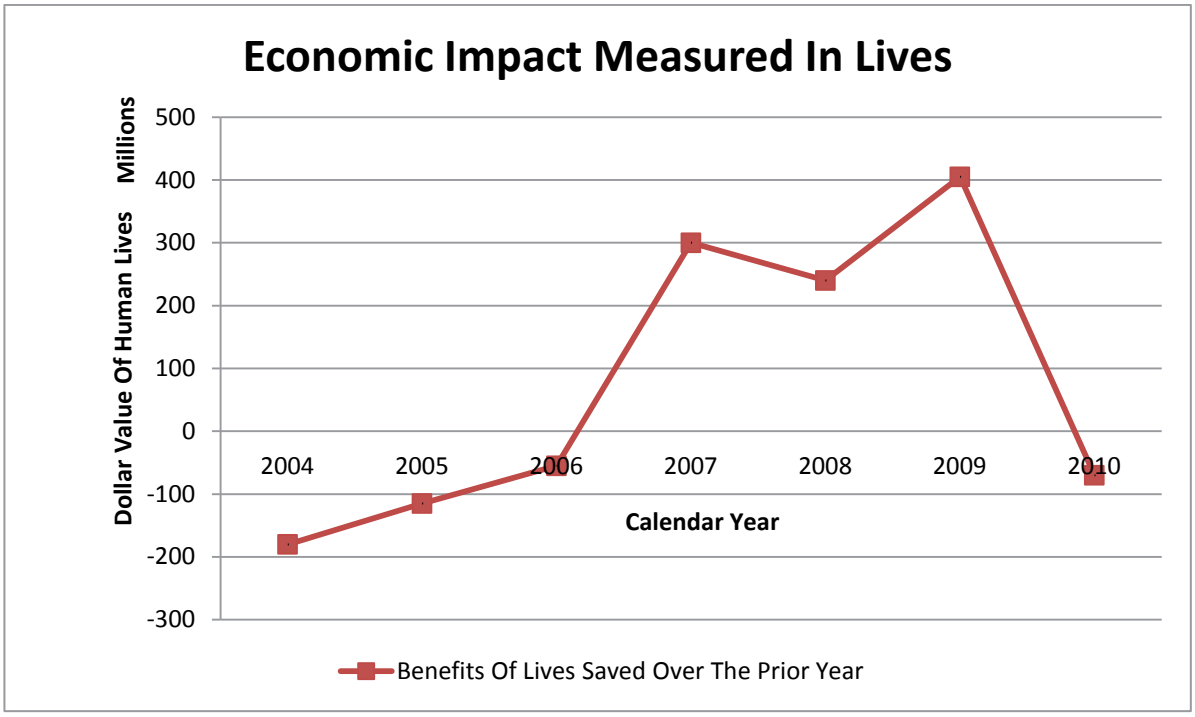
Annual Target: Average annual decrease of the five-year rolling average by 3.1% resulting in halving traffic fatalities and serious injuries by 2030

Ultimate Target: Zero

Measurement and Supporting Data:

	Number of Fatalities	Benefit Of Lives Saved Over The Prior Year (M)
2003	362	
2004	398	-180,000,000
2005	421	-115,000,000
2006	432	-55,000,000
2007	372	300,000,000
2008	324	240,000,000
2009	243	405,000,000
2010	257	-70,000,000
2011	118 (As of 7/5/11)	





Based on USDOT guidance memorandum "Treatment of Value of Life and Injuries in Preparing Economic Evaluations" with numbers adjusted by GDP to a 2009 value of $5 million per fatal accident avoided.

Strategies for Improvement:

Short range to next reporting:

- Begin implementing the State's five-year Strategic Highway Safety Plan (SHSP) updated in 2010 and approved in 2011.
  - Promote Zero Fatalities to the public
  - Continue to invest NDOT's safety funds on strategies identified in the SHSP
    - Implement cost effective improvements to keep vehicles in their lane
    - Analyze crash data to locate sites with a high number of run-off-road crashes and install shoulder and centerline rumble strips
    - Expand the systemic safety program beyond centerline rumble strips
    - Perform pedestrian corridor studies to identify engineering improvements for inclusion in future projects.
    - Follow the principles of access management
    - Implement geometric intersection improvements
    - Cooperate with and support the Office of Traffic Safety's efforts with public education programs for TV/radio 'spots' to increase safer behavior by the public.

Long range:

- Introduce new safety mitigations to Nevada for assessment and adoption into policy.
- Participate in the development and expansion of the Traffic Incident Management program in order to efficiently manage traffic crashes.
- Implement a safety capacity building initiative to grow the safety discipline throughout Nevada by (a) developing stronger ties to our universities and (b) rolling out the Highway Safety Manual to transportation safety professionals throughout the state.
- Bring safety to the planning process as a quantitative measure.

Was the annual target met?

Yes

What 'Strategies for Improvement' were successful?

NDOT has been targeting run-off-the-road crashes and has found success by coordinating safety improvements with NDOT roadway projects by (a) incorporating median cable barrier into NDOT projects currently under design (b) identifying safety improvements in the planning process through NDOT's Road Safety Audit program and (c) identifying slope flattening locations for future projects. The Department has established a Traffic Incident Management (TIM) program in cooperation with Southern Nevada RTC, Nevada Highway Patrol and emergency responders to efficiently manage traffic crashes in the Las Vegas area. The TIM program is now underway in northern Nevada. Safety messages are now being coordinated statewide through the SHSP Strategic Communications Alliance (SCA). Safety partners throughout the state now have a messaging calendar so each partner will be speaking about the same issue at the same time, thereby amplifying the message.

What 'Strategies for Improvement' were not successful? Why?

In general, strategies implemented by NDOT and our safety partners appear to be effective in reducing the number of fatalities. Two strategies, primary seatbelts and automated enforcement were not approved by the legislature in 2011 and therefore cannot be implemented as identified in the SHSP. Staffing resources at all agencies are always a challenge, with more staffing resources available, strategies for improvement would be more quickly, comprehensively, and effectively implemented.

What new 'Strategies for Improvement' will be initiated in FY2012?

Short range to next reporting:

Given the relatively short duration for implementation of our low cost engineering strategies, the Safety Division does not contemplate revising our short term strategies. We will continue to implement strategies identified in the Strategic Highway Safety Plan and work closely with our safety partners to continue to reduce the frequency of fatal crashes.

Long range:

Implement the updated Nevada Strategic Highway Safety plan's strategies, many of which may be short term for specific locations, but long term for their aggregate effect of implementing them in enough locations to drive down the fatal and injury numbers. Those improvements as noted above that are provided to NDOT Planning and those for our five-year project list (such as slope flattening) will take a longer timeframe for realization. Two new initiatives are contemplated to begin this FY. Safety capacity building and bringing safety analysis into NDOT project planning as a quantitative measure, as also noted above are anticipated.

Does this performance measure effectively measure what is desired?

No. This measure is an indicator of how the entire State is performing in regards to reducing traffic fatalities. Approximately half of traffic fatalities do not occur on NDOT maintained roadways. The Department cannot achieve the goal without the cooperation and assistance of our partners in the areas of law enforcement, education, emergency medical response and other local agencies.

Is there a better performance measure that should be considered?

Yes. If the desire is to measure the NDOT performance then a measure more closely aligned to our program and that can be directly influenced by this Department should be considered.

Will meeting the next yearly target have a fiscal impact? If so, explain.

Yes. The Department will continue to spend funds for improving the safety of the State's transportation system. We will also continue working with our partners to take advantage of opportunities to reduce the severity and frequency of motor vehicle crashes throughout the State. Every life saved and serious injury avoided lessens or eliminates the cost to the families whose lives would have been affected as well as reduces the need for response by law enforcement, emergency medical services, and trauma centers.

13. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE AFTER NEPA APPROVAL TO BIDDING

Performance Measure:

Percentage of projects completed within the range of established estimate and schedule after the environmental process.

Annual target: Reduce number of projects falling outside of estimated schedule range by 25% starting in fiscal year 2009. Improve number of projects falling within the estimated budget range by 25% in FY 2009.

Ultimate Target: 100% of projects completed in the scheduled fiscal year and falling within the estimated budget range.

Measurement and Supporting Data:

Comment: Project Management Division: Changes to Performance Measures have been developed and will be implemented next year.

Three projects under direct control of the PM division were targeted to be advertised in FY 2011:

1) I-15 South ITS Design Build: Awarded May 2011.
2) I –15 West Mesquite Interchange Design Build: Awarded in May 2011. Final design began shortly after Notice to Proceed with major construction elements of the project to begin in August 2011and peak during the winter of 2011-2012. The project is scheduled to be substantially complete in the second quarter of 2012 with all roads fully functioning and only minor items of work to remain.
3) I-80 Robb Drive to Vista Boulevard – Design Build (Phase1): May 2011 Notice Proceed. The project is scheduled to be substantially complete in the fourth quarter of 2012.

Was the annual target met?

Yes

14. MAINTAIN STATE BRIDGES

Performance Measure:

Number of Department- owned bridges which are eligible for federal funding and are categorized as Structurally Deficient (SD) or Functionally Obsolete (FO).

Summary:

Base figure is 37 of 1,045 bridges (*State Highway Preservation Report – 2007)*. Eligibility and priority for funding projects under the Bridge Program are based on a bridge's Sufficiency Rating. The Sufficiency Rating is a numerical assessment of a bridge's serviceability and is based on condition assessment inspection and inventory data. Its value varies from 0 to 100, with 100 representing no deficiencies. A bridge is eligible for replacement when its Sufficiency Rating is less than 50 and is eligible for rehabilitation when its Sufficiency Rating is less than or equal to 80. In addition to meeting the Sufficiency Rating requirement, a bridge must also be classified as either Structurally Deficient or Functionally Obsolete. A bridge is considered Structurally Deficient when key elements reach an established level of deterioration. A bridge is considered Functionally Obsolete when it no longer adequately serves either the road it carries or the undercrossing route.

Annual Target: Replace or rehabilitate at least one Department owned SD or FO Bridge annually. The goal is evaluated based on the contracts awarded in a given calendar year.

Ultimate Target: Zero.

Measurement and Supporting Data:

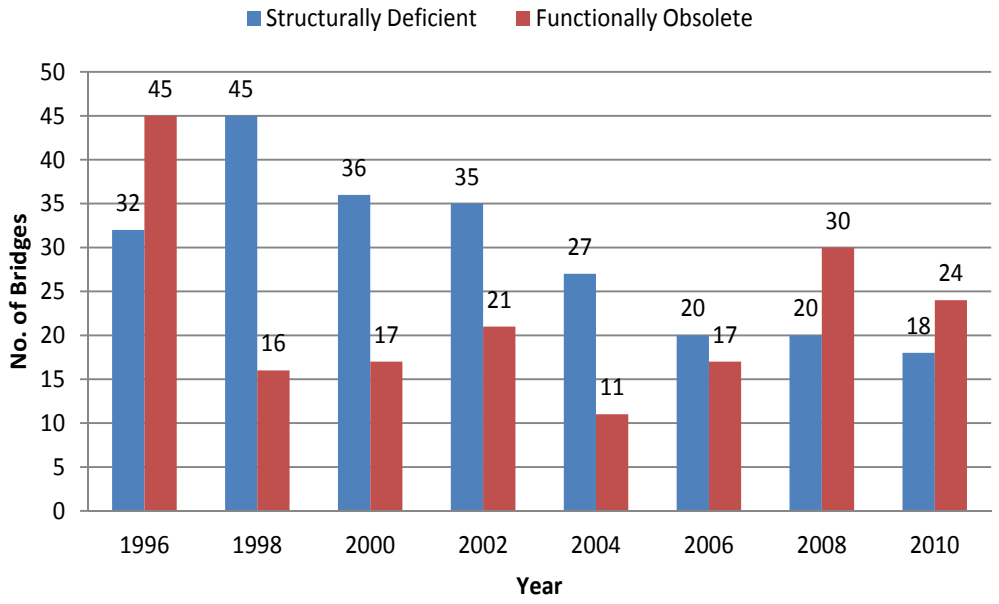
For 2009, replacement of H-788 (FO) Warm Springs Grade Separation over I-15 in Las Vegas was included in Contract #3366DB. In 2010 the target was not met. In 2011, the target is expected to be exceeded with the rehabilitation of G-884 E/W and G-885 E/W scheduled to advertise in Summer 2011 (4 structures total). For 2012 the target should be exceeded as replacement of 2 SD structures (B-395, G-324) is scheduled for advertisement in summer 2012. Although not included in the performance measure, a reduction in the number of SD/FO locally owned bridges is expected as well. In 2011, locally owned SD structure B-1942 is scheduled to be replaced. Other locally owned bridges are being programmed for replacement as well.

A table has been included in order to provide historical reporting. The number of SD and FO structures is as reported in the State Highway Preservation Reports. In 2009, the increases in the number of FO bridges were due primarily to refined inspection methods for measuring lateral under clearance. The data and the table format will be evaluated and refined in future reports.

Biennium	State Owned Bridges Total	State Owned SD Bridges	State Owned FO Bridges	Structures Replaced or Rehabilitated/Contract Number
2007	1045	20	17	-
2008	1056	20	17	B-89 (SD)/3360
2009	1056	20	30	H-788 (FO)/3366DB
2010	1064	18	24	-

Structurally Deficient: The inventory rating denotes the strength of the bridge compared to design-truck loading. Structures with low condition or inventory ratings are classified as "structurally deficient." The structurally deficient bridges are not necessarily about to fail. Rather, these bridges become a priority for corrective measures and may be posted to restrict vehicle weights.

Functionally Obsolete: The appraisal rating measures how well the bridge serves the public, or its functionality. Included in the appraisal rating are reviews of the deck geometry, under bridge clearance, waterway adequacy, and approach geometry. Within the appraisal rating, a substandard structure is termed "functionally obsolete." Like structurally deficient bridges, functionally obsolete bridges are able to serve the traveling public. However, functionally obsolete bridges are susceptible to more congestion, collisions, or flooding because of the restrictive clearances and geometrics. Although functionally obsolete bridges are generally not as great a concern as structurally deficient bridges, these bridges can also become a priority for corrective measures and may be posted for vehicle size restrictions.



* The increase in the number of Functionally Obsolete bridges shown from 2006 to 2008 is due primarily to refined inspection methods for measuring lateral under clearance.

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Innovate, Deliver timely and beneficial projects and programs, and effectively preserve and manage our assets. These goals can be met in the following ways: Safety for the motoring public will be optimized by replacing structurally deficient and rehabilitating functionally obsolete 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 effectively preserve and manage Department assets.

Strategies for Improvement:

Short range to next reporting:

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 in order to cooperate with and assist them.

Long range:

Perform bridge rehabilitation and replacement as allowed under the Highway Bridge Program. Continue to utilize preservation strategies to extend performance and serviceability of elements commonly causing deterioration of structures. These include repairs such as deck repair/replacement, deck overlays, replacement of bridge joints, fatigue crack repair and repainting of steel structures. Maintain seismic retrofit program and scour mitigation program to minimize risks from these extreme events.

Seek additional funds to reduce the time frame of eliminating structurally deficient or functionally obsolete bridges, which is estimated to take at least 37 years with present funding level, based on the current number of Deficient bridges. At current funding levels, this time frame will increase as Nevada's bridges age and the number of bridges categorized as structurally deficient or functionally obsolete increases.

