



# Transportation Commission Study Session

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**DATE:** February 4, 2016  
**TO:** Chair Lampe and Members of the Transportation Commission  
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**SUBJECT:** Developing the Next Generation BKR Model

## DIRECTION REQUESTED

- Action
- Discussion
- Information

This agenda item provides a briefing to the Commission on the Transportation Department’s work to date developing a “next generation” Bellevue-Kirkland-Redmond (BKR) Travel Demand Forecast Model. Staff will discuss key improvements envisioned in the new model and seek input from the Commission regarding the priority policy questions the new model is expected to help answer.

## BACKGROUND

Through an interlocal agreement with the cities of Kirkland and Redmond, the City of Bellevue developed the first BKR model in 1989. Since then, a number of improvements have been made to the model to support on-going planning and engineering functions in the three partner cities. As the city moves from auto-focused intersection level-of-service (LOS) measurements and standards to more multimodal oriented LOS (MMLOS) measurements and standards, a major upgrade to the current BKR model is needed to expand its capabilities and reflect more current travel behavior trends.

## **INFORMATION**

Recently, the consulting firm RSG Inc. was brought on board to help the city design the next BKR Model. Compared to the current model, the new BKR Model is expected to have the following improvements:

- Multimodal analysis capabilities. For example, pedestrian travel will be accounted for and bike travel will be explicitly represented in the model. This will support City efforts to develop and implement MMLOS measures and standards.
- Sensitivity to transit oriented development (TOD) such as increased mixed use and higher density developments in the Downtown and BelRed corridor.
- More robust forecasts to support specific projects, programs, and policy initiatives. This will be accomplished by implementing the following in the new model:
  - proven, more recent travel modeling techniques and advancements;
  - a more refined traffic analysis zone system;
  - more detailed multi-modal transportation networks; and
  - more recent travel survey data.

Staff have been collaborating with the Kirkland and Redmond modeling staff on technical aspects of the model improvements as well as funding partnership. It is expected that both Redmond and Kirkland will include this item in their 2017-2018 work program and budget.

## **RECOMMENDATION**

None at this time. In developing the new model, staff will strive for an optimum balance between model complexity and the resources required to develop, operate and maintain the new model.

## **NEXT STEPS**

Staff have secured financial assistance from the Federal Highway Administration to sponsor a peer review panel to critique and improve the new model design. The Peer Review is scheduled for February 24 and 25. Resources needed to develop the new model are being estimated and will be included in the next biennium's work program and budget request. Staff will come back to brief the Commission periodically at key milestones of the model development process to seek input and guidance.

## **ATTACHMENTS**

None.