

ALASKA STATE LEGISLATURE
SENATE TRANSPORTATION STANDING COMMITTEE

January 31, 2019

1:34 p.m.

MEMBERS PRESENT

Senator Shelley Hughes, Chair
Senator Mike Shower, Vice Chair
Senator David Wilson
Senator Peter Micciche
Senator Jesse Kiehl

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

PRESENTATION(S): GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT REPORT

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

MARY SIROKY, Deputy Commissioner
Department of Transportation and Public Facilities
Juneau, Alaska

POSITION STATEMENT: Participated in the presentation on the Glenn Highway Integrated Corridor Management Report.

EDITH MCKEE, Project Manager
Department of Transportation and Public Facilities
Anchorage, Alaska

POSITION STATEMENT: As project manager, delivered the presentation on the Glenn Highway Integrated Corridor Management Report.

ACTION NARRATIVE

[1:34:29 PM](#)

CHAIR SHELLEY HUGHES called the Senate Transportation Standing Committee meeting to order at 1:34 p.m. Present at the call to order were Senators Kiehl, Shower, Wilson, and Chair Hughes. Senator Micciche arrived soon thereafter.

Glenn Highway Integrated Corridor Management Report

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CHAIR HUGHES announced the committee would hear a presentation on the Glenn Highway Integrated Corridor Management Report by the Department of Transportation and Public Facilities (DOTPF). She noted that intent language in the capital budget last year directed DOTPF to develop a temporary traffic control plan as well as emergency traffic control guidelines for the Glenn Highway, specifically from Mile Post zero to Mile Post 35. She welcomed the presenters.

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MARY SIROKY, Deputy Commissioner, Department of Transportation and Public Facilities, introduced Edith McKee, the licensed engineer who did the traffic design and was the project manager. She highlighted that Ms. McKee interned with the department when she was a student at the University of Alaska Anchorage (UAA) and was offered a fulltime job after graduation.

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EDITH MCKEE, Project Manager, Department of Transportation and Public Facilities, explained that the Integrated Corridor Management (ICM) Study was broken into two phases. Phase I identified infrastructure needs for the Glenn Highway within the boundaries of the Municipality of Anchorage. Phase II, which was requested by the legislature, developed the incident plan and traffic control guidelines.

She explained that the study was funded by the Anchorage Metropolitan Area Transportation Solutions (AMATS), so the boundaries run from the intersection of the Glenn Highway and Airport Heights to the Knik River Bridge.

SENATOR WILSON asked why the study didn't extend beyond the Knik River Bridge.

MS. MCKEE replied the project was funded by AMATS, so the scope was limited to the Municipality of Anchorage.

CHAIR HUGHES asked if there was any attempt to partner with the Mat-Su to fund the study up to the juncture of the Parks and Glenn highways.

MS. MCKEE replied the department got input from the Mat-Su about their needs along the Glenn Highway, but could not address the last six miles because of the funding source.

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SENATOR MICCICHE joined the committee.

CHAIR HUGHES related that when she was a freshman legislator in 2013, an eight hour shooting incident along the Glenn Highway caused her to call together DOTPF, the Anchorage Police Department (APD), and the first responders from Chugiak, Wasilla, and Palmer for a debriefing. That started the discussion about developing a plan to quickly get traffic moving again after any incident along that route. Unfortunately, nothing was not put in writing to require a report and the request for a plan was not put in the capital budget. In FY2015 she worked to get about \$800 thousand into the budget for a one-year pilot project but nothing happened. However, after a truck hit the bridge in Eagle River in March 2018, it was very apparent that DOTPF needed to develop a plan and present it to the legislature. "That's what got us to this point," she said.

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MS. MCKEE explained that Phase I was to analyze existing conditions and propose infrastructure, a communication plan, and policy strategies. The purpose of the ICM Study was to:

- Identify methods to improve the movement of people and goods along the Glenn Highway;
- Discuss how existing facilities and agency coordination can be used during incident management; and
- Discuss future infrastructure, technology, and agency needs

She advised that the department created a MetroQuest online survey for the general public that helped identify the following existing conditions:

- The Glenn Highway has sections where there are no parallel routes;
- There are segments with alternative routes, but they do not have the capacity of the Glenn Highway;
- There are limited locations to turn traffic around;
- There are limited ways to inform the traveling public when an incident has occurred;

- The high cost of crashes and delays

She noted that the chart on slide 6 shows that the majority of people get information about an incident on the Glenn Highway through Facebook and the radio.