ANNUAL EVALUATION OF PERFORMANCE MEASURE

Was the annual target met? The target is expected to be met.

What 'Strategies for Improvement' were successful? The current strategies have had mixed success when considering the annual goal established in October 2010. Originally, the goal of replacing/rehabilitating 1 bridge biennially was successful.

What 'Strategies for Improvement' were not successful? Why? N/A

What new 'Strategies for Improvement' will be initiated in FY2012?

Short range to next reporting: Additional short range strategies beyond those stated have not been identified.

Long range: Additional long range strategies beyond those stated have not been identified.

Does this performance measure effectively measure what is desired?

Yes. The performance measure does allow tracking of the state owned SD/ FO bridges.

Is there a better performance measure that should be considered?

No. Use of a percentage based measurement (as some states use) was considered. A percentage based measure could show a decrease in SD/FO bridges (thus an improvement), as new structures are added to the inventory. This could occur with no decrease in the actual number of SD/FO bridges; therefore, the numerical based measure is viewed as superior.

Will meeting the next yearly target have a fiscal impact? Not at this time. The performance measure was established based on the current revenue. As the bridges age and deteriorate and the infrastructure grows, additional structures will become SD and/or FO, increasing the number of these structures in Nevada's inventory.

15. STREAMLINE PERMITTING PROCESS

Performance Measure:

Percentage of permits issued or rejected within 45 days of receipt.

Ultimate Target: 95% **Annual Target:** 95%

Measurement and Supporting Data:

We did meet the targeted performance measure for this year of 95%, for this fiscal year by processing 98.37% of all permits statewide.

Overview of Performance Measure:

The Performance Measure identified for the R/W Division was to process 95% of encroachment permits within 45 days. The development of Transportation Policy (TP) 10-1-3 ENCROACHMENT PERMIT PROCESSING TIME SCHEDULE, set a 45 working day process for all accepted encroachment permit applications.

Were the targets met?

Yes. As stated above, we processed 98.37% of all permits accepted. The year-end performance measure for each district is as follows: District 1 achieved 98.71%, District 2 achieved 97.02% and District 3 achieved 100%. Please note that under the Transportation policy some permits required revisions. When a revision is required an additional 15 days is allowed for processing. A total of 11 permits fell into this category.

What 'Strategies for Improvement' were successful?

The development of the Encroachment Permit TP and its 45 working day requirement allowed the Department to address several issues that have resulted in significant improvement to the time necessary to process encroachment permits. The pre-audit of all permits has been very helpful in resolving issues prior to submittal. This allows us to resolve issues outside of the processing of permits that could have caused us to reject permits in the past. The simultaneous review of permits by all affected divisions, rather than the sequential passing of one permit to affected divisions continue to be very successful in improving the processing time. Lastly, the number of permits submitted has significantly decreased. In fiscal year 2007 a total of 673 permits were processed, in fiscal year 2008 this amount decreased by 7.34% to 581 permits and in fiscal year 2009, a further decrease of 9.1 % with only 484 permits being processed. In fiscal year 2010, the number of permits increased from 484 to 673, an increase of 39%. It is interesting to note that the total number of permits processed for Fiscal year 2010 matched the number of permits processed in 2007. It is anticipated that when the economy rebounds the number of permits will increase even further and our ability to process these permits to meet the performance measure will be challenged.

What 'Strategies for Improvement' were not successful?

We are implementing the IRWIN permitting module for the processing of encroachment permits. The system is operating and we have not experienced any major issues. Due to the fact that we are processing permits using 2 different systems, our compiling of the statistics for this quarter had to be performed by hand. On August 15th, 2011, we will be moving into full use of the IRWIN module for permitting and discontinuing use of the old system.

Does this performance measure effectively measure what is desired?

Yes. The goal was to have 95% of all accepted applications processed within 45 working days. Information Services has provided a tool for providing this information utilizing the data from the present Encroachment Permits Intranet System.

Is there a better performance measure that should be considered?

No, this performance measure is the most applicable and is effective.

Will meeting the next yearly target have a fiscal impact? If so, explain.

There is no anticipated direct fiscal impact for next year.

Was the annual target met?

Yes.

STATE HIGHWAY FUND ANNUAL REVENUE AND EXPENDITURE REPORT

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). There is an annual report entitled "Highway Special Revenue Fund" Financial Schedules for State Fiscal Year ending June 30, 2010. 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) Highway Fund Balance – Budgetary Basis

The first table reports that total revenues into the State Highway Fund were approximately $1 billion while the second table contains the total actual expenditures, which were approximately $1 billion.

The third table also indicates that the Highway fund balance decreased from approximately $295.1 million in FY 2009 to $258.4 million FY 2010. The total Department of Transportation actual expenditures for FY 2010 were approximately $1.0 billion, which is shown on the second table.

These two tables also include other detailed financial data about transportation-related revenues and expenditures.

State of Nevada
Highway Special Revenue Fund
Schedule Of Revenues And Receipts - Actual
For The Years Ended June 30, 2010 and 2009

	2010 Actual	2009 Actual
State user taxes		
Gasoline taxes	$ 186,147,338	189,933,728
Motor vehicle fees and taxes		
Vehicle registration & bicycle safety fees	98,185,134	100,117,312
Motor carrier fees	37,129,814	37,937,465
Drivers license fees	17,370,355	13,607,901
Special fuel taxes	79,340,078	79,545,171
Total motor vehicle fees and taxes	232,025,382	231,207,849
Total state revenue	418,172,720	421,141,577
Federal Aid reimbursement		
Bureau of Reclamation		-
Department of Interior		-
Federal Aviation Administration	205,820	197,783
Federal Emergency Management Administration	102,903	-
Federal Highway Administration	382,935,215	336,291,678
Federal Rail Administration		962,240
Federal Transit Administration	8,231,679	7,448,204
US Forest Service		-
Total Federal Aid	391,475,617	344,899,905
Miscellaneous receipts		
Department of Motor Vehicles & Department of Public Safety authorized revenue	75,218,684	75,652,409
Appropriations from other funds	4,363,351	10,759,491
Proceeds from sale of bonds	-	20,000,000
Agreement income	17,301,615	21,610,384
Interest	3,092,872	10,112,689
Sale of surplus property	-	-
Other sales & reimbursements	79,084,311	33,214,144
Total miscellaneous receipts	179,060,833	171,349,116
Total revenue and receipts - budgetary basis	$ 988,709,169	$ 937,390,597

State of Nevada
Highway Special Revenue Fund
Comparative Schedule of Expenditures and Disbursements - Budgetary Basis
For the Fiscal Year Ending June 30, 2010 and 2009
(In Thousands)

	2010			2009
	Budgeted	Actual Using Budgetary Basis	Variance Favorable (Unfavorable)	Actual Using Budgetary Basis
Department of Transportation				
Labor	$ 132,641,275	$ 127,896,813	$ 4,744,462	$ 134,676,580
Travel	2,520,191	1,965,983	554,208	2,264,208
Operating	72,014,208	63,838,550	8,175,658	64,134,834
Equipment	7,386,261	2,926,989	4,459,272	7,977,023
Capital improvements	671,897,122	512,633,744	159,263,378	378,577,597
Bond expenditures	20,625,730	20,625,730	-	170,375,935
Other programs	21,844,790	11,308,911	10,535,879	11,342,180
Total operations	928,929,577	741,196,720	187,732,857	769,348,357
Cost of fuel sold to other agencies	3,541,974	2,857,102	684,872	3,030,764
Total Department of Transportation	932,471,551	744,053,822	188,417,729	772,379,122
Department of Motor Vehicles (see Note 2)	115,819,069	99,506,018	16,313,051	107,963,717
Department of Public Safety (see Note 2)	81,944,298	75,767,817	6,176,480	81,106,489
	197,763,367	175,273,835	22,489,532	189,070,206
Appropriations to other funds				
Attorney General	-	-	-	2,000,000
Board of Examiners	4,960,134	10,000	4,950,134	-
Department of Administration	-	-	-	-
Transportation Services Authority	2,643,308	2,622,570	20,738	2,539,729
Public Works Board	451,865	451,864	-	242,762
Traffic Safety	211,731	206,498	5,233	190,834
Investigations	366,673	288,856	77,817	317,276
DMV Training Division	888,456	840,040	48,416	926,544
Risk Management	-	-	-	-
Legislative Counsel Bureau	194,016	189,016	5,000	(1,264,588)
Department of Information Technology	-	-	-	(3,199,298)
Total appropriations to other funds	9,716,183	4,608,844	5,107,338	1,753,259
Other disbursements				
Transfer to bond fund	89,300,000	89,297,677	2,323	88,995,881
Total other disbursements	89,300,000	89,297,677	2,323	88,995,881
Total expenditures & disbursements - Budgetary basis	$ 1,229,251,101	$ 1,013,234,178	$ 216,016,922	$ 1,052,198,467

NEVADA DEPARTMENT OF TRANSPORTATION
HIGHWAY FUND BALANCE (BUDGETARY BASIS)
STATE FISCAL YEARS 2008 - 2010

	FY 2008	FY 2009	FY 2010
Beginning Fund Balance:			
General Obligation Bonds	$150,650,074	$191,001,665	$20,625,730
Other Highway Fund	197,608,926	224,729,336	274,463,270
Total Beginning Fund Balance:	**$348,259,000**	**$415,731,000**	**$295,089,000**
Additions:			
Revenues	$850,659,733	$937,390,599	$988,709,170
Bond Proceeds	134,994,976	0	0
Total Additions:	**$985,654,709**	**$937,390,599**	**$988,709,170**
Deductions:			
Dept of Transportation Non-Bond Expenditures	$553,976,123	$601,781,084	$723,281,850
Dept of Transportation Bond Expenditures	94,643,385	170,375,935	20,625,730
Exp. & Approp to Other Agencies	263,789,188	280,041,449	269,326,599
Total Deductions:	**$912,408,696**	**$1,052,198,468**	**$1,013,234,178**
Adjusting Entries:			
Controllers Office CAFR Adjustments[1]	-$5,774,012	-$5,834,132	-$12,167,991
Total Adjusting Entries:	**-$5,774,012**	**-$5,834,132**	**-$12,167,991**
Ending Fund Balance:			
General Obligation Bonds	$191,001,665	$20,625,730	$0
Other Highway Fund	224,729,336	274,463,270	258,396,000
Total Ending Fund Balance:	**$415,731,000**	**$295,089,000**	**$258,396,000**

[1] The CAFR is the State of Nevada Comprehensive Annual Financial Report issued by the Nevada State Controller.

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 appendix 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 is selected from among the 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. At the conclusion of this phase, major projects are divided into smaller construction segments to address project's social, environmental, economic and political issues as well as funding availability and constructability.

Final Design Phase

During this phase, the 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, utilities relocation is 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 Appendix A, 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: Indentifies 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 effect project development. Appendix B, Dealing with Project Risk, provides more details.

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 latter in the process. Appendix B, Dealing with Project Risks, provides more details concerning the time ranges.

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. Appendix B, Dealing with Project Risks, provides more detail on the range of project cost estimates.

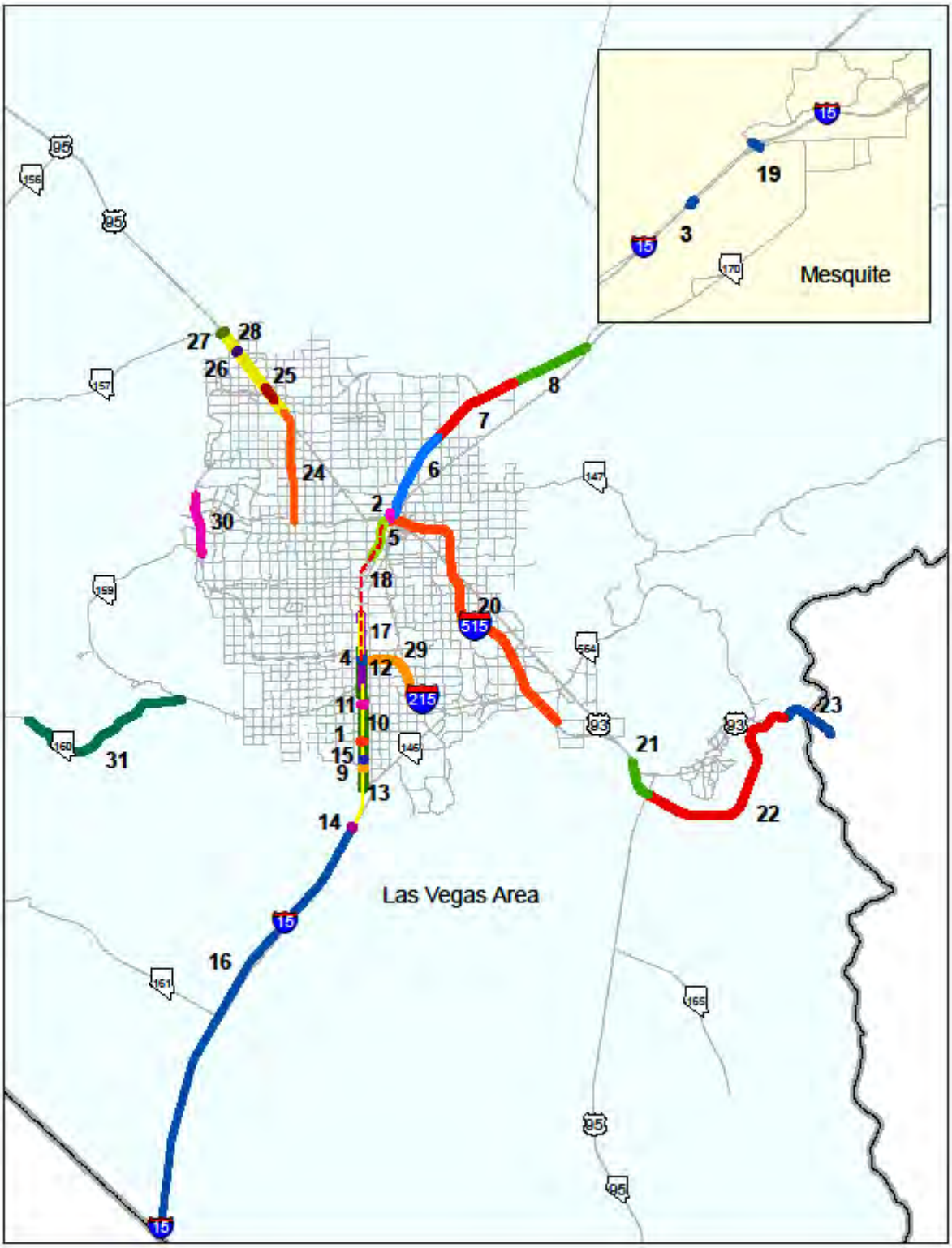
What's changed since last update? Contains summaries of the project scope, cost, and schedule changes, if any.

Financial Fine Points: Includes the total expended project costs and brief summary of financial issues.

Status Bars at the Bottom of the Form: Shows the percentage completion for the primary project development activities that are in progress: planning, environmental clearance, final design, right-of-way acquisition, and construction.

