



# **Downtown** Transportation Plan Update

## **DOWNTOWN TRANSPORTATION PLANNING MODELING RESULTS**

**TRANSPORTATION COMMISSION  
OCTOBER 25, 2012**

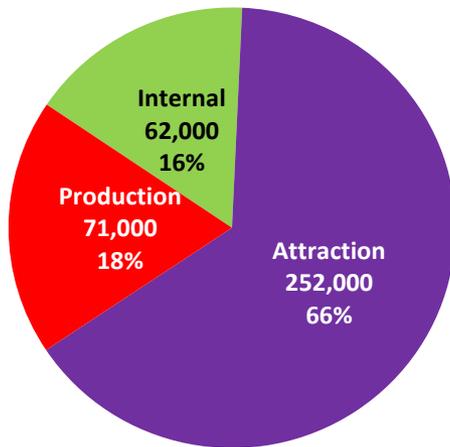
## **Presentation and Discussion**

- 2030 Travel Demand and Internal Downtown Trips
- Downtown Roadway Link Level of Service
- Introduce 2030 “Build” Scenario
- Compare 2030 Baseline with 2030 “Build” Scenario
- Conclusions

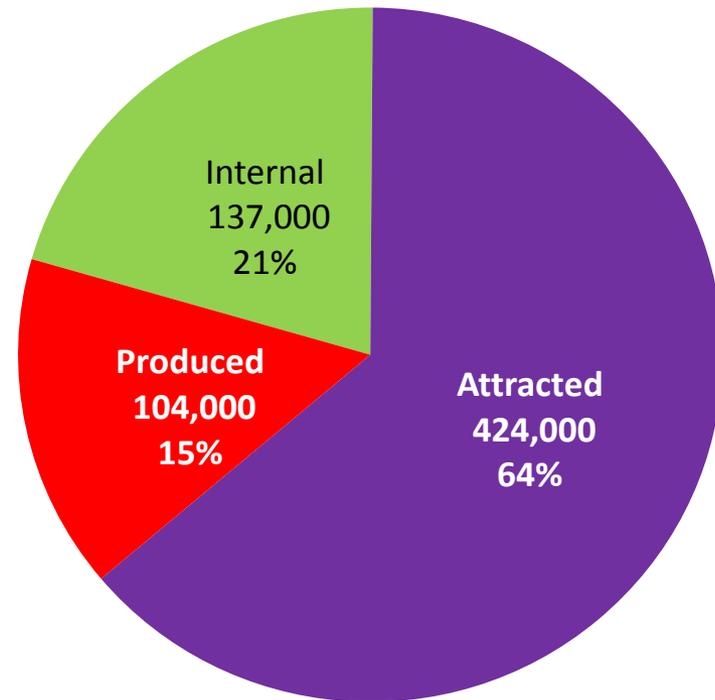
# BKR Model – Total Downtown Person Trips

