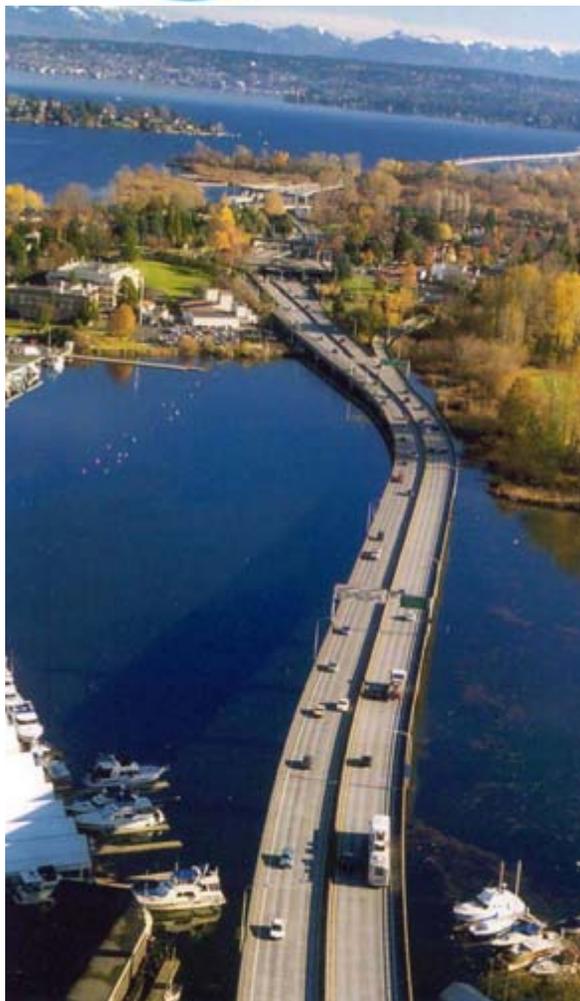


SR 520

Bridge Replacement and HOV Project



# Advisory Committee

June 22, 2004

4:00 – 6:00 p.m.

Saint Demetrios Church

2100 Boyer Ave. E.

# Status of Alternatives

- Environmental analysis well underway
- Elements under consideration:
  - Evergreen Point Bridge Operations Facility
  - Eastside: Transit stops and direct access
  - Bicycle/pedestrian pathway refinements

# What are the EIS Alternatives?

- No Build
- Continued operation ~ Evergreen Point and Portage Bay bridges in place through 2030
- Catastrophic failure ~ Both bridges fail due to earthquake or storm
- 4-Lane Alternative
- 6-Lane Alternative

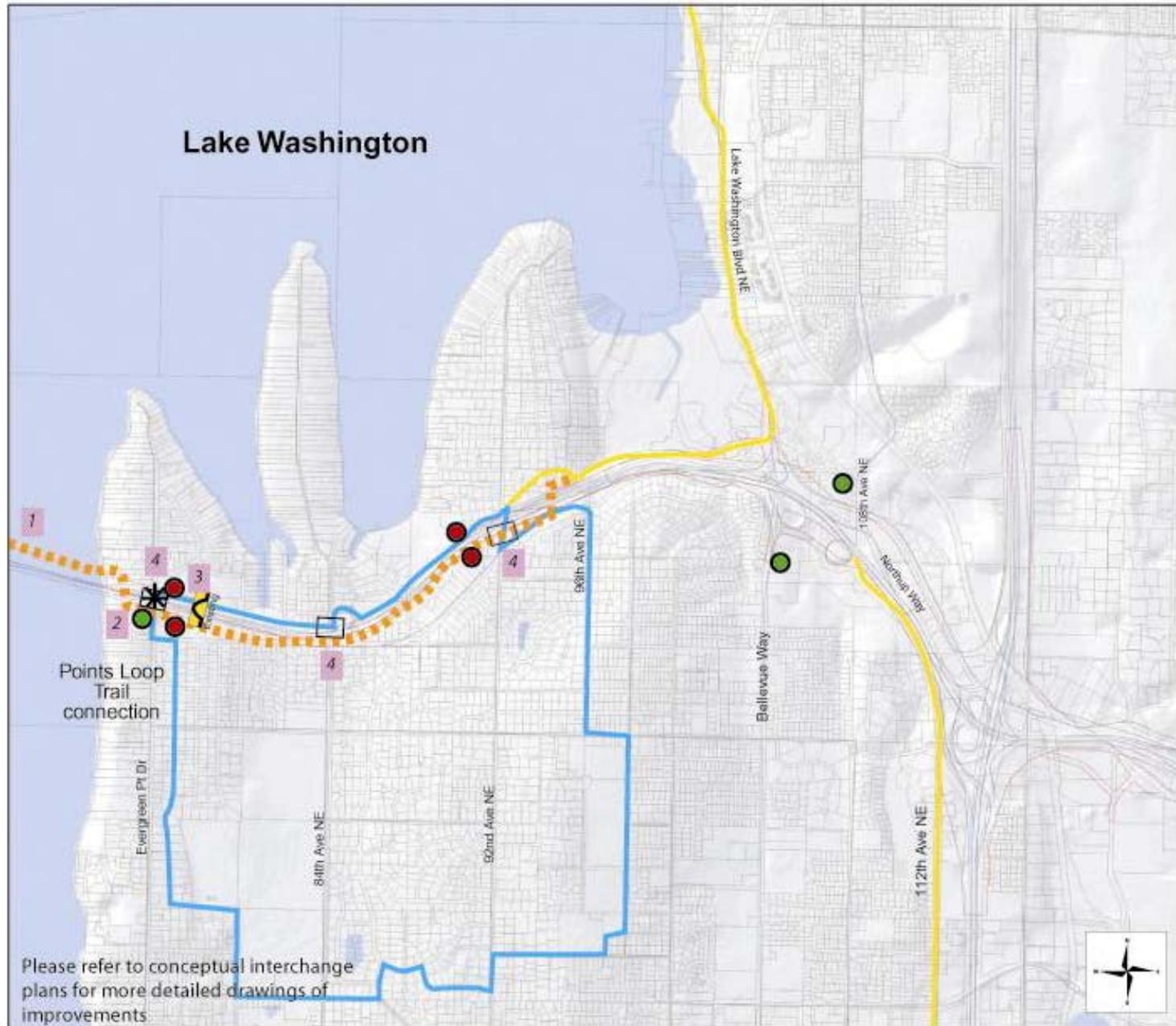
# Elements Common to 4-Lane and 6-Lane

- **Rebuilds SR 520** floating bridge and approaches
- Adds **bicycle / pedestrian** lane
- **Standard** roadway geometrics
- Adds **sound walls**
- Electronic **tolling**
- **Larger pontoons** to allow for future high capacity transit (HCT)