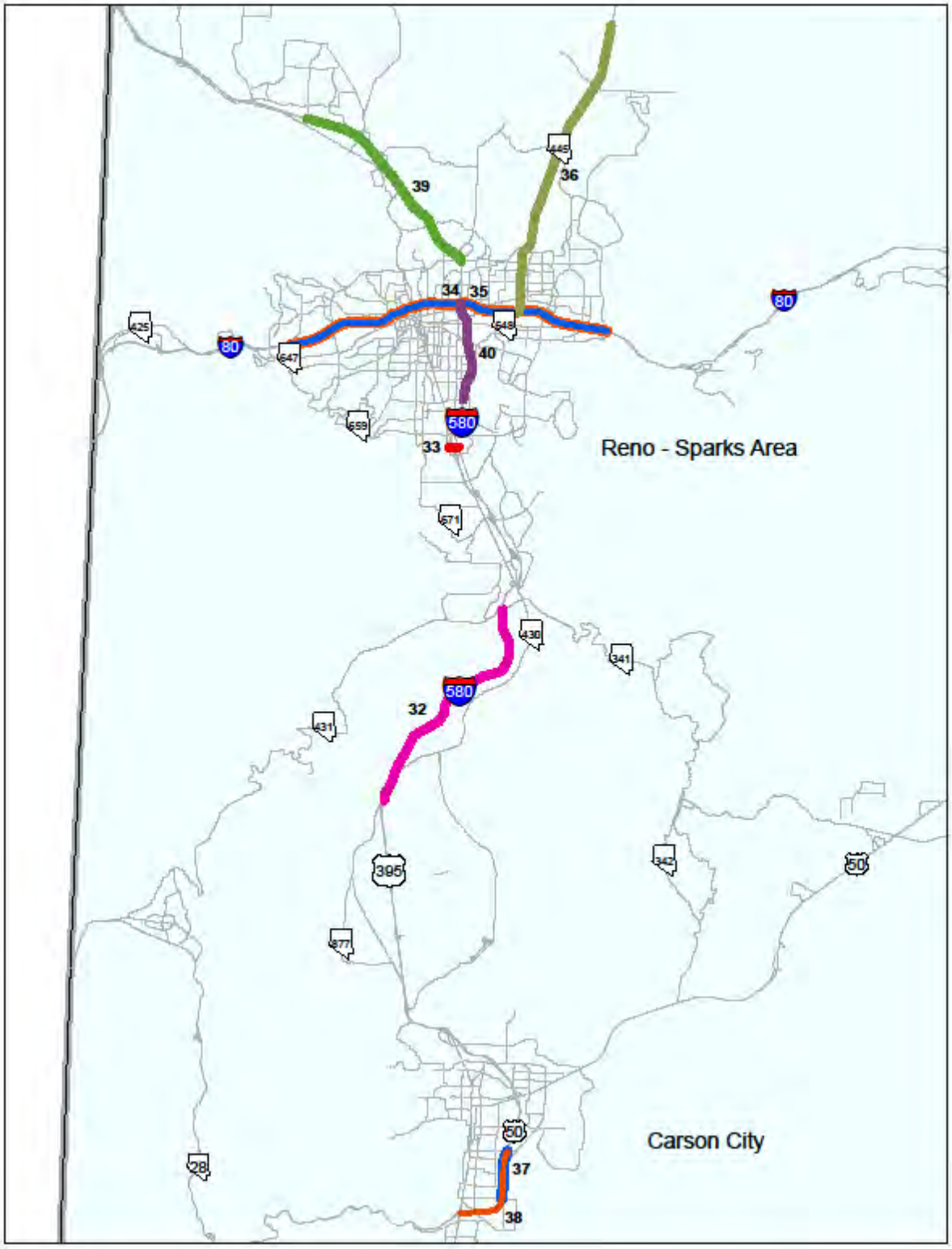
	I-15 Projects	
1	I-15 North Phase 2 – Craig Road to Speedway Boulevard	
2	I-15 North Phase 3 – Speedway Boulevard to Apex Interchange	
3	I-15 North Phase 4 – I-15/CC-215 Northern Beltway Interchange	
4	I-15 NEON	
5	I-15 Urban Resort Corridor Study	
6	I-15 South Freeway Improvements Phase 1 Blue Diamond to Tropicana	1
7	I-15 South Bermuda Road Interchange	
8	I-15 South Pebble Road Overpass	
9	I-15 South Starr Avenue Interchange	
10	I-15 South Cactus Avenue Interchange	
11	I-15 South Las Vegas Boulevard from St. Rose Parkway to Sunset Road	1
12	I-15 South Phase 1-B From Blue Diamond (SR 160) to Tropicana Avenue	1
13	I-15 South Phase 2 Sloan Road to Blue Diamond (SR 160)	1
14	I-15 South Sloan Road Interchange	
15	I-15 South – Stateline to Sloan Road	
	I-515/US-95/US Projects	
16	I-515 Freeway Improvements – I-15 to Horizon Drive	2
17	I-515/US-95/US93: Boulder City Bypass Phase 1 – Foothill Drive to US-95	2
18	I-515/US-95/US93: Boulder City Bypass Phase 2 – US-95 to Hoover Dam Bypass	
	US-95 Northwest Projects	
19	US-95 Northwest Phase 1 – Rainbow Boulevard (SR 595) to Ann Road	2
20	US-95 Northwest Phase 2 – Ann Road to Kyle Canyon Road (SR 157)	2
21	US-95 Northwest Phase 3 – CC 215 Beltway Interchange	2
22	US-95 Northwest Phase 4 – Horse Avenue Interchange	2
23	US-95 Northwest Phase 5 – Kyle Canyon Road (SR 157) Interchange	2
	Northern Nevada Projects	
24	I-80 – Robb to Vista	
25	I-80 - Robb to Vista Design-Build	
26	I-580 Freeway Extension	
27	US-395 North – McCarran Blvd. to Stead Blvd.	3
28	US-395 Northbound – Moana Lane to I-80	3
29	SR-445 – Pyramid Highway Improvements	3
30	US-395 Carson City Freeway Phase 2B – S. Carson St. to Fairview Dr.	3
31	US 395 Carson City Freeway Phase 2B Pkg 1 Clearview Drive to Fairview Dr.	
32	I-580 at Meadowood Mall Way	
	Other Important Projects	
33	I-15 West Mesquite Interchange Design-Build	

SOUTHERN NEVADA MAJOR PROJECTS



Note: For details on individual projects, go to Major Project Summary Sheets and look for the project number shown on the map above in the red box on the respective summary sheet.

NORTHERN NEVADA MAJOR PROJECTS



Note: For details on individual projects, go to Major Project Summary Sheets and look for the project number shown on the map above in the red box on the respective summary sheet.

MAJOR PROJECT SUMMARY SHEETS

1

I 15 North - Phase 2

Craig Road (SR 573) to Speedway Boulevard

Project Sponsor: NDOT

Project Manager: Luis Garay, P.E.

(702) 671-8858

Project Description:

- This is the second of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange.
- Widen I-15 from 4 lanes to 6 lanes from Craig Road (SR 573) to Speedway Boulevard.
- 3R project from Craig Road to Speedway Boulevard
- ITS from Craig Road to Apex
- Improvements will be constructed within the existing I-15 Right-of-Way.
- Widen 4 bridges over 2 UPRR crossings within UPRR and private Right of Way.
- Project length: 4.8 miles.

Schedule:

Planning:

Complete

Environmental Phase:

Complete

Final Design:

Start 2010 -2013

Construction:

Start 2013 - 2015

Project Cost Range:

Engineering:

$5 - $15 million

Right of Way:

$1 - $2 million

Construction:

$99 - $123 million

Total Project Cost:

$105 - 140 million

Project Benefits:

- Increase Capacity to Accommodate Projected Local and Interstate Traffic
- Decrease Congestion
- Reduce Travel Time
- Improve Freeway Operations
- Improve Safety

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Uncertainty of Future Construction Materials and Labor Costs
- Funding uncertainty for Construction
- Widen bridges within UPRR and private Right of Way
- Environmental permits could impact the project schedule

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 2: $493,600
- Total funding expended for the Environmental Phase: $875,000
- Inflation escalation (4%) is to 2014 approximate midpoint of construction
- Funding source for the project engineering is AB 595 (State).

Design Complete 0 50 100

July 2011

NEVADA DOT

2

I 15 North - Phase 3

Speedway Boulevard to Apex Interchange

Project Sponsors: NDOT

Project Manager: Luis Garay, P. E.

(702) 671-8858

Project Description:

- This is the third phase of improvements to the I-15 North Corridor between US 95 and Apex Interchange.
- Widen I-15 from four lanes to six lanes from Speedway Boulevard to the Apex Interchange.
- Project length: 4.6 miles

Schedule:

Planning:

Complete

Environmental Phase:

Complete

Final Design:

Start 2012 - 2015

Construction:

Start 2015 - 2017

Project Cost Range:

Engineering:

$10 - $12 million

Right-of-Way:

$3 - $3.6 million

Construction:

$75 - $85 million

Total Project Cost:

$88 - $101 million

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030
- Decrease congestion
- Reduce travel times
- Improve access to areas planned for development in North Las Vegas
- Improve freeway
- Improve safety

What's Changed Since Last Update?

- Scope - Proposed interchange 1.8 miles north of Speedway removed from this project.
- Schedule - No Change
- Cost - Revised to reflect the removal of the interchange from this phase

Project risks:

- Uncertainty of future Right-of-Way and construction costs.
- Uncertainty of proposed Sheep Mountain Parkway terminus.

Financial Fine Points(Key Assumptions):

- Total funding expended for phase 3: $0 (design phase not started)
- Total funding expended for I 15 North Environmental phase: $875,000
- Inflation excalation (4%) is to 2016 approximate midpoint of construction
- Funding source for this project has not yet been identified.

Design complete 0 50 100

July 2011

NEVADA DOT

3

I-15 North Phase 4

I 15 / CC 215 Northern Beltway Interchange

Project Manager: Luis Garay, P. E.

(702) 671-8858

Project Description:

- Construct new ramps to complete a system-to-system interchange configuration at the I-15 / CC-215 Las Vegas Beltway interchange.
- Improvements will be constructed within the existing I-15 and CC-215 Right-of-Way.
- This is the last of four phases of improvements to the I-15 North Corridor between US 95 and Apex Interchange (15 miles).

Schedule:

Planning:

Complete

Environmental Clearance:

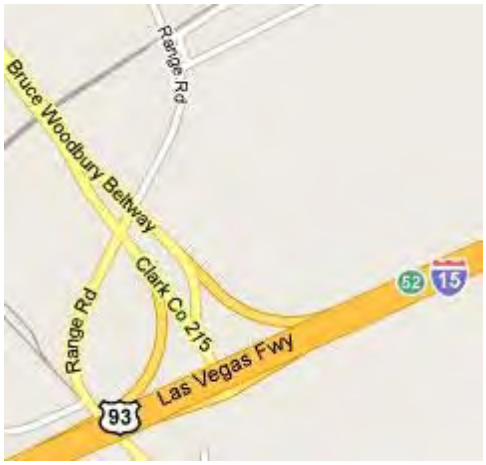
Complete

Final Design:

Start 2013 - 2015

Construction:

Start 2015 - 2017



Project Cost Range:

Engineering:

$6 - $15 million

Right-of-Way:

$1 - $5 million

Construction:

$123 - $140 million

Total Project Cost:

$130 - $160 million

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030.
- Decrease congestion.
- Reduce travel times.
- Improve access to areas planned for development in North Las Vegas.
- Improve freeway operations with full freeway-to-freeway connectivity.
- Improve safety.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Uncertainty of future construction and labor costs.
- Potential funding shortfall.
- UPRR Permits

Financial Fine Points(Key Assumptions):

- Total funding expended: $85,400
- Total funding expended for I-15 North Environmental phase: $875,000
- Inflation escalation (4%) is to 2016 approximate midpoint of construction.
- Construction funding for this project has not yet been identified.

% Design Complete 0 50 100

July 2011

NEVADA DOT

I 15 NEON

Project Sponsor: NDOT

Senior Project Manager: Cole Mortensen

(775) 888-7742

Project Description:

- Widening Improvements along I 15 from Spaghetti Bowl to south of Sahara that include HOV Lanes, Auxillary Lanes, and Baided Ramps
- HOV Direct Connector from US 95 to I-15
- Add/Drop lanes at Oakey/Wyoming
- Local Access Improvements to Las Vegas Downtown Redevelopment
- Connecting Industrial Road and Martin Luther King over I-15
- HOV Direct Access Ramps at Wall Street
- New access to Alta
- Collector distributor roads
- I-15/Charleston Interchange Reconstruction
- Project Length: 4.83 miles

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Environmental phase estimates):

Engineering:

$79 - $157 million

Right-of-Way:

$490 - $616 million

Construction:

$886 - $1.127 billion

Total Project Cost:

$1.455 - $1.9 billion

Project Benefits:

- Will accommodate anticipated traffic increases
- Reduce congestion along local streets and I-15
- New access to Downtown Redevelopment
- Operational Improvements to I-15
- Extends HOV System

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Complex construction in a high volume dense urban area
- Complexity in maintaining traffic during construction
- Complex right-of-way issues may impact schedule and cost
- Funding uncertainty

Financial Fine Points(Key Assumptions):

- Total funding Expended: $22,114,000
- Inflation escalation (4%) is to 2020 approximate midpoint of construction
- Additional Federal, State, Local and Regional Funding will be required

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

5

I 15 Urban Resort Corridor Study

Project Sponsor: NDOT

Project Manager: Jeff Lerud

(775) 888-7589

Project Description:

- The I-15 Urban Resort Corridor Study along I-15 from I-215 (Bruce Woodbury Beltway) to the south, to US 95 (Spaghetti Bowl) to the north.
- Enhance access and mobility within the resort corridor; develop a phased implementation stragegy for future improvements to I-15 in the resort corridor area in addition to currently planned improvements.
- Prepare an early action plan for near-term improvements to enhance mobility and operations.

Schedule:

Planning:

Complete

Environmental Clearance:

Estimated start 2010 - 2011

Final Design:

TBD

Construction:

TBD

Project Cost Range:

Engineering:

TBD

Right-of-Way:

TBD

Construction:

TBD

Total Project Cost:

TBD

Project Benefits:

- Improve capacity, operations, safety, access and mobility.
- Meet stakeholders/public expectations.
- Improve quality of life.
- Support economic development.
- Reduce trip times.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Consensus building among the resort owners.
- Funding uncertainty.
- Economic development along the corridor could require design changes affecting scope, schedule and budget.

Financial Fine Points(Key Assumptions):

- Total funding expended: $786,738

Planning complete 0 50 100

Design complete 0 50 100

July 2011

6

I 15 South - Phase 1A

From Blue Diamond Road to Tropicana Avenue

Project Sponsor: NDOT

Asst Chief Project Management: John Terry, P.E.

(702) 671-6601

Project Description:

- This is the 1st Phase of the I 15 South Project, from Silverado Ranch Road To Tropicana Avenue (3.86 miles).
- Add collector-distributor lanes from Blue Diamond Road to Tropicana Avenue.
- Braid collector-distributor roads to eliminate weaves between I 215 and Tropicana Avenue.
- Construct Sunset Road Bridge over I 15 and reconstruct Warm Springs Bridge over I 15.
- Delivery and Procurement by Design-Build method.

Schedule:

Planning:
Complete

Environmental:
Complete 2009

Final Design:
2009 - 2011

Construction:
2009 - 2012

Project Cost Range:

Engineering:
$11 - 12 million

Right-of-Way:
$0

Total Estimated Project Cost:
$290 - $294 million

Project Benefits:

- Provide additional capacity on I 15
- Reduce operational conflicts between Blue Diamond Road, I 215, Harmon Avenue and Tropicana Avenue
- Improve east-west access across I 15
- Reduce collisions
- Improve transportation system performance

What's Changed Since Last Update?

