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We have completed an audit of the Department of Transportation. This audit is part of the ongoing program of the Legislative Auditor as authorized by the Legislative Commission. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions. The results of our audit, including findings, conclusions, recommendations, and the Department's response, are presented in this report.

We wish to express our appreciation to the management and staff of the Department of Transportation for their assistance during the audit.

Respectfully presented,

Paul V. Townsend, CPA
Legislative Auditor

September 13, 2010
Carson City, Nevada

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

AUDIT REPORT

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EXECUTIVE SUMMARY

DEPARTMENT OF TRANSPORTATION

Background

The mission of the Department of Transportation is to provide a better transportation system for Nevada through unified and dedicated efforts. It is responsible for the planning, construction, operation, and maintenance of the 5,400 miles of roadway and over 1,000 bridges that make up the state highway system.

The Department's revenues and expenditures are recorded in the State Highway Fund. The main funding sources for the Highway Fund are: (1) state fuel and motor vehicle taxes and fees, and (2) fuel tax and other highway-user revenue collected by the Federal Government. Federal funds are available to reimburse expenditures on approved projects. In fiscal year 2010, the Department's funding was about equally split between the two funding sources mentioned above. The Department had 1,660 positions filled as of June 2010, excluding temporary and seasonal employees.

A seven-member Board of Directors oversees the Department's operations. The members consist of the Governor, Lieutenant Governor, Attorney General, State Controller, and three members appointed by the Governor. The Board selects a person to be the Director of the Department. Among its oversight duties, the Board considers all matters relating to the general policy of the Department.

Purpose

The purpose of this audit was to determine if the Department (1) awarded design-build projects in accordance with laws and prudent contracting practices, (2) reported performance measurement results and benefit-cost analyses to oversight bodies that were reliable and timely, and (3) used specifications for light and heavy equipment that did

not unnecessarily limit competition. Our audit focused on the two design-build contracts awarded as of May 2010, performance measures and benefit-cost analyses reported for fiscal years 2008 and 2009, and purchases of light and heavy equipment from 2004 to 2009.

Results in Brief

The Department's process for awarding design-build projects has improved in the short time the design-build method has been used by the Department. Its awarding of two design-build projects totaling almost $500 million complied with most state laws and prudent contracting practices. However, further improvements are needed. Specifically, for the first project, the Department did not follow evaluation methods established in the Request for Final Proposals. On the second project, we found the Department did not score proposal cost in a manner consistent with statutory provisions. The Department, based on its legal interpretation, believed its scoring of proposal costs was appropriate at the time. The scoring problem did not affect the outcome of who was awarded the contract. Nevertheless, correcting these problems will help improve transparency and provide additional assurance that contracts are awarded to the proposer offering the best value. Furthermore, complete and timely information about the evaluation of design-build project proposals was not always provided to the Department's Board for its approval. Providing this information will enhance the Board's ability to make critical decisions about the awarding of these projects.

Performance measure results and benefit-cost analyses were not always reliable or consistently provided to the Department's Board and the Legislature. As a result of Assembly Bill 595 (A.B. 595) in the 2007 Session, the Department is required to provide performance measurement and benefit-cost information to these oversight bodies. Information that is not reliable or timely can impact decisions made by the Department's management, its Board, and the Legislature. Although the Department needs

to improve controls over the reliability and timeliness of the information, the extent of information provided by the Department to the Board and Legislature is an improvement over what was available prior to A.B. 595.

The Department did not always follow best practices when preparing specifications for equipment purchases. As a result, the Department used specifications for light and heavy equipment that unnecessarily limited competition. For the approximately $5.6 million in equipment purchases tested, we found equipment specifications included overly restrictive requirements that in many cases targeted specific manufacturers' models or specified brand names. Overly restrictive specifications limit competition, waste bidders' and state employees' time, and often increase the price of equipment purchases. In contrast, we identified examples where other local, state, and federal entities prepare broader specifications that do not include restrictive specifications or use brand names. Department management has made efforts to improve the specifications used for light and heavy equipment purchases, but they recognize the need to take additional action.

Principal Findings

- For the first design-build project performed by the Department (I-15 North), the Department did not evaluate proposals in accordance with the methods established in the Request for Final Proposals (RFFP). For example, the RFFP indicated the technical factors combined would have equal importance to the cost factor (50% for technical factors, 50% for cost). The Department never applied these relative weights to the technical factors or the cost factor. The RFFP includes the factors and relative weights that will be used in evaluating proposals to determine which one offers the best value. Best practices require proposals to be evaluated according to the methods established in the RFFP. This helps provide transparency in the award

process to assure contractors, oversight bodies, and taxpayers that the Department is spending its limited funds appropriately. The amount awarded for this project was about $242.3 million. (page 12)

- The Department did not score cost proposals for the second design-build project (I-15 South) in a manner consistent with statutory provisions. Specifically, the costs of the proposals were given a relative weight of 10%, which is less than the 30% minimum required by NRS 408.3886. The Department, based on its legal interpretation, believed its scoring of proposal costs was appropriate at the time. The amount awarded for this project was about $246.5 million. The scoring problem did not affect the outcome of who was awarded the contract since the proposal with the highest ratings for technical factors also had the lowest proposed cost. However, the awarding of future projects could be affected if this problem is not addressed. (page 14)

- The Department should provide its Board with additional information about its evaluations of design-build project proposals. For the I-15 North design-build project, the Department did not present its proposal evaluations to the Board for its approval of which proposal should be awarded the project. For the I-15 South design-build project, the Department provided some general information about its proposal evaluations at a Board meeting in August 2009. However, at that meeting, the Department did not present detailed information about its proposal evaluations, including proposal ratings or cost information. Additional information was later provided to the Board about proposal ratings and costs. (page 16)

- Key performance measures reported by the Department to its Board and the Interim Finance Committee were often not reliable. Our testing found that four of the five measures tested were not reliable. The measures tested had one or more of the following

problems: lacked supporting documentation, based on inappropriate methodologies, or included incomplete information. For example, the Department did not have documentation for the measure reporting the percentage of miles traveled on congested highways. In addition, the description for three measures did not reflect what was reported. (page 18)

- The Department has not consistently implemented statutory provisions to perform benefit-cost analyses on highway projects and make the analyses available to its Board and the public. Specifically, the Department has not always performed the analyses and has not consistently presented the analyses to the Board at its public meetings. In addition, when analyses were performed, they did not include the future costs to preserve and maintain the highways as required by NRS 408.3195. Benefit-cost analyses are important tools that assist the Department and the Board in making decisions on how to spend their limited resources to maximize the benefits to the public. (page 22)

- Restrictive specifications were often used by the Department to procure equipment used in its operations. Specifically, 11 of the 13 invitation for bids (IFBs) tested had only one bid that met all specifications, or no bids that met all specifications. Accepting a bid when no bid met the specifications shows they were more restrictive than the Department's actual needs. In addition, specifications appeared to be written in some cases to target specific manufacturers' models and always included brand names. Overly restrictive specifications limit competition, waste bidders' and state employees' time, and often increase the price of equipment purchases. (page 27)

Recommendations

This report contains six recommendations to improve the agency's operations in three areas. First, there are three recommendations to improve the Department's process for awarding design-build projects. Second, the report contains two recommendations to improve the reliability and timeliness of performance measurement and benefit-cost information provided to oversight bodies. Third, there is one recommendation to help ensure the Department's equipment specifications do not unnecessarily limit competition. (page 53)

Agency Response

The Department, in response to the audit report, accepted the six recommendations. (page 50)

Introduction

Background

Purpose and Organizational Structure

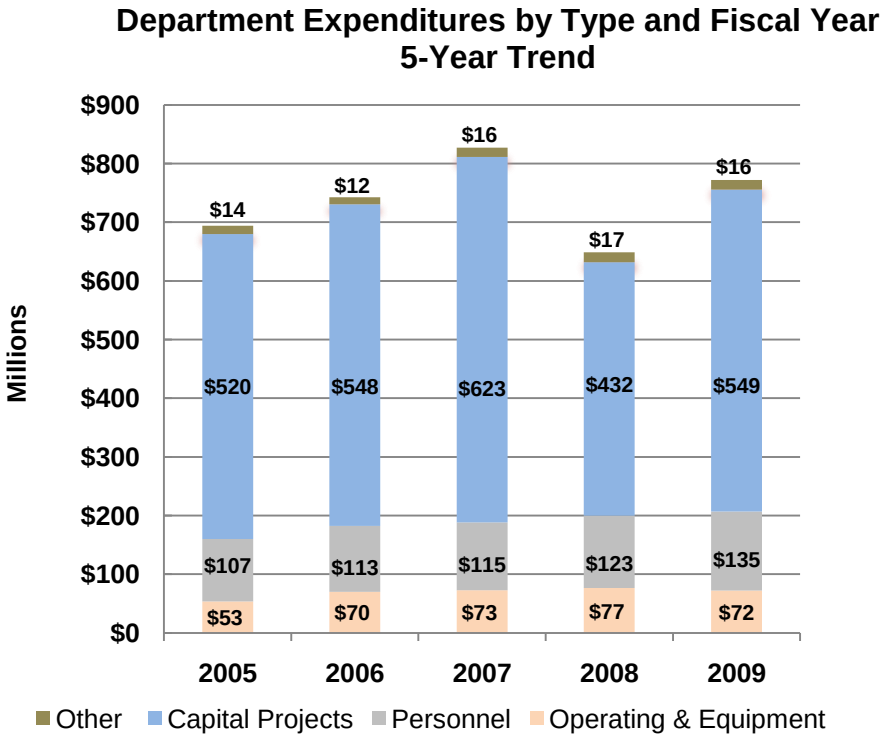
The mission of the Department of Transportation is to provide a better transportation system for Nevada through unified and dedicated efforts. It is responsible for the planning, construction, operation, and maintenance of the 5,400 miles of roadway and over 1,000 bridges that make up the state highway system. The Department is divided into three districts that are responsible for supervising all state transportation activities within their area. These districts are headquartered in Las Vegas, Reno, and Elko. By statute, the Department is comprised of four divisions: administration, planning, engineering (pre-construction), and operations (construction and post-construction).

Department Revenues and Expenditures

The Department's revenues and expenditures are recorded in the State Highway Fund. It is a special revenue fund established to account for the receipt and expenditure of dedicated highway-user revenue. The main funding sources for the Highway Fund are: (1) state fuel and motor vehicle taxes and fees, and (2) fuel tax and other highway-user revenue collected by the Federal Government. Federal funds are available to reimburse expenditures on approved projects. In fiscal year 2010, the Department's funding was about equally split between the two funding sources mentioned above.

The Department had 1,660 positions filled as of June 2010, excluding temporary and seasonal employees. Over the last 5 years, the majority of the Department's expenditures have been for capital projects and personnel costs. Exhibit 1 shows the 5-year trend of the Department's expenditures by type.

Exhibit 1



Source: Department of Transportation's financial statements.
Note: Dollar amounts are rounded to the nearest million.

American Recovery and Reinvestment Act

Congress approved over $200 million in federal stimulus funding from the American Recovery and Reinvestment Act (ARRA) of 2009 for transportation projects in Nevada. This funding is allocated between the Department and local transportation entities. The Department's allocation is approximately $134 million. Appendix B shows the projects selected by the Department to use its share of ARRA funds.