MS. MCKEE continued to list the Phase I: Existing Conditions:

- More than 35,000 vehicles travel the Glenn Hwy between Anchorage and the Knik River Bridges every day;
- Seventy-five percent of the travel is related to work. The remaining is related to commercial transport, recreation, and more; and
- The Glenn Highway is part of the Strategic Highway Network and is considered critical to U.S. strategic operations.

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SENATOR WILSON asked if 35,000 vehicles per day reflects one-way travel or round trips.

MS. MCKEE said she would follow up with the answer.

SENATOR MICCICHE asked if DOTPF was doing forward planning for contingency routes that could accommodate levels of traffic in the future.

MS. SIROKY replied the department is actively working on this issue and has identified KGB Road as its number one project this year. She added that once the Mat-Su becomes a metropolitan transportation organization, it will have access to additional money that doesn't come directly through DOTPF.

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MS. MCKEE turned to slide 8 that reflects the crash data that DOTPF collected for the approximately 30-mile corridor of the Glenn Highway. Between 2005 and 2014, there were 18 fatal crashes spread throughout the study area. About 40 percent of those were related to cars running off the road. Weather seems to be a significant factor, with more crashes occurring in months with more rain or snow.

She said part of Phase I identified the cost of the crashes and the delays that occurred when movement on the highway was impeded. Over the course of the study, the cost of crashes was \$421.5 million, and the cost of delay was \$1.7 million per year. The total cost of delays and crashes was \$44 million per year.

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SENATOR SHOWER asked if the data was collected to show the differences between winter and summer.

MS. MCKEE said she would need to review the data. Responding to a question from the chair, she clarified that there were 18,000 fatalities from 2005 to 2014.

CHAIR HUGHES questioned the \$1.7 million annual cost of delays. She said it seems insufficient considering that people can be sitting in their cars for up to 8 hours.

MS. SIROKY clarified that the number represents the average over those nine years.

CHAIR HUGHES asked if she knows the dollar amount of a one hour delay during commute time.

MS. MCKEE said she would follow up with the information.

SENATOR SHOWER asked her to also provide information on the source of the data and how it was collected.

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MS. MCKEE continued the presentation. She explained that the MetroQuest online survey was extended to April 2, 2018 after the bridge strike on March 21, 2018. DOTPF received 1,500 responses before the incident and an additional 3,000 responses were received after the bridge strike. She noted that slide 9 shows the number of responses from the different areas of Anchorage and Mat-Su. Additional public outreach was done through open houses, community council meetings, AMATS meetings, Anchorage/Mat-Su transportation fairs, and a stakeholder meeting.

CHAIR HUGHES estimated that half to two-thirds of the 35,000 vehicles that travel that corridor are from Mat-Su and asked how many meetings were held in Mat-Su.

MS. MCKEE replied she would follow up with the information. She noted that it is in the Public Involvement Summary Report on the website.

CHAIR HUGHES asked if she agrees that half to two-thirds of the 35,000 vehicles that travel that corridor come from Mat-Su.

MS. MCKEE confirmed that a significant portion comes from the Mat-Su.

MS. MCKEE turned to slide 10 that lists the following primary goals or objectives of Phase I:

Objective A was to improve safety by reducing the occurrence of vehicle crashes, reducing the occurrence of secondary crashes, and reducing vulnerability and increasing resiliency of the transportation infrastructure from natural hazards and disasters.

Objective B was to improve mobility by reducing travel times and delays, improving travel time reliability, reducing delays due to work-zones and planned special events, promoting transit use, and promoting environmentally friendly, affordable transportation solutions.

Objective C was to improve incident and emergency management by reducing incident response and clearance times, improving communication and coordination among agencies and stakeholders, and enhancing coordination of regional emergency management.

Objective D was to improve information sharing by expanding collection of real-time traffic and weather data, improving day-to-day information exchange with regional operations partners, providing proactive, timely, and accurate information to travelers, and making traveler information widely available.

MS. MCKEE stated that the results of the Phase I report proposed four new frontage roads, five interchange upgrades and adaptable shoulder lanes as part of the roadway strategies. The institutional strategies included the development of an incident management plan, a service patrol program, and improvements to the Virtual Traffic Management Center. There were also 11 technology based options to improve traffic flow, traveler information, and communication between agencies.