- Scope - No change
- Schedule: No Change
- Cost- No Change

Project risks:

- Major Project Plan required
- New bridges over UPRR require close cooperation
- Tight Right of Way (ROW)
- Difficult schedule for Design-Build process
- Working within Clark Co. ROW
- Working within UPRR ROW

Financial Fine Points(Key Assumptions):

- Total funding expended Environmental Study: $3.5 million
- Total funding expended Phase 1A: $214.7 million
- Project funding source: AB 595 (LVCVA via Bonding, Clark County, and State)

% Design Complete 0 50 100

% Construction Complete 0 50 100

July 2011

NEVADA DOT

7

I 15 South - Bermuda Road Interchange

Project Sponsor: City of Henderson

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South project.
- Construct new interchanges at Bermuda Road.

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
2026 - 2027
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$16 - $17.5 million
Right-of-Way:
$3.5 - $4 million
Construction:
$128.5 - $134.5 million
Total Project Cost:
$148 - $156 million

Project Benefits:

- Interchanges on I-15 reduce congested traffic in main lines and other existing facilities.
- Connect Regional traffic.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.

Financial Fine Points(Key Assumptions):

- Funding not available until 2026-2030 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction.
- Funding Source: Q10 Extended ($57.1M) and STP Clark County ($60M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

I 15 South - Pebble Road Overpass

Project Sponsor: Clark County

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Construct overpass at Pebble Road and I-15

Schedule:

Planning:
Complete 2009
Environmental:
Complete 2009
Final Design:
2021 - 2023
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$6.5 - $7 million
Right-of-Way:
$8 - $10 million
Construction:
$51.5 - $53 million
Total Project Cost:
$66 - $70 million

Project Benefits:

- Interchanges on I-15 reduce congested traffic in main lines and other existing facilities.
- Connect regional traffic.
- Improve origin destination time of travel.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.

Financial Fine Points(Key Assumptions):

- Funding not available until 2021-2025 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction.
- Funding Source: Private Developers ($30M)

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

9

I 15 South - Starr Avenue Interchange

Project Sponsor: NDOT

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South, from Sloan Road to Tropicana Ave. has been broken into nine packages to address funding and constructability opportunities.
- Construct a new interchange at Starr Avenue with on & off-ramps
- Connect to Las Vegas Blvd (east side) and Dean Martin Drive (west side)
- I-15 over Starr Avenue and shifted 50 ft. to the east of the existing I-15.

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

2010-2014

Construction:

2016-2020

Project Cost Range:

(Environmental Phase Estimates)

Preliminary Engineering:

$10 - $11 million

Right-of-Way:

$15 - $24 million

Construction:

$52.5 - $71.5 million

Total Project Cost:

$77.5 - $106.5 million

Project Benefits:

- Improve access to I-15 with new interchange
- Connect east-west regional traffic from Las Vegas Blvd to/from Dean Martin Drive
- Improve I-15 mainline capacity

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change.

Project risks:

- Uncertain Right of Way costs
- Material and labor cost escalation
- Year when construction funds are available
- Utility & bill board relocation
- Cell phone tower, re-location potential or avoidance

Financial Fine Points(Key Assumptions):

- Total funding expended for Starr Interchange: $34,300
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% for year 2024 approximate midpoint of construction.
- Funding Source: Interstate Maintenance Discretionary ($3.41M), SAFETEA-LU Priority Project ($6.84M), Q10 Extended FY 2016-2020 ($40 M) and STP Clark County FY 2016-2020 ($48 M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

I 15 South - Cactus Avenue Interchange

Project Sponsor: NDOT

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- Construct new interchange at Cactus Avenue.

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
2010 - 2012
Construction:
2012 - 2014

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$10 - $10.5 million
Right-of-Way:
$14 - $15 million
Construction:
$60 - $66 million
Total Project Cost:
$84 - $91.5 million

Project Benefits:

- Reduce congested traffic on I-15.
- Connect regional traffic.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.

Financial Fine Points(Key Assumptions):

- Funding expended for Cactus Interchange: $158,300
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2016 approximate midpoint of construction
- Funding Source: FY04 Appropriations Act. S.115 ($0.2M) Interstate Maintenance Discretionary ($0.9M), Q10 High Speed Lane Miles Program ($35.1M), SAFETEA-LU High Priority Projects ($6.8M) and STP Clark County ($35M).

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

11

I 15 South - Las Vegas Boulevard

St. Rose Parkway to Sunset Road

Project Sponsor: Clark County

Project Manager: Jason S. Tyrrell, P.E.

(702) 671-8852

Project Description:

- I-15 South from Sloan to Tropicana has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Widening of Las Vegas Boulevard (parallel to I-15) from St. rose Parkway (SR 146) to Sunset Road from 2 to 3 lanes in each direction.
- Project Length: 7.2 miles
- This project will be constructed in two packages:
- Package 1: Las Vegas Boulevard from Silverado to Sunset - *Completed as of July 2011
- Package 2: Las Vegas Boulevard from St. Rose to Silverado Ranch

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

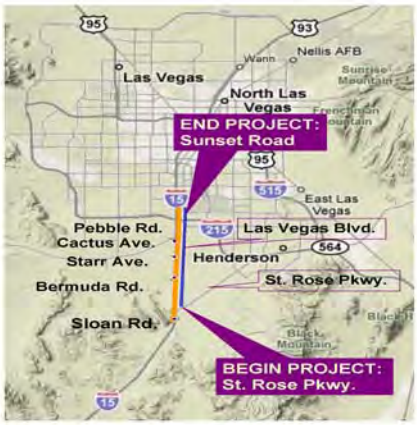
Package 1- Complete ,

Package 2- 70%

Construction:

Package 1 -Complete,

Package 2 TBD



Project Cost Range:

(Environmental phase estimates):

Engineering:

$4 - $4.5 million

Right-of-Way:

$0

Construction:

$31.5 - $33 million

Total Project Cost:

$35.5 - $37.5 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Complexity in maintaining traffic staging, relocating utilities and reducing impacts to traveling public.

Financial Fine Points(Key Assumptions):

- Total NDOT Funding Expended for LV Blvd.: $0
- Total funding expended for I-15 South Environmental studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2011 approximate midpoint of construction.
- Funding Source: STP Clark County ($8.3M)

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

I 15 South - Phase 1B

Blue Diamond (SR 160) to Tropicana Avenue

Project Sponsor: NDOT

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South Project from Tropicana to Sloan has been broken into nine (9) Project elements to address funding and constructability opportunities.
- This is one of the elements of the I-15 South Project.
- Construct one lane in each direction in the median area.
- Project length: 3.8 miles

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Environmental phase estimates):

Engineering:

$2.5 - $3 million

Right-of-Way:

$0

Construction:

$19 - $20 million

Total Project Cost:

$21.5 - $23 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No Change. However a proposal is currently under evaluation.
- Schedule - No Change
- Cost - No Change

Project risks:

- Complexity in maintaining traffic staging, relocating utilities and reducing impacts to traveling public.

Financial Fine Points(Key Assumptions):

- Total funding expended for Phase 1B: $0 (phase not started)
- Total funding expended for I-15 South Environmental studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2019 approximate midpoint of construction
- Funding source: Government Services Tax

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

13

I 15 South - Phase 2

Sloan Road to Blue Diamond (SR-160)

Project Sponsor: NDOT

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South project from Sloan to Tropicana has been broken into nine (9) project phases to address funding and constructability opportunities.
- This is one element of I-15 South Project.
- Widen I-15 from Sloan Road to Blue Diamond Road from 6 to 10 lanes.
- Project Length: 8.2 miles

Schedule:

Planning:

Complete

Environmental:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Environmental Phase Estimates)

Engineering:

$47.5 - $51 million

Right-of-Way:

$0

Construction:

$371 - $392.5 million

Total Project Cost:

$418.5 - $443.5 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Complexity in maintaining traffic staging, relocating utilities and reducing impacts to traveling public.
- Assumes Sloan Interchange is constructed (Existing Interchange for cost and design purpose)

Financial Fine Points(Key Assumptions):

- Funding not available until 2016-2020 per current Financial Plan. However, in the process to look at alternatives to use in house staff to start Preliminary Design in January 2012 up to 30%.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction.
- Funding source: Government Services Tax ($80M) and AB 595 Bonded ($240M).

Environmental Complete 0 50 100

Design Complete 0 50 100

July 2011

NEVADA DOT

I 15 South - Sloan Road Interchange

Project Sponsor: City of Henderson

Senior Project Manager: Eduardo P. Miranda, P.E.

(702) 671-8856

Project Description:

- I-15 South Project from Sloan to Tropicana has been broken into nine (9) project elements to address funding and constructability opportunities.
- This is one element of the I-15 South Project.
- Reconstruct interchange at Sloan Road.

Schedule:

Planning:
Complete
Environmental:
Complete
Final Design:
TBD
Construction:
TBD

Project Cost Range:

(Environmental Phase Estimates)
Engineering:
$19.5 - $21 million
Right-of-Way:
$35 - $40 million
Construction:
$156.5 - $162.5 million
Total Project Cost:
$211 - $223.5 million

Project Benefits:

- Interchanges on I-15 reduce congested traffic in main lines and other existing facilities.
- Connect Regional traffic
- Improve origin destination time of travel.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Unit price and property escalation may affect project cost.

Financial Fine Points(Key Assumptions):

- Funding not available until 2026-2030 per current Financial Plan.
- Total funding expended for I-15 South Environmental Studies (all phases): $3.5 million
- Inflation index distribution of 2% - 5% is to 2029 approximate midpoint of construction
- Funding source: Q10 Extended ($50.6M) and STP Clark County ($65M)

Environmental Complete 0 50 100

Design Complete: 0 50 100

July 2011

NEVADA DOT

I 15 South - Stateline to Sloan

Project Sponsor: NDOT

Project Manager: Eduardo P. Miranda, P. E.

(702) 671-8856

Project Description:

- Improve operation efficiency, capacity and safety
- Widen from 6 to 8 lanes.

Schedule:

Planning:
2010 - 2012
Environmental:
TBD
Final Design:
TBD
Construction:
TBD

Project Cost Range:

Engineering:
$6 - $10 million
Right-of-Way:
TBD
Construction:
$150 - $240 million
Total Project Cost:
$156 - $250 million

Project Benefits:

- Increase capacity to accommodate projected local and interstate traffic to year 2030.
- Decrease congestion.
- Reduce travel times.
- Widening to 8 lanes will increase capacity.
- Widen several bridges and a grade separation at UPRR.
- Improve on/off ramps at Primm and Sloan Interchanges.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Uncertainty of future construction materials and labor costs.
- Complex construction in a high volume rural area may affect schedule and costs.
- Funding uncertainty.
- Assumes Sloan Interchange as constructed

Financial Fine Points(Key Assumptions):

- Total funding expended: $0
- Funding: Government Services Tax $200 Million
- Inflation Index Distribution of 2% - 5% is to 2029 approximate midpoint of construction.

Planning Scoping 0 50 100

July 2011

NEVADA DOT

I 515 Freeway Improvements

I 15 to Horizon Drive

Project Sponsor: NDOT

Senior Project Manager: Dwayne Wilkinson

(702) 671-8879

Project Description:

- I 515 from I 15 to Horizon Drive - Improve operational efficiency, capacity and safety.
- Reconstruct the Downtown Las Vegas viaduct
- Construct new interchanges at "City Parkway", Pecos Road and Sahara Avenue.
- Construct Bonanza Road overcrossing of Las Vegas Boulevard.
- Realign Stewart Avenue and Sahara Avenue.
- Reconstruct and expand Pedestrian & Bicycle Facilities.

Schedule:

Planning:

Complete

Environmental:

2011-2012

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning phase estimates):

Engineering:

$ 210 million - $240 million

Right-of-Way:

$415 million - $453 million

Construction:

$2,160 million - $2,490 million

Total Project Costs:

$2,785 million - $3,183 million

Project Benefits:

- Provides additional interchanges on I-515 to reduce traffic at congested interchanges.
- Reduces operational conflicts at ramps.
- Improve Safety
- Improves mobility
- Project could be implemented in phases such as Phase 1 from I-15 to Maryland, and Phase 2 from Maryland to Horizon Drive.

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No Change

Project risks:

- Environmental process under development - project scope, schedule and cost at a planning level
- Complex right-of-way/relocation and utilities issues
- Project could be implemented in phases such as Phase 1 from I-15 to Maryland, and Phase 2 from Maryland to Horizon Drive.

Financial Fine Points(Key Assumptions):

- Total funding expended: $7,721,400
- Inflation escalation (4%) is to 2015 in CLV and 2026 for remainder of project
- Funding for projects: NHS - $4 million; Government Service Taxes $1.79 billion (I-15 to Charleston), and NDOT Bonded fund $1.39 billion.

Environmental Complete 0 50 100

July 2011

NEVADA DOT

17

I 515 / US 93 / US 95 Boulder City Bypass - Phase 1

Foothill Drive to US 95

Project Sponsor: NDOT

Senior Project Manager : Tony Lorenzi, P.E.

(775) 888-7317

Project Description:

- Realignment of US 93 / US 95 to create an access controlled facility from Foothill Drive to US 95.
- One new diamond interchange and one new half interchange along with one Frontage Road will be constructed.
- Direct Connector Ramps from the new facility to and from US 93 will be constructed.
- Direct Connector Ramps from US 95 to the new facility will be constructed.
- Existing access will be perpetuated.
- Project length: 3 miles.

Schedule:

Planning:

Completed

Environmental Clearance:

Completed

Final Design:

Packages 2 & 3 Doc Date June 2012; Package 4 Doc Date TBD

Construction:

Packages 2 & 3 - Begin late 2012; Package 4 TBD

Project Cost Range:

(Final Design Phase Estimates)

Engineering:

$5 - $8 million

Right-of-Way:

$40 - $50 million

Construction:

$128 - $156 million

Total Project Cost:

$173 - $214 million

Project Benefits:

- Improves safety by eliminating a signal at US 93 and Railroad Pass Casino.
- Improves operations for Trucks from US 95 to US 93.
- Improves operations for peak trips from Boulder City to Las Vegas.
- Improves local circulation.
- Completes initial bypass phase.

What's Changed Since Last Update?

- Scope - No change
- Schedule - Moved forward one year. Final Design to be complete 2012
- Cost - Cost range changed based on new engineering estimate.
- Packages 3 and 4 were once packaged together but have now been separated
- Packages 2 and 3 will be combined and are slated for delivery in 2012

Project risks:

- Concurrent utility relocations may affect schedule.
- Unit price and property escalation may affect project cost.
- Construction is not funded
- Resource conflict with other on-going projects.
- Right-of-Way acquisition schedule

Financial Fine Points(Key Assumptions):

- Total funding Expended (Engineering & Right-of-Way): $3,653,532
- Total funding Expended for BC Bypass Environmental studies (all phases): $5,199,679
- Inflation escalation (4%) is to 2013 approximate midpoint of construction
- Additional Federal, State, Local, and Regional Funding will be required

% Design Complete 0 50 100

% Row Complete 0 50 100

July 2011

NEVADA DOT

I 515 / US 93 / US 95 Boulder City Bypass - Phase 2

US 95 to Hoover Dam Bypass

Project Sponsor: NDOT

Senior Project Manager: Tony Lorenzi, P.E.