# Pedestrian and Bicycle System: Westside



# Pedestrian and Bicycle System: Eastside



# Elements Unique to 4-Lane

- **Rebuilds transit stops** on the outside at 92<sup>nd</sup>, Evergreen Point Road, and Montlake
- **Adds HOV ramp access** to I-5 express lanes during AM peak

# Elements Unique to 6-Lane

- **Expands SR 520 to 6 lanes**, adding one HOV lane in each direction
- **Includes five lidded sections** of freeway at 92<sup>nd</sup>, 84<sup>th</sup>, Evergreen Point Road, Montlake, and 10<sup>th</sup> Ave/Delmar
- **Adds auxiliary lanes** between I-405 and 124<sup>th</sup> Ave. NE
- **Adds reversible HOV access** to I-5 express lanes

# Transit Service Planning Study

- Joint effort by Sound Transit and King County Metro
- Focused within SR 520 Corridor
- Reflects programmed transportation investments (I-90, I-405, North Link)
- Inputs to Phase II Planning
- Provides “in corridor” transit facility recommendations

# Cost

## **4-Lane Alternative**

- \$1.7 – 2.1 Billion
- Start Construction: 2008
- New Evergreen Point Bridge open to traffic: 2012 – 2014
- Project Complete: 2015 - 2016

## **6-Lane Alternative**

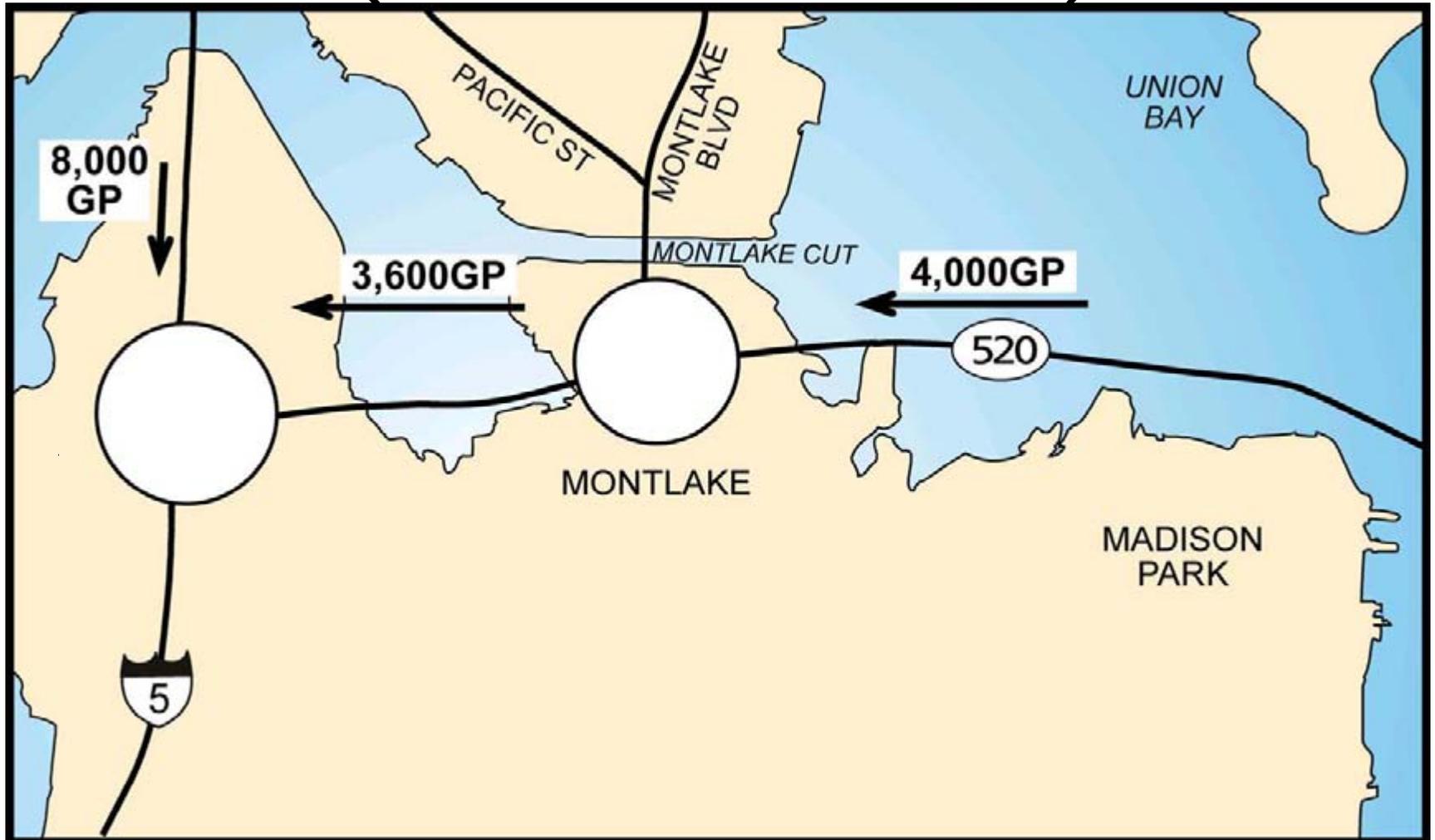
- \$2.6 – 2.9 Billion
- Start Construction: 2008
- New Evergreen Point Bridge open to traffic: 2012 – 2014
- Project Complete: 2017 - 2018