Board of Directors

A seven-member Board of Directors oversees the Department's operations. The members consist of the Governor, Lieutenant Governor, Attorney General, State Controller, and three members appointed by the Governor. The Board selects a person to be the Director of the Department. Among its duties, the Board considers all matters relating to the general policy of the Department.

During the 2007 Legislative Session, Assembly Bill 595 (A.B. 595) was approved which sets forth specific requirements for the Board and Department. Among other

things, A.B. 595 requires the Board to adopt a plan for measuring the performance of the Department, which must include separate sets of performance measurements for each division of the Department and for the Department as a whole. The Department is required to provide an annual report to the Board and Interim Finance Committee with various elements, including the performance measures for the past fiscal year (this requirement is codified in NRS 408.133). In addition, before the Board approves any capacity project over $25 million, it is to receive from the Department a benefit-cost analysis (this requirement is codified in NRS 408.3195). This analysis measures the social and financial benefits of a proposed project in monetary terms and in relation to the costs. Benefit-cost analyses for proposed projects are to be made available to the Board and the public when the agenda is posted for the meeting at which the project will be submitted to the Board for its approval. See Appendix C for the complete text of the above NRS sections.

Design-Build Contracting

During the 1999 Legislative Session, Senate Bill 475 was passed authorizing the Department to use the design-build contracting method. A design-build contract is different from the design-bid-build contracts the Department has traditionally entered into. Contractors awarded traditional contracts construct the highway according to designs developed by the Department either internally or through consultants. Design-build is a method of project delivery in which the design and construction phases of a project are combined into one contract, usually awarded on either a low bid or best-value basis. The benefits of design-build contracts include streamlining the project development function and potentially lowering project cost and duration.

NRS 408.388 authorizes the Department to use the design-build method for projects exceeding $20 million, when certain conditions are met. In addition, this law authorizes the Department to use the design-build method once a year for a project between $5 and $20 million. NRS 408.3886 outlines the process to be used when selecting a design-build team. Specifically, design-build team proposals must be evaluated using weighted factors such as scope of work, technical solutions, and cost. Statute requires that cost be given a relative weight of at least 30%. Weighting, by definition, is a mathematical device used when calculating a sum to give an element

more influence on the result than other elements in the same set. See Appendix C for NRS sections related to design-build contracts.

To evaluate proposals' technical (non-cost) factors, the Department used adjectival ratings. These ratings use words like Exceptional (E), Good (G), Acceptable (A), Potential to be Acceptable (P), and Unacceptable (U) to rate factors. For one project's evaluation, the Department assigned numerical equivalents for each of the above adjectival ratings. These numerical equivalents are needed to apply relative weights to the factors. Each factor's score is the product of the numerical rating and the factor's weight. Exhibit 2 is a hypothetical example of how factor ratings and weights are combined to calculate the proposal that offers the best value.

Exhibit 2

Hypothetical Example of Method to Evaluate Proposals

		Proposal 1			Proposal 2		
	Relative Weight	**Adjectival Rating**	**Numerical Equivalent**	**Weighted Score**	**Adjectival Rating**	**Numerical Equivalent**	**Weighted Score**
Scope of Work	**20%**	G	85	17	A	75	15
Technical Solutions	**15%**	A	75	11.25	A	75	11.25
Management Approach	**15%**	G	85	12.75	A	75	11.25
Schedule and Time	**10%**	G	85	8.50	A	75	7.50
Key Personnel and Experience	**10%**	G	85	8.50	A	75	7.50
Total Technical Score	**70%**			**58**			**52.5**
Proposed Cost (in millions)				$265			$230
Scored Cost (Lowest Cost/Proposal Cost)			230/265 =	86.79		230/230 =	100
Total Cost Score (Scored Cost x Relative Weight)	**30%**			**26.04**			**30**
Grand Total	**100%**			**84.04**			**82.50**

Source: Auditor prepared.

The Department has awarded two contracts as of May 2010 using the design-build method. See Appendix D for a description of the I-15 North and South design-build projects. In fiscal year 2008, the first contract was awarded for $242 million for a project on Interstate 15 North in Las Vegas. It was substantially completed in January 2010, which was earlier than estimated at the time that the contract was awarded. The

second contract was awarded in August 2009 for $246 million for a project on Interstate 15 South in Las Vegas. It is expected to be completed in early spring of 2012. The Department plans to continue using this process and received Board approval to use the design-build process for two more projects at the Board meeting in March 2010.

Scope and Objectives

This audit is part of the ongoing program of the Legislative Auditor as authorized by the Legislative Commission, and was made pursuant to the provisions of NRS 218G.010 to 218G.350. The Legislative Auditor conducts audits as part of the Legislature's oversight responsibility for public programs. The purpose of legislative audits is to improve state government by providing the Legislature, state officials, and Nevada citizens with independent and reliable information about the operations of state agencies, programs, activities, and functions.

This audit included a review of the Department of Transportation's practices for awarding design-build contracts, reporting information to oversight bodies, and procuring light and heavy equipment. Our audit focused on the two design-build contracts awarded as of May 2010, benefit-cost analyses and performance measures reported to oversight bodies for fiscal years 2008 and 2009, and purchases of light and heavy equipment from 2004 to 2009. The objectives of this audit were to determine whether the Department:

- Awarded design-build projects in accordance with laws and prudent contracting practices,
- Reported performance measurement results and benefit-cost analyses to oversight bodies, as required by legislation passed in 2007, that were reliable and timely, and
- Used specifications for light and heavy equipment that did not unnecessarily limit competition.

Findings and Recommendations

Improvements Are Needed for Awarding Design-Build Projects

The Department's process for awarding design-build projects has improved in the short time the design-build method has been used by the Department. Its awarding of two design-build projects totaling almost $500 million complied with most state laws and prudent contracting practices. However, further improvements are needed. Specifically, for the first project, the Department did not follow evaluation methods established in the Request for Final Proposals (RFFP). On the second project, we found the Department did not score proposal cost in a manner consistent with statutory provisions. The Department, based on its legal interpretation, believed its scoring of proposal costs was appropriate at the time. The scoring problem did not affect the outcome of who was awarded the contract. Nevertheless, correcting these problems will help improve transparency and provide additional assurance that contracts are awarded to the proposer offering the best value. Furthermore, complete and timely information about the evaluation of design-build project proposals was not always provided to the Department's Board for its approval. Providing this information will enhance the Board's ability to make critical decisions about the awarding of these projects.

First Project Not Evaluated in Accordance With RFFP

For the first design-build project performed by the Department (I-15 North), the Department did not evaluate proposals in accordance with the methods established in the Request for Final Proposals (RFFP). The RFFP includes the factors and relative weights that will be used in evaluating proposals to determine which one offers the best value. Best practices require proposals to be evaluated according to the methods established in the RFFP. This helps provide transparency in the award process to assure contractors, oversight bodies, and taxpayers that the Department is spending its

limited funds appropriately. The amount awarded for this project was about $242.3 million[1].

The RFFP for the I-15 North project listed the factors and relative weights to be used to evaluate the proposals. It included cost and five technical factors, as shown in Exhibit 3.

Exhibit 3

Evaluation Factors and Relative Weights
I-15 North Design-Build Project

	Evaluation Factors	RFFP Relative Weights
Cost Factor (50%)	**Cost**	Equal to Combined Technical Factors
Technical Factors (50%)	**Management Approach**	Equal Importance
	Technical Solutions	
	Key Personnel and Experience	Equal Importance & ½ of Management Approach or Technical Solutions
	Project Support	
	Schedule and Time	

Source: Department I-15 North RFFP documents.

The Department received two proposals for this project. It rated each of the technical factors for both proposals. The Department rated Proposal A higher for the technical factors. However, it did not apply the relative weights shown above to its ratings for the technical factors as indicated in the RFFP. For example, the RFFP indicated the technical factors combined would have equal importance to the cost factor (50% for technical factors, 50% for cost). The Department never applied these relative weights to the technical factors or the cost factor. If the Department had done this, it would have enabled them to arrive at a total weighted score for each proposal. Determining a weighted score for each proposal would have more clearly demonstrated the Department's rationale for selecting a proposal. In addition, the Department did not

[1] I-15 North design-build funding originally included a $154 million General Fund appropriation. However, the majority of this funding was reverted to the General Fund in fiscal years 2008 and 2009. Total General Fund expenditures for the project were $33.6 million. The remaining funding consisted of funds from the State Highway Fund, including federal funds.

rate each of the proposal's cost. Proposal B's cost was $27.6 million less than Proposal A's cost ($232.3 million compared to $259.9 million).

Due to the large difference in proposal costs and a concern with a technical area of Proposal B, the Department determined a selection could not be made based solely on the proposals. Therefore, the Department entered into discussions with both proposers as allowed by law. After discussions with Proposer B, the Department eliminated their proposal due to technical concerns in one area. The Department then held discussions with Proposer A and decided to amend certain requirements in the RFFP to reduce the project's cost. It then requested a final offer from Proposer A. Proposer A submitted a final offer, which included lowering its price by about $17 million. The Department then awarded the contract to Proposer A. Although the project was completed earlier than expected, it is important to evaluate proposals in accordance with the RFFP to ensure transparency in the award process. Furthermore, following the RFFP would have clearly demonstrated that the Department met the statutory requirement to assign cost a relative weight of at least 30%.

Proposal Costs for Second Project Not Evaluated Correctly

The Department did not score cost proposals for the second design-build project (I-15 South) in a manner consistent with statutory provisions. Specifically, the costs of the proposals were given a relative weight of 10%, which is less than the 30% minimum required by law. The Department, based on its legal interpretation, believed its scoring of proposal costs was appropriate at the time. In addition, the proposal costs were subjectively scored. The amount awarded for this project was about $246.5 million[2]. These problems did not affect the outcome of who was awarded this contract since the proposal with the highest scores for technical factors also had the lowest proposed cost. However, the awarding of future projects could be affected if these problems with scoring cost proposals are not addressed.

NRS 408.3886 requires the Department to assign proposed cost a relative weight of at least 30% when evaluating design-build project proposals. Exhibit 4 shows the maximum points available given to the various evaluation factors for the I-15 South

[2] The planned funding for the I-15 South design-build project does not include any state funds. The majority of the planned funding comes from the Las Vegas Convention and Visitors Authority.

design-build project, according to the RFFP. As shown in Exhibit 4, price (cost) was assigned a maximum of 100 points out of a possible 1,000 points for all evaluation factors, or a relative weight of 10%.

Exhibit 4

Factors, Maximum Points Available, and Relative Weights
I-15 South Design-Build Project

Evaluation Factor	Maximum Points	Relative Weight
Scope of Work	400	40%
Technical Solutions	150	15%
Management Approach	150	15%
Schedule and Time	100	10%
Key Personnel and Experience	50	5%
Project Support	50	5%
Price	**100**	**10%**
Totals	**1,000**	**100%**

Source: Department I-15 South evaluation and RFFP documents.

