

**ALASKA STATE LEGISLATURE
HOUSE TRANSPORTATION STANDING COMMITTEE**

February 5, 2008

1:04 p.m.

MEMBERS PRESENT

Representative Kyle Johansen, Chair
Representative Mark Neuman, Vice Chair
Representative Anna Fairclough
Representative Craig Johnson
Representative Mike Doogan
Representative Woodie Salmon

MEMBERS ABSENT

Representative Wes Keller

COMMITTEE CALENDAR

OVERVIEW: DOT CENTRAL REGION

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to report

WITNESS REGISTER

GORDON KEITH, Director
Central Region
Department of Transportation & Public Facilities
Anchorage, Alaska

ACTION NARRATIVE

CHAIR KYLE JOHANSEN called the House Transportation Standing Committee meeting to order at [1:04:52 PM](#). Representatives Salmon, Doogan, Fairclough, and Johansen were present at the call to order. Representatives Neuman and Johnson arrived as the meeting was in progress. Other legislators present were Representatives Buch and Edgmon.

Overview: DOT Central Region

[1:05:03 PM](#)

CHAIR JOHANSEN announced that the only order of business would be a presentation by the Central Region director of the Department of Transportation and Public Facilities (DOT&PF). He informed members the committee would hear from the Northern Region director on Thursday and the Southeast Region director the following week. In addition, he planned to hold a few more meetings on the Alaska Marine Highway System.

1:06:11 PM

GORDON KEITH, Regional Director, Central Region, Department of Transportation, Anchorage, Alaska, introduced himself and began his presentation, as follows:

Chairman Johansen and members of the Transportation Committee, thank you for letting me get on your schedule and take your time to give an overview of the Central Region. I, too, think it's a valuable exchange. The more you know how our business runs and the more I know what you want out of the Department of Transportation, the better.

I'll just give you a little brief introduction of myself. I am a 35-year employee of the Department of Transportation and I'm a professional engineer. As a point of interest, my father started working for the Alaska Road Commission in 1921 building the Richardson Trail, so this truly is the family business here.

As region director, I supervise all the planning, design, construction and maintenance in the region and that is in the modes of highways and aviation and, until January 1st of this year, that also included facilities. Facilities [are] now a statewide function.

The regions are the production side of the [indisc.] for the Department of Transportation. The regions do all of the environmental documents. They do the design work. They do the construction administration. Bridge design is the only function out of the department that is a statewide function. I'll call your attention to the first exhibit we have, which is a map of the Central Region - the Central Region headquarters. My office is in Anchorage and sometimes people think that Anchorage is the Central Region but

the Central Region is one heck of a lot bigger than that. Area-wise it includes Anchorage, the Mat-Su Valley, the Kenai Peninsula, Kodiak, Bristol Bay, the Alaska Peninsula, the Kuskokwim Delta, and the Aleutians and the Pribilofs.

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MR. KEITH continued:

If you turn to the next exhibit, there's another graphical picture of the Central Region and, to put it in perspective, we all know this is a massive state and Central Region is no different than the state as a total and let me give you as a point of reference, Unalaska, Dutch Harbor, [are] in the Central Region. It costs the better part of a \$1,000 bill for me to fly out there and you can fly to Seattle and get there cheaper and quicker than flying to Unalaska, Dutch Harbor. It's actually, to go out for a final inspection, it's a two-day trip if the weather is right and just about every time I go out there it turns out to be a three or four day trip because of the weather.

[1:11:02 PM](#)

REPRESENTATIVE NEUMAN commented that Mr. Keith is the most responsible, informative, and intelligent person he has ever dealt with in state government. He then asked how the Central Region compares to other areas.

MR. KEITH said the Northern Region actually has more lane miles than the Central Region. Many of those lane miles are very rural and include gravel roads. He noted that the Central Region has more miles of road to maintain than at least half of the eastern states in the U.S. The department is probably the only transportation department in any state that deals with highways, airports and public facilities. In most states, buildings are owned and run by the administration and airports are owned by airport authorities.

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REPRESENTATIVE DOOGAN asked for a description of how DOT&PF's organization works, and whether the regional directors are responsible to the separate deputy commissioners for the areas

of their function, such as to the aviation deputy commissioner for aviation projects.

MR. KEITH replied in the mid 1980s DOT&PF followed a typical organizational chart with everything coming to headquarters. That organization was seen as unresponsive to the people. For example, staff in Juneau could not understand Anchorage's transportation problems, let alone the problems in Hooper Bay. As a result, DOT&PF became regionalized by function. He does not report to the deputy commissioners; he reports directly to the commissioner. The deputy commissioners of marine highways, aviation, and highways set policy. He said he seeks their advice and counsel on all projects in his region.

[1:15:21 PM](#)

MR. KEITH returned to his presentation:

When you look at that map - and you see that by highways we have the Parks Highway. There's a misprint here. There is no milepost 0 on the Parks Highway. It's milepost 36 to 163. All of the Seward Highway, all of the Sterling Highway, all of the Glenn Highway are major roads. We have 109 rural airports, six harbors, and it amounts to 5,400 paved miles of roadway and 975 miles of gravel road and about 300 bridges.

From here I'd like to go to - in your package I have the projects and what I want to do with the projects here is first I want to give you what we call a takeaway. These are something that you might want to even keep in your office. It's all of the projects that we're working on in Central Region. So let me start, if you will, with the construction projects first.