(775) 888-7317

Project Description:

- Provide extension of Phase I from US 95 to tie into the Hoover Dam Bypass at Nevada Interchange
- Provide limited access bypass to the south of Boulder City for US 93 traffic
- 4 lane divided highway facility
- Require several bridge structures over existing access roads and to provide wildlife access
- Project length: 12 miles

Schedule:

Planning:

Completed

Environmental Clearance:

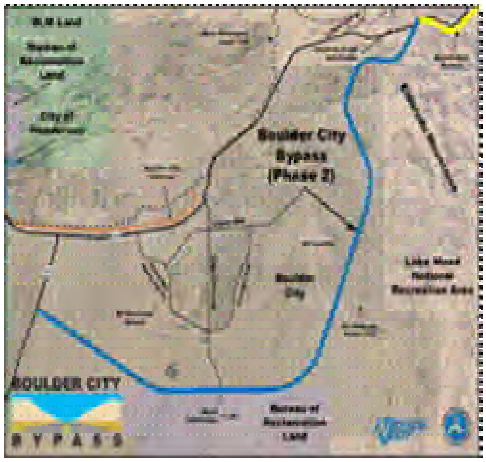
Completed

Final Design:

TBD

Construction:

TBD



Project Cost Range:

(Planning phase estimates):

Engineering:

$15 - $30 million

Right-of-Way:

$2 - $4 million

Construction:

$335 - $820 million

Total Project Cost:

$352 - $850 million

Project Benefits:

- Reduce congestion of US 93 through Boulder City
- Provide additional safety to existing US 93 within Boulder City
- Decrease travel time from Las Vegas to Nevada/Arizona border

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Project unfunded - may delay schedule and increase costs.
- Unit price escalation may affect project cost.
- Difficult design & construction issues in a mountainous terrain may affect cost & schedule.
- A recent Tolling Bill passed which could affect this project delivery

Financial Fine Points(Key Assumptions):

- Total funded Expended (Engineering & Right-of-Way): $3,071,433
- Total funding Expended for BC Bypass environmental studies (all phases): $5,199,679
- Inflation escalation (4%) is to 2027 approximate midpoint of construction.
- Additional Federal, State, Local and Regional Funding will be required.
- Tolling Bill was passed enabling project to be privately funded

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2011

US 95 Northwest - Phase 1

Rainbow Boulevard (SR 595) to Ann Road

Project Sponsor: NDOT

Project Manager: Nick Johnson, PE

(775) 888-7321

Project Description:

- This is the first phase of the US 95 Northwest Project that extends from Washington Avenue to Kyle Canyon Road.
- Alleviate congestion within the corridor by increasing capacity.
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Project length: 6.02 miles

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

Complete

Advertise:

Complete

Construction:

Begin August 2010;

Complete 2012

Project Cost Range:

(Construction Phase Estimates):

Engineering:

$3.5 million

Right-of-Way:

$0.1 million

Construction:

$73 - $77 million

Total Project Cost:

$76.6 - $80.6 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Change in site conditions
- Contractor delays

Financial Fine Points(Key Assumptions):

- Total Expended for Construction: $0.4 million
- Total Expended for Final Design: $3.6 million
- Total Expended for Environmental Studies (all US 95 Northwest phases): $4.8 million
- Funding source:
- *$60 million AB 595
- *$42.5 million Federal
- *$2.3 million State

% Construction Complete 0 50 100

July 2011

US 95 Northwest - Phase 2

Ann Road to Kyle Canyon Road (SR 157)

Project Sponsor: NDOT

Project Manager: Nick Johnson, P.E.

(775) 888-7321

Project Description:

- This is the second phase of the US 95 Northwest Project that extends from Washington Avenue to Kyle Canyon Road
- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Project length: 5.55 miles

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

Start 2009-2012

Construction:

TBD

Project Cost Range:

(Environmental Phase Estimates):

Engineering:

$5.5 - $6.5 million

Right-of-Way:

$0, No acquisitions required

Construction:

$75 - $85 million

Total Project Cost:

$81 - $92 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex design issues may impact schedule and scope
- Complex right-of-way and utilities issues may impact schedule and cost

Financial Fine Points(Key Assumptions):

- Total funding Expended for Phase 2: $7,700
- Total funding Expended for US 95 Northwest Environmental Studies (all phases): $5 million
- Inflation escalation (4%) to midpoint of construction in 2015
- Funding source:
- *$230 million AB 595 - full funding not available until 2026
- *$40 million State

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2011

NEVADA DOT

21

US 95 Northwest - Phase 3 Clark County 215 Interchange

Project Sponsor: NDOT and Clark County

Senior Project Manager: Nick Johnson, P. E.

(775) 888-7319

Project Description:

- This is the third phase of the US 95 Northwest project that extends from Washington Ave to Kyle Canyon Rd
- Alleviate congestion within the corridor by increasing capacity
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning
- Construct new system to system interchange at CC 215

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

2009 - 2012

Construction:

TBD

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$13.6 - $14.3 million

Right-of-Way:

$0 - $0.4 Million

Construction:

$219 - $276 million

Total Project Cost:

$233 - $290 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - Clark County has pushed the funding for construction for this project to 2020.
- Cost - No Change

Project risks:

- Cost and schedule impacts of perpetuating local access has yet to be quantified
- Unit price escalation may affect project cost
- Designing Ann Road on ramp/off ramp to function under projected traffic volumes.

Financial Fine Points(Key Assumptions):

- Total funding Expended for Phase 3: $1,006,000
- Total funding Expended for US 95 Northwest Environmental Studies (all phases): $5 million
- Inflation escalation (4%) to midpoint of construction in 2012
- Funding source:
- *$14.7 million State
- *$216 million Local
- *$3 - $60 million unidentified

% Design Complete 0 50 100

% ROW Complete 0 50 100

July 2011

NEVADA DOT

22

US 95 Northwest - Phase 4 Horse Interchange

Project Sponsor: City of Las Vegas and NDOT

City Project Manager: Randy McConnell, P.E.

NDOT Project Manager: Bill Glaser, P.E.

(775) 888-7603

Project Description:

- This is the fourth phase of the US 95 Northwest Project that extends from Washington Ave to Kyle Canyon Road.
- Construct a new interchange on US 95 at Horse Drive to increase capacity and improve safety in response to recent and planned development

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

Complete

Construction:

Complete

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$ 3 million

Right-of-Way:

$13 million

Construction:

$40 - $50 million

Total Project Cost:

$56 - $66 million

Project Benefits:

- Increase capacity
- Improve safety
- Meet stakeholder/public expectations
- Reduce trip times
- Improve driver comfort
- Improve access

What's Changed Since Last Update?

- Scope - No change
- Schedule - construction completed in May 2011.
- Cost - No change

Financial Fine Points(Key Assumptions):

- Total funding Expended by City of Las Vegas for Phase 4: $56.0 million ($11.3 M ROW; $.3 M In-house engineering; $2.4 M Consultant Engineering; $40.5 M Construction) NDOT costs to date $26.5 Million
- Total funding Expended for US 95 Northwest environmental studies (all phases): $5 million
- $4.1 million Federal SAFTEA-LU funds
- $21 million RTC Clark County STP
- $48 million City of Las Vegas

% Construction Complete 0 50 100

July 2011

23

US 95 Northwest - Phase 5 Kyle Canyon Road Interchange

Project Sponsor: City of Las Vegas and NDOT

Senior Project Manager: Nick Johnson, P.E.

(775) 888-7321

Project Description:

- This is the fifth phase of the US 95 Northwest Project that extends from Washington Ave to Kyle Canyon Road.
- Alleviate congestion within the corridor by increasing capacity.
- Provide new and improved freeway connections to improve regional connectivity, consistent with land use planning.
- Construct new interchange at Kyle Canyon Road.

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

TBD

Construction:

TBD

Project Cost Range:

Engineering:

$2.5 - $3 million

Right-of-Way:

$1 - $1.5 million

Construction:

$32 - $36.5 million

Total Project Cost:

$35.5 - $41 million

Project Benefits:

- Increase capacity
- Improve safety
- Improve access
- Meet stakeholder/public expectations
- Reduce trip times
- Reduce vehicle emissions
- Reduce idling
- Beautify corridor
- Improve driver comfort

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Unit price escalation may affect project cost
- Complex design issues may impact schedule and scope

Financial Fine Points(Key Assumptions):

- Total Expended for Final Design: $0 (Design phase not started)
- Total Expended for Environmental Studies (all US 95 Northwest phases): $4.8 million
- Inflation escalation (4%) to midpoint of Construction in 2027
- Funding source:
- *11 million Federal
- *$0.5 million State
- *$6.5 million Local
- *$18.5 million Private

Design complete 0 50 100

ROW complete 0 50 100

July 2011

NEVADA DOT

I 80 Robb to Vista

Project Sponsor: NDOT

Project Manager: Jeff Lerud

(775) 888-7589

Robb to Vista
I-80
Keeping Reno/Sparks Moving

Project Description:

- Make operational and capacity improvements to I-80 from Robb Drive to Vista Blvd.
- Make operational and capacity improvements to the I-80/I-580 interchange (Spaghetti Bowl)
- Early Action and Phase 1 (I-80 Robb to Vista Design-Build) projects from Washoe County Freeway Corridor Study scoping report completed.
- Phase II scoping will commence after completion of the I-80 Robb to Vista design/build project.
-
- Project Length: 10.4 miles

Schedule:

Planning:

2008 - 2012

Environmental Clearance:

TBD

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning Phase Estimates)

Engineering:

$85 - $105 million

Right-of-Way:

$95 - $125 million

Construction:

$900 - $1.1 billion

Total Project Cost:

$1.08 billion - $1.33 billion

Project Benefits:

- Improve operations and capacity along I-80.
- Improve safety
- Provide better connectivity between I-80 and I-580/US 395.
- Accommodate future projected traffic.

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - No change

Project risks:

- Limited Right-of-Way
- Phase II and beyond unfunded- delay in identifying needed funds will affect schedule and increase costs.
- Environmental process not started - Project cost, scope and schedule may be impacted.
- Resources may need to be reallocated to higher priority projects - project cost, scope and schedule may be impacted.

Financial Fine Points(Key Assumptions):

- Total Funding Expended by NDOT: $140, 000
- Inflation escalation (4%) is to 2020 approximate midpoint of construction
- Additional Federal, State, and local funding will/may be required

Planning Complete 0 50 100

July 2011

NEVADA DOT

25

I80 Robb Drive to Vista Boulevard - Design Build (Phase 1)

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud, P.E.

(775) 888-7589

Project Description:

- Procurement & Delivery will be by Design Build method. Make operational and capacity improvements to I-80 from Robb Drive to Vista Blvd.
- Pavement reconstruction from Keytone Avenue to 4th Street.
- ITS infrastructure from Robb to Vista.
- Signing and Striping improvements from Robb to Vista.
- Auxiliary lanes from E. McCarran to Vista.
- Sparks loop ramp (westbound on ramp); Triple lefts (Eastbound off ramp)
- Landscape and Aesthetics from Robb to Vista.
- Project Length: 10.4 miles

Schedule:

Planning:

Complete

Environmental Clearance:

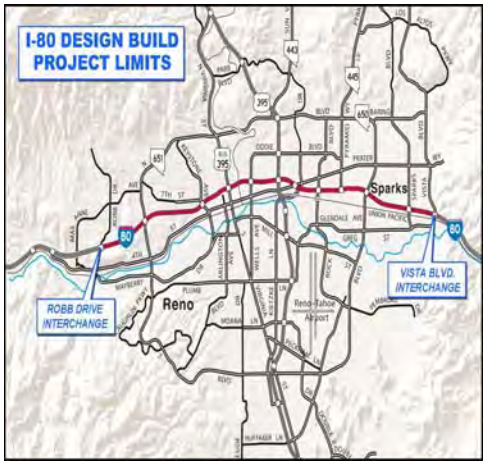
Complete 2nd quarter 2011

Final Design:

Start May 2011, Complete 4th quarter 2011

Construction:

Start May 2011, Complete 4th quarter 2012



Project Cost Range:

Engineering/Construction:

$72 - $85 million

Right-of-Way:

$0

Total Project Cost:

$72 - $85 million

Project Benefits:

- Improve operations and capacity along I-80.
- Improve safety.
- Increase mobility.
- Improve ride quality
- Reduce maintenance costs.

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Budget - No change

Project risks:

- Maintenance of traffic: two lanes of traffic open in each direction.
- Environmental requirements may delay project.
- Weather: two seasons of construction.

Financial Fine Points(Key Assumptions):

- Total funding expended: $4,351,000
- Funding source: Federal, State & Local Funds

% Design Complete 0 50 100

% Construction Complete 0 50 100

July 2011

NEVADA DOT

I 580 Freeway Extension

Project Sponsor - Nevada Department of Transportation

NDOT Project Manager - Tony Lorenzi, P.E.

Phone: (775) 888-7317

Project Description:

- 8.5 Miles of new 6-lane controlled access freeway
- Complete Mt. Rose Interchange (SR431) and construct a new interchange at Bowers Mansion Road (SR 429)
- Construct two grade separations and five bridges
- Construct Kelly Canyon Road (frontage road) and Parker Ranch Road to maintain local access at south end of project
- Ten water quality basins for treating storm water runoff

Schedule:

Planning:

Completed

Environmental Clearance:

Completed

Final Design:

Completed

Construction:

Complete 4th quarter 2012

Project Cost Range:

Engineering:

$31 M

Right-of-Way:

$51 M

Construction:

$500 M to $575 M

Estimated Total Project Costs:

$582 M to $657 M

Project Benefits:

- Construction will result in 27 miles of uninterrupted controlled access facility that meets interstate standards
- Will serve as the primary interstate highway for transportation linking Mexico with Canada and a major local arterial
- Will provide only all weather route connection between Carson City and Reno, Sparks & I 80
- Completion will alleviate congestion and explosive growth of over 61,700 vehicles per day predicted to travel in North Carson on I 580/US 395
- Projected to reduce the over 2,570 accidents and 16 fatalities that occurred in a 10 year span within similar limits

What's Changed Since Last Update?

- Scope - No change.
- Schedule - No change
- Cost - No change

Project risks:

- Complex construction in a rural mountainous freeway setting (High)
- Construction in geothermally altered earth (Medium)
- Delays due to weather/temperatures (Low)

Financial Fine Points(Key Assumptions):

- Total Funding Expended - $432,241,127
- Final Design - $6,303,346
- Right-of-Way - $50,021,603
- Constr Engineering - $33,995,452
- Construction - $341,920,726
- Bond Funds
- Inflation escalation (4%) is to 2009 approximate midpoint of construction

% Construction Complete 0 50 100

July 2011

27

US 395 North - McCarran Blvd to Stead Blvd

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud, P.E.

(775) 888-7589

Project Description:

- Widen US 395 to increase capacity and improve traffic operations.
- Modify interchange ramps and cross streets as necessary to improve operations.
- Widen bridge structures at Stead, Lemmon Drive, Golden Valley, UPRR, Virginia Street, Panther Valley, Parr Blvd and Clear Acre Lane if necessary.
- Perpetuate drainage features.
- Replace and install new signs.