After the Department evaluated proposals for the I-15 South project, but before the contract was awarded, the Department asked its legal counsel for clarification on the weighting of proposal costs. The Department's legal counsel indicated the "Scope of Work" and "Price" of the proposal must be considered together. Furthermore, the Department's counsel stated the Department exceeded the statutory requirement for weighting cost because when the Department evaluated the proposals it gave a 40% weight to scope and 10% to price, for a combined weight of 50%. However, the Legislative Counsel in response to our question about the statutory requirement concluded scope could not be combined with cost to meet the requirement to assign cost a relative weight of at least 30%. Specifically, the Legislative Counsel[3] concluded:

> **Based upon the plain language of subsection 2 of NRS 408.3886, it is the opinion of this office that the provisions of subsection 2 of NRS 408.3886 do not authorize the Nevada Department of Transportation to use a formula for evaluating proposals that combines the relative weight assigned for "price" and the relative weight assigned for "scope of work" to satisfy the**

[3] See Appendix E for the complete legal opinion issued by the Legislative Counsel.

requirement to assign the "cost" of the design and construction of the project a relative weight of at least 30 percent.

Another concern with the Department's evaluation of the proposed costs for the I-15 South project was the manner in which the Department scored costs. The Department subjectively scored proposal costs. Using an objective method for scoring cost will help make the Department's evaluation process more transparent and help ensure it awards projects to the proposal that offers the best value.

A common practice used by other governmental entities is to objectively score proposal cost points as a percentage. The lowest proposal cost is awarded 100% of the maximum points possible for cost. The lowest proposal's cost is divided by the other proposals' costs to get a percentage. This percentage is then multiplied by the maximum points possible to get a score for that proposal's cost factor. Exhibit 5 shows ratings and points assigned by the Department to proposal costs for the second design-build project, and the points if this objective scoring method had been used.

Exhibit 5

Comparison of Scoring Methods for Proposed Cost
I-15 South Design-Build Project

Proposal	Cost (millions)	Department Rating	Points Assigned by Department	Points Using Objective Method
A	$246.5	Good	87	100
B	$249.9	Good	84	99
C	$253.7	Good	82	97
D	$264.9	Acceptable	79	93

Source: Department I-15 South proposal cost evaluations and auditor calculations to derive points using an objective scoring method.

Subjective scoring also makes it more difficult to defend the scores given for this factor to others, including the firms submitting proposals, Department management, the Board who approves the awarding of the contract, and the public. Based on policies and procedures recently adopted by the Board in March 2010, the Department intends to use an objective method to score proposal costs on future design-build projects.

Additional Information About Evaluations Should Be Provided to Board

The Department should provide its Board with additional information about its evaluations of design-build project proposals. For one design-build project, the

Department did not present its proposal evaluations to the Board for its approval of which proposal should be awarded the contract. Although the other design-build project was presented to the Board for its approval, the Department did not provide detailed information regarding its evaluation of proposals. Providing the Board with more complete information about the project proposals will help ensure projects are awarded in a transparent manner and the Department obtains the best value from its limited resources.

In contrast, Nevada's State Public Works Board is provided with complete evaluation information from its staff. According to management, its Board is provided the overall rankings of the proposals and a recommendation. In addition, the Board receives the individual evaluators' score sheets and proposal costs. The Board then reviews the scoring information and votes to accept or reject staff's recommendation.

For the I-15 North design-build project, the Department did not obtain ratification from the Board for its selection of the design-build team. The Department included the ratification of its selection in its June 21, 2007 Board meeting agenda, but the agenda item was withdrawn. The Director stated the item would be heard at the next Board meeting. However, the ratification of the contractor was never presented to the Board. Instead, the Department held a public meeting in Las Vegas to ratify the selection of the design-build contractor.

The Department did present the awarding of the I-15 South design-build project to the Board in August 2009. The Board was provided some general information about the Department's evaluation of the contractors' proposals. However, at that meeting, the Department did not present detailed proposal ratings or cost information to the Board for its review. Our review of minutes for the Board meeting indicated that Board members wanted to have more information about the proposals and the Department's evaluations. The Board about the awarding of the project to the selected design-build team with the requirement that detailed information be provided later. Additional information was later provided to the Board about proposal ratings and costs. Finally, at that same meeting, the Board directed the Department to develop policies and procedures for the awarding and approval of design-build projects.

In March 2010, the Department's Board approved policies and procedures on

design-build projects, including provisions for the Department to provide the Board with more complete information about the evaluation of project proposals. The Department needs to ensure compliance with these policies and procedures on future design-build projects.

Recommendations

1. Evaluate proposals on all design-build projects in accordance with the factors and relative weights established in the RFFP and state law, which requires the proposal cost be assigned a relative weight of at least 30%.
2. Develop procedures to ensure newly adopted policies regarding the objective scoring of design-build price proposals are followed.
3. Comply with recently developed policies and procedures to provide the Board with appropriate information about design-build project proposals and the Department's evaluation of those proposals.

Information Reported to Oversight Bodies Was Not Always Reliable or Consistently Provided

Performance measure results and benefit-cost analyses were not always reliable or consistently provided to the Department's Board and the Legislature. As a result of Assembly Bill 595 (A.B. 595) in the 2007 Session, the Department is required to provide performance measurement and benefit-cost information to these oversight bodies. Information that is not reliable or timely can impact decisions made by the Department's management, its Board, and the Legislature. Although the Department needs to improve controls over the reliability and timeliness of the information, the extent of information provided by the Department to the Board and Legislature is an improvement over what was available prior to A.B. 595.

Performance Measures Not Reliable

Key performance measures reported by the Department to its Board and the Interim Finance Committee were often not reliable. Specifically, we examined five of

the measures that we deemed to be the most meaningful and found that four were unreliable. The Department recognizes the need for relevant and meaningful performance measures and has developed some useful measures. However, the Department needs to develop additional control procedures to improve the reliability of performance measure results reported to oversight bodies.

In the 2007 Session, the Legislature passed A.B. 595. Among other things, the bill required the Department to develop performance measures for each division and the Department as a whole. The Department must annually report the measures to its Board and the Legislature's Interim Finance Committee. These requirements have been codified in NRS 408.133. Performance measures assist government officials and stakeholders in identifying and communicating program results, evaluating past resource decisions, and improving future resource decisions. From the Department's report for fiscal year 2009, we judgmentally selected five performance measures and tested their reliability. The five performance measures tested, as shown in the 2009 report, were:

- **#6 Reduce Congestion on State System** – Percentage of daily vehicle miles traveled that occur at Level of Service E (unstable traffic flow) or worse on the state system. This measure has been labeled as the 'system congestion index';
- **#7 Streamline Project Delivery: Schedule and Estimate From Bid Opening to Construction Completion** – Percentage of projects within established range of cost estimate and schedule to completion (a measure related to the **construction** phase of projects);
- **#8 Maintain State Roadways** - Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index (IRI) rating of fair or better condition;
- **#13 Streamline Project Delivery: Schedule and Estimate After NEPA Approval to Bidding** – Percentage of projects completed within range of established estimate and schedule after the environmental process (a measure related to the **design** phase of projects); and
- **#14 Maintain State Bridges** – Percentage of Department owned bridges which are eligible for federal funding and are categorized as structurally deficient or functionally obsolete.

Our testing found that four of the five measures tested were not reliable. The measures tested had one or more of the following problems: lacked supporting documentation, based on inappropriate methodologies, or included incomplete information. In addition, the description for three measures did not reflect what was

reported. See Appendix F for detailed results on each of the performance measures tested from the fiscal year 2009 annual report.

Lack of Supporting Documentation

In our examination of supporting documentation for performance measures, we found three of the five performance measures had inadequate supporting documentation. For example, the measure reporting the percentage of miles traveled on congested highways (measure #6 from above) did not have documentation to support the results reported in the A.B. 595 Report. Section 2512 of the State Administrative Manual requires agencies to retain supporting documentation for performance measures for three fiscal years. The lack of supporting documentation prevents the measure from being verified and therefore it is not reliable.

Department personnel responsible for developing the performance measure originally believed the data needed to support this performance measure could be easily gathered. However, they later realized complex calculations would be needed for each segment of roadway, which would require considerable resources. Therefore, staff used two broad assumptions to obtain the percentage reported in the 2009 A.B. 595 Report. First, all highways in certain categories were assumed to have two hours of congestion daily. Second, it was assumed that 15% of the daily vehicle miles occurred during those two hours. By using such broad assumptions without supporting documentation, the value of this measure was substantially reduced. Since we agree the Department must balance the costs of acquiring measurement data against its value, the Department should consider alternative ways to measure congestion on Nevada highways.

Inappropriate Methodologies Used to Compute Measurement Results

Four of the five measures had significant methodological flaws in their calculations. One example is the measure used to track the percentage of projects where the Department completed the design phase on time and within budget (measure #13 above). The Department often used wide ranges of time and budget, or tracked projects without an estimated completion time. Furthermore, Department personnel stated the estimated completion time and budget are revised yearly.

This methodology of using wide ranges may not be a reasonable measure of the Department's performance. For example, in the 2009 A.B. 595 Report, the Department simply reported projects were "on target". Department staff stated this meant all projects being tracked were on schedule and within budget. However, 4 of the 12 projects being tracked did not have estimated completion dates or estimated budget/cost information. In addition, two projects showed the estimated completion time as 2009-2011. By having such a wide estimated range for the time and cost to complete a project, the value of this measure to agency managers and oversight bodies is greatly diminished.

Measurements Used Incomplete Data

In our review of the completeness of the performance measures, we found three of the five performance measures were incomplete in their reporting. For example, the performance measure tracking the percentage of projects constructed within budget (measure #7 above) only reported on projects for which construction was expected to be completed during the 4th quarter of fiscal year 2009. However, payments continue after projects are completed for many months, and years in some cases. The Department reported 100% (3 of 3) of projects were completed within budget. However, we determined that, based on the percentage of projects where final payments were made during the 4th quarter, 56% (5 of 9) of projects were completed within budget.

Measure Description Did Not Reflect Reported Information

Three of the five performance measures did not match what was reported. For example, one measure is called "Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index (IRI) rating of fair or better condition" (measure #8 above). The 19% reported by the Department for this measure was largely based on the age of the road, not the IRI. Our analysis found that if the Department had used IRI data as indicated in the measure's description, 5% would have been reported, not 19%.

Agency records for this measure showed the 19% reported was actually the percentage of roadway miles needing an overlay or reconstruction based on the Department's pavement repair strategy. This repair strategy primarily uses the age of pavement as an indicator of when pavement overlays and reconstructions need to be

performed; whereas, the IRI is used to measure the smoothness of roadways. The Department should decide which information is most useful, and then ensure the measure reflects this information.

Controls Are Needed to Ensure Measures Are Reliable

The Department lacked sufficient controls to help ensure performance measures were reliable. Control weaknesses included inadequate policies and procedures on how to collect and compute the performance measures. Written procedures help ensure the process for collecting performance measurement data is reasonable and consistent over time. Procedures should include the source of the data, the methodology used, calculations performed, and retention of supporting documentation. Another control weakness is the Department lacked a process for supervisors to review the measurement results to provide assurance about their reliability.