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CHAIR JOHANSEN asked Mr. Keith how the six harbors differ from those that were transferred to local entities.

MR. KEITH said DOT&PF is still trying to convey those harbors.

CHAIR JOHANSEN asked if the intent is to move them.

MR. KEITH said yes. They are under state ownership but DOT&PF would like to transfer ownership to the local communities.

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REPRESENTATIVE NEUMAN asked Mr. Keith to identify the projects that were vetoed last year during his presentation and the amount of funds needed.

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MR. KEITH said he will try to recall all of them as he proceeds. He then continued his presentation, as follows:

So under the construction projects, these are actually construction projects from 2007, 2008, 2009. Projects don't have a life of one year so we have what are called carryover projects that are projects that were advertised in 2007. They were 2007 money. For whatever reason they are a multi-year project whether they were a complex large project. We have one in here on the Glenn Highway at Picks Creek that is a \$30 million project that is only half done or, in some cases, the project started late in the season so that it isn't finished. So these projects represent all of the projects that you are going to see from 2007, 2008, 2009.

It amounts to 89 projects and if you turn to the next sheet, we thought this would be helpful. We were encouraging the other regional directors to do the same thing. We've broken it down by community so you can look at your community and you can say what kind of work do we have going on in Chignik and you can quickly identify how many projects and how many dollars in Chignik in highways, aviation and facilities and then go to the cross reference, which goes into more detail about the project.

I don't know unless it's the pleasure of the committee that it is necessary to go through each individual project. We could do that or if you have a question on a particular project I can try to answer it.

1:20:18 PM

REPRESENTATIVE DOOGAN asked for the meaning of the acronym "HSIP."

MR. KEITH replied HSIP represents the Highway Safety Improvement Program. That program identifies areas with high accident rates and those areas are nominated statewide for consideration. The most worthy projects are selected. Projects compete based on need and on the proposed remedies to the problems. After the project is completed, follow-up occurs to determine whether the remedy worked.

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REPRESENTATIVE FAIRCLOUGH concurred with Representative Neuman's opinion of Mr. Keith and thanked him for his responsiveness to legislators. She noted DOT&PF is on schedule for the Glenn Highway upgrade, for which an additional \$700,000 was appropriated last year for lighting.

MR. KEITH affirmed that DOT&PF is on schedule but the contractor is working more slowly on it than he had hoped. All of the conduit and bases have not been installed yet but DOT&PF will continue to push them. He believed the poles were already ordered and the project would be completed this summer.

[1:22:48 PM](#)

REPRESENTATIVE FAIRCLOUGH asked about the Eagle River Loop road project and remarked that jogging on that road has created safety problems. She questioned whether that construction project is on target.

MR. KEITH said DOT&PF is on target. The project will be advertised in late February or early March. He will be speaking about road rut problems during his presentation.

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REPRESENTATIVE FAIRCLOUGH questioned whether DOT&PF knows the facility asset total cost invested in the state and whether it has a number for the backlog on maintenance for those facilities and the highway system.

MR. KEITH said he could not answer that question at this time.

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REPRESENTATIVE FAIRCLOUGH said it is her understanding that DOT&PF had to assess all of Alaska's roadways under federal highways requirements and that those roadways must be monetized on an asset basis to project depreciation and replacement costs at a specific time.

MR. KEITH said the Municipality of Anchorage (MOA) is actively engaged in that process, not DOT&PF.

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REPRESENTATIVE FAIRCLOUGH asked Mr. Keith to follow-up with an answer about why the state is not involved or the pace at which it is involved.

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CHAIR JOHANSEN reminded members to ask their questions about specific projects when Mr. Keith discusses them. He then told the committee that Rodney Dial was on line to answer public safety questions.

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REPRESENTATIVE JOHNSON referred to handouts entitled Funded and Designed, Partially or Full, and Current and Expected and noted duplication [of project listings]. He asked why [a project] would be listed in both places.

MR. KEITH said to the extent that work is delayed and construction is still in the design phase, the project would still be in there.

REPRESENTATIVE JOHNSON asked if the dollar figure would be the same.

MR. KEITH said it would.

REPRESENTATIVE JOHNSON affirmed the project is still in the design phased but asked if one would not necessarily mean the other is not advancing.

MR. KEITH said that is correct. He said he would discuss the design handout to clarify the design package.

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CHAIR JOHANSEN asked for an explanation of the difference between an Anchorage Metropolitan Area Transportation System (AMATS) and non-AMATS project. He thought a chunk of the pie was pulled out of the Statewide Transportation Improvement Program (STIP) for AMATS projects and asked for clarification.

MR. KEITH said AMATS is a metropolitan planning organization, which is federally required for any city with a population over 50,000. That organization distributes federal aid dollars. The AMATS allocation is for all roads not considered to be part of the National Highway System. Any Anchorage roads considered to be part of the National Highway System have their own funding source.

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REPRESENTATIVE NEUMAN noted the Matanuska-Susitna Borough does not have a metropolitan planning system yet its population is over 50,000. He asked how that is handled.

MR. KEITH said he has met with the Mat-Su Borough to discuss that question. The federal requirement also includes a core density so the population must be located in distinct areas. The Mat-Su Borough's population does not meet that description yet. He said he has shown Mat-Su Borough officials that if it was allocated its equivalent in AMATS funds, the Borough would receive less money.