## 2030 Daily Person Trips

## 2010 Daily Person Trips



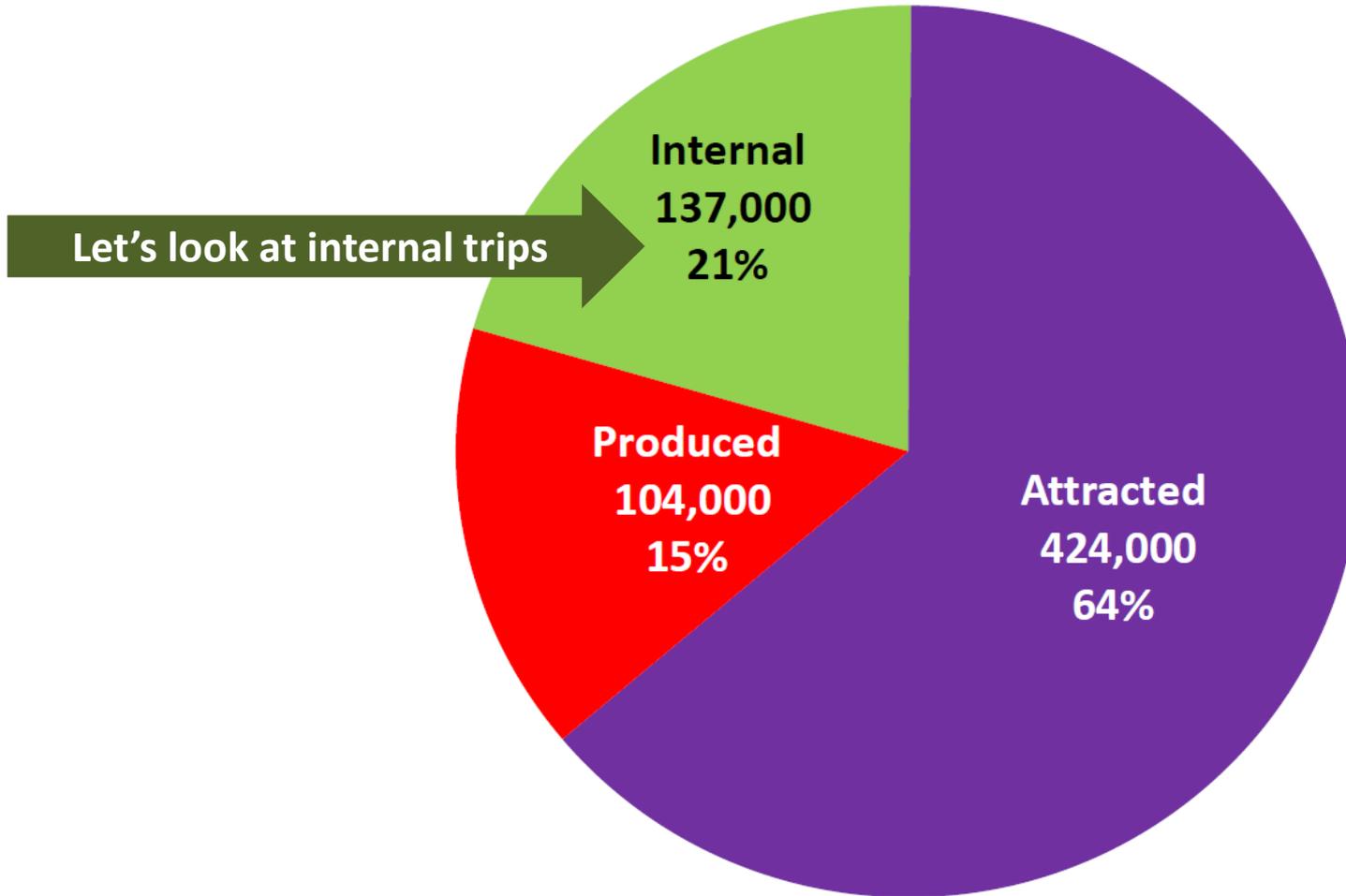
**385,000**



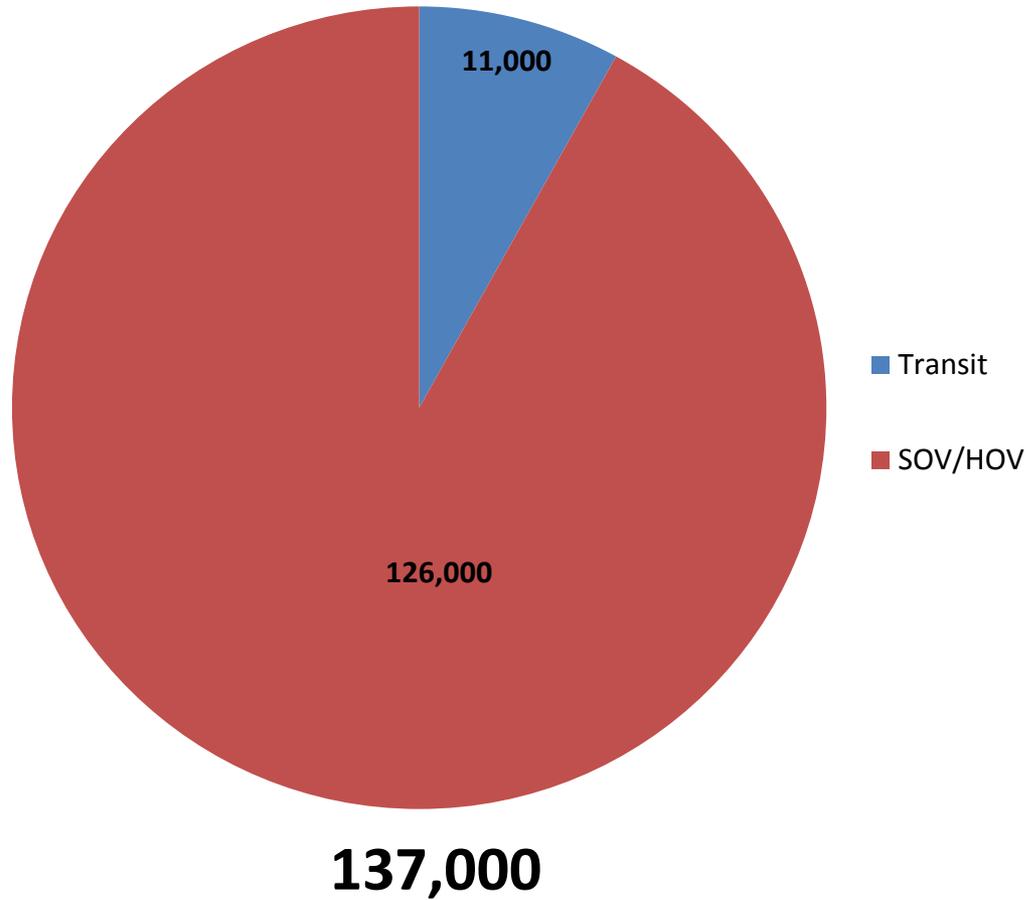
**665,000**

# Downtown Daily Person Trips

## 2030 Daily Person Trips

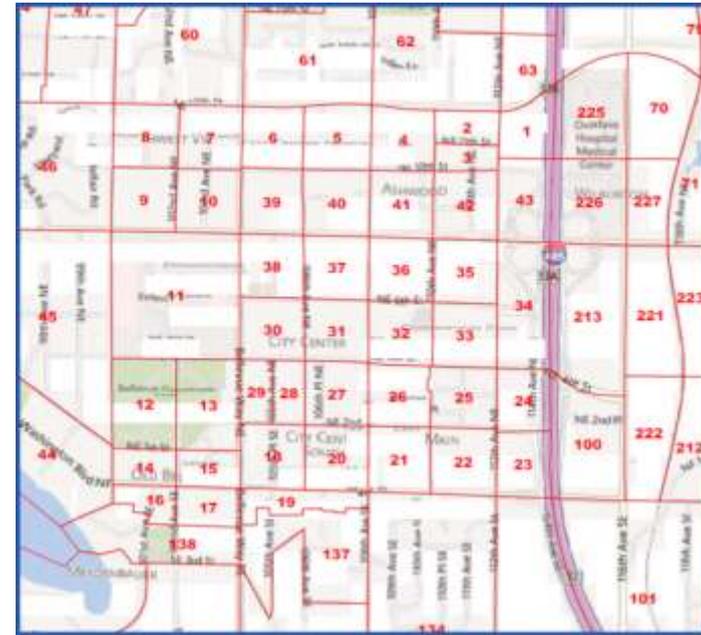