Benefit-Cost Analysis Requirements Not Consistently Implemented

The Department has not consistently implemented statutory provisions to perform benefit-cost analyses on highway projects and make the analyses available to its Board and the public. Specifically, the Department has not always performed the analyses and has not consistently presented the analyses to the Board at its public meetings. In addition, when analyses were performed, they did not include the future costs to preserve and maintain the highways as required by law. Benefit-cost analyses are important tools that assist the Department and the Board in making decisions on how to spend their limited resources to maximize the benefits to the public.

Analysis Required By Legislation Passed in 2007

A.B. 595, passed during the 2007 Legislative Session, required the Department to prepare benefit-cost analyses. The bill became effective on July 1, 2007, and requires the Department to prepare a benefit-cost analysis for certain projects before it submits a proposal for the project to the Board for approval. The analysis must be available to the Board and public when the agenda is posted for the public meeting at which the proposal will be submitted to the Board for its approval. Benefit-cost analyses must be prepared for projects that are expected to increase the capacity of the state highway system and cost at least $25 million. Statute also requires certain factors, such

as the future cost to preserve and maintain the project, be included in the analysis. These requirements have been codified in NRS 408.3195.

Benefit-cost analyses measure the social and financial benefits of a proposed project in monetary terms and in relation to the costs. These analyses have been used widely in governmental planning and budgeting for many years. The analyses provide decision-makers an economic framework on which to base decisions about which highway projects to provide funding for and when. Therefore, benefit-cost information should be identified, captured, and distributed in a form and timeframe that assists the Board in making these critical decisions.

Analyses Not Always Performed or Presented Consistently to Board

We tested all capacity projects currently in design that exceeded the $25 million threshold established in state law. The Department did not perform a benefit-cost analysis for 4 of the 16 (25%) projects tested. The estimated costs for these four projects range from $37 million to $758 million. For one project, the Department has expended over $3.8 million on right-of-way and design costs to date without preparing a benefit-cost analysis.

For the other 12 projects, the Department performed benefit-cost analyses. However, future operating and maintenance costs were not included in any of the analyses. Furthermore, the Department did not provide the analyses to its Board in a consistent manner. Specifically, the Department has not presented the benefit-cost analyses to the Board for half of these projects. In addition, the timing varied greatly as to when the other six projects' analyses were presented to the Board. Exhibit 6 shows the six projects that did not have detailed analyses presented to the Board, with their design and right-of-way expenditures between the effective date of A.B. 595 (July 1, 2007) and April 1, 2010.

Exhibit 6

Projects Where Detailed Benefit-Cost Analyses Not Presented to Board
Project Expenditures From July 2007 to April 2010

Project Descriptions	Expenditures
I-15 FROM THE U.S. 95 INTERCHANGE TO CRAIG ROAD (construct additional lanes)	$1,865,344
U.S. 93 THE BOULDER CITY BYPASS PHASE I (construct a new four lane freeway)	$1,137,103
U.S. 93 THE BOULDER CITY BYPASS PHASE 2 (construct a new four lane highway)	$ 806,600
I-15 FROM I-215 TO THE SAHARA INTERCHANGE (construct express lanes)	$ 700,051
I-15 AT 'F' STREET (reopen F street under I-15)	$ 37,232
I-15 / CC 215 NORTHERN BELTWAY INTERCHANGE (upgrade interchange and construct additional lanes)	$ 22,020

Source: Department project accounting records.

For the remaining six projects, the detailed analyses were provided to the Board. However, the timing of when benefit-cost analyses were presented varied greatly. The Department presented the analyses for these projects anywhere from less than one month to over 2 years after the first expenditure was recorded on the project. In addition, the amount of project expenditures incurred prior to the date the detailed analysis was provided to the Board ranged from as little as about $6,000 to as much as $5.7 million. Exhibit 7 shows the large variations in time and expenditures before the analyses for these six projects were presented to the Board.

Exhibit 7

Projects With Detailed Benefit-Cost Analyses Presented to Board
Time and Expenditure Amounts

Project Descriptions	Time (months) from 1st Expenditure to Board Presentation	Expenditures 7/1/2007 to Board Presentation
I-580 FROM MOANA LANE TO I-80 (construct auxiliary lanes and operational improvements)	23	$5,734,752
U.S. 95 WEST WASHINGTON AVE. TO ANN ROAD PACKAGE 1 (construct additional lanes)	14	$2,924,766
U.S. 95 AT SUMMERLIN PARKWAY (construct HOV roadway and bridge)	29	$1,856,382
I-15 FROM SILVERADO RANCH ROAD TO TROPICANA DESIGN-BUILD SOUTH (construct new ramps, collectors and distributor roads)	10	$ 557,337
U.S. 95 NW CORRIDOR PHASE III CC 215 FROM HUALAPAI TO TENAYA WAY (construct additional lanes and upgrade interchange)	1	$ 46,488
U.S. 95 IN LAS VEGAS AT HORSE DRIVE (construct 6-lane overpass with an interchange)	14	$ 6,792

Source**:** Auditor analysis of Board packets and project accounting records.

As shown in the examples above, the Department is not consistent about when it presents benefit-cost analysis information to its Board. In addition, the Department sometimes does not present benefit-cost analysis information to its Board until millions of dollars have been spent on project design and right-of-way.

Policies and Procedures Are Inadequate

The Department does not have policies and procedures related to benefit-cost analyses. Although the Department has developed draft policies and procedures, these have not been approved by the Director or brought to the Board for its approval. Furthermore, the draft policies and procedures state a Benefit-Cost Analysis Plan will be developed and monitored by the Benefit-Cost Coordinator. However, the Plan has not been developed. Finally, the draft policies and procedures do not address in detail the following questions:

> **When do benefit-cost analyses need to be performed?** Draft policies and procedures indicate a list of projects will be selected and prioritized annually by the Coordinator. These draft policies and procedures also say that during the design stage the project manager will notify the Coordinator of any highway projects that require an analysis. However, these draft policies and procedures do not specify when the analysis will begin or if the project manager is to submit the project to the Coordinator during the environmental, preliminary, or final design stage.

When will benefit-cost analyses be presented to the Board? The draft policies and procedures state the Coordinator will prepare an annual report of any benefit-cost analyses to the Director and the Board. However, this does not specify if the analysis will be presented once completed, or when the project is brought to the Board for approval of funding for a particular phase of the project.

What analysis information will be presented to the Board? As mentioned above, the draft policies and procedures indicate a report on the benefit-cost analyses will be presented to the Board, but do not specify what information will be included in the report. For example, will the report show just the benefit-cost ratio, a summary of the analysis, or the detailed analysis?

Recommendations

4. Develop policies and procedures on the compilation of performance measures to ensure reported results are reliable, including retention of supporting documentation, and supervisory review of calculations and methodology.
5. Develop procedures to ensure benefit-cost analyses for highway capacity projects exceeding $25 million are provided to the Board in a consistent time frame and include future operating and maintenance costs.

Development of Equipment Specifications Can Be Improved

The Department did not always follow best practices when preparing specifications for equipment purchases. As a result, the Department used specifications for light and heavy equipment that unnecessarily limited competition. For the approximately $5.6 million in equipment purchases tested, we found equipment specifications included overly restrictive requirements that in many cases targeted specific manufacturers' models or specified brand names. Overly restrictive specifications limit competition, waste bidders' and state employees' time, and often increase the price of equipment purchases. In contrast, we identified examples where other local, state, and federal entities prepare broader specifications that do not include restrictive specifications or use brand names. Department management has made efforts to improve the specifications used for light and heavy equipment purchases, but they recognize the need to take additional action.

Restrictive Specifications Used

Restrictive specifications were often used by the Department to procure equipment used in its operations. Specifically, 11 of the 13 invitation for bids (IFBs) tested were awarded despite the fact that only one bid met all specifications, or no bid met all specifications. Accepting a bid when no bid met the specifications shows they were more restrictive than the Department's actual needs. In addition, specifications appeared to be written in some cases to target specific manufacturers' models and always included brand names.

We tested 13 light and heavy equipment IFBs representing approximately 10% of the Department's light and heavy equipment purchases for fiscal years 2004 to 2009. An IFB is a tool used to solicit bids from vendors and includes the specifications (requirements) for the item needed by the Department. Exhibit 8 shows the IFBs tested and the amount of expenditures resulting from the IFBs.

Exhibit 8

IFBs Tested and Related Expenditures
Fiscal Years 2004 to 2009

IFB #	Equipment Description	Quantity Purchased	Expenditure Amount
1	Dump Truck Beds	21	$3,293,681
2	Loader/Tool Carrier	5	$ 776,400
3	Loader	3	$ 363,895
4	52,000 GVW Truck	2	$ 195,403
5	Road Broom	4	$ 175,900
6	Post Hole Driver	1	$ 153,569
7	Lab Trailer	1	$ 134,869
8	Roller	1	$ 129,732
9	Portable Office	3	$ 129,699
10	26,000 GVW Truck	1	$ 95,749
11	Radial Stacker	1	$ 91,440
12	Radial Stacker	1	$ 70,477
13	Road Broom	1	$ 41,885
	Total		**$5,652,699**

Source: Auditor calculations using agency records and state accounting system.

Equipment Purchased When Specifications Not Met

For 6 of the 13 IFBs tested, the Department approved the awarding of the bid despite the fact that no bid met all specifications. Best practices for developing specifications indicate that an IFB's specifications are overly restrictive when an agency will accept a product even though it does not meet the specifications. If the Department had not included such restrictive specifications in the IFBs, additional vendors may have submitted bids that were lower than the bid amount awarded by the Department. The purchases associated with these 6 bids ranged from approximately $42,000 to $3.3 million. The following is an example where specifications were not met, but a bid was accepted because it met the Department's needs.

- IFB 6876 (Radial Stacker)-After receiving no bids, the IFB was reissued and only one vendor submitted a bid. The specifications required a 100 horsepower engine, but the vendor only offered a 65 horsepower engine, which the Department accepted. In a subsequent IFB for a radial stacker, the Department also requested a 100 horsepower engine, but settled for 65 horsepower. The vendor awarded that bid questioned the need for 100 horsepower and stated he was bidding 65 horsepower, which was consistent with the rest of the Department's fleet. The Department's Equipment Division stated it bid the 100 horsepower engine because that is what the user of the equipment wanted.

Best practices indicate specifications should describe the Department's requirements in the broadest possible manner consistent with its real needs. These best practices are consistent with state law. Specifically, NRS 333.210 requires specifications to be developed to attract the maximum competition practicable with due consideration of suitability of products.

Specific Manufacturers' Models Targeted

Specifications in 4 of the 13 IFBs tested were written to target a specific model. In some instances, the IFBs were issued several times with modified specifications that allowed the desired model to meet the requirements. Furthermore, many of the specifications for one IFB were identical to specifications in the manufacturer's publications for the desired model. Targeting specific models discourages vendors and could limit competition on future purchases.

Our review of agency purchasing records found instances when the Department wrote or modified its specifications to be closely aligned with the requirements of a particular model. The following are two examples of such instances.