# Funding

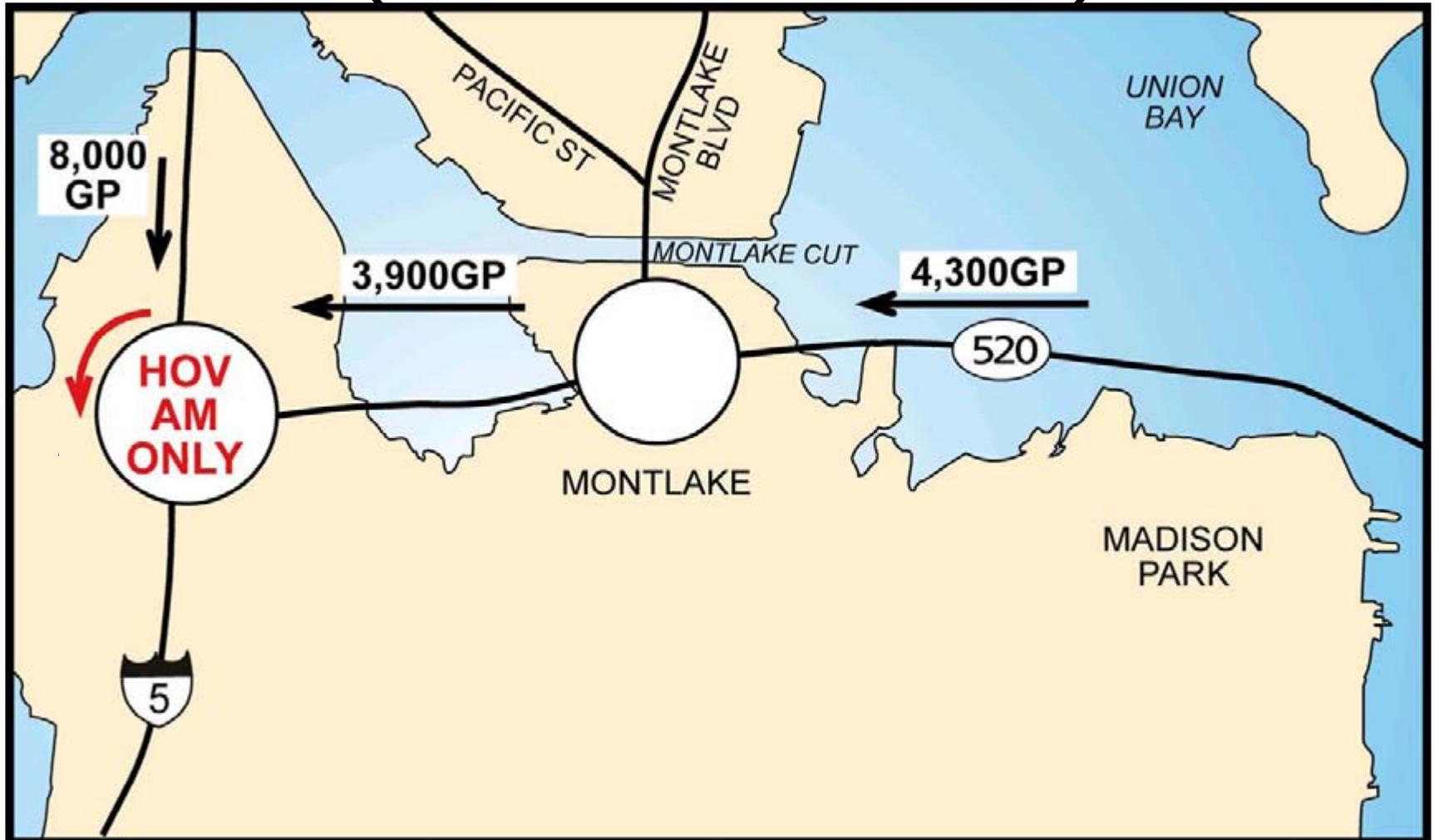
- State “nickel” gas tax provides \$52 million (authorized in 2003)
- Additional State Funds
- Toll Revenues (~\$700 million)
- Regional Funding
- Federal Funds
- Partner Agency Participation (ex: Sound Transit, King County Metro)

# I-5 Considerations for 8-Lane Alternative for SR 520

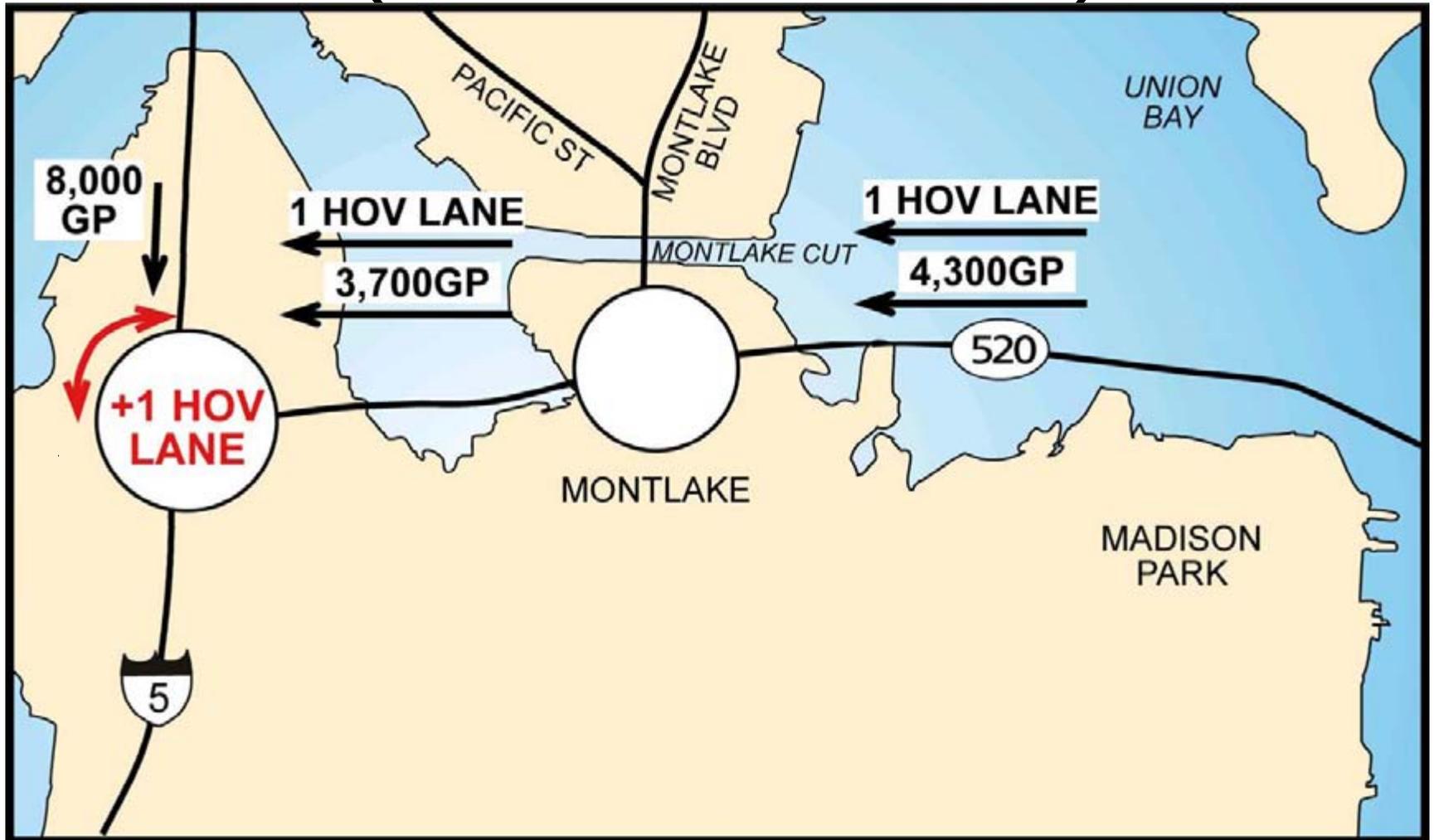
# No Build 2030 Peak Hour (Vehicles Per Hour)