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REPRESENTATIVE JOHNSON asked for a point of clarification regarding the three designations of the Seward Highway. He asked whether one should conclude that the Seward Highway is designated as the new Seward Highway.

MR. KEITH explained the road south of O'Malley and Potter Marsh is considered to all be the Seward Highway. Between 36th and O'Malley there is both the old and new Seward Highway. In the area where the old Seward Highway and new Seward Highway parallel each other, they are differentiated. In the area where there is no parallel road, it is just the Seward Highway.

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MR. KEITH continued his presentation, as follows:

So I just wanted to make a point on the design one there. This listing amounts to 159 projects. That gives you an idea of how many projects we're working on at any given time. These are the projects that - a real project meaning a project manager has been assigned and money has been programmed for it, whether it is to begin the environmental document or scoping or whatever it is. So above this there - you may have heard the term "the needs list." The needs list is the universe of all the projects wanted statewide or, in our case, region wide. These are projects that have made the cut in priority to the point that they are real projects and have money programmed. If you look through the list you can see some intelligence there to it like if you look at any of them, I'm going to look at page 1 at the bottom of AMATS project Abbott Road Rehabilitation where it says estimated costs and it says "to be determined." That means this project is so new that the project manager whose been assigned it hasn't even come up with a good figure to estimate from. Estimated bid date to be determined - once again, that means it is not on any kind of a spending list right now. When you look at other ones like - I'm just looking at page 1 again where estimated cost ... for Akiak airport construction, \$4.9 million that means it's developed enough, the scope of work that they can have an estimate for it. You'll see some where they have an estimate but they have "estimated bid date to be determined." That means it's not in the STIP for a highway and it's not in the aviation spending plan. So that's some of the intelligence to looking at this here.

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REPRESENTATIVE DOOGAN asked for an explanation of the difference between total projects and grand total.

MR. KEITH said 23 communities and 118 projects are listed. The difference between 118 and 156 is that some projects may not be germane to only one community.

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REPRESENTATIVE FAIRCLOUGH further explained the 118 is added to the 33 aviation projects and the 5 facility projects, which brings the total project count to 156.

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CHAIR JOHANSEN expressed confusion that a previous DOT&PF testifier said the plans for \$200 million in projects are complete so the projects are ready to be built. He asked whether the projects Mr. Keith displayed are in addition to those projects.

MR. KEITH said DOT&PF's goal is to not move projects forward if there is no reason to believe that funds will be available to build them. He stated the projects [he displayed] are projects planned to move ahead. Money has been programmed for those projects. He added DOT&PF does not have a lot of projects sitting on the shelf for many reasons. Federal requirements mandate projects to begin construction or purchasing rights-of-way within 10 years of being planned. In such a case, the state would have to repay the federal government for the original funds expended.

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REPRESENTATIVE NEUMAN asked Mr. Keith if the Central Region's barebones operating request is \$35 million.

MR. KEITH replied it is \$38 million.

REPRESENTATIVE NEUMAN asked what amount was requested in the Governor's budget.

MR. KEITH said Central Region is doing pretty well and he would discuss that further in his presentation.

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REPRESENTATIVE FAIRCLOUGH expressed concern about looking at new projects for new facility construction. She was told during a University of Alaska subcommittee hearing that deferred maintenance costs for university facilities total about \$700 million. She pointed out the Central Region has quite a few state-owned facilities so she is concerned about deferred maintenance costs for that area.

MR. KEITH told members that is the reason the commissioner designated facilities as a statewide function. By raising awareness, DOT&PF hopes to catch up on deferred maintenance. The state has a very large backlog of deferred maintenance,

including over \$100 million of American Disabilities Act (ADA) requirements. DOT&PF has only received a few hundred thousand dollars per year to address that.

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REPRESENTATIVE FAIRCLOUGH said the University of Alaska requested \$12 million to handle a maintenance log that appears to need \$60 to \$70 million per year for six or seven years. With reduced oil production down the line, seven years of catch-up time seems shortsighted, she opined.

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CHAIR JOHANSEN said everyone recognizes deferred maintenance problems around the state but he believes in the need to balance those costs with new projects. Maintenance cannot stand still for seven or more years. He remarked the Governor's deferred maintenance request is large.

MR. KEITH said he will discuss that balance during his presentation.

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REPRESENTATIVE FAIRCLOUGH said she is not implying that no funds should be spent on new projects because she believes in economic growth opportunities in transportation to open up regions to resource development, employment opportunities, and reduced maintenance by connecting communities. She said she feels the need to "toll the bell" regarding how far behind the state is in addressing its deferred maintenance needs before it incurs new operational costs.

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CHAIR JOHANSEN said he heard the governor state last night that transportation is one of her spending priorities.

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MR. KEITH returned to his presentation, as follows:

With that I'd like to talk about some of the problems of Central Region and I gave a lot of thought to this issue. I have some of the same problems that the other regions do, such as funding, the problem we have

with recruiting and retaining, particularly engineers, but professional staff in general. That will be somewhat in my discussion here but the overriding thing I want to come across with Central Region is number one, Central Region has 64 percent of the population there and three of the fastest growing communities in the state and that would be the Mat-Su, the [Municipality] of Anchorage, number three I'm told is Fairbanks and then finally the third out of the fourth for Central Region is the Kenai Peninsula. It is not just that we have the population. When you have the population by definition, we have the cars, it means we have the vehicle miles traveled and from that if you look at the exhibit there showing Central Region where population growth outruns road improvements, the planning staff put together a little draft here and that's showing that with this high population growth and a limited road network, we have two main problems and that is congestion, accidents and ruts.