- IFB 7509 (Loader/Tool Carrier)—Before this IFB was issued, the Department's committee responsible for developing equipment specifications met and discussed loaders. Minutes from the meeting show the Committee specifically discussed the make and model purchased. Furthermore, the minutes stated the specifications would be changed to reflect those of the specific model targeted. No discussion of actual user needs was noted in the Committee's minutes. The bid was awarded to the specific model discussed by the Committee. After the IFB was advertised, one vendor requested changes to the specifications that would lower the lifting capacity of the loader because he felt one manufacturer had an unfair advantage. Instead of lowering the specifications, the Department increased the specifications.
- IFB 6992 (Road Broom)—Agency records indicate the Department wanted a specific model of road broom and was writing its specifications to ensure the desired model would meet certain requirements. This IFB was issued three times with the number of bidders going from four to one. The only vendor to bid the third time offered the exact model targeted by the Department. Furthermore, the winning vendor offered the same model each time the IFB was advertised, but the equipment price increased $4,687 by the final bid.

The specifications for one IFB were identical to specifications in the manufacturer's publications for the desired model. In addition, the specific make and model is mentioned in the IFB. Exhibit 9 shows some of the specifications required by the Department and the specifications as listed in the manufacturer's brochure for the make and model requested.

Exhibit 9

Department Specifications and Manufacturer's Published Dimensions for Roller

Item	Department Specification	Manufacturer's Published Dimension
Length	229.9 inches minimum	229.9 inches
Width	88.6 inches minimum	88.6 inches
Working Width	83.9 inches minimum	83.9 inches
Inner Track Radius	142.3 inches minimum	142.3 inches
Operating Weight	22,930 pounds minimum	22,930 pounds
Drum Diameter	59 inches minimum	59 inches
Engine	124 horsepower	124 horsepower

Source: Department of Transportation and State Purchasing records.

When the first IFB was issued for the roller, it was determined that only one of six vendors met all specifications. This was the vendor offering the exact make and model listed in the IFB. One of the other vendors questioned the award. After reviewing the specifications, State Purchasing determined they were too restrictive and cancelled the IFB. The Department was asked to change its specifications and reissue the IFB.

Although some specifications' requirements were made less restrictive, several changes were made to the specifications making them more restrictive. In addition, the Department requested specific information regarding the drive, vibration, and speed from the vendor offering the exact make and model requested. This information was incorporated into the revised specifications, almost verbatim in some instances. As a result, only the bidder offering the exact make and model listed in the IFB met all specifications again.

The winning bid for the roller was the highest priced bid and was approximately $24,000 more than the lowest bid. The lowest bid did not meet specifications because it had a maximum speed of 6.3 versus 8 mph and a 2-speed instead of a 4-speed transmission. These requirements, for which the low bidder had exceptions, were all added when the IFB was reissued. The Department could not provide a reasonable basis for these requirements being added to the specifications.

Targeting specific makes and models can discourage vendors and limit future competition. A vendor bidding on the roller IFB stated the specifications listed were simply a vehicle to justify not buying anything but a particular make and model of roller. This vendor's bid was about $15,000 less than the eventual winner's initial bid. In addition, the vendor stated the units bid by five vendors would perform the tasks required by the Department, but with such restrictive specifications, only one unit would meet specifications. This vendor's bid on the first IFB did not meet all specifications in four areas related to the roller's dimensions. For example, the drum width for this vendor's roller was about one and a half inches less than the minimum required in the specification. When the roller IFB was advertised the second time, this vendor did not bid.

Government contracting practices indicate a primary factor that encourages maximum competition in government procurement is specifications that describe an

entity's requirements in the broadest possible manner consistent with its real needs. Specifications written around a particular product that reflect desirable features in excess of the procuring agency's needs unnecessarily restrict competition. Furthermore, limitation on the dimensions of an item being procured is proper if necessary to fit into the space in which it is intended for use, but improper if the limitation simply describes a favored manufacturer's product to the exclusion of others.

Brand Names Used

All of the 13 IFBs tested used brand names in their specifications. For example, one IFB requested a specific brand name dump body. Department purchasing personnel stated they represent the user of the equipment and want to give them what they want. However, best practices and state administrative policies caution against the use of brand names in the bidding process as they can limit competition. These descriptions can also cause the most misunderstandings, confusion, and vendor protests.

For one IFB, the Department solicited bids for dump bodies to be mounted on trucks. The expenditures for this IFB were about $3.3 million. Included in the specifications was the brand name of a specific dump body. Although over 160 vendors were contacted, only one vendor submitted a bid. That vendor was the only authorized dealer in the area for the brand name listed. The bid was awarded to this vendor. Despite offering the brand name included in the IFB, the bidder's product did not comply with multiple specifications.

According to State Purchasing, vendors felt the specifications were not broad enough so they did not bid. In addition, we contacted some of the vendors invited to bid on this IFB. The vendors indicated they did not bid because the specifications were so tightly written around the brand name included in the IFB that it would be a waste of their time.

Other Governmental Entities Use Broader Specifications

We reviewed specifications used by other governmental entities such as the Department of Wildlife, Washoe County, and the Federal Government and found they used broader specifications when procuring equipment. These specifications were often broad and listed functional requirements, and did not include brand names.

Exhibit 10 compares some specifications used by the Department versus Washoe County to procure street sweepers.

Exhibit 10

Comparison of Specifications Used to Procure Sweeper
Department of Transportation and Washoe County

Specification	Department of Transportation	Washoe County
Brakes	In addition to hydrostatic braking, sweeper shall include heavy-duty 4-wheel hydraulic brakes with dual master cylinder. Brakes will be totally enclosed for protection from rocks, sand and gravel. Drum type brakes are preferred. Parking brake shall be a front mounted axle type, or manually operated at rear axle.	No separate specifications for brakes.
Engine	Minimum 80 horsepower inline 4-cylinder Turbo Diesel at approximately 2500 revolutions per minute. Shall include 110-volt block heater cold weather start, engine shutdown protection system (Kysor or equal). Engine oil system shall be pressurized, regulated with replaceable spin-on filter and filter bypass in event the filter becomes plugged.	The unit shall be equipped with a single engine system with a minimum 125 horsepower turbocharged diesel engine.
Hydraulic System	Minimum 25-gallon capacity pressurized reservoir with sight and level gauge. Live engine drive 28 gallon per minute pump with 5 gallon per minute steering priority. High capacity oil cooler with pressure bypass, 100-mesh suction filter and 20-micron replaceable element return filter. Integrated circuit for broom rotation, angle, lift and broom counter balance, and replaceable valve manifold controls. All hydraulic systems shall include appropriate relief valve to prevent damage to machines components. Broom system shall be independent of propulsion system.	No separate specifications for the hydraulic system.

Source: State and Washoe County purchasing records.

Federal Government specifications contained salient characteristics that describe the intended use of the equipment and describe the functional capabilities needed. For example, the specifications for a loader engine did not list a specific horsepower. Exhibit 11 shows the engine and hydraulic specifications used by the Department to procure a loader compared to specifications used by the Federal Government.

Exhibit 11

Comparison of Select Loader Specifications
Department of Transportation and Federal Government

Specification	Department of Transportation	Federal Government
Engine and Hydraulics	Water-cooled diesel engine with a minimum SAE rate of not less than 149 net horsepower. Unit shall be equipped with double acting cylinders. Lift cylinder and dump cylinder shall be as specified by the manufacturer. Cylinder will be of sufficient size and capacity to handle rated load for size and model of machine bid. Pump should be vane/piston type, engine driven, and rated at not less than 38 gallons per minute at 1000 pounds per square inch. If a separate steering pump is used, the pump should be variable displacement type pump, engine driven and rated at not less than 25 gallons per minute at 1000 pounds per square inch. Reservoir will have visual oil level indicator or dipstick. Shall be equipped with joystick for bucket control with integrated directional control, third valve, and single lever. Unit must be equipped with "Ride Control".	Loader shall have sufficient horsepower to operate continuously for the intended use. When operating over a flat or sloped undisturbed soil, the loader shall dig and scoop a full bucket load without engine stalling or the hydraulic components showing any evidence of failure.

Source: Department of Transportation records and federal agency website.

Department personnel responsible for equipment purchasing cited a few reasons for preparing restrictive specifications, including standardization of its fleet and the reliability of certain makes and models. However, our review of fleet inventory records showed that the Department has a wide variety of makes and models for each type of equipment. In addition, the maintenance and usage data of the Department's equipment fleet does not indicate any particular brand or model had significantly greater reliability.

Recommendation

6. Enhance controls over specifications development to ensure equipment specifications include only the minimum essential characteristics and standards to which they must conform to satisfy their intended use, and include written justification when specific manufacturers' models, or their dimensions, are included in specifications.

Appendices

Appendix A

Audit Methodology

To gain an understanding of the Department of Transportation, we interviewed agency staff and reviewed statutes, regulations, policies, and procedures significant to the Department's operations. We also reviewed financial information, prior audit reports, budgets, legislative committee minutes, and other information describing the activities of the agency. Furthermore, we documented and assessed the Department's internal controls over the awarding of design-build contracts, reporting performance measures and benefit-cost information to oversight bodies, and developing specifications for light and heavy equipment.

To determine whether the Department awarded design-build contracts in accordance with laws and prudent contracting practices, we reviewed the awarding of the I-15 North and I-15 South design-build projects. For both projects, we interviewed Department personnel and examined documentation relating to the request for and evaluation of design-build proposals. We then compared the Department's evaluation and awarding of the projects to statutory requirements, prudent contracting practices, and the process described in the Request for Final Proposals. In addition, we reviewed Board minutes and attended Board meetings to document what information was provided to the Board. We also requested the Department's policies and procedures for evaluating design-build proposals, and discussed our concerns with Department personnel and management.

To determine whether reported information to oversight bodies was reliable and timely, we tested performance measurement results and benefit-cost information provided to the Board and Legislature, as required by A.B. 595 of the 2007 Legislature. For performance measures, we judgmentally selected 5 of 15 performance measures reported for fiscal year 2009 based on their perceived importance to the Legislature, public, and the Department. For each measure selected, we interviewed agency staff and documented the measurement process. We also evaluated the reasonableness of

the methodology used to calculate the measures. Then we examined documentation supporting the reported measures. Furthermore, we tested the completeness of the data used to calculate the measures and we verified that the description of the measures matched what was reported. We also compared our observations with applicable statutes and state guidelines concerning performance measures, and requested written policies and procedures for the measures.

When information systems were used to produce performance measure data, we performed testing to determine the reliability of the data produced. In doing so, we judgmentally and randomly selected sample information within the information systems to test for completeness and accuracy. Sample selection methodology was determined based on the availability, relevance, and appropriateness of each performance measure's information system population.

To determine whether benefit-cost analysis information was calculated and provided to the Department's Board timely and as required by law, we identified all current capacity projects greater than $25 million using the Department's Project Scheduling and Management System (PSAMS) database. A total of 16 capacity projects were identified. For the projects tested, we reviewed the Department's 2008 and 2009 annual reports and its Board minutes to document which benefit-cost analyses were presented to the Board. We also requested from the Department a list of all analyses performed since the effective date of A.B. 595 (July 1, 2007) and held discussions with agency personnel to help identify all benefit-cost analyses performed. For those projects that had benefit-cost analyses performed, we reviewed the analyses to verify they met statutory requirements.

