

MINUTES OF THE SENATE TRANSPORTATION & TOURISM COMMITTEE.

The meeting was called to order by Chairperson Senator Ben Vidricksen at 9:05 a.m. on February 24, 1999 in Room 254-E of the Capitol.

All members were present except: Senator Mark Gilstrap

Committee staff present: Hank Avila, Legislative Research Department  
Bruce Kinzie, Revisor of Statutes  
Marian F. Holeman, Committee Secretary

Conferees appearing before the committee: Dean Carlson, Secretary of Transportation

Others attending: See attached list

The Chair scheduled this meeting for informational purposes only on the following bills:

**SB 58: Re State system of highways - Secretary's responsibilities**

**SB 198: Re highways - priority formula for non-interstate roadways - and**

**SB 293: Re highways - priority formula for non-interstate roadways**

Members received Fiscal Notes on all three of the above bills (Attachment 1). Secretary Carlson did not attempt to go through the written testimony page by page. He advised that local governments would receive more funding if the governor's bill goes through so that should be of some assistance to local entities. The present state system is delicately balanced and can be easily upset by adding additional mileage to the Department's responsibilities (Attachment 2).

Secretary Carlson then explained the priority formula and reasons for continuing to use this to the benefit of the citizens of Kansas (Attachment 3). Members questioned whether or not area growth was built into the formula which was initiated in 1981 and the answer was that amount of traffic is a formula factor, as well as accidents. Explored these areas in more depth. The Secretary advised that fatalities are random factors that cannot be dealt with in a logical, statistical manner, whereas accidents can be. This gets it into the "law of unintended consequences." Definition of factors involved in "observed conditions" was explained.. Also explained the Secretary's authority to exercise highway enhancements decisions for economic development purposes.

The question always comes down to money. The Department does the best they can with available resources. There are many worthwhile, needed projects and a finite amount of funds. There was support for not changing the formula, because of the unintended consequences.

Secretary Carlson stated they would be happy to do a study of the present formula to determine whether or not it is in need of change in any way. It was observed that many questions raised here were answered in testimony heard during the summer testimony in the T-2000 meetings which clearly demonstrated that fatalities are not an adequate factor to determine needed changes in the state system.

Chairman Vidricksen announced that he had met with the President of the Senate just this morning and told him not to refer the House Transportation Bill to this Committee, because on the program all the decisions were made either in caucus or conference committees and it would be preferable to refer it straight to the tax committee and not double referred as it was the last time. That is the proper place for the bill since it has taxes and bonding in it. If committee members object and wish to do something in this Committee, it will be ad hoc and not part of our regular agenda.

The meeting adjourned at 10:05 a.m.

The next regularly scheduled meeting will be March 3, 1999.

**SENATE TRANSPORTATION & TOURISM COMMITTEE  
GUEST LIST  
DATE: FEBRUARY 24, 1999**

NAME	REPRESENTING
Dean Carlson	KDOT
Bill Watts	KDOT
Nancy Boajna	KDOT
Woody Moses	Economic Lifelines
Ed DeSaignie	Heavy Constructors Assoc. of K.C.
John Hanna	Associated Press

STATE OF KANSAS



DIVISION OF THE BUDGET

Room 152-E

State Capitol Building

Topeka, Kansas 66612-1575

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Bill Graves  
Governor

Duane A. Goossen  
Director

January 21, 1999

The Honorable Ben Vidricksen, Chairperson  
Senate Committee on Transportation & Tourism  
Statehouse, Room 143-N  
Topeka, Kansas 66612

Dear Senator Vidricksen:

SUBJECT: Fiscal Note for SB 58 by Senate Committee on Federal and State Affairs

In accordance with KSA 75-3715a, the following fiscal note concerning SB 58 is respectfully submitted to your committee.

SB 58 would increase the total mileage limitation of the State Highway System from 10,000 miles to 15,000 miles. Currently, the State Highway System has 9,589.9 miles.

Passage of the bill would have no fiscal effect. The bill does not impose any additional requirements on the Department of Transportation or modify its responsibilities.

Sincerely,

A handwritten signature in black ink that reads "Duane A. Goossen".