Congestion actually is the root problem and the two results are accidents and ruts in the pavement. So I'd like to go through that a little bit and I'll give a little background here. If you turn to the next page, which is actually an exhibit which is called Central Region State of Alaska DOT Top 10 Congested Bottlenecks, it was just by chance that the Federal Highway Administration asked us to come up with our 10 most congested areas.

About the same time we were finding out about - it actually was caused by a series of accidents on the Seward Highway with deaths associated. In our efforts to try to get a hold of what are we going to do about these areas that have recurring serious accidents with bodily harm and fatalities and I had my traffic section start gathering together where are these patterns of accidents and just at the same time these separate things crossed my desk. ... I guess it's not world shaking but it is sort of amazing that the areas with the most congested roads are the ones that turn out to be the traffic safety corridors with high accident rates.

I marked on my sheet what I'm describing here with the bottlenecks. If you go down the line there, you can

see four of the highway traffic safety corridors are here. Number 3 is the Parks Highway, Wasilla to Big Lake. And you can see the V divided by C means that the volume, the actual measured volume we get there divided by the capacity, in general terms, the capacity of a rural two-lane highway is about 12,000 cars ADT - average daily traffic a day, so when it exceeds that, and in this case it exceeds it by 26 percent, first the level of service goes down.

The level of service is a traffic engineering thing. Level of service A would be you are out on the highway free flowing. You can't see another car. You can make turns, stops, speed up, slow down, independent, you know. And then it goes down along the way where you have to be more watchful when you're making traffic maneuvers and what not and, eventually, when you get down to level of service F, it's gridlock. Between - when you start to get in that level of service E, level of service F, people - not all people - but people, more reckless people, take chances. They try to pass when they shouldn't. The consequence when they do that often ends up with an accident. If you're out on a highway, once again, it's level service A and if you spin out or something like that the consequence probably isn't that bad but, when the highway is just packed with cars, somebody is going to get hurt and somebody is going to die. That's what we're seeing here with these high congested roadways that manifest itself in severe accidents and deaths.

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REPRESENTATIVE JOHNSON asked about the situation at Tudor and Elmore that has only been open for two months, but is a problem area. It is only a matter of time before lives will be lost. He questioned whether that project can be moved up the list without waiting for a history of accidents and deaths.

MR. KEITH said the good news is that the Legislature has already appropriated money for that project and the design is almost complete. It has been designed as a separate project and will be constructed this summer.

REPRESENTATIVE JOHNSON asked if the bridge will be torn down.

MR. KEITH said it will not. DOT&PF does not believe the utility corridor in one quadrant will be a problem either.

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MR. KEITH explained that DOT&PF is still looking at it and the problem is that the traffic exceeds the stacking capacity for the left turn pocket on Tudor. DOT&PF is waiting for the college session to begin and traffic patterns to settle in.

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REPRESENTATIVE JOHNSON asked what that has done to traffic at Lake Otis and Tudor.

MR. KEITH replied:

Through the chair, when we get done with Elmore and Dowling Road extended east from Lake Otis to Elmore, and once again, thank you for the funding for that. That's another state funded project, another success story.

Elmore - let me drop back to that one. That was a general obligation bond so we didn't have to go through all the federal rigmarole. We were able to move that project ahead much faster than a federal aid project. We were able to get the environmental document, get the design done in two years, get it constructed in two years, and in four years we have an open and operational facility, whereas if that had been a federal aid project, well I'm not even sure we could have built it as a federal aid project because there is park land involved and federal aid section 4F says you can't go through park land unless there's not other reasonable alternatives. But even if you could get through there, it would take seven or eight years so we probably cut anywhere from two to four years off the delivery of that.

But Dowling East tracks the same way. You folks appropriated the money. We're just about done with the design. It took us two years. We're going to advertise it in the next couple of months. We hope to get that done in one or two years. When those two projects are done, and I recognize if you're not from Anchorage you might not know what we're talking about,

it sets up a link where people can drive around Lake Otis and Tudor. I keep stressing that we don't unnecessarily have to build intersections 20 lanes wide. We need to build connecting links around it. When those two links are done, it will take 15,000 cars a day off of Lake Otis and Tudor. That's about one-third, about 30 percent reduction in the traffic to Lake Otis and Tudor. And those are the types of things we are trying to do with AMATS and DOT in Central Region.

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REPRESENTATIVE JOHNSON asked if the \$8.7 million in the plan for Lake Otis and Tudor can be spent elsewhere.

MR. KEITH said no.

REPRESENTATIVE JOHNSON asked why that money must be spent on an upgrade if the problem has been resolved.

MR. KEITH said the Lake Otis and Tudor [intersection] is complementary to it. When that project is finished with left and right turning lanes, the entire grid will function better. The mayor would like to move ahead with that project before the Dowling project begins.

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CHAIR JOHANSEN asked how valuable using bonding money is to DOT&PF in terms of getting projects out quickly.

REPRESENTATIVE FAIRCLOUGH said Anchorage bonds for its roads in a significant way. She expressed surprise that Fifth Avenue, between Gambell and Airport Heights, is not on the list. She said the traffic is at a dead stop for 30 minutes along that roadway.