Next, for the capacity projects tested, we determined the design and right-of-way expenditures and timing of benefit-cost analyses presentations to the Board. For projects approved by the Board, we calculated the expenditures and time between July 1, 2007 and Board approval. For those projects that did not have benefit-cost analyses or Board approval, we calculated the expenditures and time between July 1, 2007 and April 1, 2010, which was the date that we extracted information from the Department's financial system.

To determine whether the Department used specifications for light and heavy equipment that did not unnecessarily limit competition, we selected 13 Invitation for Bids to test. We judgmentally selected all eight bids let by State Purchasing from fiscal years 2004 through 2008 that were bid multiple times and eventually awarded. Additionally, from a stratified list of fiscal year 2009 expenditures for equipment purchases, we randomly selected five purchases greater than $50,000. We reviewed Department and State Purchasing Division records to document the number of bids received and bidders meeting specifications, and the reason bidders did not meet the specifications; differences between award price and lowest bid price; protests and relevant correspondence; and state laws and regulations related to purchasing. We also contacted some vendors to understand their reasons for not bidding.

To understand the Department's process for specification development, we discussed specification development with agency staff. We also reviewed meeting minutes for specification development and compared specifications in the Invitation for Bid tested to specifications developed by specification committees. Then, we documented information regarding the Department's equipment inventory and maintenance costs. We also reviewed other governmental entities' specifications and best practices for government procurements.

To determine whether the American Recovery and Reinvestment Act (ARRA) projects were selected and awarded properly, we obtained a list of the Department's ARRA projects and judgmentally selected the five projects with the most federal reimbursements as of January 2010. Then, we reviewed the Department's report prioritizing pavement preservation projects and verified the ARRA projects were listed in the report. We also reviewed bid tabulation sheets to ensure the projects were competitively awarded.

Our work was conducted from January 2009 to May 2010 in accordance with generally accepted government auditing standards.

In accordance with NRS 218G.230, we furnished a copy of our preliminary report to the Director of the Department of Transportation. On August 26, 2010, we met with Department officials to discuss the results of the audit and requested a written response

to the preliminary report. That response is contained in Appendix G, which begins on page 50.

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Appendix B

Proposed Department Projects Using ARRA Funds

County	Project Description	Type	Cost*
Clark	US-95 from SR-157 to North of SR-156	Pavement Preservation	$ 19,000,000
Mineral	US-95 from Esmeralda/Mineral County Line to 2.4 miles North of SR-361	Pavement Preservation	16,000,000
White Pine	US-93 from 5.4 miles North of Success Summit Road to .2 miles South of Cherry Creek Road	Pavement Preservation	15,000,000
Lincoln/Nye	SR-318 Sunnyside Cutoff	Pavement Preservation	14,016,262
Clark	I-15 East Mesa Interchange to South Mesquite	Pavement Preservation	14,000,000
Pershing	I-80 West of Rye Patch Interchange to East of Humboldt Interchange	Pavement Preservation	12,349,915
Churchill	I-80 Nightingale to Churchill/Pershing County Line	Pavement Preservation	10,820,369
Elko	US-93 in Contact	Pavement Preservation	10,645,650
Washoe	Meadowood Interchange	Capacity	9,293,143
Clark	I-15 Stateline to 17 miles North	Pavement Preservation	8,379,233
Humboldt	US-95 along Winnemucca Boulevard and SR-289 Winnemucca Boulevard.	Pavement Preservation	7,108,205
Clark	US-93 from Garnet Interchange to Clark/Lincoln County Line	Pavement Preservation	6,668,850
Clark	US-95 from 7.7 miles North of SR-156 to 1.2 miles North of FRCL 34	Pavement Preservation	6,500,000
Clark	US-95 Landscape Martin Luther King to Rainbow Road	Landscape	3,583,038
Clark	US-95 North of Laughlin	Enhancement	2,585,000
Lander	I-80 near Lander/Humboldt County Line	Pavement Preservation	2,422,580
Nye	US-95 from Jackass Flats to SR-160	Pavement Preservation	2,204,893
Carson City	V & T Railroad	Enhancement	2,033,899
Clark	Intersection I-515 and East Tropicana Ave.	Landscape	1,750,000
Elko	US-93 Safety Crossing	Safety	1,614,989
Carson City	US-395/50 from 5th Street Grade Separation to Fairview Interchange	Landscape	1,250,000
	Total		**$167,226,026**

***** Some costs are estimates as not all projects were bid at the time of our audit work.

Note: The Department's list of proposed ARRA projects exceeds the $134 million allocated to the Department because it includes contingency projects to ensure all ARRA funds are utilized if bids come in lower than estimated.

Appendix C

Relevant Sections of
Nevada Revised Statutes Chapter 408

Duties of the Board of Directors

NRS 408.131 Duties. The Board shall:

1. Consider, at its meetings, all questions relating to the general policy of the Department and transact such business as properly comes before it.
2. Receive and consider, at such time as the Board selects, an annual report by the Director.
3. Except as otherwise provided in NRS 408.203, act for the Department in all matters relating to recommendations, reports and such other matters as the Board finds advisable to submit to the Legislature.
4. Maintain a record of all proceedings of the Board.
5. Execute or approve all instruments and documents in the name of the State or the Department necessary to carry out the provisions of this chapter.
6. Except as otherwise provided in NRS 408.389, delegate to the Director such authority as it deems necessary under the provisions of this chapter.
7. Act by resolution, vote or order entered in its records.

(Added to NRS by 1989, 1297; A 1993, 1366)

Performance Measure Reporting Requirements
(A.B. 595, 2007 Legislature)

NRS 408.133 Plan for measuring performance of Department; report on level of achievement.

1. The Board shall adopt a plan for measuring the performance of the Department, which must include separate sets of performance measurements for each division of the Department and for the Department as a whole.
2. The Director shall, not later than December 31 of each year:

(a) Prepare a report, based upon the relevant performance measurements adopted pursuant to subsection 1, on the level of achievement of each division of the Department and of the Department as a whole during the immediately preceding fiscal year. The report must include a discussion of:

(1) The goals and objectives of the Department, and the current status of the Department in relation to meeting those goals and objectives;

(2) Any applicable directives from the Board or Legislature since the most recent report prepared pursuant to this section;

(3) The scheduling, scope, cost and progress of any current or proposed highway projects;

(4) The sources, amount and expenditure of any funding received during the immediately preceding fiscal year;

(5) The rationale used to establish priorities for the completion of highway projects; and

(6) Any recommendations for amendments to the plan adopted pursuant to subsection 1.

(b) Submit the report to:

(1) The Board; and

(2) The Director of the Legislative Counsel Bureau for transmittal to the Interim Finance Committee.

(Added to NRS by 2007, 1590)

Appendix C

Relevant Sections of
Nevada Revised Statutes Chapter 408
(continued)

Benefit/Cost Analysis for Highway Projects
(A.B. 595, 2007 Legislature)

NRS 408.3195 Written analysis of costs and benefits of proposed highway projects: Contents; availability to Board and public.

1. Before the Department submits a proposal for a highway project to the Board for approval, the Department shall prepare a written analysis of the costs and benefits of the project. The analysis must state, for each highway district in which the project is proposed:

(a) The limits of the project;

(b) The period of analysis;

(c) The discount rate used in the analysis;

(d) The initial costs of the Department for the project, including any costs for design, engineering, the acquisition of land and construction;

(e) The future costs of the Department to preserve and maintain the project, discounted to present value;

(f) Any other costs of the Department for any other construction or any mitigation associated with the project;

(g) The costs to highway users for any loss of safety, delays in the time of travel and costs for the operation of vehicles that are associated with the project;

(h) The costs of any environmental impacts, including vehicle emissions and noise, that are associated with the project; and

(i) The value of the benefits of the project, including the value of any:

(1) Savings in the time of travel;

(2) Improvements to safety; and

(3) Savings in the cost of operating vehicles.

2. The analysis required by this section:

(a) Must include a discussion of any additional increases in costs that would result from any delays in the performance of any routine maintenance scheduled under the maintenance program of the Department;

(b) May include a discussion of:

(1) The costs of the project for any other persons and governmental agencies;

(2) The value of any other social, economic or environmental benefits or costs of the project; and

(3) Any costs or benefits which may result from the use of any alternative design, construction or financing practices; and

(c) Must be prepared in a format that allows for the comparison of proposed highway projects.

3. The analysis required by this section must be made available to the Board and the public when the agenda is posted for the meeting at which the proposal will be submitted to the Board for its approval.

4. As used in this section, “highway project” means a project that is expected to increase the capacity of the state highway system and cost at least $25 million.

(Added to NRS by 2007, 1590)

Appendix C

Relevant Sections of
Nevada Revised Statutes Chapter 408
(continued)

Design-Build Requirements

NRS 408.388 Projects for which Department may contract with design-build team.

1. Except as otherwise provided in NRS 408.5471 to 408.549, inclusive, the Department may contract with a design-build team for the design and construction of a project if the Department determines that:

(a) Except as otherwise provided in subsection 2, the estimated cost of the project exceeds $20,000,000; and

(b) Contracting with a design-build team will enable the Department to:

(1) Design and construct the project at a cost that is significantly lower than the cost that the Department would incur to design and construct the project using a different method;

(2) Design and construct the project in a shorter time than would be required to complete the project using a different method, if exigent circumstances require that the project be designed and constructed within a short time; or

(3) Ensure that the design and construction of the project is properly coordinated, if the project is unique, highly technical and complex in nature.

2. Notwithstanding the provisions of subsection 1, the Department may, once in each fiscal year, contract with a design-build team for the design and construction of a project the estimated cost of which is at least $5,000,000 but less than $20,000,000 if the Department makes the determinations otherwise required pursuant to paragraph (b) of subsection 1.

(Added to NRS by 1999, 3483; A 2001, 2022; 2003, 119, 2031)

NRS 408.3886 Requests for final proposals and best and final offers: Selection or rejection of proposal or offer; contents of contract between Department and design-build team; duties of design-build team.

1. After selecting the finalists pursuant to NRS 408.3885, the Department shall provide to each finalist a request for final proposals for the project. The request for final proposals must:

(a) Set forth the factors that the Department will use to select a design-build team to design and construct the project, including the relative weight to be assigned to each factor; and

(b) Set forth the date by which final proposals must be submitted to the Department.

2. Except as otherwise provided in this subsection, in assigning the relative weight to each factor for selecting a design-build team pursuant to subsection 1, the Department shall assign, without limitation, a relative weight of 5 percent to the possession of a certificate of eligibility to receive a preference in bidding on public works and a relative weight of at least 30 percent for the proposed cost of design and construction of the project. If any federal statute or regulation precludes the granting of federal assistance or reduces the amount of that assistance for a particular project because of the provisions of this subsection relating to preference in bidding on public works, those provisions of this subsection do not apply insofar as their application would preclude or reduce federal assistance for that project.

3. A final proposal submitted by a design-build team pursuant to this section must be prepared thoroughly, be responsive to the criteria that the Department will use to select a design-build team to design and construct the project described in subsection 1 and comply with the provisions of NRS 338.141.

