



SMART MOBILITY PLAN UPDATE

January 22, 2018

Prepared by: **Chris Long, Traffic Engineering Manager**
clong@bellevuewa.gov, 425.452.6013

PRESENTATION OUTLINE

1

**Smart Mobility Plan
Vision & Goals**

2

**Smart Mobility
Initiatives**

3

**Key
Projects**

4

**Next
Steps**

August 7, 2017

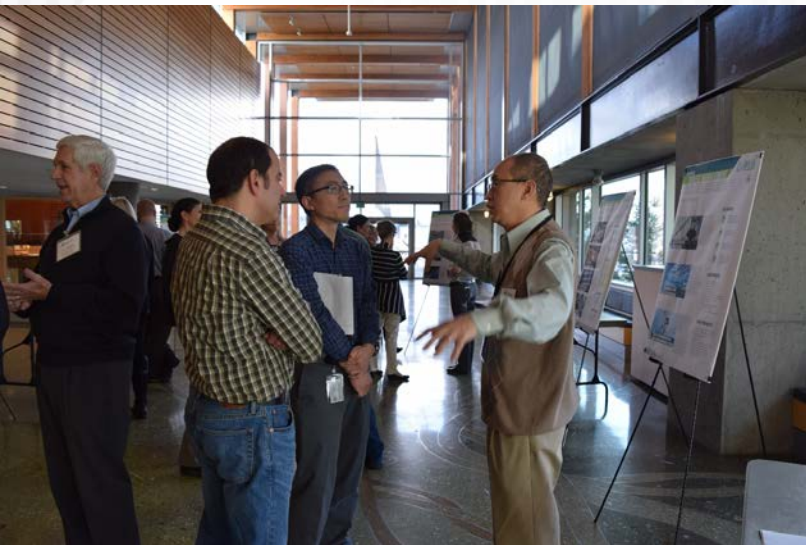
COUNCIL STUDY SESSION

- Smart Mobility Plan draft vision and goals
- Smart Mobility Plan needs assessment
- Traveler information outreach
- 90 day report on technology partnerships

INTEGRATED PLANS



OUTREACH EFFORTS



- Stakeholder workshops
- Public focus group meetings
- Internal City of Bellevue Open House

Smart Mobility **VISION**

Use innovation and partnerships to deploy emerging technologies that enhance the safety, sustainability, efficiency, and accessibility of Bellevue's transportation system.



Smart Mobility **INITIATIVES**

1. TRAFFIC MANAGEMENT

2. REAL-TIME TRAVELER INFORMATION

3. DATA MANAGEMENT

4. ELECTRIC VEHICLES

5. AUTONOMOUS & CONNECTED VEHICLES

6. SHARED MOBILITY

1. TRAFFIC MANAGEMENT



1. TRAFFIC MANAGEMENT

KEY BENEFITS



Improved response times



Improves operational efficiencies



Optimizes available transportation system capacity



Make data-driven decisions

OTHER PROJECTS

- Weather Information and Pavement Monitoring System
- Internal Data Sharing Platform
- Portable CCTV Camera Systems
- TMC Video Wall Upgrade
- Adaptive Signal System Software Upgrade
- Lighting Control and Management System
- Signal and Arterial Performance Measures System
- Computer Aided Dispatch (CAD)/Automated Vehicle Locator (AVL) and TMC Integration
- Centralized Transit Signal Priority System

2. REAL-TIME TRAVELER INFORMATION



2. REAL-TIME TRAVELER INFORMATION

KEY BENEFITS



Allows for more informed travel decisions



Provides optimized travel plans



Increases awareness of available travel options

KEY POINTS



Over 70% of people in Bellevue indicate that they use a smartphone application as their primary traveler information source



Travelers in Bellevue value real-time information and travel time predictions as the most useful types of traveler information



Google Maps is the preferred application used by most Bellevue travelers

3. DATA MANAGEMENT



3. DATA MANAGEMENT

KEY BENEFITS



Improve operational efficiencies



Protects data integrity and privacy



Enhances data accuracy and reliability

KEY POINTS



Autonomous vehicles are anticipated to produce more than 1Gb of data per second



Mobile data traffic is expected to increase sevenfold between 2016 and 2021



The Microsoft-Bellevue video analytics data capture now exceeds 95% accuracy for vehicle detection and will soon expand to pedestrians and cyclists

4. ELECTRIC VEHICLES



4. ELECTRIC VEHICLES

KEY BENEFITS



Increases sustainability



Reduced Noise



Reduced operating and maintenance expense

KEY POINTS



Bellevue has one of the highest adoption rates of electric vehicles per capita in the US



In the first half of 2017, the U.S. experienced a growth of ~40% in EV sales when compared to the previous year



King County Metro's first all-electric bus began operating from Eastgate P&R in 2013

5. AUTONOMOUS & CONNECTED VEHICLES



5. AUTONOMOUS & CONNECTED VEHICLES

KEY BENEFITS



Increases roadway safety



Increases traveler productivity



Reduces vehicle emissions



Reduces travel cost

KEY POINTS



The global AV industry is anticipated to exceed \$125 Billion in market revenue within the next decade



There are currently only limited speed level 4 deployments in the US and no level 5 deployments yet



Human errors contribute to 90% of all crashes, which can be reduced by AVs

6. SHARED MOBILITY



6. SHARED MOBILITY

KEY BENEFITS



Relieves congestion



Improves transportation accessibility



Reduces travel cost



Improve first-and-last-mile connectivity

KEY POINTS



Since its emergence in 2012, rideshare is now a multi-billion dollar industry



Approximately 60% of travelers in Bellevue indicate that they currently drive alone on their commute



Shared mobility provides a travel alternative that is estimated to be 2 to 10 times more affordable than owning a vehicle in urban centers

Smart Mobility Plan

NEXT STEPS



Complete smart mobility plan documentation by April 2018



Seek and engage in public and private sector partnerships to help execute initiatives



Develop budget and staffing resource plan



Conduct grant research to identify opportunities for project funding



QUESTIONS

CHRIS LONG

Traffic Engineering Manager

clong@bellevuewa.gov

425-452-6013

STEVE MARSHALL

Transportation Technology

Partnerships Manager

smarshall@bellevuewa.gov

425-452-4221

DANIEL LAI

Senior ITS Engineer

dlai@bellevuewa.gov

425-452-6178