ALASKA STATE LEGISLATURE
SENATE TRANSPORTATION STANDING COMMITTEE
February 16, 2006
1:41 p.m.

MEMBERS PRESENT

Senator Charlie Huggins, Chair
Senator John Cowdery, Vice Chair
Senator Gene Therriault
Senator Albert Kookesh
Senator Hollis French

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

Presentation: Context Sensitive Design, "Thinking Beyond the Pavement"

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

Frank McQueary, President
Anchorage Road Coalition
7810 Ascot Street
Anchorage, AK 99502
POSITION STATEMENT: Gave presentation on context sensitive design and answered questions.

Jeff Ottesen, Director
Division of Program Development
Department of Transportation and Public Facilities
3132 Channel Drive
Juneau, AK 99801-7898
POSITION STATEMENT: Answered questions during the presentation on context sensitive design.

Nancy Reeder, Lieutenant
Anchorage Police Department
4501 South Bragaw
Anchorage, AK 99507-1599

POSITION STATEMENT: Participated in the presentation on context sensitive design.

ACTION NARRATIVE

CHAIR CHARLIE HUGGINS called the Senate Transportation Standing Committee meeting to order at 1:41:41 PM. Present were Senators Hollis French, John Cowdery and Chair Charlie Huggins. Senators Albert Kookesh and Gene Therriault joined the meeting in progress.

Presentation: Context Sensitive Design, "Thinking Beyond the Pavement"

CHAIR HUGGINS announced the beginning of the presentation on context sensitive design (CSD).

1:41:53 PM

FRANK McQUEARY, President, Anchorage Road Coalition, informed members that he is an advocate of a business process called context sensitive design [also known as context sensitive solutions (CSS)]. With him were Nancy Reeder of the Anchorage Police Department and Jeff Ottesen of the Department of Transportation and Public Facilities (DOTPF). Mr. McQueary began a slide presentation and invited questions at any point.

1:43:07 PM

MR. McQUEARY explained that CSD developed as the result of a 1998 conference in Maryland, "Thinking Beyond the Pavement," sponsored by the Federal Highway Administration (FHWA), Maryland's transportation department, the Institute of Traffic [Engineers] and the American Association of State Highway and Transportation Officials (AASHTO). That conference was in response to a growing recognition that something might be missing in the traditional way various road-construction design and governmental agencies went about their normal business. They were experiencing a lot of controversy, many delays and the failure of projects to get built in a timely fashion or at all.

He noted that to promote CSD two years later, FHWA published Flexibility in Highway Design, which was intended to be a companion to the Green Book, a volume on highway construction. He related a comment about the importance of putting together a transportation system that considers the quality of life, made by Tom Warne, then commissioner of Utah's department of transportation and the immediate past president of AASHTO.

Mr. McQueary emphasized that this movement is from within the profession, and is gaining ever-wider acceptance across the country.

He reported that in Anchorage the discussion started in 2003, when the [Anchorage] Road Coalition looked at a number of best practices, became familiar with CSD and went to 33 of Anchorage's community councils; subsequently, 32 of those signed a resolution requesting that both the state and the Municipality of Anchorage adopt CSD as a business-process tool. Anchorage Metropolitan Area Transportation Study (AMATS) formally adopted that resolution in 2004, and in 2005 the municipality established an office charged with responsibility for beginning the process of implementing CSD/CSS.

Senator Kookesh joined the meeting at 1:45:21 PM.

MR. McQUEARY showed a slide depicting organizations that had implemented CSD either partially or entirely. He said it is widely practiced.

1:46:22 PM

MR. McQUEARY highlighted a request that the state consider adoption, by legislation, of CSD/CSS. He mentioned a report from the aforementioned conference, noting that a mission statement was proposed for CSD. He then offered a slide with quotations, one being "CSD is simply common sense." He emphasized that CSD's history nationwide is primarily of success in accelerating the design process and increasing the degree of satisfaction with projects once they are completed.

1:47:26 PM

MR. McQUEARY, in response to Chair Huggins, explained that the [AMATS] policy board passed a resolution and instructed the technical advisory committee to begin implementation of a CSS process, including education and training of staff and developing a plan for imbedding it in all of its processes.

CHAIR HUGGINS asked about the timeline.

MR. McQUEARY responded that they'll have the first formal report back at the next meeting, to his understanding. "I would say they're very early on," he added. Pointing out a tendency at first to see this as adding another function or further cost or work, Mr. McQueary said it typically takes awhile for it to

become institutionalized and for people to realize it actually saves them time and, potentially, saves money in the long run. He indicated state legislation is the first step before full benefits are seen.

1:49:47 PM

MR. McQUEARY offered a slide showing one of the basic drivers for the original conference, what is known as the rework cycle: A project is conceived; it's taken to near a final design stage; and then suddenly the public or a stakeholder group finds out about it and takes exception, which leads to delays, redesign or killing of the project.

