

CITY OF BELLEVUE  
BELLEVUE TRANSPORTATION COMMISSION  
MINUTES

September 10, 2009  
6:30 p.m.

Bellevue City Hall  
City Council Conference Room 1E-113

COMMISSIONERS PRESENT: Chair Tanaka, Commissioners Glass, Jokinen, Larrivee, Northey, Simas

COMMISSIONERS ABSENT: Commissioner Kiel

STAFF PRESENT: Paul Krawczyk, Mike Ingram, Kate Johnson, Department of Transportation

GUEST SPEAKERS: Denise Cieri, Tim Sexton, WSDOT; Lynn Frosch, Microsoft;

RECORDING SECRETARY: Gerry Lindsay

1. CALL TO ORDER

The meeting was called to order at 6:34 p.m. by Chair Tanaka who presided.

2. ROLL CALL

Upon the call of the roll, all Commissioners were present with the exception of Commissioner Larrivee, who arrived at 7:07 p.m., and Commissioner Kiel, who was excused.

3. STAFF REPORTS

Senior Project Manager Paul Krawczyk announced that the Bellevue Downtown Association and TransManage received an award recently for its employer commute program. The national award was specifically for the public/private partnership.

Mr. Krawczyk reminded the Commissioners that the Council would be meeting on September 14 to focus solely on the budget.

Chair Tanaka noted that as a member of the Board of Directors for Hopelink he would need to leave at 7:30 p.m. to attend the opening of the Bravern. He noted that Hopelink would be one of the beneficiaries of the event.

4. COMMUNICATIONS FROM CITY COUNCIL, COMMUNITY COUNCILS,

BOARDS AND COMMISSIONS – None

5. REPORTS FROM COMMISSIONERS – None

6. PETITIONS AND COMMUNICATIONS – None

7. APPROVAL OF AGENDA

Motion to approve the agenda as printed was made by Commissioner Northey. Second was by Commissioner Glass and the motion carried unanimously.

8. STUDY SESSION

A. Washington State DOT Quieter Pavement Program

Project Manager Denise Cieri said she joined the I-405 WSDOT program in 2003 with the first nickel funding. Prior to that time there were meetings held up and down the corridor as a part of the process to develop the master plan Environmental Impact Statement that was adopted in 2002. The master plan primarily focused on adding two general purpose lanes in each direction on I-405. The plan assumed that bus rapid transit would be the primary transit type along the corridor and considered access to and from transit centers via direct access ramps and the possibility of potential toll lanes along the corridor; the plan also focused on increasing capacity at park and ride lots, and included environmental enhancements.

Ms. Cieri said as far back as the 1980s the state of Washington experimented with quieter paving techniques which did not meet with much success. In just the last few years, attention has been given to what other states have done and what their successes have been. Noise is a common complaint for all roads, not just freeways. The goal is to find an approach that will be durable, safe and smooth as well as quiet.

There are many different types of paving used on roadways, the two most common of which are concrete and asphalt. Within the asphalt genre, however, there is dense grade, which is heavily rolled and compressed, and open grade, which intentionally includes air voids; in addition, there are different ways asphalt can be bound together. Concrete pavement can be created from all new materials, or from ground down concrete that has a different texture and which is quieter.

WSDOT Engineer Tim Sexton said the notion of quiet pavement began in Arizona. Quiet pavement primarily refers to open graded friction course asphalt. The pavement was originally developed by Arizona in an attempt to reduce splash and spray as well as water pooling on their highways. What they found, however, was that the roads paved with the new material were much quieter. The first test section in Washington state was on I-5 near Lynnwood in 2006, though WSDOT was involved a couple of years before that as part of the national collaboration

through the Federal Highway Administration. Mr. Sexton said his responsibility is to conduct all the testing on the pavements, analyze the data, and develop the reports.

Three pavement types were involved in the 2006 test on I-5: a control section involving conventional hot mix asphalt; a section of rubberized asphalt containing a rubber filament binder and a polymer modified asphalt containing fibrous materials. Monthly measurements have been taken since the three sections were first installed. In 2007 similar types of pavements were laid on SR-520 near Medina during a period of higher temperature weather. Recently some test sections were put down on I-405.

In accord with the draft international standards, sound measurements are made via two pairs of phase-matched microphones located three inches above the pavement. At higher speeds, road noise is primarily a function of tires running on pavement. Mr. Sexton stressed that the sound readings taken at the tire/pavement interface is not reflective of what those living adjacent to the roadways experience. Sound attenuates very quickly, typically at three decibels for each doubling of distance.