# Downtown Internal Daily Person Trips



# Internal Downtown Walk Trip Calculation

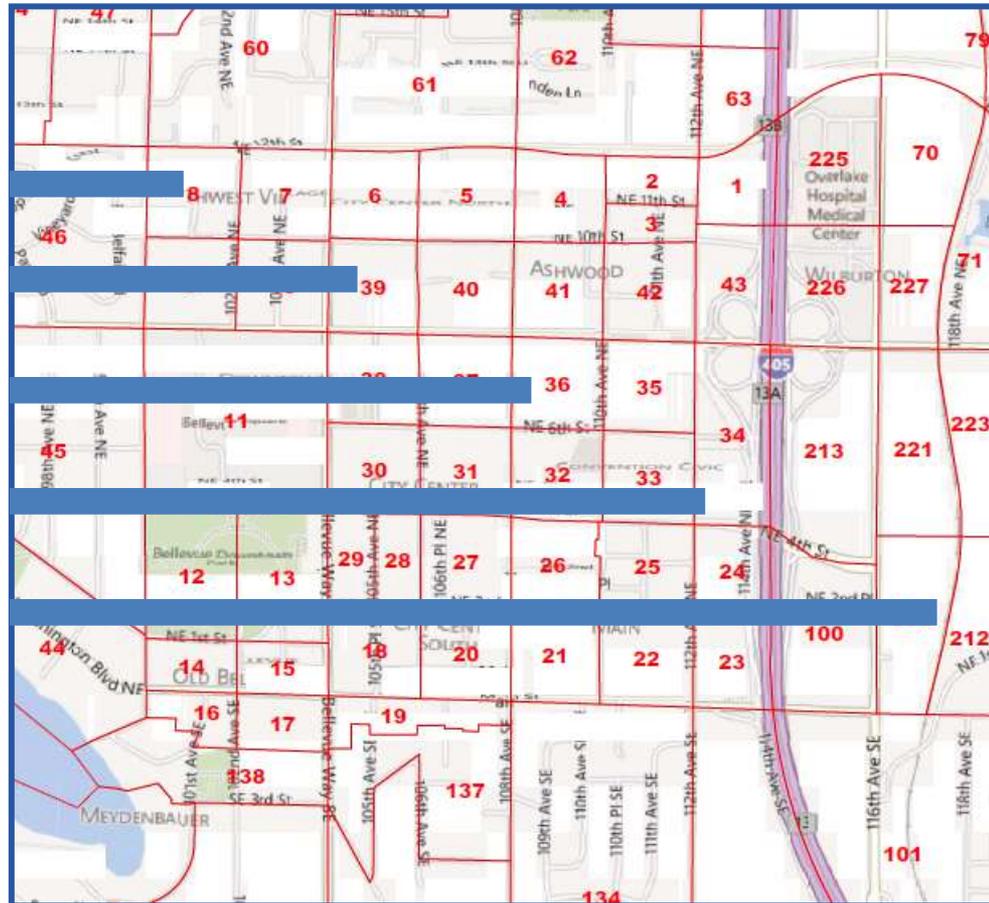
- Person trips forecast **between** TAZs are all considered to be motorized
- BKR assumes all trips **within** a Downtown TAZ = 0
- Not every trip between Downtown TAZs is a motorized trip - many trips are short “walk trips”
- Categories of Internal Downtown trips:
  - Drive Trips
  - Transit Trips
  - **Walk Trips** 15 Trips between TAZs
    - No Car Available
    - Short Trips