He stressed the importance of beginning a process by understanding the goals, listening to all the stakeholders and proactively bringing in a multidisciplinary team that understands all the impacts that a road or street can have on the surrounding real estate, whether it's residential, business or wilderness. He cited [the Anchorage Police Department] as a stakeholder group that is greatly affected by design decisions.

1:51:39 PM

CHAIR HUGGINS asked whether one trait of CSD is taking public input as the initial part of the scoping process.

JEFF OTTESEN, Director, Division of Program Development, Department of Transportation and Public Facilities, responded in the affirmative. He added that scoping is part of that listening process; trying to make sure all necessary stakeholders are known. Even if the scoping is done correctly, however, the attention of all of them may not have been caught.

MR. McQUEARY, in response to Chair Huggins, reported that this has been working successfully in all 5 original pilot states. It has been adopted formally as a comprehensive business process by 14 states. Virtually all states by the end of 2003 had implemented some phase of CSD. California, given the magnitude of its traffic problems, has embraced it and is well along in the process. In addition, Washington State has an aggressive CSD program that has been helpful in addressing its problems.

1:54:25 PM

MR. McQUEARY referred to the conference, saying seven core principles were arrived at, as shown on a slide. He cited

problems at the intersection of Jewel Lake and Strawberry Road as an example of what happens when a principle such as "satisfies a purpose" isn't adhered to. There, the new design used acceptable standards from the Green Book, but it didn't help and perhaps exacerbated the problem. By contrast, CSD addresses the difference between functional safety and nominal safety - the latter being looking in the book, taking a written standard and saying that if it's built accordingly, then nobody can bring a lawsuit.

1:58:29 PM

MR. McQUEARY addressed another principle, "efficient and effective use of resources." He related details of a situation where lives weren't endangered and there was minimal property damage occurring, and yet the state was going to spend $4 million to fix a curve.

2:02:02 PM

CHAIR HUGGINS asked Mr. McQueary to think about examining highway safety corridors, and he mentioned a related bill.

2:04:01 PM

MR. McQUEARY showed a slide identifying eight characteristics of CSD that contribute to excellence in highway design. He cited communication with the full range of stakeholders as one necessity. He also noted one typical engineering solution to line-of-sight problems is to increase the line of sight, but that generally just makes people drive faster.

2:06:21 PM

MR. McQUEARY, in response to Chair Huggins, said changing institutional behavior has to be a top-down process. Right now, people hand a lot of money to engineers and expect them to solve many problems.

2:08:01 PM

MR. McQUEARY discussed lane construction, noting a study of metropolitan areas that ironically found, despite size similarities, that the five cities which spent the most money had worse traffic congestion than those which spent the least - zero dollars - on new traffic lanes. Spending more money

doesn't necessarily give better results. Furthermore, what has been done traditionally often isn't working.

2:09:47 PM

MR. McQUEARY showed the next slide, saying environmental review is not a top source of project delay. The primary reasons include lack of funding, controversy and low priority. He discussed speed-flow relationships for roads, and pointed out that the severity of injuries increases with speed.

2:13:18 PM

MR. McQUEARY addressed the next slide, a traffic schematic showing various volumes of traffic. He said nobody evaluates the successfulness of safety projects. The difference between safe neighborhoods and unsafe ones is the speed of traffic on the streets. He cited examples.

2:17:10 PM

MR. McQUEARY clarified that this isn't an attack on the engineering profession. Rather, this is a program that the engineering profession itself has come up with. It recognizes the need for additional involvement, and requires that designers and project managers make sure everyone understands all the ancillary issues before they go to the design process and spend hundreds of thousands or millions of dollars - only to discover there are problems because they had the wrong objective in mind.

He concluded by saying this is a way, in the top-down process, to actually free up the engineering profession to use best practices from elsewhere; to use the flexibility that already exists in manuals like the Green Book; to use what's in the Flexibility in Highway Design manual; and to deliver a much better product, with a higher degree of satisfaction and a better return on investment, to Alaska's communities.

2:19:04 PM

SENATOR COWDERY returned to discussion of delays. He offered his experience that, after the design is done, there is a roadblock because an owner doesn't want to sell property, for example, and thus there is litigation. He gave further examples, saying it proves to be very expensive.

MR. McQUEARY replied that he'd argue that it proves and reinforces what he is saying. A private citizen wouldn't spend a million dollars on a design for something he or she didn't own, and would have investigated the ramifications of the investment. This all has to do with the pre-design process, understanding all of the aspects. That doesn't preclude unforeseen issues, but this process gives a major improvement, overall, in the numbers of projects completed and the overall satisfaction once they are completed.

SENATOR THERRIAULT joined the meeting at 2:21:45 PM.

2:23:35 PM

MR. OTTESEN gave an example and talked about a group effort in which everyone gets together with a facilitator and resolves issues. He said transportation is complex, no longer just about moving cars. If the design is driven by any one need or group, it misses the boat for several other groups. "So you have to find that art of compromise," he concluded.