Mr. Sexton noted that initially the rubberized pavement was significantly quieter than the conventional hot mix asphalt, but within six months the sound levels were not audibly different from the control section. Over time, the rubberized material degraded acoustically and structurally much faster than either of the other two sections, though the polymer section degraded acoustically and structurally much faster than the control section. The sections are tested as a whole with three tests in each lane of each section.

Commissioner Northey noted that the graphed trend lines for each of the three sections tended to mirror each other and asked why. Mr. Sexton said that is likely the result of temperature. Sound levels tend to be quieter during the summer months when the ambient temperatures are higher, most likely because the rubber and polymer surfaces are more flexible when warmer. The same results have been charted throughout the world.

Ms. Sexton noted a substantial jump in noise levels during the winter months of 2009. He reminded the Commissioners that there was a lot of snow and ice which resulted in more vehicles with studded tires or chains and a lot more plowing and deicing activities. The temperatures were colder than normal, and there was a lot of freezing and thawing which tends to deteriorate pavements. In addition to an increase in noise levels, the same period had marked increases in pavement wear.

Even without extreme weather events, the findings show that the rubberized asphalt is not a durable surface. The polymer asphalt is less durable than the control surface, though more durable than the rubberized asphalt.

In addition to the asphalt pavement tests, experiments have been done with diamond grinding as a way to make concrete quieter. WSDOT intends to test the process on a section of I-405 in

the near future. The practice of tining or scraping the surface perpendicular to the direction of travel has been shown to be quite loud. Longitudinal tining and some other grinding techniques, if done correctly, have been shown to result in sound levels very similar to asphalt pavements. Concrete without any special treatment tends to have slightly higher noise levels than asphalt, though it has other benefits.

Ms. Cieri said deep groove tining has been shown to increase friction and enable cars to stop much faster. Over time, however, the tining wears out and reveals the aggregates, which increases the noise levels. Traditional asphalt has a lifespan of about 16 years; the newer and quieter asphalt mixes have not been shown to be as durable. Concrete has a lifespan of between 30 and 50 years depending on various factors.

Mr. Sexton said texturized concrete does not hold up well, primarily because drivers in the Northwest use studded tires.

Commissioner Simas said he assumed the three asphalt pavement types tested are the only three options and asked if enough research has been done to determine if it is the density of the pavement or the composition of the pavement that is resulting in reduced sound readings. Mr. Sexton said regardless of the density of the mix, the findings indicate it is the top surface that is coming off, not necessarily the binding agent. No loss of adhesion for the overlay has been observed. The mixes being used for the tests are the same as those used in places that have registered successful tests. Some places in Europe are using higher porosity mixes, but they do not have the same traffic volumes or the higher speeds; most of them also do not have to deal with studded tires.

Commissioner Simas noted that the results from I-5 and SR-520 mirror each other and guessed that the final results from I-405 will be similar. He asked at what point a final conclusion will be reached and what the next steps in the process will be. Mr. Sexton said the I-5 test mixes mirror the standard mix from the Arizona studies; those mixes were laid over existing asphalt and were put down at night. The SR-520 test mixes are slightly different in terms of the emulsifier; those mixes were also laid down over existing asphalt but the work was done during the day. The I-405 test mixes will be placed on top of concrete during the day and will have the newest standard mix. It cannot be said with any degree of certainty that the same trends will emerge from each test. If the trends are similar, however, whether or not to pursue additional tests will be an executive decision.

Chair Tanaka asked how the different mixes compare in cost per mile. Mr. Sexton said the cost per mile is roughly twice the cost when compared to the standard asphalt overlays. Concrete grinding is fairly expensive.

Commissioner Northey asked if anyone in the legislature is championing doing away with studded tires. Ms. Cieri said she has been told the issue has been put forward by WSDOT every session for many years, and each time it has failed to take hold.

Ms. Cieri said the south Bellevue projects consist of a diamond grind and a dowel bar retrofit. The treatment has reduced sound levels, but WSDOT will be looking at it closely to see how well it stands the test of time. The anticipation is that the hard surface will stand up to wear better than standard asphalt or the polymer enhanced asphalt.

Ms. Cieri noted that the test results for all of the various test sections are posted on the WSDOT website.

Commissioner Glass asked if the channelization on I-405 currently is final or if it will change again. Ms. Cieri said the striping in place is not permanent and will change as the project continues moving toward completion.