CHAIR HUGHES asked when Phase I was completed.

MS. MCKEE replied Phase I will be completed by the end of February. It was delayed to accommodate the Phase II deadline on January 30, 2019.

CHAIR HUGHES asked if any of interchange upgrades were complete or if they were all still in planning stages.

MS. MCKEE clarified that the interchange upgrades are proposed projects and she didn't believe any had been nominated to move to the planning stage.

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MS. MCKEE informed the committee that funding help from AMATS made it possible to meet the Phase II deadline. The department contracted with Kinney Engineering to develop traffic control measures for the incident command management team to use as needed on the Glenn Highway. The traffic control plans (TCPS) were to include information needed to redirect traffic and inform the public during non-recurring events.

MS. MCKEE highlighted the extensive stakeholder involvement in the development of the TCPs that included: Anchorage Police Department, Municipality of Anchorage, Emergency Responders, Transit - People Mover and Valley Transit, Joint Base Elmendorf/Richardson, Alaska Railroad, Native Village of Eklutna, Trucking/Freight, Anchorage School District Transportation Department, Chugiak/Birchwood/Eagle River Rural Road Service Area (CBERRSA), Community Council, and Public Outreach.

CHAIR HUGHES acknowledged that AMATS paid for the study. She also stressed that the bulk of the vehicle traffic comes from Mat-Su and requested that any future update include more stakeholder involvement from Mat-Su residents.

MS. MCKEE continued the discussion about the stakeholder involvement saying that 27 stakeholder surveys were sent out and 20 were returned. The public outreach included online participation, open houses, transportation fairs, and a project webpage. She noted that following the earthquake, the department reinitiated contact with some of the stakeholders to incorporate lessons learned.

MS. MCKEE described the three Phase II objectives. These included:

- An Equipment Staging Plan so that all involved parties know where the equipment is stored and how to get it to the location of the closure.
- A Communication Plan that lists the agencies that need to be contacted, how the contact will be made, and how to reach the public with messages regarding the effects of the closure on travel so the public can make informed travel decisions. She noted that after the bridge strike, the

department incorporated the lessons learned that affected how DOTPF notified the public after the earthquake.

- A Traffic Control Plan that describes proposed detour routes and equipment needed to implement them. The plan also considers short term and long term detour needs.

She explained that the Phase II traffic control plans identified short term closures as less than 12 hours and long term closures as more than 12 hours. It looked at a northbound (NB) closure, a southbound (SB) closure, and a simultaneous NB and SB closure. The roadway was broken into freeway segments and each interchange and bridge was identified so that incidents at each segment, interchange, or bridge can be considered.

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MS. MCKEE displayed slide 16 that depicts a proposed closure and alternative routes, should a bridge strike occur on the Bragaw Interchange. This example illustrates southbound traffic being rerouted onto adjacent streets.

SENATOR SHOWER questioned why the plan didn't direct southbound traffic to turn 180 degrees and immediately return to the highway as opposed to using the side streets.

MS. MCKEE replied that scenario would require vehicles to negotiate a very sharp U-turn to access the onramp and to travel underneath the bridge.

SENATOR SHOWER observed that it would depend on which side of the bridge the strike occurred. He cited the nightmare traffic snarl that occurred in Eagle River last year.

MS. MCKEE explained that the plan initiates an instantaneous rerouting that assumes that traffic cannot be routed under the bridge structure.

CHAIR HUGHES asked if the plan includes estimates of the time it would take to get all the detour signs up so drivers would have an idea of how long they could expect to wait on the highway.

MS. MCKEE replied the report analyzed the ability of the detours to meet capacity, but she would need to look through the plans to see if it addressed the times to set up each traffic rerouting.

CHAIR HUGHES requested that each of the plans include an estimated timeline.

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MS. SIROKY added that part of the plan includes staging the detour signs in locations where they can be easily accessible for DOTPF to set them up quickly through the Anchorage Police Department (APD).

CHAIR HUGHES noted that portable electric signs were a capital budget item in 2015. The idea was that troopers could carry one in their vehicles so the public could be warned quickly about closures. She asked if that is part of these plans.