# BKR Downtown Internal Trips

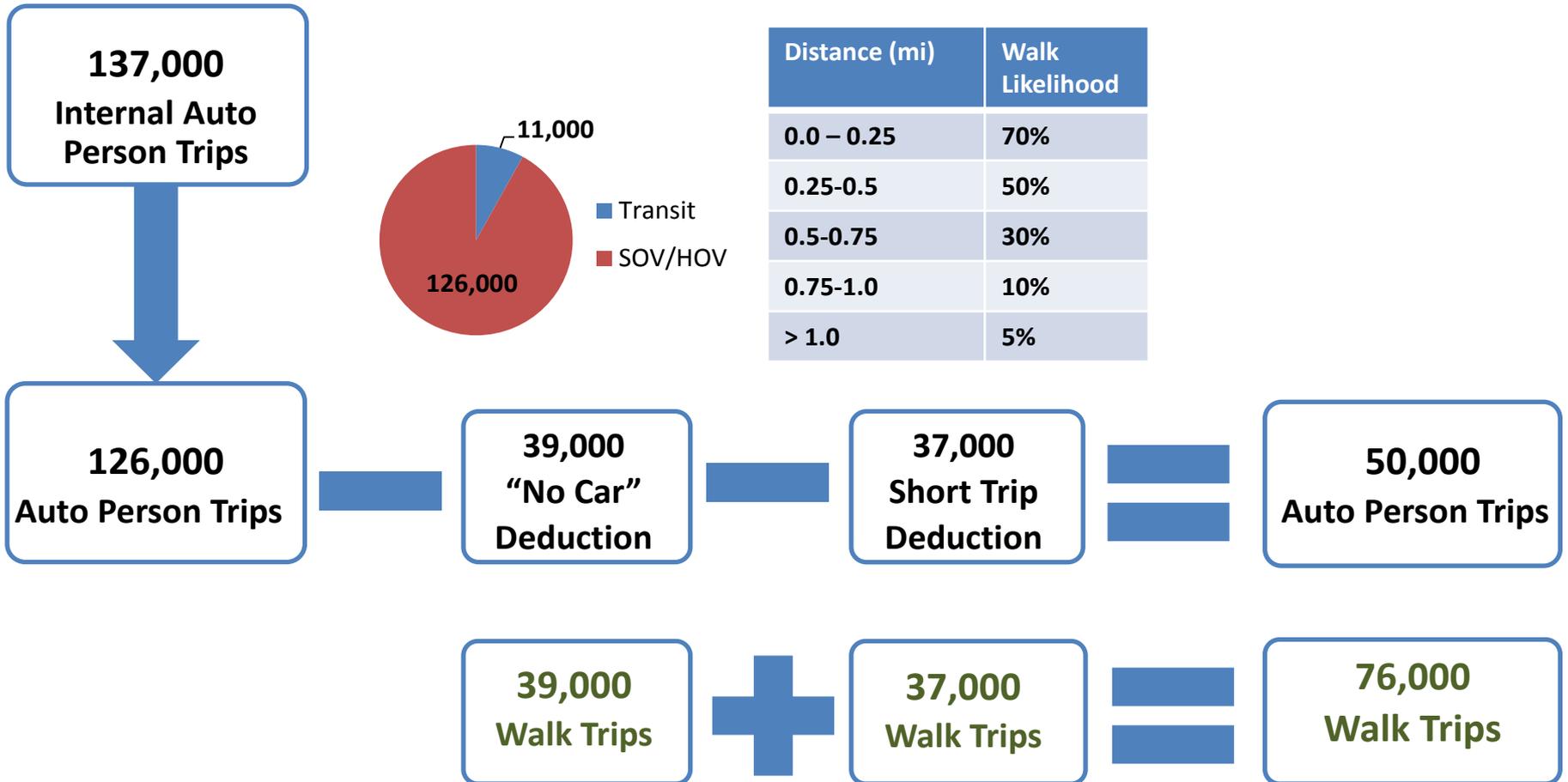
## Distance Methodology for Calculating Downtown Walk Trips: Short Trips

- 0-.25 miles: 70% walk
- .25-.50 miles: 50% walk
- .50-.75 miles: 30% walk
- .75-1.0 miles: 10% walk
- >1 mile: 5% walk