Schedule:

Planning:

2011 - 2012

Environmental Clearance:

Start 2012 - 2013

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning Phase Estimates)

Engineering:

$7 - $9 million

Right-of-Way:

$3 - $6 million

Construction:

$70 - $85 million

Total Project Cost:

$80 - $100 million

Project Benefits:

- Relieve heavy peak hour congestion and reduces crashes associated with congestion.
- Reduces travel time.
- Improves overall traffic operations.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Environmental requirements.
- UPRR Clearance and requirements.
- Unknown Right-of-Way and utility impacts.
- Impact of new development in the region.
- Concurrent planning associated with the Pyramid Connector.

Financial Fine Points(Key Assumptions):

- Total funding expended: $50,000
- Inflation escalation (4%) is to 2015, approximate mid-point of construction
- No funding has been identified for this project

Planning Complete: 0 — 50 — 100

July 2011

NEVADA DOT

US 395 Northbound

Moana Lane to I-80

Project Sponsor: NDOT

Senior Project Manager: Jeff Lerud, P. E.

(775) 888-7589

Project Description:

- Widen northbound US 395 to improve traffic operatons from the Moana Lane interchange to the I-80 interchange.
- Widen northbound bridges at Vassar, Mill, Glendale, Truckee River, Kietzke, UPRR, and 4th Street.
- Replace overhead sign structures.
- Perpetuate drainage features.
- Reconstruct northbound ramps at Mill, Glendale, Villanova & I-80.
- Project length: 2.87 miles

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

Complete

Construction:

Begin March 2010 - Complete 4th quarter 2011

Project Cost Range:

(Final Design Phase Estimates):

Engineering:

$9 - $10 million

Right-of-Way:

$2 - $5 million

Construction:

$50 - $60 million

Total Project Cost:

$61 - $75 million

Project Benefits:

- Relieves heavy northbound peak hour congestion and reduces crashes associated with congestion.
- Reduces northbound travel time from 16 minutes to 3 minutes in peak hour from Moana to I-80.
- Improves overall northbound traffic operations and reduces multiple weaves and lane changes at the Spaghetti Bowl interchange.

What's Changed Since Last Update?

- Scope - No change
- Schedule - No change
- Cost - Changed based on bid prices

Project risks:

- Unexpected design or contract document changes during construction
- Private development along the freeway alters the project design and/or construction

Financial Fine Points(Key Assumptions):

- Total funding Expended: $34.9 million.
- Inflation escalation (4%) is to 2011, mid-point of construction.
- Washoe County RTC contributed $20 million towards the project.
- The AB 595 income stream, federal and state funds will be used to fund the rest of the project.

Construction 0 50 100

July 2011

29

SR 445 Pyramid Highway Improvements

Project Sponsor: Washoe County RTC and NDOT

Washoe RTC Project Manager: Doug Maloy, P.E.

NDOT Project Manager: Nick Johnson

Phone: (775) 888-7319

Project Description:

- Calle de la Plato to La Pasada- Transition from 4 Lane Arterial to 6 lane freeway
- La Pasada to Sparks Blvd. - Develop Pyramid alignment into 6 lane freeway with frontage roads.
- Continue 6 lane freeway from Sparks Blvd. to Dics 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.

Schedule:

Planning:

Completed

Environmental Clearance:

2010 - 2013

Final Design:

TBD

Construction:

TBD

Project Cost Range:

(Planning phase estimates)

Engineering:

$40M - $60M

Right-of-Way:

$100M - $150M

Construction:

$410M - $660M

Total Project Costs:

$550M - $870M

Project Benefits:

- Address congestion and safety along the Pyramid Highway and McCarran Blvd. Corridors
- Provide alternative access to freeway system
- Improve safety

What's Changed Since Last Update?

- Scope - No change.
- Schedule - No change
- Cost - No change.

Project risks:

- Construction in a dense urban residential area
- Funding sources for all phases not identified

Financial Fine Points(Key Assumptions):

- Total RTC Funding Expended - $5,245,000
- Inflation escalation (4%) is to 2017 approximate midpoint of construction

% Environmental Complete 0 50 100

% Design Complete 0 50 100

July 2011

NEVADA DOT

US 395 Carson City Freeway - Phase 2B

South Carson Street to Fairview Drive

Project Sponsor: NDOT

Project Manager: Nick Johnson, P. E.

(775) 888-7319

Project Description:

- This project will be delivered in two packages. Phase 2B Package 1 is under construction.
- Phase 2B Package 2 will complete the Snyder Bridge and Drainage for the Southern Portion of the Project
- Phase 2B Package 3 & 4 will complete the remainder of the project
- Construct 3 miles of 4 lane access controlled Freeway which will complete the nine mile system around the state Capitol.
- Complete the interchange at Fairview Drive - providing full traffic movements.
- Construct the South Carson Street Interchange.
- Construct over four miles of sound walls to mitigate traffic noise.
- Construct flood control facilities including detention basins, channels, box culverts, and the Freeway drainage system.
- Project length: 3.37 miles.

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Final Design:

Phase 2B Package 2 - July 2012; Package 3 & 4 TBD

Construction:

TBD

Project Cost Range:

(Final design phase estimates):

Engineering:

$7 - $8 million

Right-of-Way:

$30 - $32 million

Construction:

$100 - $150 million

Total Project Cost:

$137 - $190 million

Project Benefits:

- Relieve traffic congestion on Carson Street through Carson City and local streets along the freeway corridor.
- Reduce travel times through the region.
- Provide flood control protection.
- Improve opportunities for economic development along the corridor and downtown.

What's Changed Since Last Update?

- Scope - Package 2B (Phase 2B-2) will be developed to complete the Snyder Bridge and Southern Drainage
- Scope - Package 3 & 4 will complete the remainder of the Freeway
- Schedule - Package 2 complete in July 2012; Package 3 & 4: TBD
- Cost - No change

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.

Financial Fine Points(Key Assumptions):

- Total funding expended: $33 million
- Inflation escalation (4%) is to 2013, approximate midpoint of construction.
- Construction funds have not been identified for this project.

% Design Complete 0 50 100

% ROW Complete 0 50 100

% Construction Complete 0 50 100

July 2011

NEVADA DOT

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US 395 Carson City Freeway - Phase 2B (Package 1)

Clearview Drive to Fairview Drive

Project Sponsor: NDOT

Project Manager: Nick Johson, P. E.

(775) 888-7319

Project Description:

- Phase 2B is divided into two packages. This is the first package.
- Construct the Clearview Drive & Koontz Lane Bridge Structures & Edmonds Flood Control Channel
- Relocate major utilities within this area of the corridor in advance of the construction contract.
- Close Valley View Drive & Colorado Street at the freeway right-of-way limits.
- Project length: 1.51 miles

Schedule:

Planning:

Complete

Environmental Clearance:

Complete

Design:

Complete

Construction:

Start 2nd quarter 2010 - Complete 1st quarter 2012

Project Cost Range:

(Final Design phase estimates)

Engineering:

$0.4 - $0.5 million

Right-of-Way:

$1 - $1.5 million

Construction:

$10 - $12 million

Total Project Cost:

$11.4 - $14 million

Project Benefits:

- Advance the construction of the project towards completion of the entire route.
- Provide flood control & protection for the community west of the freeway corridor.
- Relocation of the existing utilities will clear the way for future construction contracts.

What's Changed Since Last Update?

- Scope - No change
- Schedule - No Change
- Cost - No change

Project risks:

- Concurrent utility relocation will be required and could delay other construction activities.
- Public acceptance of traffic management, dust and noise during construction.

Financial Fine Points(Key Assumptions):

- Total funding expended: $7 million
- Inflation escalation (4%) is to 2011, approximate midpoint of construction.
- Funding - Federal STP Statewide

Construction 0 50 100

July 2011

NEVADA DOT

I 580 at Meadowood Mall Way

Project Sponsors: Washoe County Regional Transportation Commission and Nevada Department of Transportation

Washoe RTC Project Manager: Michele Dennis, P.E.

Phone: (775) 335-1861

NDOT Project Manager: Adam T. Searcy, P.E.

(775) 888-7597

Project Description:

- Construct grade separation at I 580 and Meadowood Mall Way.
- Extend Meadowood Mall Way from S. Virginia Street to Kietzke Lane.
- Add I 580 southbound off- and northbound on-ramps at Meadowood Mall Way.
- Add frontage roads between Neil Road and Meadowood Mall Way.

Schedule:

Planning:

Completed

Environmental Clearance:

Completed

Final Design:

Completed

Construction:

Complete, 3rd quarter 2012

Project Cost Range:

(Design phase estimates):

Engineering:

$7 million

Right-of-Way:

$5 million

Construction:

$22 - $24 million

Total Project Cost:

$34 - $36 million

Project Benefits:

- Accommodate present and future traffic demand entering and exiting I 580.
- Reduce traffic volumes at the on- and off-ramps in the project area.
- Improve the levels of service (LOS) at several key intersections in the project area.
- Provide additional Freeway access to reduce the volume of traffic using the south Virginia Street ramps.
- Reduce traffic at the intersection of South McCarran Blvd./South Virginia Street.
- Improve traffic circulation on arterial streets in the area.

What's Changed Since Last Update?

- Scope - No Change
- Schedule - No Change
- Cost - No Change

Project risks:

- Complex construction in an urban/retail commercial area.
- Complexity in maintaining traffic, and reducing impacts to retail businesses.
- Simultaneous construction adminstered by RTC in project limits.

Financial Fine Points(Key Assumptions):

- $22 million ARRA Federal Stimulus Funds applied to awarded Contract 3389

Construction 0 50 100

July 2011

33

I 15 West Mesquite Interchange Design-Build

Project Sponsor: City of Mesquite

Project Manager: Adam T. Searcy, P.E.

(775) 888-7597

Project Description:

- Reconstruct existing interchange
- Widen Falcon Ridge Parkway
- Extend Falcon Ridge Parkway to the south

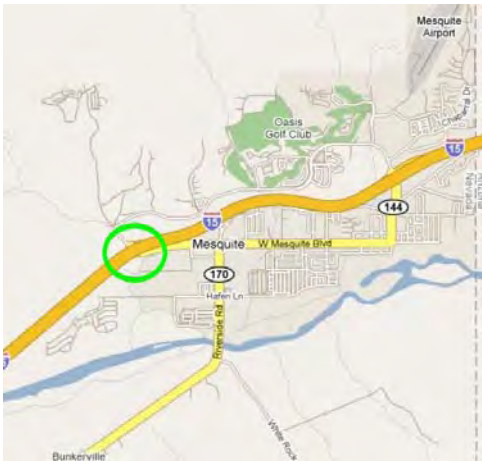
Schedule:

Planning:
Complete

Environmental:
Complete 1st Quarter 2011

Final Design:
Complete in 2011

Construction:
2011-2012



Project Cost Range:

Engineering:
$1 - $2 Million

Right of Way:
N/A

Construction:
$14.5 - $16 Million

Total Project Costs:
$18 - 21 Million

Project Benefits:

- Improves interchange operations
- Improve safety

What's Changed Since Last Update?

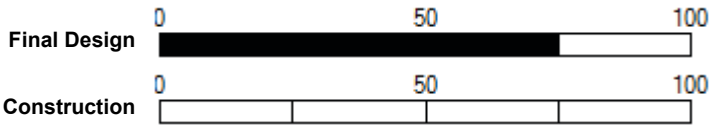
- Scope: No Change
- Schedule: No Change
- Budget: Best Value Total Price has been received

Project risks:

- Right-of-way is being donated by the City of Mesquite

Financial Fine Points(Key Assumptions):

- Funding Agreement in place with Southern NV RTC
- Federal earmark for the project to be used in construction



July 2011

NEVADA DOT

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 Board 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. The policy that governs the analysis of benefits and costs, TP 1-11-1, is included at the end of the section entitled Discussion of the Calculations of Costs and Benefits.

The B/C ratios for several projects have been determined in FY 2008, 2009, 2010 and 2011 using a software package called STEAM (Surface Transportation Efficiency Analysis Model). This package is described in the next section entitled Discussion of the Calculations of Costs and Benefits including the data requirements, and limitations of the STEAM analysis in particular and B/C ratio calculations in general.

The following table reports the B/C ratio of a total of 10 projects that are in the Transportation System Projects document. The table reports results of the analysis: net present value of B/C ratio at a 7 percent discount rate.

Blue Ribbon Task Force Projects (FY 2008)	NPV B/C*
I-15 South Corridor – Tropicana Avenue to Sloan Road	4.11
US 95 Northwest Corridor – Rainbow Blvd to Kyle Canyon Road	3.63
I-15 North Corridor – Spaghetti Bowl to Apex	3.39
I-15 – NEON (Sahara Avenue to Spaghetti Bowl)	1.97
I-515 – Spaghetti Bowl to Foothills Road	1.94
Other Major Projects (FY 2009)	NPV B/C*
US 395 – Moanna to I-80 Northbound Add Lane	2.34
US 395 – Carson City Freeway (1996 updated in 2009)	4.44
Other Major Projects (FY 2010)	NPV B/C*
I-80 – Design-Build	3.57
Other Major Projects (FY 2011)	NPV B/C*
I-580/Meadowood Complex Improvements	2.70
I-215/ Airport Connector Interchange	3.08

*Notes: NPV B/C – net present value of benefit/cost ratio at a 7 percent discount rate

Benefit-cost analyses were done on all these major projects either as part of a larger corridor study or on an individual project basis. Please refer to page 124 calculated benefit-cost ratios. A B/C ratio was developed for Boulder City Bypass Phase I project; however, a special study is underway due to anticipated funding limitations that might substantially change the project scope. There are several other large capacity projects that are not contained within the Transportation System Projects document or have not advanced enough to establish a project scope sufficient to conduct and report a B/C ratio. They include:

- Beltway Interchanges – US-95, I-15 & Summerlin Parkway (B/C analyses for US-95 and I-15 included interchanges with the Beltway.)
- Boulder City Bypass Phase II
- I-80 – Robb Drive to Vista Boulevard
- US-395 – Spaghetti Bowl to Stead Boulevard
- Pyramid Highway – Nugget Avenue to Calle De La Plata
- US 395 Corridor in Douglas County

The project costs included: accidents/crashes, fuel consumption, non-fuel vehicle operating, travel time, construction, maintenance and operation, and emissions. .

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 Jules Dupuit, a French engineer, 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 been helpful to assist assessing the cost effectiveness of public projects. For the private sector, normally economic efficiency is the primary objective, but the public sector needs to consider economic equity as well. As the social and environmental factor 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 benefits, motor vehicle emissions and cost benefits, vehicle operating cost benefits, capital cost. In addition, the results of the analyses are presented as well as limitation with the B/C analysis.

Input

Travel Time Benefits

Highway speeds, volumes, vehicle occupancy rates came from the Regional Transportation Commissions and Metropolitan Planning Organizations regional travel demand models. For the value of travel time, the personal travel was 50% of local median wage while business travel by truck/bus drivers was 100% of the mean wage for these occupations plus fringe benefits. The wage values were obtained from BLS website. A 50% fringe was used because it was an average of several labor groups. The same data were obtained for Carson City/Douglass County and Washoe County, and identical calculations were performed. All the inputs shown below are representative values. Actual values may be different.