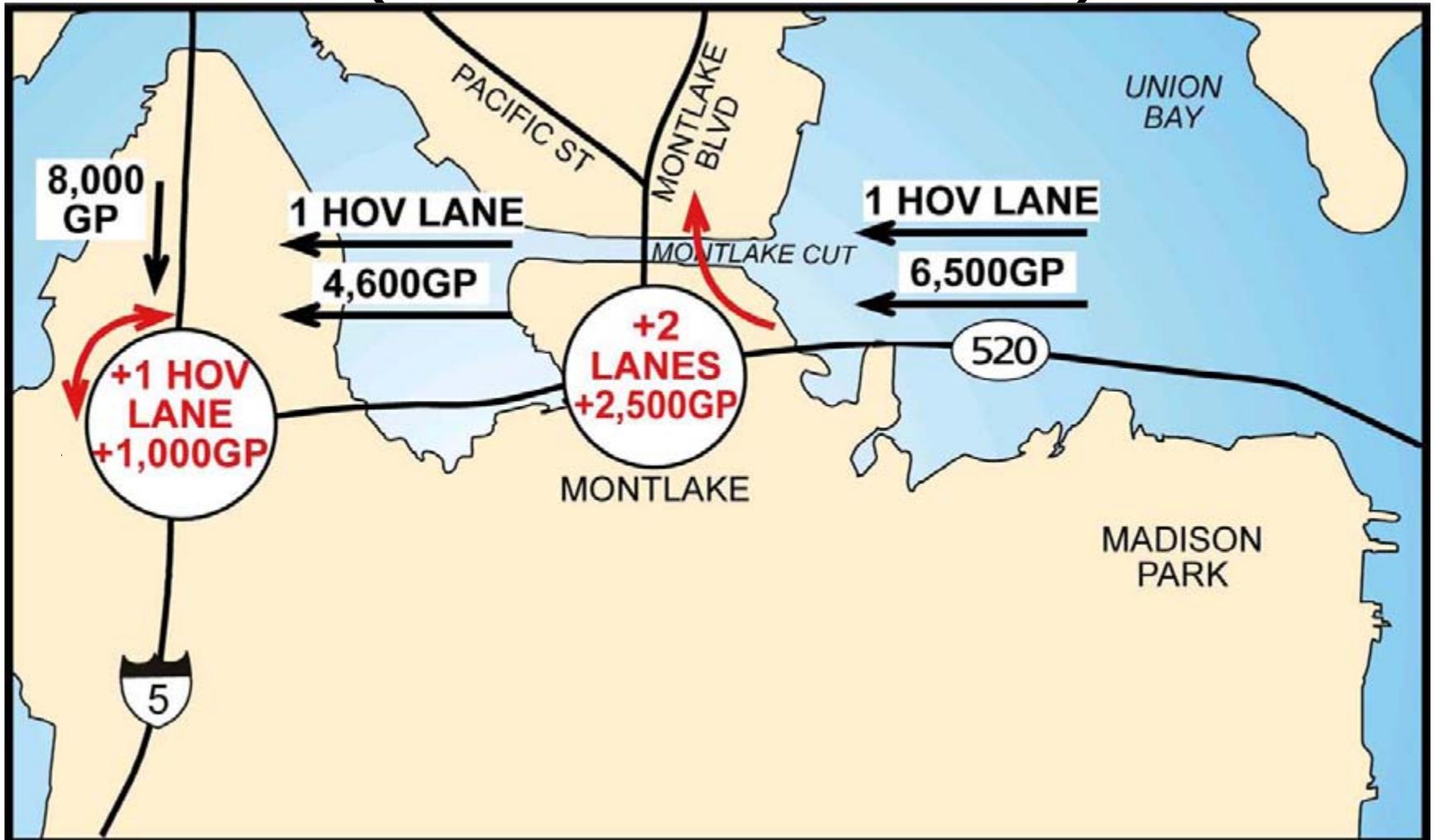
# 4-Lane 2030 Peak Hour (Vehicles Per Hour)



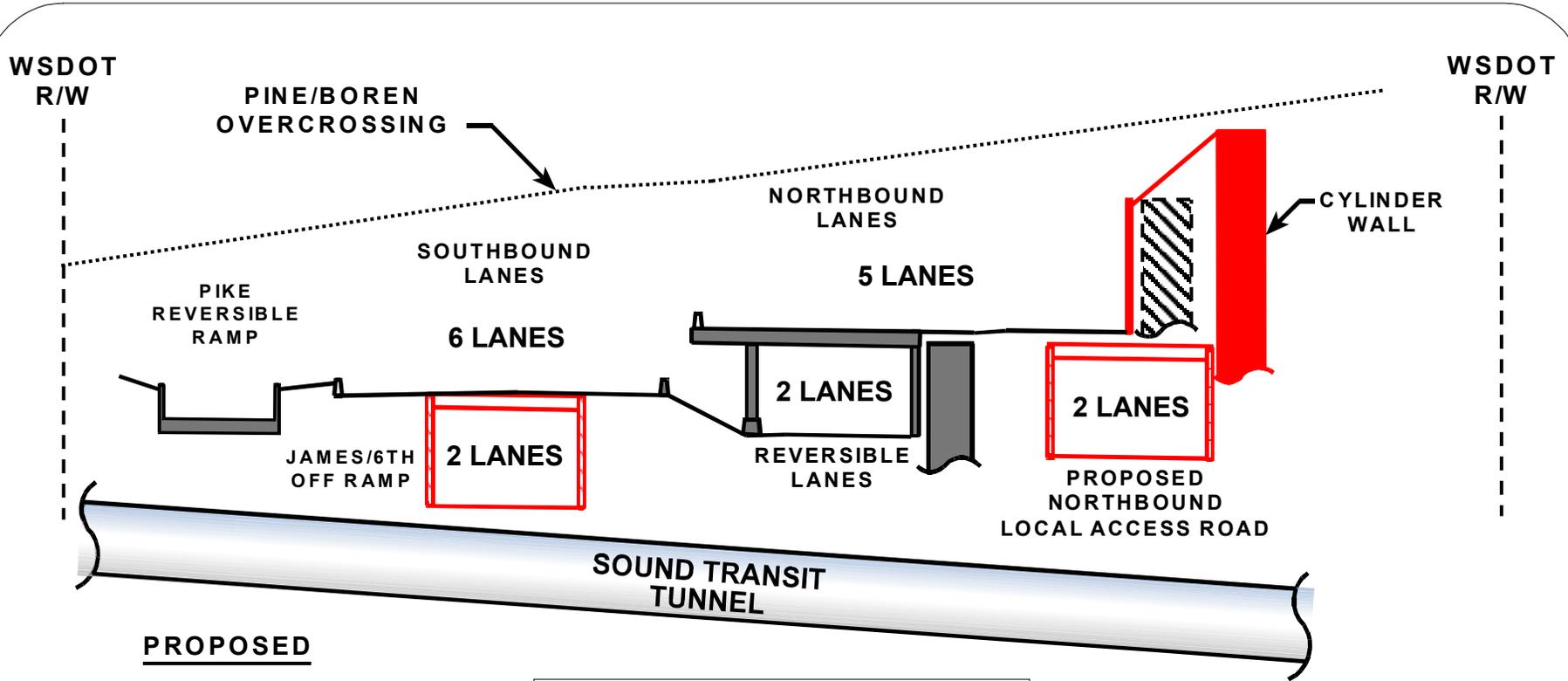
# 6-Lane 2030 Peak Hour (Vehicles Per Hour)