MR. KEITH replied DOT&PF has a fix for that area. The six-lane section will be extended all of the way from Highland through Merrill Field into town. The four-lane bottleneck will disappear. That is an interim fix; but that is necessary to relieve the back-up until the highway-to-highway project can be done.

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MR. KEITH continued his presentation:

The next exhibit I'd like to show you is having seen these high traffic volume bottlenecks and notating the ones I mentioned to you that are the traffic safety corridors, turning the page, this is the traffic safety corridor part of the presentation, which is at least at this point only something that Central Region is doing and that is just like I said before, we have the highest accident rates and fatality rates of any highway in the state so they all fall in our area here.

What we're trying to do is, faced with these accidents and deaths, what do we do about it. So we borrowed and built on the success of other states, particularly the State of Oregon. We're a young state so we always think that we can learn from other states and take the best of what other states have and build on it and that's how we came up with the concept of highway safety corridors. It was established by the AS 19.10.075 and, once again, I want to thank you folks for voting for it. Our Alaska traffic manual implements this.

To put those in place it's a major effort. We go through and analyze all of the accidents and one of the things we had to look at is it the number of accidents, is it the number - you know, every fender bender. Is it serious accidents? Is it deaths? We finally came to the conclusion it's the rate of accidents. It's the rate of serious accidents and deaths. So when we sort through those, it's important to understand the three Es of traffic engineering and [those are] engineering, education and enforcement. So, on these traffic zones there is nothing that is going to happen. If you have a highway that's got poor geometrics, it's a dangerous highway to begin with; you're really not going to help it that much. So we need to engineer it. Part of that engineering is to put together this highway safety corridor thing so it makes sense. Education is getting out and we have money from the Highway Safety Office where we're educating the public. Some of those things can be as simple as the drinking and driving campaigns. When we first kicked off the first traffic safety corridor, we used the education thing to tell people hey, there's

something different here. You know, we've designated this area here as an area of high accidents and danger so if you're talking on your cell phone and listening to the boom box or what not, when you enter this zone, slow down and pay attention to what you're doing.

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MR. KEITH continued:

And then the final leg on that stool is enforcement. You have to have increased enforcement. The State of New Mexico has gone through this and they didn't increase enforcement and it became a joke. It doesn't do any good to put up all of the signs and what not if there's not a predictability on the driver's part that if you do something wrong, you are going to get a ticket. We're stressing the "always expect" a Trooper. If you think that there's a higher enforcement in these traffic safety corridors, then you know, even if you don't behave on the rest of the highway, you better behave in this area.

So, with that, we've designated two traffic safety corridors already. One is the Seward Highway, milepost 87 to 117. That's Potter Flats to Girdwood in May of 2006. We've done one Parks Highway from up in Representative Neuman's area, the Parks Highway from Wasilla to Big Lake, which was a very high accident rate, yet this year we plan to do three more. We're going to do Knik, Goose Bay Road, which is a very high traffic, high accident area, at the end of May this year. Sterling Highway, Scout Lake to Soldotna down on the Kenai Peninsula and later on in the summer we're going to try to put together the Palmer-Wasilla Highway, which has a lot of deaths too.

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REPRESENTATIVE NEUMAN commented that two of those roads are in his district and his family drives them regularly, which scares him. He said that on top of the congestion problems, there are many moose on the road, especially between Wasilla and Big Lake. He said he needs to see more State Troopers on the road. He asked if the Highway Safety Corridor legislation required that more State Troopers be posted along that road.

MR. KEITH said there is. He said it takes a long time to come up with another highway safety corridor because part of the process requires an extensive analysis of every accident that happens to establish the pattern and rate of accidents. When these are put together, the hardest thing to do is getting assurances from the State Troopers that they will patrol the area. The State Troopers are cooperative but face challenges, recruitment being one. He repeated the success of this program is reliant upon more enforcement. If DOT&PF cannot get assurances from the State Trooper, it cannot do the traffic safety corridor because it becomes meaningless.

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REPRESENTATIVE NEUMAN expressed concern about the cost of road improvements; that section will cost \$100 million and the project will not start before 2011.

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CHAIR JOHANSEN asked about the "hammer" in a traffic safety corridor regarding a DWI versus getting a DWI in another area.

MR. KEITH said the penalties are doubled in the traffic safety area.

[2:07:00 PM](#)

REPRESENTATIVE BUCH asked how the signage is differentiated to notify the public that it is traveling in a traffic safety area.

MR. KEITH explained that only two traffic safety corridors exist at this time. A large sign, at least four feet by eight feet, is located at the beginning of the corridor that tells drivers they are entering the corridor. At every mile, a speed limit sign says double fines. When the traffic safety corridors are designated, DOT&PF tries to make the public aware of the opening with an official ceremony.

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REPRESENTATIVE BUCH said his point is that he has driven past thousands of miles of those signs but has become callous to seeing them, which he believes is a common problem. He questioned what can be done to make that designation glaringly obvious to the public.

MR. KEITH informed members there are only two traffic safety corridors in the state but he understands that point and will take a look at it. He said the highway safety corridor designation is used judiciously because designating every highway that way would lose people's attention.

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REPRESENTATIVE DOOGAN said it appears the safety corridor designation has worked well on the Parks Highway and spectacularly on the Seward Highway.