2:26:20 PM

CHAIR HUGGINS cited examples in Alaska, noting that limited access on a roadway adds safety.

NANCY REEDER, Lieutenant, Anchorage Police Department, calling herself a "road cop," related an experience a few years ago in which the design had worked well to decrease speeds on a particular stretch of road - so well that a motorcycle officer who'd written large numbers of tickets there moved to another location. One design element was landscaping containers, she noted, which provided motorists with a visual cue that helped them to monitor their speed.

She pointed out the irony that a flat, wide roadway attracts younger and more aggressive drivers, those who like flat, wide-open spaces. She sees the end results, Lieutenant Reeder told members, going out at 3 a.m. and seeing the tragedies that occur. This is her 22nd year of police work. She has seen a lot of roadway-design issues in Anchorage, and what she called reactionary redevelopments of roadways when there have been fatalities, a knee-jerk reaction to try to fix something.

She mentioned the millions of dollars spent to try to get traffic to move faster, which only causes more problems and

results in fatalities. The cost of a life isn't worth it, Lieutenant Reeder emphasized.

2:35:29 PM

SENATOR FRENCH asked how the legislature would put its stamp of approval on this [CSD/CSS] idea.

MR. McQUEARY offered to work with the committee on a bill for possible passage this year. He mentioned material he'd provided to the committee aide, including proposed model legislation developed by the National Conference of State Legislatures, in cooperation with Scenic America; a copy of the Illinois statutory implementation of CSD; and a copy of what Washington State did several years ago through an executive order of the governor.

SENATOR FRENCH said he'd take a look at the materials. He suggested legislation should have some teeth to it, with fairly tight mechanisms to ensure this process is done correctly in the first place.

MR. McQUEARY agreed. He said some legislation has been at the policy level, leaving it up to the transportation department to implement it, without any reporting requirements or measurable goals. On the other hand, legislation can have the general requirement and yet request a regular progress report. He noted that Washington State is well along in its process, as documented on the website, and that California has published a great deal of "structural material" relating to its process.

2:38:54 PM

SENATOR THERRIAULT inquired whether there is a current statutory bar to [implementing CSD/CSS] or whether the department just needs clear direction to do it.

MR. McQUEARY explained that these are new business processes. Since CSD is now part of the curriculum at most major transportation and traffic-management schools, eventually there'll be enough young traffic engineers who are thoroughly grounded in it. The cost of waiting, however, would be tremendous. Many people don't want to change. It will happen if nothing is done, but it might be 10 or 15 years, as new blood and new ideas are rotated into an organization. He mentioned funding as another possible way to encourage this behavior.

Reiterating that there are successful models in other states, he encouraged legislators to do something about it now.

2:41:09 PM

MR. OTTESEN pointed out a legal argument for having this in statute. Currently, there are strict standards for transportation; roads are designed to those, which can stand up to a court test if there is a tort claim. Under CSD, however, the standards are modified to let other interested parties have a say. An engineer would be going out on a limb if the design were modified to take into account other factors. Without some legal backstop, engineers might resist the change because of fear of personal liability if they didn't follow the rulebook exactly.

CHAIR HUGGINS suggested the desire is for innovation and flexibility, for instance, rather than a rigid template. He asked whether states have used incentive programs to get this result; he cited the example of a bonus when a project comes in under cost or under the allotted time.

2:43:18 PM

MR. McQUEARY answered that on a project-by-project basis it perhaps could be done, though he didn't know how it would be measured. In further response, he said in CSD there certainly is a place for stressing economic value. Right now in the process, however, there is no incentive to even look saving money. The thrust of CSD is not to spend less on roads, but to get more value for the money spent.

2:45:20 PM

MR. McQUEARY reported that the history elsewhere in court cases is this: If there is a statutory basis for implementation, and if the decision process is well documented, lawsuits generally are unsuccessful, both under this process and the traditional one. He mentioned a theorist in the Netherlands, where speeds were reduced and most signs removed; traffic flow and capacity improved, as well as safety.

He pointed out that when driving on a wide road in the desert, a person feels safe and thus tends to go quite fast. In a smaller, narrower environment with a lot of activity, a driver tends to pay a lot of attention and slow down. The human factor is part of it, especially in urban design. Mr. McQueary

suggested it's another argument for CSD, which requires that all the other disciplines be considered.

He cited other examples, including one where a school district should have been consulted. He informed members that some project managers consistently use as many of these tools as are available right now. It's not that CSD isn't practiced at all within DOTPF or even the Municipality of Anchorage. However, the problem is consistency. Everybody needs to be using these processes. Mr. McQueary offered to work with the committee or any of its members on legislation.

CHAIR HUGGINS requested that he coordinate through the committee aide. He thanked the presenters.

There being no further business to come before the committee, Chair Huggins adjourned the House Transportation Standing Committee meeting at 2:55:27 PM.