# 8-Lane 2030 Peak Hour (Vehicles Per Hour)



# Convention Center



PROPOSED

E-E

STA. 2230+50

KEY



NEW STRUCTURE

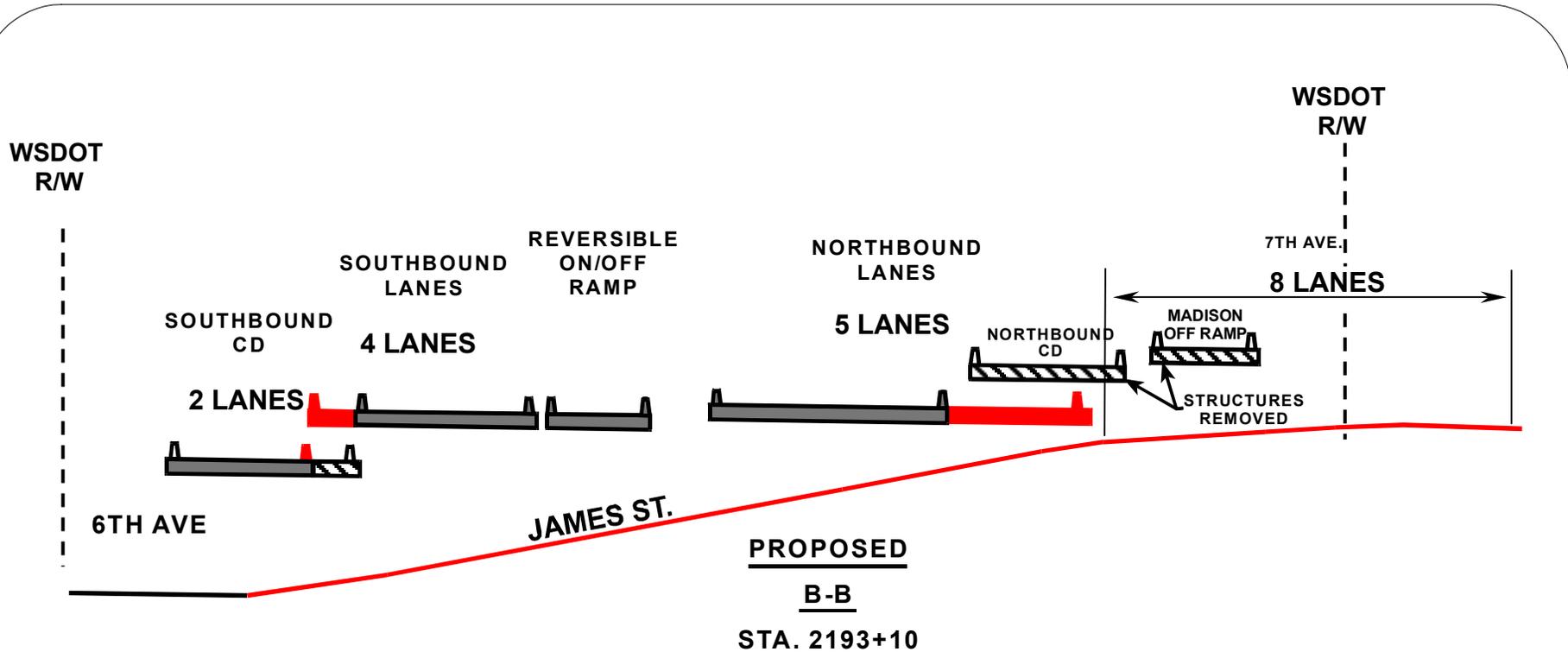


EXISTING



EXISTING STRUCTURE  
REMOVED

# James Street



**KEY**

-  NEW STRUCTURE
-  EXISTING
-  EXISTING STRUCTURE REMOVED

# How will we document the 8-Lane Alternative in the Draft EIS?

## Draft EIS

- Alternatives Considered Chapter

Briefly summarized along with an explanation of why the environmental effects are not being analyzed in the Draft EIS.

- Environmental Effects Chapters

*Not* discussed.

## Draft EIS Appendices

- Discipline Reports

*Not* discussed.

- Alternatives and Construction Techniques Report

Briefly described in the Alternatives Considered section.

- 8-Lane Alternatives Traffic Operations Report

Will thoroughly describe the transportation analysis that led to our decision to not analyze the environmental effects of the 8-Lane alternative in the DEIS.

# Traffic Analysis

# What's In the Model?

- Year 2030 forecast
- Nickel Projects
- Local Transportation Improvement/Investment Plans
- North Link to Northgate
- Monorail Greenline
- I-90 operates without two-way HOV

# Alternatives Performance

**4 Lane:** draws 7% more person trips in 13% fewer vehicles than No Build

- Person throughput increases over No Build (+1610 persons AM , +2050 persons PM)

**6 Lane:** draws 25% more person trips in 3% more vehicles than No Build

- Person throughput increases over No Build (+4635 persons AM, +4490 persons PM)

# SR 520 Floating Bridge PM Peak Vehicle Volumes

← 2030 →

Existing	No Build	4-Lane	% Change	6-Lane	% Change
26,560	29,820	25,880	-13%	30,620	+3%