4. After receiving the final proposals for the project, the Department shall:

(a) Select the most cost-effective and responsive final proposal, using the criteria set forth pursuant to subsections 1 and 2;

(b) Reject all the final proposals; or

(c) Request best and final offers from all finalists in accordance with subsection 5.

Appendix C

Relevant Sections of
Nevada Revised Statutes Chapter 408
(continued)

Design-Build Requirements (continued)

5. If the Department determines that no final proposal received is cost-effective or responsive and the Department further determines that requesting best and final offers pursuant to this subsection will likely result in the submission of a satisfactory offer, the Department may prepare and provide to each finalist a request for best and final offers for the project. In conjunction with preparing a request for best and final offers pursuant to this subsection, the Department may alter the scope of the project, revise the estimates of the costs of designing and constructing the project, and revise the selection factors and relative weights described in paragraph (a) of subsection 1. A request for best and final offers prepared pursuant to this subsection must set forth the date by which best and final offers must be submitted to the Department. After receiving the best and final offers, the Department shall:

(a) Select the most cost-effective and responsive best and final offer, using the criteria set forth in the request for best and final offers; or

(b) Reject all the best and final offers.

6. If the Department selects a final proposal pursuant to paragraph (a) of subsection 4 or selects a best and final offer pursuant to paragraph (a) of subsection 5, the Department shall hold a public meeting to:

(a) Review and ratify the selection.

(b) Partially reimburse the unsuccessful finalists if partial reimbursement was provided for in the request for preliminary proposals pursuant to paragraph (f) of subsection 3 of NRS 408.3883. The amount of reimbursement must not exceed, for each unsuccessful finalist, 3 percent of the total amount to be paid to the design-build team as set forth in the design-build contract.

(c) Make available to the public a summary setting forth the factors used by the Department to select the successful design-build team and the ranking of the design-build teams who submitted final proposals and, if applicable, best and final offers. The Department shall not release to a third party, or otherwise make public, financial or proprietary information submitted by a design-build team.

7. A contract awarded pursuant to this section:

(a) Must comply with the provisions of NRS 338.020 to 338.090, inclusive; and

(b) Must specify:

(1) An amount that is the maximum amount that the Department will pay for the performance of all the work required by the contract, excluding any amount related to costs that may be incurred as a result of unexpected conditions or occurrences as authorized by the contract;

(2) An amount that is the maximum amount that the Department will pay for the performance of the professional services required by the contract; and

(3) A date by which performance of the work required by the contract must be completed.

8. A design-build team to whom a contract is awarded pursuant to this section shall:

(a) Assume overall responsibility for ensuring that the design and construction of the project is completed in a satisfactory manner; and

(b) Use the workforce of the prime contractor on the design-build team to construct at least 15 percent of the project.

(Added to NRS by 1999, 3485; A 2001, 252, 2020, 2022; 2003, 119, 2032, 2523)

Appendix D
Description of I-15 North and South Design-Build Projects

Design-Build I-15 North Project

Location

Las Vegas I-15 from US 95 Interchange North to Craig Road

Description

- Widen from six to ten lanes (From US 95 to Lake Mead Blvd)
- Widen from four and five lanes to eight lanes (From Lake Mead Blvd to Craig Rd)
- Reconstruct on- and off-ramps at D Street, Lake Mead Boulevard, Cheyenne Avenue, and Craig Road
- Reconstruct bridges at Bonanza Road, D Street, and Washington Avenue
- Auxiliary lanes between interchanges (From US 95 to Craig Rd)
- Sound walls
- Improve lighting, landscaping, and Freeway Management System
- Improve pavement construction and rehabilitation

Awarded Cost

$242.3 million

Funding

Federal and State Highway Funds, State General Fund

Design-Build I-15 South Project

Location

Las Vegas I-15 from Tropicana Avenue to south of Silverado Ranch Boulevard

Description

- Addition of collector-distributor road/lanes
- New bridges over I-15 at Sunset and Warm Springs Roads
- Wider ramp lanes at Tropicana Ave, Russell Rd, I-215, Blue Diamond Rd, and Silverado Ranch Blvd Interchanges
- Sound walls
- Landscaping and aesthetic treatments on bridges, retaining walls and sound walls
- Intelligent Transportation System Technology

Awarded Cost

$246.5 million

Funding

Room tax revenue and bonding through the Las Vegas Convention and Visitors Authority

Source: Nevada Department of Transportation records.

Appendix E

Legislative Counsel Legal Opinion

STATE OF NEVADA
LEGISLATIVE COUNSEL BUREAU
LEGISLATIVE BUILDING
401 S. CARSON STREET
CARSON CITY, NEVADA 89701-4747
Fax No.: (775) 684-6600

LORNE J. MALKIEWICH, *Director*
(775) 684-6800

LEGISLATIVE COMMISSION (775) 684-6800
JOHN OCEGUERA, *Assemblyman, Chairman*
Lorne J. Malkiewich, *Director, Secretary*

INTERIM FINANCE COMMITTEE (775) 684-6821
BERNICE MATHEWS, *Senator, Co-Chair*
STEVEN HORSFORD, *Senator, Co-Chair*
Mark Krmpotic, *Fiscal Analyst*
Tracy W. Raxter, *Fiscal Analyst*

BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830
PAUL V. TOWNSEND, *Legislative Auditor* (775) 684-6815
DONALD O. WILLIAMS, *Research Director* (775) 684-6825

June 28, 2010

Paul V. Townsend, Legislative Auditor
Legislative Counsel Bureau
401 South Carson Street
Carson City, NV 89701

Dear Mr. Townsend:

You have inquired about the statutory requirements concerning the relative weight to be assigned to certain factors for selecting a design-build team for a design-build project. Specifically, you have asked whether the provisions of subsection 2 of NRS 408.3886 authorize the Nevada Department of Transportation to use a formula for evaluating proposals that combines the relative weight assigned for "price" with the relative weight assigned for "scope of work" to satisfy the requirement of assigning the "cost" of the project a relative weight of at least 30 percent.

BACKGROUND

Based upon the information provided to this office, we understand that in 2009, the Nevada Department of Transportation awarded a design-build project designated the "I-15 South, Blue Diamond Road to Tropicana Avenue" ("the Project"). In the Instructions to Proposers contained in the Request for Final Proposals ("RFFP"), the Department established a fixed price range of between $245 million and $265 million for the Project, and each proposer was instructed to determine the proposer's scope of work that would fall within that price range. As part of the RFFP, a proposer's scope of work was required to include the items identified as the "Base Scope of Work." The RFFP identified additional scope items for which proposers could provide pricing. These items were identified as the "Additive Scope of Work" and could be included in proposals provided that the sum of the Base Scope of Work and the Additive Scope of Work items did not exceed the required price range.

The evaluation factors and relative weights to be used for the Project were specified in the Instructions to Proposers that were part of the RFFP. "Price" was assigned a relative weight of 10 percent. In addition, scoring sheets ("Proposer Evaluation Summary Sheets") used to evaluate the proposals assigned "Price" a relative

(NSPO Rev. 10-09) (O) 1578E

weight of 10 percent, or 100 out of 1,000 maximum potential points. "Scope of Work" was assigned a relative weight of 40 percent, or 400 out of 1,000 maximum potential points on the scoring sheets.

We understand that before the contract for the Project was awarded, a question arose as to whether this formula satisfied the statutory requirement contained in subsection 2 of NRS 408.3386 to assign the proposed cost of the design and construction a relative weight of at least 30 percent. In response, the Office of the Attorney General issued an informal legal opinion, in the form of an electronic mail message, which stated:

> Unlike a design-bid-build contract in which all proposers are bidding on the same design, the proposers here are proposing a proprietary design and bidding on the cost of its own unique design. Consequently, the price included in each proposal will be for a different scope of work. A comparison of prices alone therefore would be a comparison of apples, to oranges, to pears, to peaches. Therefore, the RFFP provided two elements for the cost of design and construction. First, the Scope of Work (the nature of the work bid on), and second, Price (the amount of dollars for the proposed work bid upon). The scope of work element had a relative weight of 40% and the price element had a relative weight of 10% for a total proposed cost of design and construction with a relative weight of 50%.

Thus, the informal opinion concluded that by combining the 10 percent relative weight of "Price" and the 40 percent relative weight for "Scope of Project," the formula used in the RFFP satisfied the statutory requirement to assign the proposed cost of the design and construction of the project a relative weight of at least 30 percent.

DISCUSSION

Subsection 2 of NRS 408.3886 contains the applicable statutory requirements governing the relative weight to be assigned to certain factors for selecting a design-build team for a design-build project. Subsection 2 of NRS 408.3886, provides, in pertinent part:

> [I]n assigning the relative weight to each factor for selecting a design-build team pursuant to subsection 1, the Department shall assign, without limitation, a relative weight of 5 percent to the possession of a certificate of eligibility to receive a preference in bidding on public works and a relative weight of at least 30 percent for the proposed cost of design and construction of the project.

NRS 408.3886(2). (Emphasis added.)

To interpret the meaning of subsection 2 of NRS 408.3886, our analysis must begin by applying the rules of statutory construction commonly used by the Nevada Supreme Court. Under the rules of statutory construction, interpretation of a statute "must begin with the language of the statute itself." State v. Friend, 118 Nev. 115, 120 (2002). When the language of the statute is clear and unambiguous on its face, it is presumed that the plain meaning of the statutory language reflects a full and complete statement of the Legislature's intent. Villanueva v. State, 117 Nev. 664, 669 (2001). When the words and terms in a statute are not defined, "[they] should be given their plain meaning unless this violates the spirit of the act." McKay v. Bd. of Supervisors, 102 Nev. 644, 648 (1986). Therefore, as a general rule of statutory construction, the plain meaning of the statutory language must be followed as written, unless doing so would violate the spirit of the statute or lead to an absurd or unreasonable result. Anthony Lee R. v. State, 113 Nev. 1406, 1414 (1997).

The term "cost," as used in the phrase "proposed cost of design and construction of the project," is not defined specifically in NRS 408.3386, is not defined specifically for the purposes of NRS 408.3875 to 408.3887, inclusive, and is not defined generally for the purposes of chapter 408 of NRS. To arrive at the plain meaning of statutory language, a court usually relies upon dictionary definitions because those definitions reflect the plain and ordinary meanings that are commonly ascribed to words and terms. *See* Cunningham v. State, 109 Nev. 569, 571 (1993). Therefore, we turn to dictionary definitions to ascertain the plain meaning of the term "cost" as used in subsection 2 of NRS 408.3886.

Black's Law Dictionary defines "cost" as: "Expense; price. The sum or equivalent expended, paid or charged for something." Black's Law Dictionary, 345 (6th Ed. 1990) Merriam Webster's Collegiate Dictionary defines "cost" as: "the amount or equivalent paid or charged for something; price." Merriam Webster's Collegiate Dictionary, 262 (10th Ed. 1997). Our review of numerous other dictionaries reveals substantially similar or identical definitions of the term "cost."