MR. KEITH agreed and said observation of the safety improvement rate has been underway for only one year so the information provided is very preliminary. DOT&PF does an annual audit of each traffic corridor in April. These numbers will probably get closer together but, if they don't, DOT&PF will have to determine what to do. DOT&PF does not have a panacea for safe roads; this program is an interim solution. DOT&PF needs to increase road capacity by building multi-lane roads. The number of accident deaths will not drop to zero by putting up a few signs but it will help decrease the number until the corridors are upgraded.

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REPRESENTATIVE DOOGAN commented that getting people to stop drinking and driving would change the statistics.

MR. KEITH responded that there's no doubt about that. He said this data is very concise for the State Troopers. For example, the data shows a pattern on the Knik Goose Bay road of drinking, driving, and drugs and the time of day that happens.

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CHAIR JOHANSEN referred to the "hammer" of double fines and asked if the jail sentence for a DUI is also doubled to six days.

MR. KEITH related his understanding that only the fine is doubled. He said when DOT&PF offered information for the proposed legislation, it wanted offenders to get double points on their licenses as well as double fines, but that did not get adopted.

CHAIR JOHANSEN suggested trying to get that adopted now.

MR. KEITH said the data shows a correlation between the number of deaths and DUIs.

[2:15:00 PM](#)

REPRESENTATIVE NEUMAN maintained the driver does get double points on his or her license.

MR. KEITH said he would check and affirm that for the committee.

[2:15:20 PM](#)

REPRESENTATIVE JOHNSON asked if revenue from the double fines has increased. He said he hoped it had not as a result of fewer tickets being issued.

MR. KEITH acknowledged the number of tickets has declined on the Seward Highway.

[2:16:15 PM](#)

REPRESENTATIVE JOHNSON said that measure shows the program is clearly working.

MR. KEITH said he expects to glean much more information about the program's success from the next audit.

[2:16:43 PM](#)

MR. KEITH continued his presentation:

So, if you'll turn past the page that we looked at that shows the one traffic corridor and now I'm looking at the sheet, which is the Central Region Safety Corridor Candidates by ranking and consideration. Once again, this is just what we've been describing here where our folks go through and find the areas that have the highest accident rate and then rank them in order and this is what our ranking is as of May 2006. I think that's all the information that I want to gather from that one and that concludes my discussion of congestion as it directly relates to the safety and fatalities in the Central Region.

The next thing I'd like to move ahead to is pavement condition, particularly rutting. Once again, rutting

is a function of repetitive driving over a road. It is the ADT over a road; it's not the age of the road. It isn't - we paved that three years ago. You know if it has light traffic it is not going to rut so this - when we look at the Central Region with our heavy traffic and we're seeing - I guess it's worthwhile for me that I travel sometimes to Fairbanks for business and sometimes I come down here for business. I understand that down here in Southeast and Northern Region have their own challenges. Southeast - you know, lack of roads so that you have to be dependent on the ferry system I think is a major problem. Mal Menzies, of course, will tell you what he thinks it is. Northern Region I can see up there they don't have much of a problem with rutting but they have a tremendous problem with sub-grade, with permafrost and what-not. The roads turn into roller coasters before the pavement ever wears out but in the Central Region, it's rutted. That's a component of a high traffic count. So we've gone through both my staff and the Central Region pavement management engineer and we've looked at the needs for rutting and we've looked at our state funds we already have to repair the ruts. The federal aid money in the STIP might fix these.

[2:19:54 PM](#)

MR. KEITH continued:

We haven't discussed it but I know Commissioner Von Sheben has talked to you about the declining federal revenues. So this list is comprised of roads that we have serious rutting but no funding for - not in the STIP. We don't have a general fund project to fix it so if you look at the sheet that is called Central Region and main highway rut problems, the first subset down to the subtotal rut issue is just the [National Highway System] NHS. When a maintenance engineer put this together, main highways means the National Highway System, and you can see that on the National Highway System we have \$114 million worth of rutting that we have no way of funding to fix those. And then, beyond that, we have another category of roads, also still - this whole sheet is actual highway system that has other problems with a pavement condition, including it has a problem with the base course is unstable and somehow we have to come in and do an

additive to the base, reinforced base, an asphalt treated base or something like that to solve the problem - foamed asphalt base. So, our main highway system, we have \$171 million worth of work that is probably the best I can describe on NHS that is deferred maintenance that has no funding source in sight.

[2:21:51 PM](#)

REPRESENTATIVE BUCH asked Mr. Keith to comment on the state's requirements regarding the use of North Slope crude in the state's asphalt and speak to the contention in that issue.

MR. KEITH said he has an extensive background in paving. He noted DOT&PF does not specify where the crude comes from. DOT&PF uses performance grading asphalt (PG grading), that comes from the American Association of Highway Transportation Office's (AASHTO's) strategic highway research program. It says that irrespective of where the asphalt comes from, the PG ratings are based on a performance band. Wherever the oil comes from, it must meet specific characteristics. Almost all of the asphalt in Anchorage comes from Tesoro because it costs more to haul it from Flint Hills than Nikiski. Each batch of asphalt must meet that PG rating. It is not a North Slope crude issue. He thought all of the oil in Southeast is barged in from the Lower 48 states.

[2:25:39 PM](#)

REPRESENTATIVE NEUMAN noted that studded tires come into play with ruts and asked if the compression ratio is a factor.

MR. KEITH said no part of the rut component is below the pavement. The largest cause of road rutting is stud wear. A small component is densification, which is caused by compression from tire wear in the summertime.

[2:27:33 PM](#)

REPRESENTATIVE NEUMAN recalled that legislation was introduced the previous year to increase fines for overweight vehicles and asked how much that affects compression.