# 2030 Walk Trip Calculation Methodology

## How Many Daily Walk Trips?





# PM Peak Link Level of Service

## 2010 Link Volume/Capacity Ratio



## 2030 Baseline Link V/C Ratio

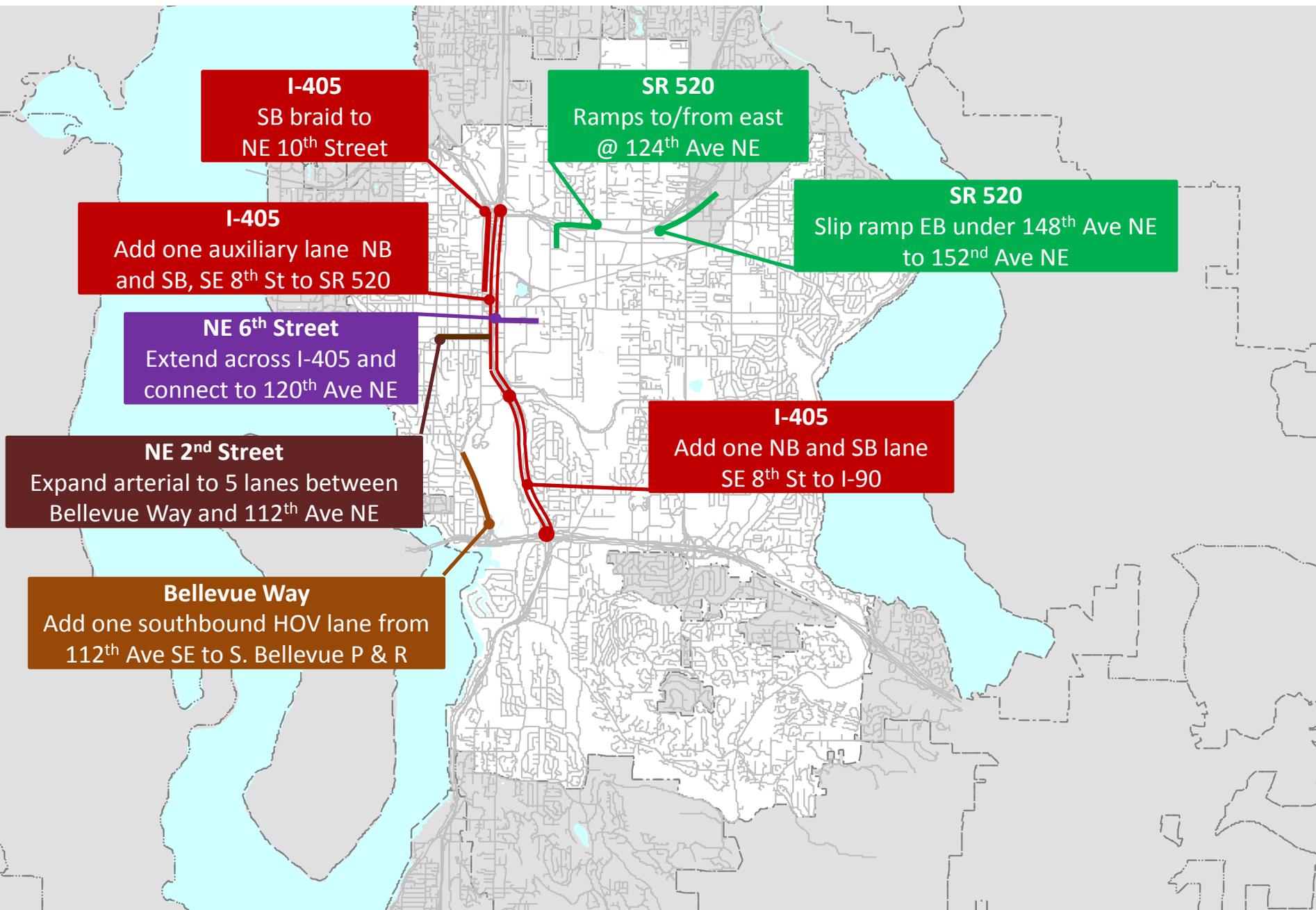


# 2030 “Build” Scenario Transportation Projects

## 2030 “Build” Scenario projects:

- **SR 520:** Ramps to/from east @ 124<sup>th</sup> Avenue NE
- **SR 520:** Slip ramp eastbound under 148<sup>th</sup> Ave NE to 152<sup>nd</sup> Ave NE
- **I-405:** Southbound braid from SR 520 to NE 10<sup>th</sup> Street
- **I-405:** Add one auxiliary lane each northbound and southbound between SE 8<sup>th</sup> Street and SR 520
- **I-405:** HOT lanes between NE 6<sup>th</sup> Street north to I-5 and south to SR 167 **Note: This becomes a 2030 Baseline project**
- **NE 2<sup>nd</sup> Street:** Expand to 5-lanes between Bellevue Way and 112<sup>th</sup> Avenue NE
- **NE 6<sup>th</sup> Street:** Extend HOV lanes across I-405 and connect to 120<sup>th</sup> Avenue NE
- **Bellevue Way:** Add one HOV lane southbound from 112<sup>th</sup> Avenue SE to the South Bellevue Park & Ride