MS. MCKEE answered yes; the graphic shows temporary traffic control signs A, B, C, and D that indicate locations of portable message boards. The plans indicate what the message needs to say to inform the traveling public.

CHAIR HUGHES observed that a simple notice could have avoided some of the commute congestion following the 2013 incident.

SENATOR KIEHL asked if the implementation plans ensure that everyone knows where the signs are stored and the cross training that will occur for DOTPF and APD to set the signs up.

MS. MCKEE said yes; implementation plans are being developed and are part of the report.

MS. MCKEE displayed slide 18 depicting the Eagle River artillery interchange closure. She said this plan reroutes traffic onto an existing off ramp and requires construction of a temporary northbound ramp to bypass the interchange.

CHAIR HUGHES opined that knowing how long that would take is important information for the public. She noted that the slide indicates that DOTPF would try to stockpile heavy-duty materials that could be used any time of year to construct temporary roads. She asked if there might be a delay in getting material or if the department has a certain volume of material that is ready to use over a certain number of miles in that corridor.

MS. MCKEE replied the department is still coordinating that need, which was identified in the earthquake response. Fortunately, Eklutna (a Native village within the boundaries of the MOA) was able to get materials to DOTPF for immediate road repair. She noted that the earthquake response made it very clear that DOTPF needed to be prepared to identify material sources, especially if the ground is frozen.

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MS. MCKEE displayed slide 19 that depicts the Highland interchange closure. It shows the use of existing infrastructure to divert traffic onto the ramps.

The example on slide 20 illustrates a northbound segment closure that provides two alternatives, both of which show where message boards would be placed. Traffic would either be rerouted to parallel routes or crossovers would be used to turn the southbound lane into a four-lane, two-direction roadway. The example on slide 21 also shows parallel routes and the use of crossovers for a southbound segment. Traffic would be diverted onto the northbound lanes using either parallel roads or crossovers. The next example shows a northbound and southbound segment closure that utilizes parallel routes when traffic cannot be diverted onto either the northbound or southbound lanes.

Slides 23 and 24 illustrate a northbound and a southbound segment closure without parallel routes. Crossovers are utilized to convert the four lanes on the opposite side of the highway to two lanes in each direction.

In the instance of a northbound and southbound segment closure without parallel routes, the road would be closed. The graphic on slide 26 illustrates a shutdown on the Glenn Highway for the Muldoon Road to Arctic Valley Road segment. She said that Phase I, strategy 2 identifies the need in this segment to connect Muldoon, Boundary, Signal, and the Eagle River loop with a two-lane, two-way gated frontage road. This would add about 2.5 miles to an existing road and require a Ship Creek bridge. The estimated cost is \$30-35 million. This is military ground so it could be secured and only open when there is a need to either bypass the Glenn Highway or for faster emergency vehicle access. This addresses the B and C goals in Phase I which were to improve both mobility and incident and emergency management.

MS. MCKEE concluded the presentation with a slide showing a topographical view of the study area.

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CHAIR HUGHES asked if each of the strategies listed on slide 11 would need funding to develop.

MS. MCKEE explained that the Phase I Report identified the proposed strategies and the estimated cost to develop them.

However, to her knowledge, none of the strategies have been nominated as projects.

CHAIR HUGHES asked if she could talk about the estimated costs for the new frontage roads, the five interchange upgrades, the adaptable shoulder lanes, etcetera.

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MS. MCKEE referenced a chart on [page 171] of the report found at <http://dot.alaska.gov/creg/glennhighwayicmstudy/docs/012519-Emergency-Traffic-Control-Guidelines.pdf>. The cost details are broken down and the strategies that were met are listed.

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At ease from 2:15 pm to 2:16 pm.

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MS. MCKEE reported that it would cost about \$125 million to construct the four frontage roads, about \$225 million to do the five interchange upgrades, and about \$170 million to do the adaptable shoulder lanes. Responding to an additional question from the chair, she clarified that the summary sheet also included the Institutional Strategies and 11 Technology based options.

SENATOR KIEHL asked for the definition of an adaptable shoulder lane and an explanation of the technology based strategies for moving a vehicle.

MS. MCKEE explained that an adaptable shoulder lane is essentially an additional lane in each direction along the entire corridor on which traffic could be diverted if there is an incident. This extensive infrastructure includes widening bridges. The idea is to provide rapid access for emergency vehicles to respond to an incident. The lanes would only be used if a bypass was required.