Duane A. Goossen  
Director of the Budget

cc: Bill Watts, KDOT

SENATE TRANSPORTATION & TOURISM COMMITTEE

February 24, 1999

Attachment #1

STATE OF KANSAS



DIVISION OF THE BUDGET

Room 152-E

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February 15, 1999

Bill Graves  
Governor

Duane A. Goossen  
Director

The Honorable Ben Vidricksen, Chairperson  
Senate Committee on Transportation & Tourism  
Statehouse, Room 143-N  
Topeka, Kansas 66612

Dear Senator Vidricksen:

SUBJECT: Fiscal Note for SB 198 by Senator Huelskamp

In accordance with KSA 75-3715a, the following fiscal note concerning SB 198 is respectfully submitted to your committee.

SB 198 would designate in statute the attributes, attribute weights and adjustment factors used in the Kansas Department of Transportation's Non-Interstate Roadway Rehabilitation Priority Formula. The formula is used by the Department to establish the priority for major roadway modification and replacement projects. The formula included in the bill is identical to the Department's current formula with one exception: the attribute weight for "Commercial Traffic" is increased and the attribute weight for "Observed Condition" is decreased. Because the priority formula measures need based on an aggregation of several factors, increasing the weight for one attribute means decreasing the weight of one or more other attributes.

The Department of Transportation indicates that passage of SB 198 would have no fiscal effect.

Sincerely,

A handwritten signature in black ink that reads "Duane A. Goossen".

Duane A. Goossen  
Director of the Budget

cc: Bill Watts, KDOT

STATE OF KANSAS



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Bill Graves  
Governor

Duane A. Goossen  
Director

February 18, 1999

The Honorable Ben Vidricksen, Chairperson  
Senate Committee on Transportation & Tourism  
Statehouse, Room 143-N  
Topeka, Kansas 66612

Dear Senator Vidricksen:

SUBJECT: Fiscal Note for SB 293 by Senator Harrington

In accordance with KSA 75-3715a, the following fiscal note concerning SB 293 is respectfully submitted to your committee.

SB 293 would designate in statute the attributes, attribute weights and adjustment factors used in the Kansas Department of Transportation's non-interstate roadway rehabilitation priority formula. The formula is used by the Department to establish the priority for major roadway modification and replacement projects. The formula included in the bill makes the following changes to the Department's current formula: increases the attribute weight for "observed condition" and creates two new attributes. The two new attributes to be added are "One Intersection Fatality Accident in a Calendar Year" and "Two or More Intersection Fatality Accidents in a Calendar Year." Because the priority formula measures need as an aggregation of several factors, increasing the weight for one attribute means decreasing the weight of one or more other attributes.

The Department of Transportation indicates that passage of SB 293 would have no fiscal effect.

Sincerely,

A handwritten signature in cursive script that reads "Duane A. Goossen".

Duane A. Goossen  
Director of the Budget

cc: Bill Watts, KDOT



**KANSAS DEPARTMENT OF TRANSPORTATION  
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E. Dean Carlson  
SECRETARY OF TRANSPORTATION

Bill Graves  
GOVERNOR

**SENATE TRANSPORTATION COMMITTEE  
SENATE BILL 58  
MAXIMUM MILES ON THE STATE HIGHWAY SYSTEM  
February 24, 1999**

**Chairman and Committee Members:**

Chairman and members of the committee, I am Dean Carlson, Secretary of Transportation. I am here today to present information regarding Senate Bill 58 which would increase the statutory limit on the number of miles on the State Highway System (SHS) from 10,000 miles to 15,000 miles. The Secretary of Transportation would retain the authority to determine those routes which are to be a part of the SHS and to remove from the system segments which have little or no statewide significance. While this bill does not add miles to the SHS, it will certainly encourage those who would.

The current SHS represents only 7.2 percent of the public road mileage in Kansas but carries 34.0 percent of the traffic in the state. Roads on the SHS should serve a statewide or regional purpose. Trip lengths on those routes should be fairly long when compared with nonstate routes. Routes that serve primarily local traffic should be the responsibility of the local jurisdiction.