# 2030 "Build" Scenario Projects



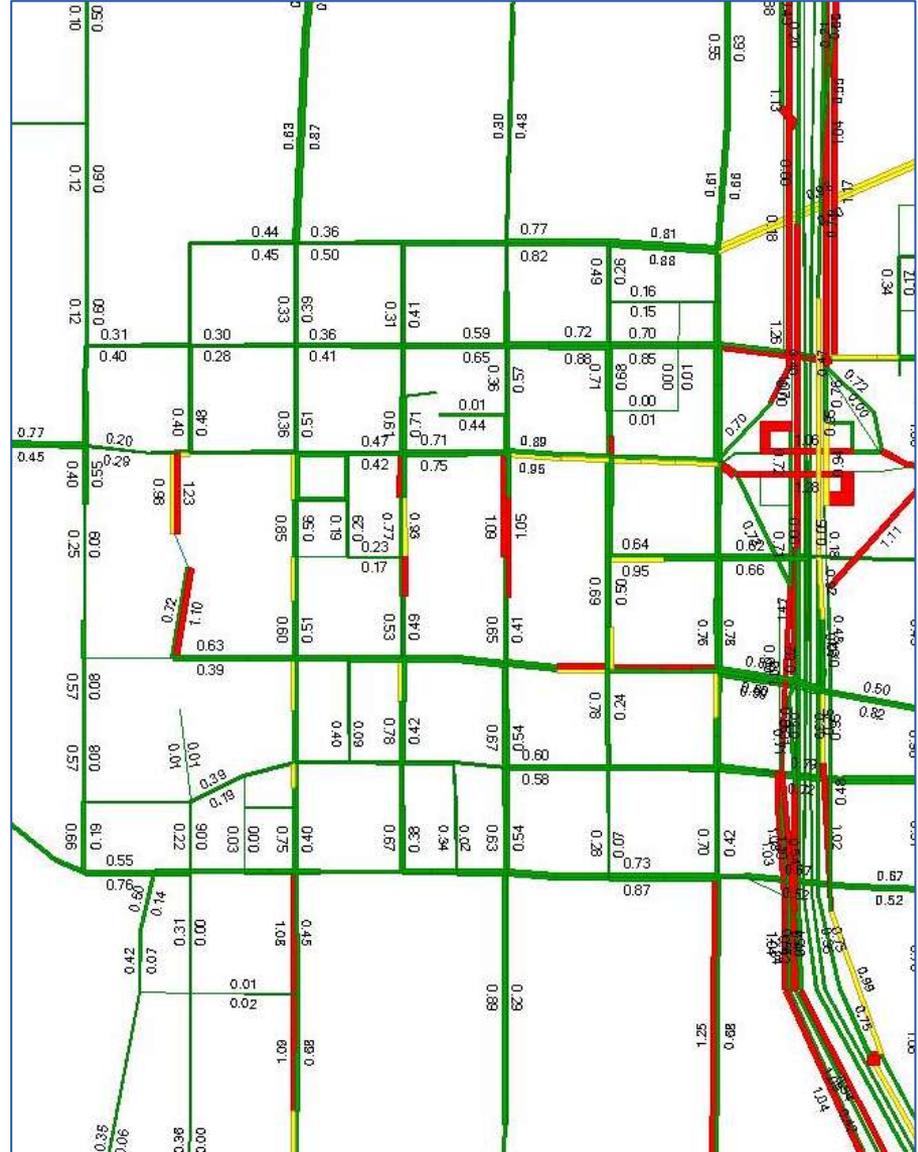


# Link Level of Service

## 2030 Baseline Link V/C Ratio



## 2030 "Build" Link V/C Ratio



# Modeling Conclusions

- 2030 Baseline congestion not gridlock
- Additional vehicular roadway capacity is not needed within Downtown Bellevue to accommodate 2030 projected growth.
- Certain intersections may require additional analysis
- Adaptive signal system technology (ie, SCATS) can help optimize use of the available capacity in the system
- 2030 “Build” scenario regional and local projects built outside of Downtown Bellevue will improve accessibility to the regional roadway system (I-405) and connectivity to east Bellevue and Bel-Red.
- 2030 “Build” scenario projects will help reduce congestion within Downtown, especially on east-west arterials
- Many more pedestrians (and bicyclists) to accommodate along and across streets, especially within the core area of Downtown



# **Downtown** Transportation Plan Update

**Thank you!**

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Judy Clark  
Sean Wellander**

**[www.bellevuewa.gov/DowntownTransportationPlanUpdate](http://www.bellevuewa.gov/DowntownTransportationPlanUpdate)**