Table E-1 Travel Cost and Vehicle Occupancy

Location	Personal Travel	Business Travel	Vehicle Occupancy
Clark County	$7.62	$34.92	1.45
Carson City/Douglas County	$10.92	$25.96	1.49
Washoe County	$7.94	$31.82	1.41

Crash Benefits

The freeway and expressway, with controlled access, crash rates are normally lower than local streets and roads that had little or no access control. Consequently, by increasing freeway capacity more travelers will benefit from lower accident rates. The rates are illustrated in Table E-2.

Table E-2 Nevada Crash Rates by Highway Functional Classification

URBAN FUNCTIONAL CLASSIFICATION	P.D.O. CRASH RATE [1,2]	INJURY CRASH RATE [1]	FATAL CRASH RATE [1]
INTERSTATE	30.5	11.3	0.1
PRINCIPAL ARTERIAL OTHER FREEWAYS & EXPRESSWAYS		14.6	0.1
PRINCIPAL ARTERIAL-OTHER	192.6	129.1	1.0
MINOR ARTERIAL	210.0	145.3	1.1
COLLECTOR	268.1	197.6	1.1
LOCAL	220.9	133.1	1.1

Note: [1] Property Damage Only [2] Number of crashes in 100 million vehicle miles of travel

The total cost of accident types is contained in Table E-3. These costs were derived from Highway Safety Manual.

Table E-3 Accident Cost Assumptions

Accident Type	Cost
Fatality	$ 4,008,900
Injury	$ 113,300
Property Damage Only	$ 7,400

Motor Vehicle Emissions and Cost

The rate of motor vehicle emissions and associated health cost were derived from California Office of Transportation Economics (http://www.dot.ca.gov/hq/tpp/offices/ote/benefit_cost/eab-econ-valuations.html).

Table E-4 Vehicle Emission Health Cost

Emission Type	Cost (Dollars/Ton)
Carbon Monoxide (CO)	$135
Fine Participates (PM10)	$456,500
Nitrogen Oxides (NOx)	$55,700
Sulfur Oxide (SOx)	$171,500
Volatile Organic Compounds (VOC)	$3,465

Vehicle Operating Costs

The consumption of fuel was determined by the average speed and the zone to zone distances. The fuel consumption rates were based on data from California Air Resources Board and expressed as gallons per mile and is a function of speed.

Cost of Fuel

- Mid-Grade Fuel: $3.75/gallon. Source: AAA Daily Fuel Gauge Report, Nevada Metro Averages. http://fuelgaugereport.opisnet.com/NVmetro.asp
- Diesel fuel: $3.92/gallon. Source: AAA Daily Fuel Gauge Report, Nevada Metro Averages. http://fuelgaugereport.opisnet.com/NVmetro.asp

Non-fuel Operating Costs	Car ($/mile)	Truck ($/mile)
Tires	$0.0096	$0.0230
Depreciation	$0.2485	$0.3207
Maintenance	$0.0444	$0.1030
Insurance	$0.0645	$0.0640
License, Registration, Taxes	$0.0397	$0.0210
Finance Charge	$0.0549	$0.1600

Capital Cost

The capital cost included all implementation costs, but not any maintenance and repair costs. Likewise transit service costs were not included.

Results

The results of the analysis of benefits and cost are shown below in Table E-5. The discount rate of 7% was use because of OMB (Office of Management and Budget) Circular A-94. The 7% rate "approximates the marginal pretax rate of return on an average investment in the private sector in recent years."

Table E-5 RESULTS OF THE COST-BENEFIT ANALYSES

Blue Ribbon Task Force Projects (FY 2008)	NPV B/C*
I-15 South Corridor – Tropicana Avenue to Sloan Road	4.11
US 95 Northwest Corridor – Rainbow Blvd to Kyle Canyon Road	3.63
I-15 North Corridor – Spaghetti Bowl to Apex	3.39
I-15 – NEON (Sahara Avenue to Spaghetti Bowl)	1.97
I-515 – Spaghetti Bowl to Foothills Road	1.94

Other Major Projects (FY 2009)	NPV B/C*
US 395 – Moana to I-80 Northbound Add Lane	2.34
US 395 – Carson City Freeway (1996 updated in 2009)	4.44

Other Major Projects (FY 2010)	
I-80 – Design-Build - Present value cost	$79.8 million
I-80 – Design-Build - Present value benefit	$285.0 million
I-80 – Design-Build - Net present value	$205.2 million
I-80 – Design-Build - Benefit-cost ratio	3.57

*Note: NPV B/C – net present value of benefits and costs that determine the B/C ratio at 7% discount rate

Limitations

As stated earlier, there are some costs that were not included, namely, transit and highway maintenance, which will need consideration at times. Future B/C ratios calculations by the Department will include these items when appropriate. However, there are also other limitations to the B/C ratio calculations that deserve consideration on many projects. 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 is the management of roadway assets, which includes but also transcends the maintenance activities. This factor may be called 'roadway preservation' in which the financial impact construction has on roadway preservation is determined.

The third limitation deals with the system impact of large highway capacity projects. Correcting a significant urban freeway congestion problem at a particular 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. Consequently, at least one area wide factor is needed to address the system wide impacts. One of the Department's new performance measures is: percent of daily vehicle miles of travel at Level of Service E or worse. This measure is called the 'system congestion index'.

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.

The selection of discount rates is a limitation because they are the subject of debate. Nationally, discount rates vary from zero to 7% and sometimes higher. Modeled national inflation rates fluctuate considerably as well; however, NDOT staff believes that the spread between inflation and the discount rate is the important factor. NDOT staff has modeled the discount rate from 0% to 4% higher than inflation and performed sensitivity analyses on a wider range. In most cases, the discount rate and the inflation rate have very little impact on the results of the benefit/cost analysis. The discount rate of 7% is use because of OMB (Office of Management and Budget) Circular A-94 and is applied to all benefit/cost analyses.

The final limitation is the level of favorable public opinion toward a project. If there is a negative public perception toward a particular 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 Board, comprised primarily of elected officials, provides oversight on the project selection process. The Board annually approves the Transportation System Projects, which contains the Statewide Transportation Improvement Program (STIP), Annual Work Program, and Short and Long-Range Elements. Upon its approval in the fall of every year, the Transportation System Projects document is forwarded to the U.S. Department of Transportation for final approval.

Project priority rationale should be guided by our "Statewide Long-Range Transportation Plan" containing 'Guiding Principles' that provide policy guidance for the development and operation of the Nevada Transportation System. These guiding principles include the following topics: 1) Safety, 2) Mobility and Accessibility, 3) Environmental Stewardship, 4) Fiscal Responsibility, 5) Freight Movement, 6) Asset Management, and 7) Customer Service. For the purpose of this discussion, these principles that directly affect the transportation system are characterized as follows:

1) Safety – To improve the safety of all modes of travel
2) Mobility – To provide a multimodal, interconnected and efficient system
3) Environmental – To ensure the system is considerate to the human and natural
4) environment
5) Fiscal Responsibility – To maximize the transportation funding and invest it wisely
6) Freight Movement – To improve the safety and efficiency of motor carriers
7) Asset Management – To protect the transportation system assets

The following subsections describe the more significant funding programs used by the Department to follow the guiding principles of the Statewide Long-Range Transportation Plan. The programs include: Capacity Projects, Bridge, State Highway Preservation, Highway Safety Improvement, and Transportation Enhancement.

CAPACITY PROJECTS PROGRAM

The Department cooperates in the development and ensures adoption of Regional Transportation Plans and Regional Transportation Improvement Programs in Nevada. Projects within the jurisdiction of the four Metropolitan Planning Organizations must be included within the Transportation System Projects document without change from regional planning documents approved by the Metropolitan Planning Organizations.

The Department evaluates the capacity project budget by focusing on that portion of the Department budget that is both available to apply towards capacity projects and under the direct control of the Department. This "Potential Capacity Budget" is calculated by adding federal and state components that meet the above criteria. With the approval of the 2007 AB 595, the Department now requires a benefit/cost analysis on capacity improvement projects that cost at least $25 million. In addition, the Department requires that major projects included in the Transportation System Projects document be evaluated by standard criteria including project feasibility.

As of 2005, entities not within Metropolitan Planning Organizations' jurisdictions are requested to submit a Project Submittal Application for proposed transportation improvement projects. Applications are due to the Program Development Division by January 1. Those projects submitted for consideration are evaluated by a project evaluation team utilizing criteria based on current conditions, project impact, and project complexity. Using these criteria, proposed transportation improvement projects are ranked and submitted to the Director for consideration. The Director recommends the selection of projects advancing into the Annual Work Program of the Transportation System Projects document.

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 Highway Bridge Program 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. A minimum of fifteen percent of the federal funds must be applied to bridges off the federal-aid system. The remaining balance of federal funds may be applied to bridges on the federal-aid system. Bridges on federal and tribal lands are also eligible but are neither authorized nor administered by the Department.

There are approximately 1819 bridges open to the public in Nevada that are owned and maintained by the Department and local agencies. Additionally, several bridges are owned and maintained by federal agencies and a few by private entities. Of the State and Local bridges, 96 are currently eligible for federal funding. Eligibility and the priority of replacement and rehabilitation projects are based on a bridge's Sufficiency Rating. The Sufficiency Rating is a numerical assessment of a bridge's serviceability, and is calculated based on a compilation of select inventory data and condition assessment data. The importance of a bridge to the transportation system and rate of deterioration are also considered when selecting replacement and rehabilitation projects.

STATE HIGHWAY PRESERVATION PROGRAM

The Department maintains 5,376 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 58 percent of Nevada's traffic and 87 percent of the heavy trucks. The Department is responsible for protecting highway assets and preserving existing highways. Highway assets are managed using two systems: a pavement management system and a bridge inventory system. Both systems provide an inventory of existing assets, their condition, needed repairs, and repair priorities. The basic principle of pavement preservation is that timely lower-cost improvement will save money and better serve the public. For example, timely overlays will cost about 25 percent of the cost of waiting a few more years when reconstruction is necessary. At present, approximately $300 million is needed annually for pavement preservation projects to maintain the present quality of highway pavements. 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:

To apply timely overlays on Interstate and other Principal Arterials, Minor Arterials, and other moderate to high volume roads.

To further develop economical repair strategies for our low-volume roads.

To 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 overall objective of the Highway Safety Improvement Program is to implement effective safety measures that reduce the number and severity of crashes on Nevada highways. The Highway Safety Improvement Program consists of several components, namely:

1) Collecting and maintaining data files for crashes, traffic volumes, and highway features.
2) Analyzing data files to determine high crash sites
3) Conducting engineering studies of high crash locations in order to develop highway safety improvements.
4) Establishing priorities for implementing safety improvements.
5) Programming and implementing highway safety improvement projects.
6) Evaluating crashes before and after the implementation of safety improvements.
7) Determining the overall effectiveness of the prescribed safety improvements.

The Department also cooperates with the agencies listed below to implement the Nevada Strategic Highway Safety Plan.

- Department of Health/Bureau of Family Health Services

- RTC of Washoe County
- Department of Public Safety/Office of Traffic Safety Department of Public Safety/Nevada Highway Patrol
- Federal Motor Carrier Safety Administration
- Department of Motor Vehicles
- Federal Highway Administration
- Nevada Sheriffs' and Chiefs' Association
- RTC of Southern Nevada
- Nevada Association of Counties

TRANSPORTATION ENHANCEMENT PROGRAM

The Transportation Enhancement Program requires that ten percent of the Federal Surface Transportation Program (STP) monies apportioned to each state be set aside for the funding of enhancements to the transportation system. Transportation Enhancement Program funding includes activities such as:

- Pedestrians and bicycles facilities
- Safety and educational activities for pedestrians and bicyclists
- Acquisition of scenic easements and scenic or historic sites
- Landscaping and other scenic beautification
- Rehabilitation of historic transportation buildings, structures, or facilities
- Environmental mitigation of water pollution and habitat connectivity
- Establishment of transportation museums

Local governments, state agencies, and federal agencies may submit applications for project funding. Private groups may apply for project funding, but must apply through a public entity or agency. Projects must be for one of the categories specified by law and must be related to surface transportation.

Enhancement projects are prioritized for funding by the Statewide Transportation Technical Advisory Committee. Members of this committee represent a wide range of transportation interests, including several local, state, and federal agencies. Within the urbanized area, the Metropolitan Planning Organizations initially prioritizes projects in their jurisdictions. A subcommittee of the Statewide Transportation Technical Advisory Committee prioritizes projects from the non-urbanized areas of the state. The Statewide Transportation Technical Advisory Committee approves and recommends to the Director a final priority list of projects. Upon the Director's approval, the enhancement projects are included in the Statewide Transportation Improvement Program (STIP).

APPENDIX C

PERFORMANCE MANAGEMENT PLAN

INTRODUCTION

The Department has developed performance measures among the four major divisions that were developed to support the achievement of the seven Department Strategic Plan Goals, which are to:

1) Optimize safety
2) Be in touch with and responsive to our customers
3) Innovate
4) Be the employer of choice
5) Deliver timely and beneficial projects and programs
6) Effectively preserve and manage our assets
7) Efficiently operate the transportation system

These performance measures are designed to quantify progress in meeting those goals. The fifteen performance measure topics are listed below. The following performance measures plan includes the actual performance measures, annual and ultimate targets, the performance measure champions, brief discussion of the strategy plan support, measurement and supporting data, and short and long range strategies. Additionally, an annual evaluation of the performance measures is included.

ADMINISTRATION DIVISION

Reduce Work-Place Accidents

Provide Employee Training

Improve Employee Satisfaction

Streamline Agreement Execution Process

Improve Customer Outreach/Satisfaction

PLANNING DIVISION

Reduce Congestion on the State System

OPERATIONS DIVISION

Streamline Project Delivery: Schedule and Estimate from Bid Opening to Construction Completion

Maintain State Roadways

Maintain State Fleet

Maintain State Facilities

Provide Continuity of Business Operations

ENGINEERING DIVISION

Reduce Fatal Crashes

Streamline Project Delivery: Schedule And Estimate after NEPA To Bidding

Maintain State Bridges

Streamline Permitting Process

1. REDUCE WORK PLACE ACCIDENTS

Performance Measure:

1) The rate of work place injuries/illnesses per 100 employees.
2) The rate of medical claims per 100 employees for work place injuries/illnesses requiring medical attention.

The rate of injuries is reported as the number of work place injuries and illnesses per 100 employees and number of injuries and illnesses requiring medical attention per 100 employees as documented through annual OSHA 300 Log Reporting data. Data is based on calendar year per federal reporting requirements.

Annual Target: 10 % Reduction **Ultimate Target:** Zero

Division(s) Responsible:

Administrative Services- Safety and Loss Control Manager

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy Plan Support:

Safety extends to all aspects of the Department from the roadways to the office. Identifying and reducing risk to the Department, our employees and the public is continuous. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize Safety and Be the Employer of Choice.

2. PROVIDE EMPLOYEE TRAINING

Performance Measure:

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

Annual Target: 100 %

Division(s) Responsible:

Administrative Services- Employee Development Manager

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy Plan Support:

Competency Training of the workforce keeps employees safe and helps to reduce injuries, lost time, and litigation. Competency Training also provides the skills and abilities to enable employees to achieve higher job performance. This benefits the Department and Nevada's citizens by providing a high-quality and safe transportation infrastructure. This performance measure has a positive impact on all of the Department of Transportation's Strategic Plan goals, especially: Optimize safety, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system. Both NAC and Division Matrix training are addressed by Training Section competency Training programs.