There are currently approximately 9,600 miles on the SHS. We are relatively close to the 10,000-mile maximum. We believe there are already routes or route segments on the SHS that may not meet the criteria of statewide significance. Being close to the statutory limit has assisted KDOT for many years in being cautious and conservative in adding miles to the system. In fact, miles generally have been added only when a new alignment was built of an existing state highway and the old alignment could then be deleted from the SHS. Despite the recognition that the current system may be too large, there continue to be many requests for additions.

We believe it is important to keep the SHS at or below the size it is now. We are aware that cities and counties have difficulty in meeting their transportation needs. However, meeting transportation needs is, for the most part, a "zero-sum game." To improve the situation you must either add more funding or reduce roadway miles. Simply transferring miles from one jurisdiction to another is not the answer.

There are many examples in society where we have stratified or classified needs so that we might place greater emphasis on some subset of the whole in an objective, logical, and rational way. That is one of the reasons for having a state highway system so that we can place greater emphasis, funding, and effort on a subset of the miles that is small (7.2 percent of miles) but very high in utility (34.0 percent of vehicle miles traveled). To increase the mileage limit on the SHS by 50 percent would send a strong signal to those that would move miles from local jurisdiction to the SHS thereby spreading the pool of available resources more thinly over the SHS. For these reasons, we are opposed to Senate Bill 58.



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E. Dean Carlson  
SECRETARY OF TRANSPORTATION

Bill Graves  
GOVERNOR

SENATE TRANSPORTATION COMMITTEE  
SENATE BILLS 198 AND 293  
PRIORITY FORMULA FOR NON-INTERSTATE ROADWAYS  
February 24, 1999

Chairman and Committee Members:

Chairman and members of the committee, I am Dean Carlson, Secretary of Transportation. I am here today to present information regarding Senate Bills 198 and 293 which both address the priority formula for Non-Interstate Roadways. Both bills legislate the attributes, attribute weights, and adjustment factors currently used in the Kansas Department of Transportation's (KDOT) Non-Interstate Roadway Rehabilitation Priority Formula, but each bill makes different changes to the current formula. Senate Bill 198 makes the following changes: attribute weight for "Commercial Traffic" is increased; attribute weight for "Observed Condition" is decreased. Senate Bill 293 makes the following changes: attribute weight for "Observed Condition" is decreased; new attribute for "One Intersection Fatality Accident in Calendar Year" is added; new attribute for "Two or More Intersection Fatality Accidents in Calendar Year" is added.

KDOT selects Major Modification Non-Interstate roadway improvement projects based on this priority formula. The formula ranks roadway sections by the seriousness of their deficiencies and takes into account various factors such as traffic volumes (including commercial traffic), accident rates, roadway and bridge geometrics, and pavement conditions. The priority formula analyzes the aggregate need of each roadway section and allows KDOT to prioritize needs within the limited funding available for highway improvements.

The agency's prioritization system was developed by KDOT and Woodward-Clyde Consultants in 1981 at the direction of the Legislature. KDOT was asked to develop a priority system that would: be clearly defined and use documented criteria; use a systematic and consistent procedure to determine the relative weights of various criteria and the relative priority ranking for construction of road and bridge segments; have reproducible results; and use quantitative and verifiable factors or documented professional judgement to determine relative priorities.



A computerized priority ranking system analyzes the extensive data maintained on each section of the state's 10,000-mile system. Each piece of data is called an attribute. Each of these attributes is given a relative weight which reflects the priority of that factor. In addition to the various attributes, adjustment factors are applied to certain of the attributes to account for each road section's route classification, traffic volume, accident rate, posted speed limit, shoulder type, and whether the section is divided or undivided. The weighted attributes and the adjustment factors are then used in a complex linear programming formula to arrive at each project's overall rating. The formula and the various weighting factors were developed by KDOT and its consultant based on the "Delphi Process." The Delphi Process is a decision-making process that was developed by the RAND Corporation which allows a group of experts to arrive at a consensus opinion on complex problems.

Roadway deficiencies are assessed annually by running the priority formula computer program utilizing updated survey information, which is collected by KDOT throughout the year. The resulting annual prioritized information is used to select any new roadway improvement projects in the Major Modification Non-Interstate project category. Projects with the highest relative need are scheduled for improvement first within the available funding. Exceptions in scheduling are sometimes necessary to ensure use of all federal-aid funds or because of design complications or right-of-way acquisition delays.