MR. KEITH said overloaded trucks cause stress to pavement, but that is not related to ruts. The spacing of the ruts indicates that the problem is the average sedan, not overloaded trucks.

About 25 years ago, softer oil was used, and trucks could leave tire tracks on pavement on a hot day. However, that should not be happening now.

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REPRESENTATIVE SALMON said the area around Wasilla is a bottleneck area. He asked whether DOT&PF has any plans to build a bypass around Wasilla.

MR. KEITH replied yes; DOT&PF has entered into a partnership between Wasilla and the Alaska Railroad. They have a consultant on board and the EIS process to build a multi-modal corridor around Wasilla has begun. That will entail moving the railroad and highway to bypass Wasilla. He said that is part of the National Highway System but it has competing uses. A driver needs to get on the Parks Highway to go 2 blocks to a grocery store, and another driver is using it as a through highway. The idea is to build the bypass so that the local traffic can use the existing road and the through traffic can use the bypass. That project will be expensive.

[2:31:59 PM](#)

REPRESENTATIVE SALMON asked whether the Takotna (ph) airport will be relocated.

MR. KEITH said he visited Takotna. At one point DOT&PF considered moving it to Katalina (ph), but that plan was not acceptable to the community because of the longer drive. He offered to follow up and send Representative Salmon a drawing of the location.

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REPRESENTATIVE DOOGAN questioned whether road rutting would be reduced by 80 percent if studded tires are no longer allowed.

MR. KEITH said he believes that is true.

[2:34:18 PM](#)

REPRESENTATIVE JOHNSON asked for an explanation of raveling.

MR. KEITH explained that raveling occurs when pavement loses its integrity and flakes away.

[2:34:46 PM](#)

CHAIR JOHANSEN asked about the size of the Wasilla bypass project and the kind of feedback DOT&PF has received on it.

MR. KEITH replied the consultant will be determining the size of the project. The department gave a presentation to the area legislators and will meet with the city council, the borough, and public groups. The cost is probably \$200 million between highways and the railroad. The project has been studied quite a bit, particularly by the railroad. DOT&PF must pull that information together to determine whether a common corridor works for both the highway and the railroad. The department is looking at two options: one south of the Parks Highway and one north of the Parks Highway. The City of Wasilla has enthusiastically endorsed the project. Merchants did not like the bypass route at first but soon realized that people are reluctant to pull into their stores when they are stuck in traffic.

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REPRESENTATIVE BUCH said the best designed roads he has seen in Alaska are in Fairbanks. They are functional roads that will be there a long time. He asked for a history of those roads and questioned how long it took to construct the bypass in Fairbanks.

MR. KEITH said Fairbanks was able to get funding to build its network of roads prior to the need for it, whereas that same opportunity was not available to Wasilla or Anchorage. That is the long-range plan for Anchorage, and particularly to establish a thruway to alleviate Anchorage's congestion.

[2:39:37 PM](#)

REPRESENTATIVE BUCH asked if he was speaking about one of the first projects the committee looked at that goes from 36th [Avenue] to Fairview.

MR. KEITH said the highway-to-highway project begins at Bragaw and Glenn Highway. DOT&PF is working on Phase 1 of that project. The actual highway-to-highway ends at 36th and that will be the backbone of transportation in Anchorage.

[2:40:57 PM](#)

REPRESENTATIVE NEUMAN asked how a second class city like Houston would get state assistance for road projects.

MR. KEITH said the list of transportation needs contains the universe of all projects requested in Alaska. That list is 20 times larger than DOT&PF's budget each year. Houston could talk with DOT&PF planners and request federal funding or go to the Legislature for general funds.

[2:43:14 PM](#)

REPRESENTATIVE NEUMAN explained that Houston officials came to him and Senator Huggins for general funds. They put \$225,000 in the budget but those funds were vetoed. Houston lost roads from recent flooding and the city cannot afford to rebuild them. These roads are traveled by school buses, fire trucks and ambulances.

MR. KEITH thought requesting general funds is the best way to go.

[2:43:54 PM](#)

MR. KEITH continued his presentation:

The next sheet is called Central Region Highway Rut Repair Needs. This is all highways, not the NHS and I'll just summarize and go to the bottom line. Just in the issue of ruts we have \$285 million right today and if anyone goes to Anchorage, in fact I hear the comments all of the time that we're falling behind on ruts and they're right. This gives you the whole Central Region, not just Anchorage, but the whole Central Region, how much we need just to solve that rut problem.

[2:44:39 PM](#)

REPRESENTATIVE DOOGAN asked whether DOT&PF has considered that if rut repair is going to cost \$300 million, Alaska should return to gravel roads, which are easier to build and maintain.

MR. KEITH said he started at DOT&PF in 1965 when a lot of gravel roads were built. Afterward, DOT&PF put a bituminous surface treatment on them. He opined that the issue came down to people's expectations and traffic. He said he was unsure whether DOT&PF could keep up with the maintenance on gravel

roads used by 60,000 cars per day. People would be unhappy. He pointed out the Northern Region declared a truce in the battle with permafrost and decided to level the roads and coat them with a bituminous treatment more frequently, rather than pave them.

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REPRESENTATIVE DOOGAN noted that DOT&PF is not keeping up now. He pointed out that one page of the handout consists of rut repair projects at a cost of \$285 million.