3. IMPROVE EMPLOYEE SATISFACTION

Performance Measure:

Percentage rating obtained from employees' satisfaction surveys.

Annual Target: Overall rating 75% **Ultimate Target:** Overall rating of 80%.

Division(s) Responsible:

Administrative Services- Human Resources Manager

Support Divisions:

All

Strategy 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 a quality staff. A satisfied workforce will excel at their duties. This benefits the Department and our customers. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: optimize safety, be in touch with and responsive to our customers, innovate, be the employer of choice, deliver timely and beneficial projects and programs, effectively preserve and manage our assets, and efficiently operate the transportation system.

4. STREAMLINE AGREEMENT EXECUTION PROCESS

Performance Measure:

Percentage of Agreements executed within 45 days from when division submits agreement to the date when it is fully executed.

Annual Target: 50% **Ultimate Target:** 95%.

Division(s) Responsible:

Administrative Services- Asst. Director Administrative Services

Administrative Services- Chief of Administrative Services

Support Divisions:

All (unless specific agreement types are looked at)

Strategy Plan Support:

Agreements are the core of all of our business practices, and must be completed prior to any action being taken. A delay has a tremendous impact in the operations of the Department. This performance measure works toward meeting the Department of Transportation Strategic Plan goals as follows: Speeding up the agreement process will help deliver timely and beneficial projects and programs. It also assists with being responsive to our customers.

5. IMPROVE CUSTOMER SATISFACTION

Performance Measure:

Numerical ratings obtained from public opinion and customer/user surveys.

Annual Target: Annual increases in public opinion and customer/user ratings.

Ultimate Target: Increases in public opinion and customer/user ratings.

Division(s) Responsible:

Communications Office- Chief of the Communications Office

Strategy Plan Support:

Public opinion and user (customer) surveys will assess public information and outreach activities, customer processes, and how well the Department is performing in the eyes of our customers. This is important so we know that we are doing the right things to be transparent, accountable, and efficient. This performance measure works toward meeting the Department of Transportation Strategic Plan goals to be in touch with and responsive to our customers.

6. REDUCE AND MAINTAIN CONGESTION LEVELS ON THE STATE MAINTAINED ROADWAY SYSTEM

Performance Measure:

Urban roadways – Maintain congestion at Level Service of D for 85% of State urban roadways

Rural roadways – Maintain congestion at Level of Service D for 90% of State rural roadways

Definition of Level of Service D – Roadways operating at up to 8 miles per hour less than the Free Flow Speed or Posted Speed Limit, and the traffic carrying capacity of the roadway is less than 0.9.

Ultimate Target: Reduce congestion by 1% per year to reach the ultimate target of 90% of State urban roadways at Level of Service D, and 95% of State rural roadways at Level of Service D

Division(s) Responsible:

Traffic Information System – Chief Traffic Information System

Performance Analysis – Chief Performance Analysis Engineer

Support Divisions:

Roadway Systems, Location, Maintenance and Operations

Strategy Plan Support:

This performance measure is one of the most important performance indicators of the NDOT maintained roadway system. It integrates the outcome of our overall investments into one measure that is a direct result of the collaborative efforts of the various divisions of NDOT. It will help reduce congestion and will help identify bottleneck locations on the NDOT maintained roadway system, which will be prioritized for improvements depending upon the funding and resources availability. It works towards meeting the Department of Transportation Strategic Plan to efficiently operate the transportation system by reducing the level of congestion and increasing safety.

This Congestion Monitoring System will be an evolving process and will be updated regularly as more data is integrated into it from the RTC's Freeways and Arterials System of Transportation, and the Washoe County's future Traffic Management Center, Synchro models, and other sources as needed.

7. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE FROM BID OPENING TO CONSTRUCTION COMPLETION

Performance Measure:

Percentage of projects within established range of cost estimate and schedule to completion

Annual Target: 80% **Ultimate Target:** 80%

Division(s) Responsible:

Construction- Chief Construction Engineer

Support Divisions:

All

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals by providing timely, beneficial construction projects. This measure helps to optimize safety for road users, be in touch with and responsive to our customers (road users), and efficiently operate the transportation system.

8. MAINTAIN STATE ROADWAYS

Performance Measure:

Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index (IRI) rating of good or fair condition.

Annual Target:

Category 1:	12.5%	$123 million
Category 2:	10.0%	$95 million
Category 3:	8.3%	$71 million
Category 4:	6.7%	$26 million
Category 5:	5.0%	$20 million

Ultimate Target:

Perform annual rehabilitation as necessary to maintain the existing condition of the roadway network and perform rehabilitation necessary to eliminate the accumulated backlog.

Division(s) Responsible:

Materials Division- Chief Materials Engineer

Support Divisions:

Maintenance and Operations, Performance Analysis, Roadway Design and Districts

Strategy Plan Support:

Proactive pavement has a huge benefit in maximizing limited funds. Being proactive instead of reactive is more cost effective (4:1) in utilizing transportation project dollars. Pavement condition is also directly related to user vehicle maintenance and safety, and highway capacity. This performance measure works towards meeting the Department of Transportation's Strategic Plan goals to: optimize safety and be in touch with and responsive to our customers by providing smooth, quality pavements. To effectively preserve and manage our assets is a goal supported by implementing the Department's pavement preservation program.

For the Department to keep current with present roadway conditions, approximately $265 million is needed annually, which averages 8% (centerline miles) of the total system. As of June 30, 2010, 1539 center lane miles, or 29%, of the statewide 5308 center lane miles of NDOT maintained highway are in need of overlay or reconstruction, which totals approximately $960 million in costs (paving/reconstruct and ancillary)

9. MAINTAIN NDOT FLEET

Performance Measures:

1) Percentage of fleet requiring replacement – this measure is the percentage of the fleet that have reached the age or mileage that requires replacement.
2) Percentage of fleet in compliance with condition criteria – this measure is the percentage of the fleet that is maintained as per Department preventive maintenance requirements so that the expected life span of our vehicles is not compromised. As the fleet is maintained on the mileage and/or hourly requirements, compliance has been met.

Annual Target:

1) Declining Rate of 1% per year

2) Increasing rate of 1% per year.

Ultimate Target:

1) 10%

2) 95% rate of compliance for mileage/hourly requirements

Division(s) Responsible:

Equipment Division- Equipment Superintendent

Support Divisions:

Districts, Divisions

Strategy Plan Support:

The vehicles in the fleet are important to deliver projects and maintain a safe highway system. Equipment in good condition ensures the ability to perform NDOT's business practices and provides a safe and secure tool for staff. These performance measures work towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

10. MAINTAIN NDOT FACILITIES

Performance Measure:

Percentage of building facilities that comply with regulatory building and safety codes.

Annual Target: Increase by 3% **Ultimate Target:** 100%

Division(s) Responsible:

Maintenance and Operations- Chief Maintenance Operations Engineer

Support Divisions:

Districts, Administrative Services

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Be the employer of choice, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

11. EMERGENCY MANAGEMENT, SECURITY AND CONTINUITY OF OPERATIONS

Performance Measure:

Percent of emergency plans that have been completed, training and education have been provided to appropriate personnel, the plans have been tested and exercised and the plan has been updated to accommodate changes in departmental processes, federal guidelines, etc. Training and updates should be completed on a biennial basis. Plans include:

Continuity of Operations Plan

State Level Emergency Operations Plan

District Level Emergency Operations Plan

Southern Nevada Evacuation Plan

Infrastructure Security Plan

Mobile Fleet Security Plan

Department Buildings and Facilities Access Management Plan

Annual Target: 75%

Ultimate Target: 100%

Division(s) Responsible:

Maintenance and Operations- Chief Maintenance Operations Engineer

Support Divisions:

All

Strategy 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. Being prepared and ready for an emergency is paramount for keeping systems operating during such times, as well as being in a position to respond to health and safety issues. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to:

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

12. REDUCE FATAL CRASHES

Performance Measure:

Number of fatalities on Nevada's streets and highways.

Annual Target: Average annual decrease of the five year rolling average by 3.1% resulting in halving traffic fatalities and serious injuries by 2030.

Ultimate Target: Zero

Division(s) Responsible:

Safety Division- Chief Traffic/Safety Engineer

Support Divisions:

All

Strategy Plan Support:

All drivers and highway system users should expect a safe highway system. Through efforts of engineering, enforcement, education, emergency response and the will of the highway users, fatal crashes can be eliminated. The strategies for this performance measure will be based on the Nevada Strategic Highway Safety Plan. This performance measure also works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Be in touch with and responsive to our customers, Innovate, Deliver timely and beneficial projects and programs, Effectively preserve and manage our assets, and Efficiently operate the transportation system.

13. STREAMLINE PROJECT DELIVERY: SCHEDULE AND ESTIMATE AFTER NEPA APPROVAL TO BIDDING

Performance Measure:

Percentage of projects completed within range of established estimate and schedule after the environmental process.

Annual target: Reduce number of projects falling outside of estimated schedule range by 25% starting in fiscal year 2009. Improve number of projects falling within the estimated budget range by 25% in FY 2011.

Ultimate Target: 100% of projects completed in the scheduled fiscal year and falling within the estimated budget range.

Division(s) Responsible:

Project Management Division- Chief of Project Management

Roadway Design Division- Chief Roadway Design Engineer

Support Divisions:

All units within the Department that are involved with project development.

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Be in touch with and responsive to our customers, Deliver timely and beneficial projects and programs, Optimize safety and effectively preserve and manage our assets. Goals are met by:

- Keeping NDOT customers appraised of project risks, opportunities, costs, scope and scheduling issues;
- Implementing standards to improve communication, coordination, and decision making resulting in efficient delivery of projects;
- Focusing and managing available resources towards implementing projects that preserves NDOT's assets, improves safety and relieves congestion.

14. MAINTAIN STATE BRIDGES

Performance Measure:

Number of Department owned bridges which are eligible for federal funding and are categorized as structurally deficient or functionally obsolete. Base figure is 37 of 1,704 bridges (*State Highway Preservation Report – 2007)*. Eligibility and priority for funding projects under the Bridge Program are based on a bridge's Sufficiency Rating. The Sufficiency Rating is a numerical assessment of a bridge's serviceability and is based on condition assessment inspection and inventory data. Its value varies from 0 to 100, with 100 representing no deficiencies. A bridge is eligible for replacement when its Sufficiency Rating is less than 50 and is eligible for rehabilitation when its Sufficiency Rating is less than 80. In addition to meeting the Sufficiency Rating requirement, a bridge must also be classified as either Structurally Deficient or Functionally Obsolete. A bridge is considered Structurally Deficient when key elements reach an established level of deterioration. A bridge is considered Functionally Obsolete when it no longer adequately serves the road it carries.

Annual Target: Reduce the number of Department owned structurally deficient or functionally obsolete bridges one bridge annually.

Ultimate Target: Zero

Division(s) Responsible:

Structures Division- Chief Structures Engineer

Support Divisions:

Design, Project Management, and Districts

Strategy Plan Support:

This performance measure works towards meeting the Department of Transportation Strategic Plan goals to: Optimize safety, Innovate, Deliver timely and beneficial projects and programs, and effectively preserve and manage our assets. These goals can be met in the following ways: Safety for the motoring public will be optimized by replacing structurally deficient and rehabilitating functionally obsolete bridges. The Structures 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 effectively preserve and manage Department assets.

15. STREAMLINE PERMITTING PROCESS

Performance Measure:

Percentage of permits issued or rejected within 45 days of receipt.

Annual Target: 95% **Ultimate Target:** 95%

Division(s) Responsible:

Right of Way Division- Chief of Right of Way

Support Divisions:

Districts, Project Management, Design, Traffic/Safety and Others as needed

Strategy Plan Support:

Every encroachment to connect or work on state right of way requires a permit. This is a large area of our customer service. We must be assured the impact to the system is safe and will not negatively compromise the system, but we must meet the customer's needs for a timely response for their economic development. The majority of permits are relatively simple; however some are very complicated and require an extended technical review, thus the reason for the goal being less than 100%. Current estimates are that 90% of permits are issued or rejected within 60 days. This performance measure works towards meeting the Department of Transportation Strategic Plan goals to Optimize safety, Be in touch with and responsive to our customers, Innovate, and Deliver timely and beneficial projects and programs.

APPENDIX D

LAS VEGAS CONVENTION AND VISITORS AUTHORITY

FUNDED PROJECTS

NEVADA DEPARTMENT OF TRANSPORTATION
LAS VEGAS CONVENTION AND VISITORS AUTHORITY FUNDED PROJECTS
Information as of October 4, 2011

Summary of AB595 bonding revenues programmed or scheduled to date:

Budget Account 4665 Rev Code 4118 - AB595 LVCVA Bond Reimb. Received to Date: $223,849,962

* *Projects Programmed (P); Scheduled (S); Contract Price (C):*

	PCEMS #	EA #	Location	Description		Amount
(C)	1-03344	60405	I 15 From Blue Diamond Road (SR 160) to Tropicana Avenue (SR 593). Design-Build South	Capacity Improvements, New Ramps and Collector-Distributor Roads.	$	254,637,263
(P)	1-03344	73423	I 15 From Blue Diamond Road (SR 160) to Tropicana Avenue (SR 593). Design-Build South	Capacity Improvements, New Ramps and Collector-Distributor Roads.	$	6,050,000
				Total	**$**	**260,687,263**

Note: Bond Revenue to be reimbursed upon NDOT expenditure & billing.

I-15 Design-Build South Projects (60405 & 73423) are not to exceed $273,545,000 total in LVCVA bonding funds.
Balance of 595L funds under agreement for I-15 Design Build South equals $12,857,737

I 15 South - Phase 1A

From Blue Diamond Road to Tropicana Avenue

Project Sponsor: NDOT

Asst Chief Project Management: John Terry, P.E.

(702) 671-6601

Project Description:

- This is the 1st Phase of the I 15 South Project, from Silverado Ranch Road To Tropicana Avenue (3.86 miles).
- Add collector-distributor lanes from Blue Diamond Road to Tropicana Avenue.
- Braid collector-distributor roads to eliminate weaves between I 215 and Tropicana Avenue.
- Construct Sunset Road Bridge over I 15 and reconstruct Warm Springs Bridge over I 15.
- Delivery and Procurement by Design-Build method.

Schedule:

Planning:
Complete

Environmental:
Complete 2009

Final Design:
2009 - 2011

Construction:
2009 - 2012

Project Cost Range:

Engineering:
$11 - 12 million

Right-of-Way:
$0

Total Estimated Project Cost:
$290 - $294 million

Project Benefits:

- Provide additional capacity on I 15
- Reduce operational conflicts between Blue Diamond Road, I 215, Harmon Avenue and Tropicana Avenue
- Improve east-west access across I 15
- Reduce collisions
- Improve transportation system performance

What's Changed Since Last Update?

- Scope - No change
- Schedule: No Change
- Cost- No Change

Project risks:

- Major Project Plan required
- New bridges over UPRR require close cooperation
- Tight Right of Way (ROW)
- Difficult schedule for Design-Build process
- Working within Clark Co. ROW
- Working within UPRR ROW

Financial Fine Points(Key Assumptions):

- Total funding expended Environmental Study: $3.5 million
- Total funding expended Phase 1A: $214.7 million
- Project funding source: AB 595 (LVCVA via Bonding, Clark County, and State)

% Design Complete 0 50 100

% Construction Complete 0 50 100

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NEVADA DOT

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