#### B. Microsoft Shuttle Program

Lynn Frosh, Puget Sound Transportation Services Manager for Microsoft, said some 40,000 employees come to work at the Redmond campus every day. The campus includes 94 buildings, 23 cafés, sports fields, and a retail complex that includes a bike shop and cell phone carriers. The access points to the campus are general traffic via SR-520 and transit services connected to the Overlake transit center. Microsoft offers the Orca card free to all of its FTEs and vendors as well as to all agency temporary employees. The Shuttle Connect program includes more than 2100 carpool stalls, 1150 vanpool stalls, and more than 1800 bike parking slots. Vanpools are subsidized \$100 per month, but riding bus transit is free and unlimited.

Microsoft has 141 shuttle vehicles in operation. As the older vehicles age out they are being replaced with Prius and Sienna vehicles. Some 7000 people are moved each day. Demand for the service has grown more than 120 percent over the past two years; while some of the increase can be chalked up to having more employees, service improvements in the shuttle program have made the system more reliable and the preferred choice of many employees.

Ms. Frosh said the Shuttle Connect program includes a mix of fixed and on-demand routes. The red and green routes operate clockwise and counterclockwise through the main campus and operate between the Redmond campus and downtown Bellevue on fixed routes. The route that serves the Eastgate Microsoft route is fixed in the morning but on-demand in the afternoons. There is a fixed route serving Seattle, and in the mornings and evenings there are distribution shuttles that connect with King County Metro, Sound Transit and Community Transit buses.

Chair Tanaka asked why Microsoft decided to implement a shuttle program. Ms. Frosh said the shuttle program primarily operates between buildings on the Redmond campus. The service was needed because of how spread out the various buildings are. The connector bus service is in answer to the transportation management program agreement Microsoft has with the city of Redmond under which 40 percent of all trips to and from the campus are to be non-

SOV by 2015. The services were initiated not because of issues with King County Metro, Sound Transit or Community Transit but rather as a complement to those services. About 60 percent of the Shuttle Connect riders were formerly SOV drivers. The shuttles include free Wi-Fi and riders often spend their commute time perusing their emails, which benefits the company and the employees.

Ms. Frosh said the connector program offers point-to-point connections with a limited number of stops. The service offers competitive travel times to SOV usage, but the reservation process guarantees a seat. There are penalties involved for making and then missing a reservation. More than 12,000 unique riders have used the system since its implementation. More than 3000 passengers are moved daily with the system that has a current capacity of 5800 seats. The system has a 94 percent on-time performance record. The program leases two bays of the Overlake transit center where it picks up riders and takes them to their respective buildings.

Ms. Frosh said the program reduces the number of cars on the streets and reduces the parking demand on the main Microsoft campus.

Answering a question asked by Commissioner Northey, Ms. Frosh said Microsoft intends to keep the shuttle service in-house for the foreseeable future, and the focus will continue to be on serving Microsoft employees only.

Commissioner Glass noted that Bellevue intends to begin a downtown shuttle service soon and the estimated cost is six dollars per passenger. Ms. Frost said she targets five dollars or less per passenger for the shuttle program. The current operator was selected through an RFP process, and the route maps were developed in conjunction with consultants.

Commissioner Simas observed that the Microsoft system has a great deal more flexibility to change routes than King County Metro or Sound Transit has. Ms. Frosh said the level of flexibility increases with a closed system. She said she has the database to show where all of the Microsoft riders live, and of course for the most part they are all commuting to the same campus.

Commissioner Larrivee asked if the Microsoft program is eligible for any federal grants. Ms. Frosh said she did not believe so. Commissioner Larrivee noted that the program is gaining national attention and he asked if governments at different levels are looking at the program as a model that could be used to fill in gaps. Ms. Frosh said she has not had those kinds of conversations yet.

Answering a question asked by Commissioner Glass, Ms. Frosh confirmed that Microsoft employees do not pay for parking at any of the Puget Sound campuses. There is ample parking at the Redmond campus, but in downtown Seattle there are only 150 parking stalls for 500 employees. The program rolled out in Seattle is basically a transportation parking incentive under which those who forego the parking pass receive \$150 per month. That approach has not

been taken in downtown Bellevue because as part of the lease Microsoft is already paying for a lot of parking. It is hoped that proximity to the Bellevue transit center will decrease the number of SOV drivers.