CHAIR HUGHES described it as a super wide shoulder.

SENATOR KIEHL added it's a lane that is otherwise not used as a lane. He restated the second question.

MS. MCKEE explained that the technology based options include: incident management training, a Glenn Highway device expansion cameras, speed sensors, Glenn Highway variable speed limit signs, show removal equipment, tracking systems, Glenn Highway environmental sensor expansion, 511 integration, a Glenn Highway

over height vehicle detection system, a Glenn Highway connected vehicle pilot project, advanced traffic management system, traffic incident detection logarithm for cameras, portable changeable message boards for patrol cars and towable trailers, Glenn Highway permanent changeable message sign (CMS) expansion relocation, an incident management plan, a service patrol program, a virtual traffic management center improvements, and emergency parking regulations.

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SENATOR KIEHL observed that most of the options relate to preventing congestion. He asked if the scope of the study involved any work on the cost benefit of preventative measures versus the cost of extra lanes and frontage roads that would be needed when an incident occurs.

MS. MCKEE replied the report indicates that an average cost of crashes and delays per year is about \$44 million. Phase I was intended to capture the cost in incidents on the Glenn Highway and propose potential strategies to mitigate those or prevent them or how to respond after they occur.

CHAIR HUGHES noted that the list of technology based options did not include an app for drivers to check on what they could expect on that corridor. She asked if there was any discussion about integrating with an app.

MS. MCKEE said not to her knowledge.

CHAIR HUGHES asked for an explanation of a service patrol program.

MS. MCKEE replied it refers to trained personnel to use specifically equipped vehicles to aid motorists, remove debris, and assist emergency services. The intention is to help eliminate secondary crashes and delays that occur when people are distracted by something they see on the side of the road.

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SENATOR SHOWER mentioned the Nixle app that is run by APD.

CHAIR HUGHES directed attention to table 5, the Communication Action Plan, on page 15 of the report. It says that the plan is to use just Nixle if the closure is expected to last less than 4 hours. This is despite the survey results that show that just 19 percent of people get their information from Nixle. She asked

why DOTPF wouldn't use every communication avenue, even when the closure is under 4 hours.

MS. SIROKY replied Nixle would receive priority because APD uses that app, but the department will use whatever it can whenever it can with the capabilities it has.

CHAIR HUGHES encouraged her to integrate all the apps and social media and use them for each event.

SENATOR SHOWER suggested pursuing outreach to the local radio stations because commuters are listening at those times of day.

MS. SIROKY agreed.

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SENATOR MICCICHE said he appreciates the Glenn Highway corridor presentation and wonders if DOTPF has similar plans for other densely populated corridors in Southcentral.

MS. SIROKY said not to this detail, but the truck strike on the Glenn Highway increased the department's incident management and training which was put to good use during the earthquake. She anticipated looking at other choke points over time.

SENATOR MICCICHE pointed out that most communities have emergency committees that could help with basic planning to inform the community.

MS. SIROKY said she suspects that DOTPF maintenance personnel is tied into local planning committees and thus more knowledgeable about local capacity in their area of responsibility.

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CHAIR HUGHES cited the language on page 10 of the report that says that a unified command is established if the department lacks adequate resources to respond to an incident. She asked what that entails.

MS. SIROKY said she assumes DOTPF would request help from the Department of Military & Veterans Affairs (DMVA). She added that the department stood up its own unified command for the earthquake. Working closely with contractors, it was manned 24/7 for 4-5 days. She said she assumes that someone at the DMVA incident command at JBER was notified as well.

CHAIR HUGHES wondered if DOTPF was working alone or part of a larger coordination with the military.

MS. SIROKY advised that DOTPF public information staff are extensively tied in and have trained with JBER.

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CHAIR HUGHES said the committee would like to be kept in the loop on updates as the plan moves toward.

SENATOR MICCICHE encouraged DOTPF to be preemptive in reaching out to local communities for help in planning, notification, and response. He opined that, as the budget tightens, the state can no longer do everything.

CHAIR HUGHES thanked the presenters and reviewed the upcoming agenda.

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There being no further business to come before the committee, Chair Hughes adjourned the Senate Transportation Standing Committee meeting at 2:32 pm.