The priority system originally consisted of two formulas, one for roads and one for bridges. In the mid-1980s the formulas were revised to add an adjustment for route classification and make technical corrections for design standards, default values, and number of lanes. In addition, the single road formula was split into separate formulas for Interstate and non-Interstate. Since its inception, KDOT has periodically reviewed the prioritization process for potential adjustments as various related issues have been identified. Because any change in the priority formula involves increasing the relative need of one section of road at the expense of another, adjustments have been carefully analyzed with the result that no change has been made in the current formula since the mid-1980s. The priority formula assures Kansas citizens that projects are selected based on objective need. Over the years there has generally been broad consensus that the priority formula picks the "right" projects, and a review of projects over the past decade indicates that the appropriate highway corridors are identified by the priority formula.

KDOT's prioritization system has also been reviewed by the Legislature. The prioritization process was reviewed by two Interim Committees in 1987 and 1988 and was discussed in conjunction with development of the 1989 Comprehensive Highway Program. The Interim Committees concluded, "any change in the priority formula requires a comprehensive evaluation of all factors in the formula" and that "it would be extremely difficult to alter the formula and achieve a specific result without redeveloping the entire formula and all the weights and factors involved."

By prescribing the formula in statute, no opportunity is allowed to make revisions that may be necessary to correct technical or design standard issues, or to address emerging issues such as four-lane or interchange improvements. If either Senate Bill changes were made, there would be an outstanding question of what to do with projects that were identified by the priority formula in prior years and are already under development and scheduled to be let to construction

contract, but are not identified by the revised priority formula. If these projects are suspended in favor of newly prioritized projects, there will be a loss of investment in previously identified projects and a gap in future project lettings due to the lead-time necessary for project development.

In addition, adjustments to the prioritization formula without thorough review often have unintended consequences. Increasing the weight for one attribute or adding a new attribute means decreasing the weight of one or more other attributes. Because the priority formula measures relative need based on an aggregation of several factors, it is difficult to predict which roadway sections will rise and fall in priority because of the adjustments.

Senate Bill 198 increases the attribute weight for “Commercial Traffic” and decreases the weight for “Observed Condition.” “Observed Condition” reflects pavement deficiencies such as cracking, faulting, and joint failure. This attribute is an objective measure, and the data comes from KDOT’s Pavement Management System annual survey. Decreasing the relative weight of this attribute tends to discount these conditions in favor of routes with higher truck volumes, all other factors being equal.

Senate Bill 293 adds two new attributes for fatality accidents as an attempt to increase the relative priority need of certain roadways based on safety considerations. Accident rate information is already used to adjust five of the attributes used in the formula so that, for roadway sections with essentially the same attribute values, sections with higher accident rates will be ranked as greater in need. Because fatality accidents are a relatively rare event when considering all rural non-Interstate sections—under 200 fatality accidents in one year for approximately 3,000 sections, the revisions proposed by House Bill 2432 would result in a de facto increase in priority for all of the attributes except “Observed Condition” which is decreased to allow for the two new attributes. In addition, fatality accidents tend to be unpredictable and not directly related to measurable aspects of the roadway. Unlike accident rates which are statistically valid and can be related to roadway conditions, it is difficult to relate fatality accidents to physical factors for individual roadway sections.

Almost all highway improvement projects contribute to improved safety. Similarly, almost all data items used in project identification are directly related to safety considerations. While the use of accident rate is an explicit consideration of safety, highway safety is an inherent consideration in almost all other data items used in prioritizing improvement projects. Highway characteristics such as shoulder width and type, narrow bridges, stopping sight distance, total traffic volumes, truck volumes, lane width, and even surface condition all relate directly to the safety of the highway section. The priority formula analyzes the aggregate need of each roadway section and allows KDOT to prioritize roadway needs within the limited funding available for highway improvements.

In summary, the current Non-Interstate Roadway Rehabilitation Priority Formula fairly and objectively analyzes the aggregate need of each roadway section and allows KDOT to prioritize needs within the limited funding available for highway improvements. We believe that no changes should be made without a comprehensive evaluation of all attributes, attribute weights, and adjustment factors involved.