### C. Choose Your Way Bellevue

Senior Transportation Planner Mike Ingram stated that Bellevue is a large employment center; there are significantly more people who work in Bellevue than who live in Bellevue. Within the major employment centers of the downtown, Bel-Red, Eastgate and Factoria, only about one in five of the employees actually live in Bellevue. The typical commuter travels a substantial distance to get to work in Bellevue, generally between 12 and 15 miles. That results in a heavy flow of traffic coming into Bellevue in the mornings and leaving Bellevue in the evenings.

Mr. Ingram said the city's TDM focus is largely on commute trips; the Comprehensive Plan includes targets for commute trips to occur by non-drive-alone mode. The issue is tackled in several ways, including reaching out to the large employers who have a regulator obligation to pursue TDM activities; there are some 60 sites in Bellevue that are CTR affected and which account for about 24 percent of the total workforce in Bellevue.

In the downtown a voluntary program called Commute Advantage, which is run through GTEC funding, reaches out to the 960 employers in the downtown who average between five and 99 employees and seeks to engage them in employee commute programs. To date about ten percent of those employers have attended workshops, and about half of them have improved their programs.

There are TMP requirements that apply to large real estate developments, most of which are offices in the downtown. There are 11,000 employees in downtown buildings that work for non-CTR employers, and they are being reached with messaging and incentives related to non-SOV driving.

The city also pursues individual outreach efforts as well in an attempt to connect with both workers and residents. There is a storefront at the Bellevue transit center that opened a year ago; it is staffed by TransManage and is open daily from 10:00 a.m. to 2:00 p.m. and offers personalized commute assistance. There is also an online option that is seeing increased hits, and a newsletter that is distributed throughout downtown buildings and on the website.

Mr. Ingram said the work the city does relative to TDM efforts is largely carried out through partnerships. King County is a strong partner on the funding side while TransManage is a strong partner on the implementation side.

In the early 1990s the city launched a program called One Less Car. The program was broadly directed to residents, workers and students. That program was followed in 2000 by a website

by the same name as the program; it incorporated a lot of the messaging and information about travel options. In 2007 the program was rebranded as Choose Your Way Bellevue and revamped to focus on commuter options and flexibility. A new version of the website was launched in June 2009.

Associate Planner Kate Johnson said the updated website was launched following about eight months of work by staff. It now sports lively and upbeat images aimed at being attractive to all ages. The readability of the site has been improved as well, and it has been made more interactive and includes a blog.

Ms. Johnson demonstrated the webpage and its features for the Commissioners. She said the intent is to get people used to using the site as their first stop source for transportation information by including on it a variety of links and up-to-date information. Case studies will be added in time, highlighting successful company programs.

Commissioner Jokinen said he liked how intuitive and informative the site is. He suggested that it is the most important thing being done.

Ms. Johnson said the Bellevue Downtown Association contact person is responsible for the day-to-day content maintenance, and the same company that developed the site hosts it and conducts all of the technical maintenance.

Commissioner Glass suggested that instead of having to go to the WSDOT link to see the traffic cameras, there should be a way to toggle between the state cameras and the city cameras without having to go to the different sites. Ms. Johnson said there are complexities involved in taking that approach, but agreed it would be a nice way to go.

Ms. Johnson said when the site was launched there was an article in *It's Your City* and in *Bellevue Downtown* magazine. The *Bellevue Reporter* plans a special transportation insert in September which will include a half page ad for the website, and the *Chinook Book*, a coupon book that has eco-related companies advertising, will include a promotion for the website. The website is also being promoted at different events, including Live At Lunch, and as part of all TransManage outreach efforts. There are also welcome packets for new residents and workers.

9. OLD BUSINESS ↔ None
10. NEW BUSINESS – None
11. PETITIONS AND COMMUNICATIONS – None
12. APPROVAL OF MINUTES
  - A. June 25, 2009

13. REVIEW COMMISSION CALENDAR AND AGENDA

The Commission reviewed the items scheduled for discussion at upcoming meetings and offered suggestions for items to address.

Commissioner Simas said he attended a Bellevue Chamber of Commerce Transportation Committee meeting at which Department of Transportation Director Goran Sparrman spoke. He said it was made clear that there very well could be a reprioritizing of many of the city's capital projects because of the budget constraints. The recession has severely battered the budget and the City Manager and the City Council are following their fiduciary duties by reviewing all capital projects.

B. Public Involvement Calendar

14. ADJOURNMENT

Commissioner Simas adjourned the meeting at 8:55 p.m.

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Secretary to the Transportation Commission

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Date

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Chairperson of the Transportation Commission

\_\_\_\_\_  
Date