% Change compared to No Build

# SR 520 Floating Bridge PM Peak Person Volumes

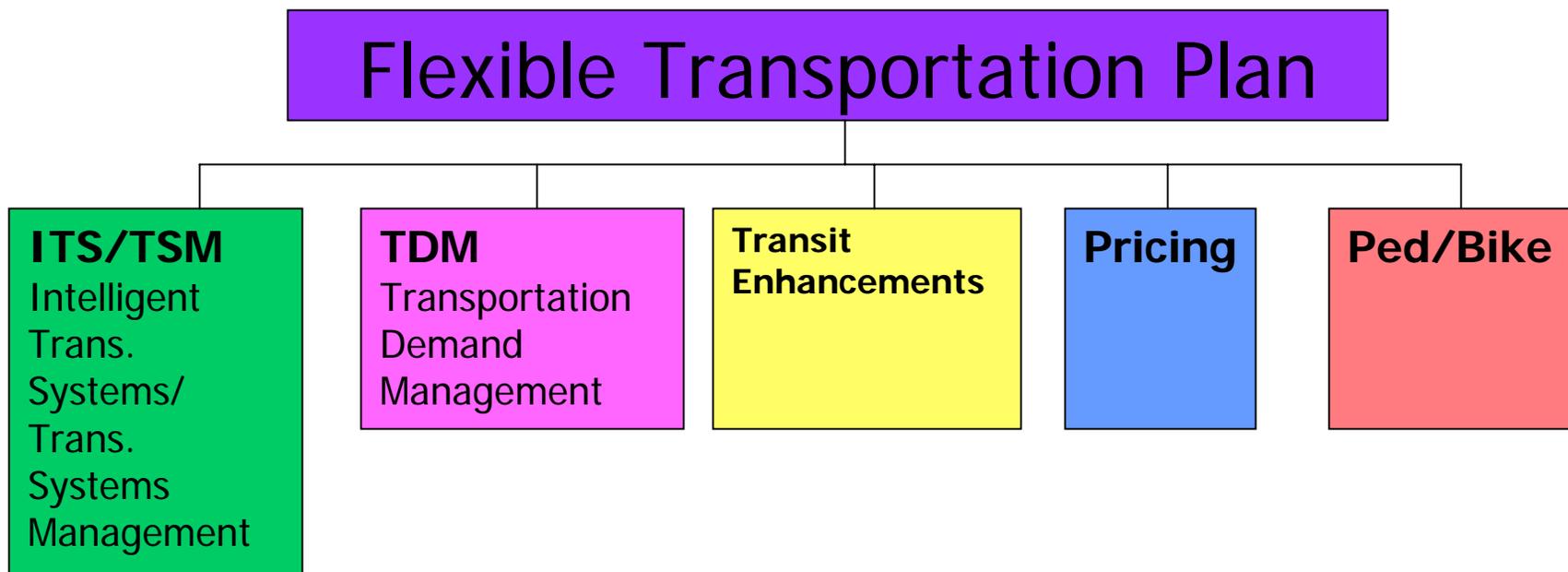
← 2030 →

Existing	No Build	4-Lane	% Change	6-Lane	% Change
38,420	53,050	56,730	+7%	66,060	+25%

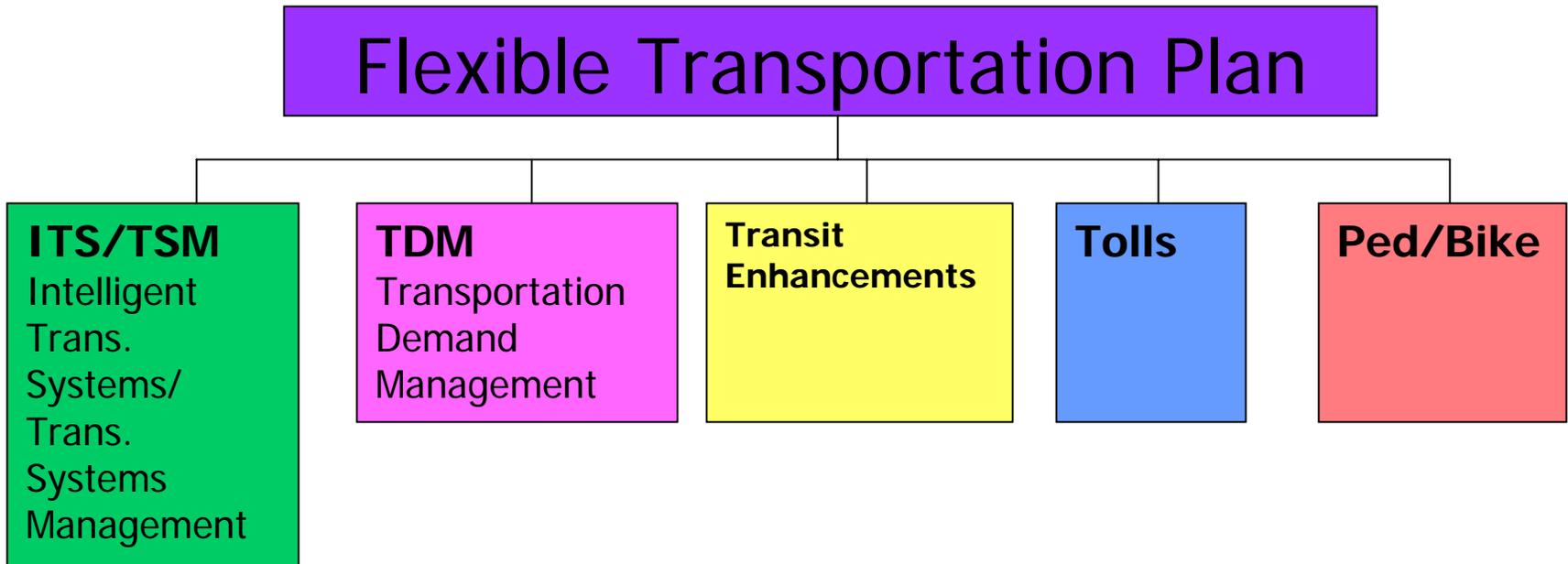
% Change compared to No Build

# What is a Flexible Transportation Plan?

Integrated set of tools and methods to maximize corridor efficiency, giving us maximum return on investment.

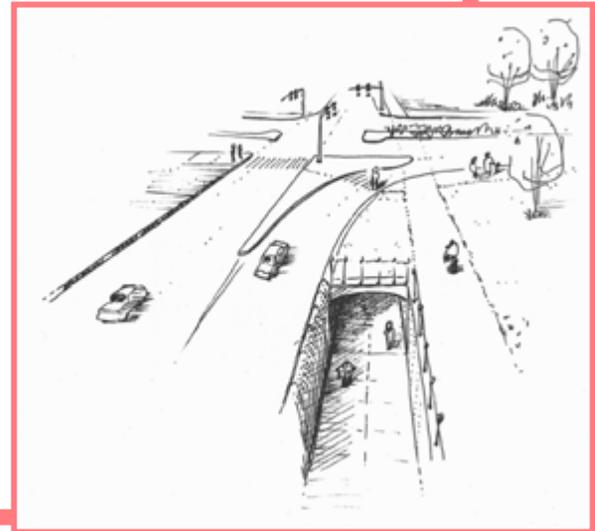


# What is 520's Flexible Transportation Plan?



# 520's FTP: Bicycle / Pedestrian

- Shared use path between Montlake Blvd. And 96<sup>th</sup> Ave. NE
- Improved pedestrian access to transit stops
- Connectivity with existing trails and pathways



# 520's FTP: Transit Enhancements

- Goal to expand transit service to meet future demand
- Shuttle / bus service during construction



# 520's FTP: Intelligent Transportation System / Transportation System Management

- Ramp meters
- Incident Response
- Signal timing
- Cameras
- Vehicle detection
- Speed detection
- Incident detection
- Variable Message Signs