The preceding dictionary definitions of "cost" indicate that "cost" means a fixed sum, amount or price that is paid for something. Placed into the context of subsection 2 of NRS 408.3386, the proposed "cost" of the design and construction of a project is a fixed sum of money, a numerical amount or a price identified in the proposal as the sum, amount or price to be paid to the proposer for performing the design and construction of the project. Additionally, it is clear from the context in which the term "cost" is used in other statutory provisions relating to design-build contracts that the term is intended to mean a specific dollar amount. *See* NRS 408.388 (providing that the Department may contract with a design-build team under certain circumstances if "the estimated cost of the project exceeds $20,000,000" and may, once in each fiscal year, contract with a design-build team if certain determinations are made and the estimated cost "is at least $5,000,000 but less than $20,000,000.")

Turning to the formula used by the Department for the Project, "price" was designated a separate element of cost and assigned a relative weight of 10 percent, while "scope of work" was designated a separate element and assigned a relative weight of 40 percent. The formula then added these two separate elements and their relative weights together to arrive at the sum of 50 percent relative weight for the "cost" of the Project. The rationale for combining the relative weights for "price" and "scope of work" was apparently based upon the theory that because of the nature of a design-build contract, each proposal will necessarily offer a unique, proprietary design and a different scope of work, making it impossible simply to compare the specific dollar amount of each proposal.

However, the plain language of subsection 2 of NRS 408.3886 requires the factor of "cost" to be assigned a relative weight of at least 30 percent. Based upon the plain meaning of the term "cost" as used in the statute, "cost" is the specific dollar amount to be paid to the proposer as identified in the proposal. The formula used by the Department assigns a relative weight of only 10 percent to the dollar amount of the proposal, but attempts to differentiate this as a separate element of the "cost" by designating it as the "price," while simultaneously adding the element of "scope of work" as an additional element of the "cost." Although the formula used by the Department was obviously intended to identify which proposal offered the best value or "bang for the buck," the plain language of subsection 2 of NRS 408.3886 clearly requires that the evaluation of the proposals must be made and based upon a comparison of the specific dollar amount charged by each proposer, that is, the "cost" of each proposal, and that factor must be assigned the statutorily required minimum relevant weight of 30 percent. Therefore, the formula used by the Department does not comport with the statutory requirement to assign a relative weight of at least 30 percent to the cost because the formula assigns a relative weight of only 10 percent to the cost. Of course, after assigning the relative weight of at least 30 percent to the cost of the proposal, the Department could have then established in the formula additional evaluation factors specifically designed to measure the concept of the value and cost-effectiveness of the proposal, that is, how much work was to be performed for the cost. Such additional evaluation factors would have measured the scope of work to be performed under each proposal and whether that proposal went beyond the "Base Scope of Work" and included items identified in the "Additive Scope of Work."

Based upon the plain language of subsection 2 of NRS 408.3886, it is the opinion of this office that the provisions of subsection 2 of NRS 408.3886 do not authorize the Nevada Department of Transportation to use a formula for evaluating proposals that combines the relative weight assigned for "price" and the relative weight assigned for "scope of work" to satisfy the requirement to assign the "cost" of the design and construction of the project a relative weight of at least 30 percent.

Because the plain language of subsection 2 of NRS 408.3886 is determinative of the question you asked, it is not necessary to consider the legislative history of the statute to ascertain its meaning. Nevertheless, this office has reviewed the legislative history of Senate Bill No. 61 of the 2001 Legislative Session (chapter 410, Statutes of Nevada 2001, at page 2020), the bill that added the language now codified as subsection 2 of NRS 408.3886. The legislative history of the statute does not give any indication that the Legislature ever contemplated the interpretation of the statute suggested by the Department or desired that the statute be construed in any manner other than according to its plain meaning.

CONCLUSION

Based upon the plain language of subsection 2 of NRS 408.3886, it is the opinion of this office that the provisions of subsection 2 of NRS 408.3886 do not authorize the Nevada Department of Transportation to use a formula for evaluating proposals that combines the relative weight assigned for "price" and the relative weight assigned for "scope of work" to satisfy the requirement to assign the "cost" of the design and construction of the project a relative weight of at least 30 percent.

If you have any further questions regarding this matter, please do not hesitate to contact this office.

Very truly yours,

Brenda J. Erdoes
Legislative Counsel

Bradley A. Wilkinson
Chief Deputy Legislative Counsel

BAW:dtm
Ref No. 1006281808
File No. OP_Townsend100628213017

Appendix F

Detailed Test Results for Performance Measures
A.B. 595 Report for Fiscal Year 2009

Test Criteria	PM #6	PM #7	PM #8	PM #13	PM #14
Reasonable Methodology?	No	No	No	No	Yes
Completeness?	No	No	Yes	No	Yes
Accurate Description?	Yes	Yes	No	No	No
Supporting Documentation?	No	Yes	Yes	No	No
Measure Reliable?	No	No	No	No	Yes*

* Despite performance measure #14 having some problems, it was deemed reliable as the data it reported was based on sound methodology and was accurate for what it reported. Though it calls for a percentage, it reported the number of bridges considered structurally deficient.

Test Criteria Legend

Reasonable Methodology: Does the Department prepare and report the performance measure in a reasonable and prudent manner using data that is truly reflective of the performance being reported?

Completeness: Did the measure report all data (every project, road, time period) for each period tested?

Accurate Description: Does the performance measure accurately describe what is being reported?

Supporting Documentation: Did the Department keep the data supporting the reported measure? Could the measure be replicated using the retained data?

Performance Measure Legend

PM #6 Percentage of daily vehicle miles traveled that occur at Level of Service E (unstable traffic flow) or worse on the state system. This measure has been labeled as the 'system congestion index'.

PM #7 Percentage of projects within established range of cost estimate and schedule to completion.

PM #8 Percentage of state maintained pavements needing annual preservation in order to maintain the pavement International Roughness Index (IRI) rating of fair or better condition.

PM #13 Percentage of projects completed within the ranges of established estimate and schedule after the environmental process.

PM #14 Percentage of Department owned bridges which are eligible for federal funding and are categorized as structurally deficient or functionally obsolete.

Appendix G

Response From the Department of Transportation

STATE OF NEVADA

DEPARTMENT OF TRANSPORTATION

1263 S. Stewart Street

Carson City, Nevada 89712

JIM GIBBONS
Governor

SUSAN MARTINOVICH, P.E., *Director*

September 9, 2010

In Reply Refer to:

Audit Subcommittee of the Legislative Commission
Legislative Building
401 S. Carson Street
Carson City, NV 89701-4747

Subject: NDOT Response to LCB Audit Report for 2010 of the Department of Transportation

Dear Chairman and Members of the Audit Subcommittee:

This letter is in response to the Audit Report of the Department of Transportation developed by LCB over the past year. We appreciate the thoroughness and manner by which LCB staff completed their work. While we accept all of the recommendations that where developed, some of which we have already addressed, there are a few points that need to be made in relation to the findings.

Regarding the Design-Build (DB) process findings, it has to be made clear that the two DB projects that NDOT has executed to this point have been done in complete conformance with State Statutes and in concurrence with the legal staff of the Attorney Generals Office. It is also important to note that even with the findings for these two projects the selection of the contractor would not have changed. Since the beginning of the LCB Audit NDOT has been undertaking its own efforts to document and perfect our NDOT Design-Build procedures based on industry best practices and lessons learned. We have completed this effort and have had the Transportation Board of Directors approve new procedures. These approved procedures address the recommendations of the LCB Audit team.

Regarding the Performance Measures findings, we have made tremendous strides in shifting NDOT to a performance based management organization. Our desire is to have performance measures that are measurable, repeatable, and reliable and that truly assist NDOT in improving our operations. This has and will continue to be our focus to ensure we are transparent and responsible stewards of taxpayers' money.

Regarding the specifications for equipment purchases, we recognize there have been a few instances where we have been too specific and are working on steps to ensure we are creating good competition and receiving the best value for our equipment purchases.

Below are NDOT's responses to the specific Audit Recommendations:

(NSPO Rev. 1-07)

(O) 4667

1. *Evaluate proposals on all design-build projects in accordance with the factors and relative weights established in the RFFP and state law, which requires the proposal cost be assigned a relative weight of at least 30%.*

Response: Accept

The Transportation Board of Directors has approved new procedures. These approved procedures address the recommendation of the LCB Audit team.

2. *Develop procedures to ensure newly adopted policies regarding the objective scoring of design-build price proposals are followed.*

Response: Accept

The Transportation Board of Directors has approved new procedures. These approved procedures address the recommendation of the LCB Audit team. NDOT is in the process of publishing them for internal use and will be complete prior to the next Design-Build selection process.

3. *Comply with recently developed policies and procedures to provide the Board with appropriate information about design-build project proposals and the Department's evaluation of those proposals.*

Response: Accept

The Transportation Board of Directors has approved new procedures. These approved procedures address the recommendation of the LCB Audit team.

4. *Develop policies and procedures on the compilation of performance measures to ensure reported results are reliable, including retention of supporting documentation, and supervisory review of calculations and methodology.*

Response: Accept

NDOT is continually working on improving our performance measures to ensure that they are measurable, repeatable, and reliable and that they truly assist NDOT in improving our operations. We are also documenting our processes for data collection, review, analysis, quality control, and reporting.

5. *Develop procedures to ensure benefit-cost analyses for highway capacity projects exceeding $25 million are provided to the Board in a consistent time frame and include future operating and maintenance costs.*

Response: Accept

NDOT is in the process of finalizing our Transportation Policy for applying and reporting benefit/cost analysis of transportation projects.

6. *Enhance controls over specifications development to ensure equipment specifications include only the minimum essential characteristics and standards to which they must conform to satisfy their intended use, and include written justification when specific manufacturers' models, or their dimensions, are included in specifications.*

Response: Accept

NDOT will be reviewing our procedures for developing equipment specifications and will incorporate these recommendations.

In closing, the Department of Transportation has built a foundation for success. Our employees, day in and day out, provide an absolutely needed public service. They make our roads and highways safe for the traveling public and the goods and services that drive our economy. We have lived up to that challenge and look to continue that success.

Sincerely,

Susan Martinovich, P.E.
Director

Department of Transportation
Response to Audit Recommendations

Recommendation Number		Accepted	Rejected
1	Evaluate proposals on all design-build projects in accordance with the factors and relative weights established in the RFFP and state law, which requires the proposal cost be assigned a relative weight of at least 30%	X	
2	Develop procedures to ensure newly adopted policies regarding the objective scoring of design-build price proposals are followed	X	
3	Comply with recently developed policies and procedures to provide the Board with appropriate information about design-build project proposals and the Department's evaluation of those proposals...	X	
4	Develop policies and procedures on the compilation of performance measures to ensure reported results are reliable, including retention of supporting documentation, and supervisory review of calculations and methodology.....	X	
5	Develop procedures to ensure benefit-cost analyses for highway capacity projects exceeding $25 million are provided to the Board in a consistent time frame and include future operating and maintenance costs	X	
6	Enhance controls over specifications development to ensure equipment specifications include only the minimum essential characteristics and standards to which they must conform to satisfy their intended use, and include written justification when specific manufacturers' models, or their dimensions, are included in specifications	X	
	TOTALS	**6**	**0**