MR. KEITH nodded yes.

[2:46:53 PM](#)

CHAIR JOHANSEN suggested doing a gravel road pilot project in Representative Doogan's district.

REPRESENTATIVE DOOGAN jested that he would be satisfied if his district had roads.

CHAIR JOHANSEN argued that Southeast Alaska's main highway has zero rut problems.

[2:47:22 PM](#)

REPRESENTATIVE BUCH noted that Anchorage has some experimental concrete road systems and asked for an update on those.

MR. KEITH said the concrete areas are not test sections; they are weigh and motion slabs that count and weigh the trucks as they go by. That cannot be done with asphalt. DOT&PF did not intend to test those sections but they might be acting as such. Those areas rut and they spall off. At the end of each summer, a time when no studded tires have been in use, DOT&PF measures those areas for road ruts and has found some caused by plastic deformation. Initially the concrete ruts were just about as bad as those in asphalt.

MR. KEITH said his construction director met with the concrete paving association last week. The department wants to test part or an entire intersection with concrete to see how it compares to an asphalt intersection. However, the initial cost of concrete is costlier than asphalt. The department is trying to get a life cycle cost, he remarked.

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CHAIR JOHANSEN asked whether that information has been gathered elsewhere in the United States.

MR. KEITH said road ruts are not specific to Alaska.

CHAIR JOHANSEN specified that he was speaking to the comparison between asphalt and concrete.

MR. KEITH said he believes comparisons have been made. He related his belief that [concrete] is superior for rut resistance, but the cost is the factor.

CHAIR JOHANSEN questioned the need for Alaska's DOT&PF to go through that process if other areas have collected comparison data.

[2:52:32 PM](#)

MR. KEITH continued his presentation:

I'll just quickly skip over the maps that show what I was telling you and then I'll go to the, what I call, the war against pavement rutting and it's after the GIS maps. I don't want to give the impression that DOT is not doing anything with the ruts. I don't want to give the impression that we're putting out the same old stuff and that's what we always did and that's what we're always going to do. We're constantly making improvements in our mix. A lot of it is based on, just like you're talking about Chairman Johansen, we're looking at what are other states doing. So these are some of the things we've done in the last 15 years or so. For a long time we were using and had some success with this stone mastic asphalt and that's a technology picked up from Europe and the biggest single thing there is you're normal asphalt that, I'm going to call, parking lot asphalt is about 75 percent fine mix and 30 percent coarse mix. The cut-off was at one-quarter inch coarse versus fine. Stone mastic asphalt does exactly the opposite. It puts 70 percent of the quarter inch and higher and only 30 percent of the fine so you get a stone-on-stone compact instead of the slurry before where you had two stones cemented in with sand and what not, you have stone-on-stone contact. And we had some successes with that but

we're trying to improve even on that. Now we're, for the last 10 years or so, we're using polymer modified oil where we're taking the oil, whether once again it's from the North Slope or wherever it comes from and we're modifying it with long chain polymers. In fact, it's a styrene butylene styrene. You run it through a sheer mill and that gives a better performance ranged in that PG grading and we've had a lot of luck with that. The pavements lasted longer, less thermal cracking. They're the cracks across the road on a regular pattern - less of those. Now we're going to a super-paved mix, which is derived from this strategic highway research program that AASHTO put together. We've used it on Tudor Road. It will be three years ago this summer. We did the east bound lanes with hard aggregate, west bound lanes with our just alluvial gravel from the Valley. Alaska is not blessed with very hard aggregate so we imported hard aggregate to do this. We're monitoring that. Both sides are performing quite well and I believe the reason for it is we're using this super-pave mix and we used it on Elmore Road. One of the things on the super-pave mix is, once again, it uses a cubical aggregate. The shape of the aggregate is really important. But other than having some thin and elongated aggregate pieces, all the aggregate are little cubes. You crush it for that purpose and it's showing a lot of promise.

[2:56:34 PM](#)

REPRESENTATIVE NEUMAN said regarding deferred maintenance, DOT&PF's bare bones request in the operating budget was \$38 million but it only received \$25 million in the governor's budget. He said legislators have to answer to constituents at town hall meetings who want these projects completed right away. He asked Mr. Keith to comment.

MR. KEITH referred to the operating budget for maintenance, named Maintenance and Operations General Fund Authorizations in members' packets, and said the chart shows statewide needs. The chart has remained flat since FY 83 yet the consumer price index (CPI) has increased quite a bit. A comparison of the CPI with DOT&PF's budget would show about a \$50 million gap since 1983. That does not account for more lane miles, more stop lights, etcetera. The Legislature has recognized and helped during the last couple of years.

[2:58:59 PM](#)

REPRESENTATIVE NEUMAN noted only one boom truck fixes all of the luminous lights in Anchorage, Kenai and the Mat-Su Borough.

MR. KEITH said that is correct. DOT&PF has been trying to get another boom truck for the Mat-Su Valley.

[2:59:45 PM](#)

MR. KEITH continued his presentation:

In summation I'd like to say that what we're experiencing in the Central Region, as well as probably the whole department, is federal funds are going down. I think probably Jeff Ottesen has talked to you about that. ... Construction costs are going up three times what the consumer price index is going up. The barrels of oil going through the pipeline are going down. The unmet needs are going up and I'll leave that with my pitch for the need for a state funded transportation program.

[3:01:03 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Transportation Standing Committee meeting was adjourned at 3:01 p.m.