# 520's FTP: Transportation Demand Management

- Oversight Program
- Public Information & Education Programs
- Vanpooling
- Employer-Based Programs
- Other TDM Programs



# Toll Study vs. Environmental Process

## Toll Feasibility Study

- 2014 “opening year” focus
- Objective = assess funding capacity of tolling
- Looks at two bookend variable toll schedules
- Provides inputs for EIS

## EIS Analysis

- 2030 analysis horizon
- Objective = assess future year maximum (peak period) impacts
- Considers probable “upper limit” 2030 tolls
- Evaluating corridor alternatives

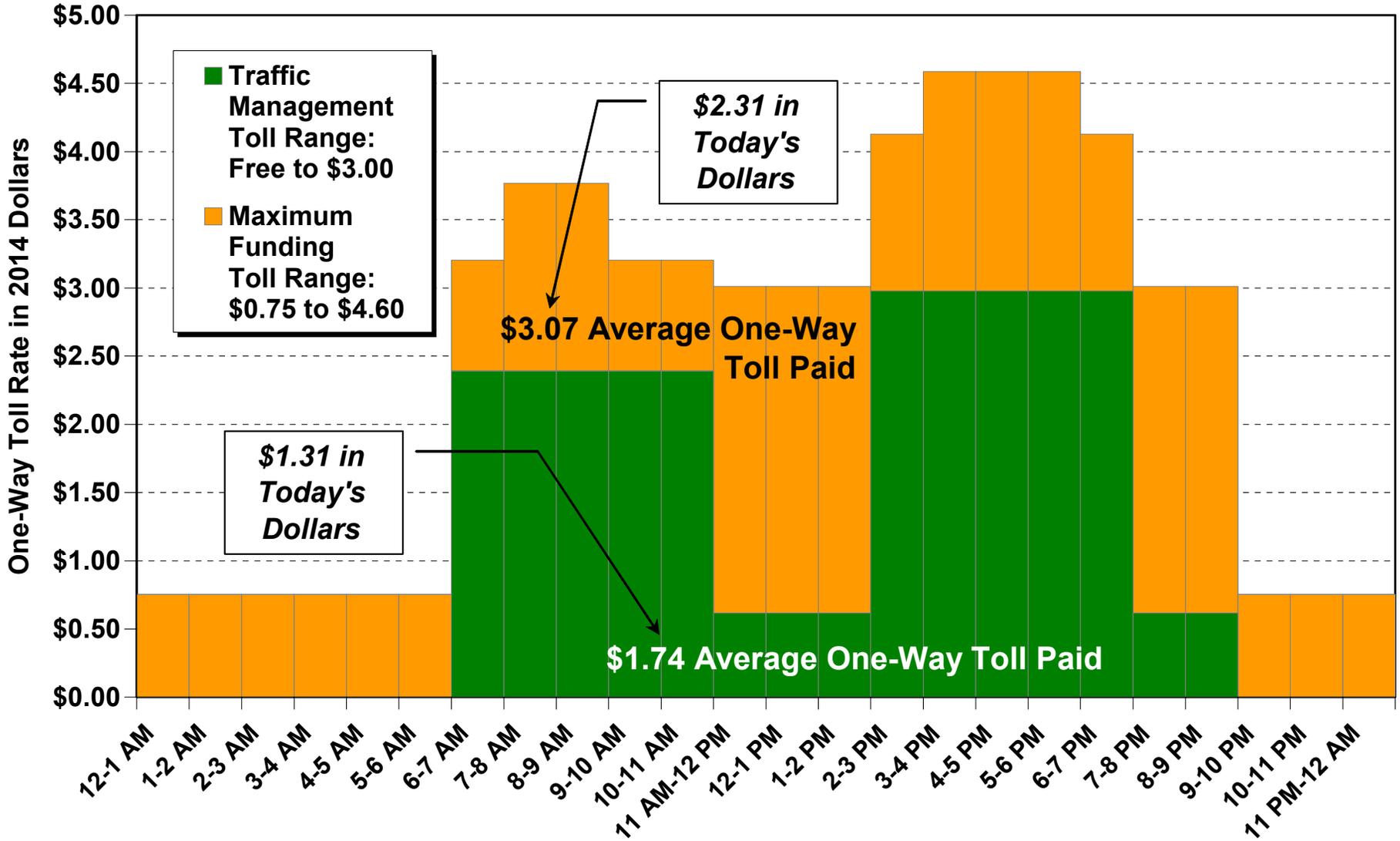
# Tolling Objectives — Two Bookends

- Traffic Management (Lower Bound)
  - Tolls set to maintain good flow conditions
  - Lower diversion; minimal network impacts
- Maximum Funding (Upper Bound)
  - Tolls set to optimize revenue collection
  - Moderate diversion; higher network impacts
- Both use a variable toll schedule by time of day
- Assumes “Nickel Package” improvements only

# 2014 Toll Rates by Time of Day

## Schedules by Tolling Objective — 6 Lane

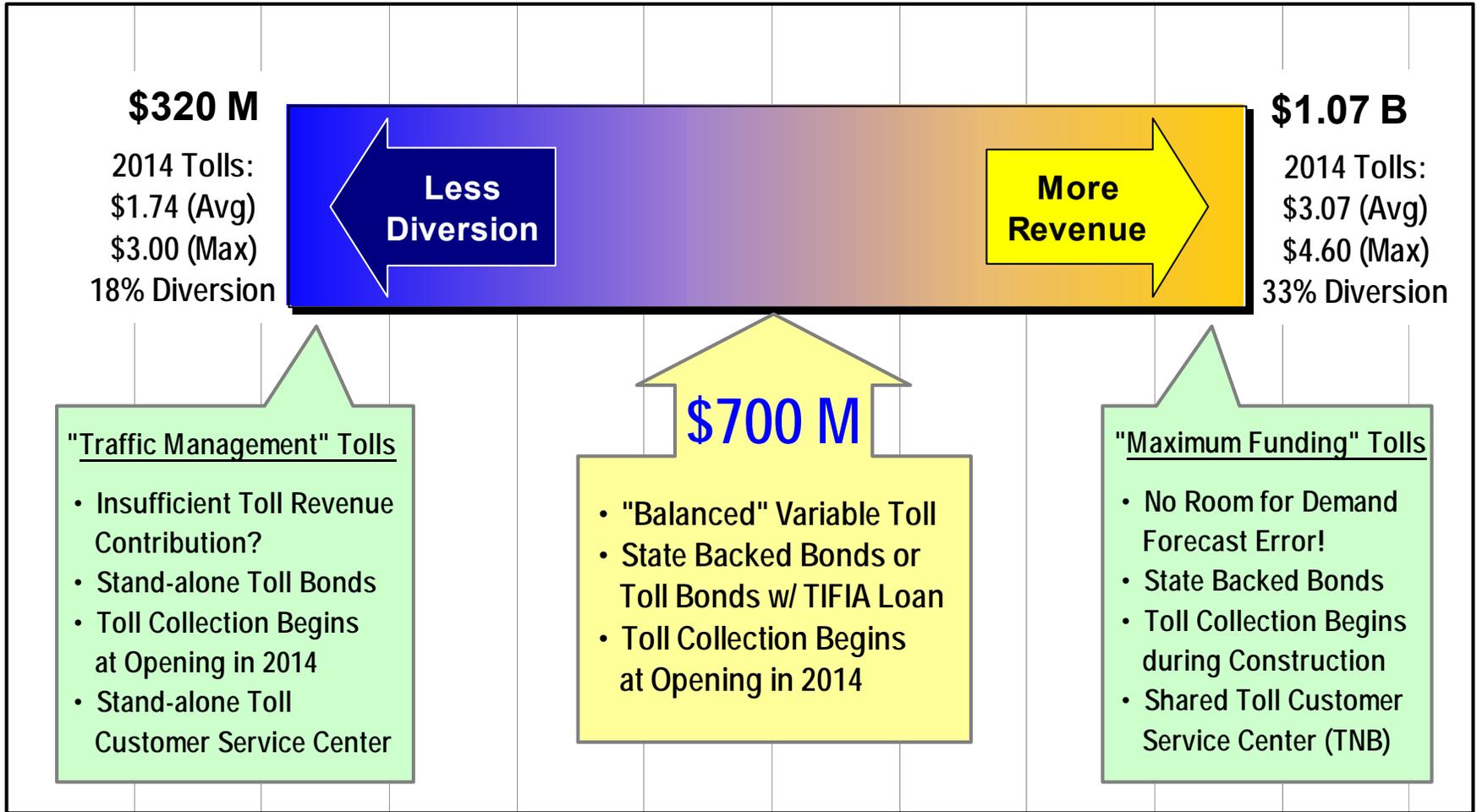
### — 2014 \$



# Financial Capacity – How Much Do Tolls Buy?

- Examined 24 financial scenarios encompassing various financial and operating assumptions
- Funding range from \$320 M to \$1.07 B for the six lane alternative
- Several combinations could likely yield \$700 M
- Four lane alternative funding is 5-10% less

# Toll Revenue Financial Capacity Range



\$100    \$200    \$300    \$400    \$500    \$600    \$700    \$800    \$900    \$1,000    \$1,100    \$1,200

Net Bond Proceeds in Millions of Dollars (2009 - 2013)

# EIS Process and Schedule

# EIS Process

## Documents for the DEIS

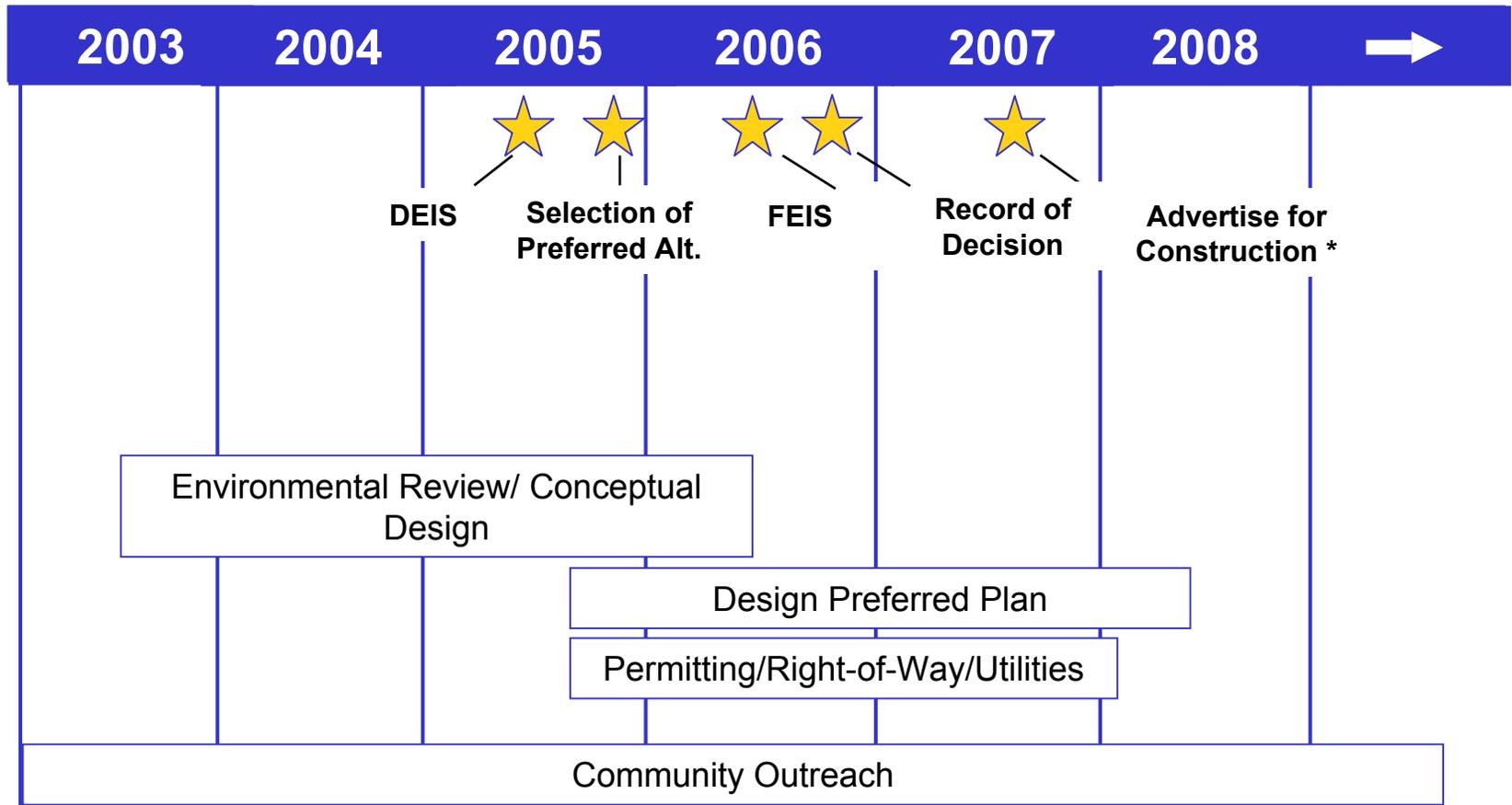
### **16 Discipline Reports**

- Air Quality
- Cultural Resources
- Ecosystems – wetlands, fish, plants and animals
- Energy
- Geology and Soils
- Hazardous Materials
- Indirect and Cumulative Effects
- Land Use, Relocations, and Economics
- Navigable Waterways
- Noise
- Public Services and Utilities
- Recreation
- Social
- Transportation
- Visual
- Water Resources

### **Other Reports**

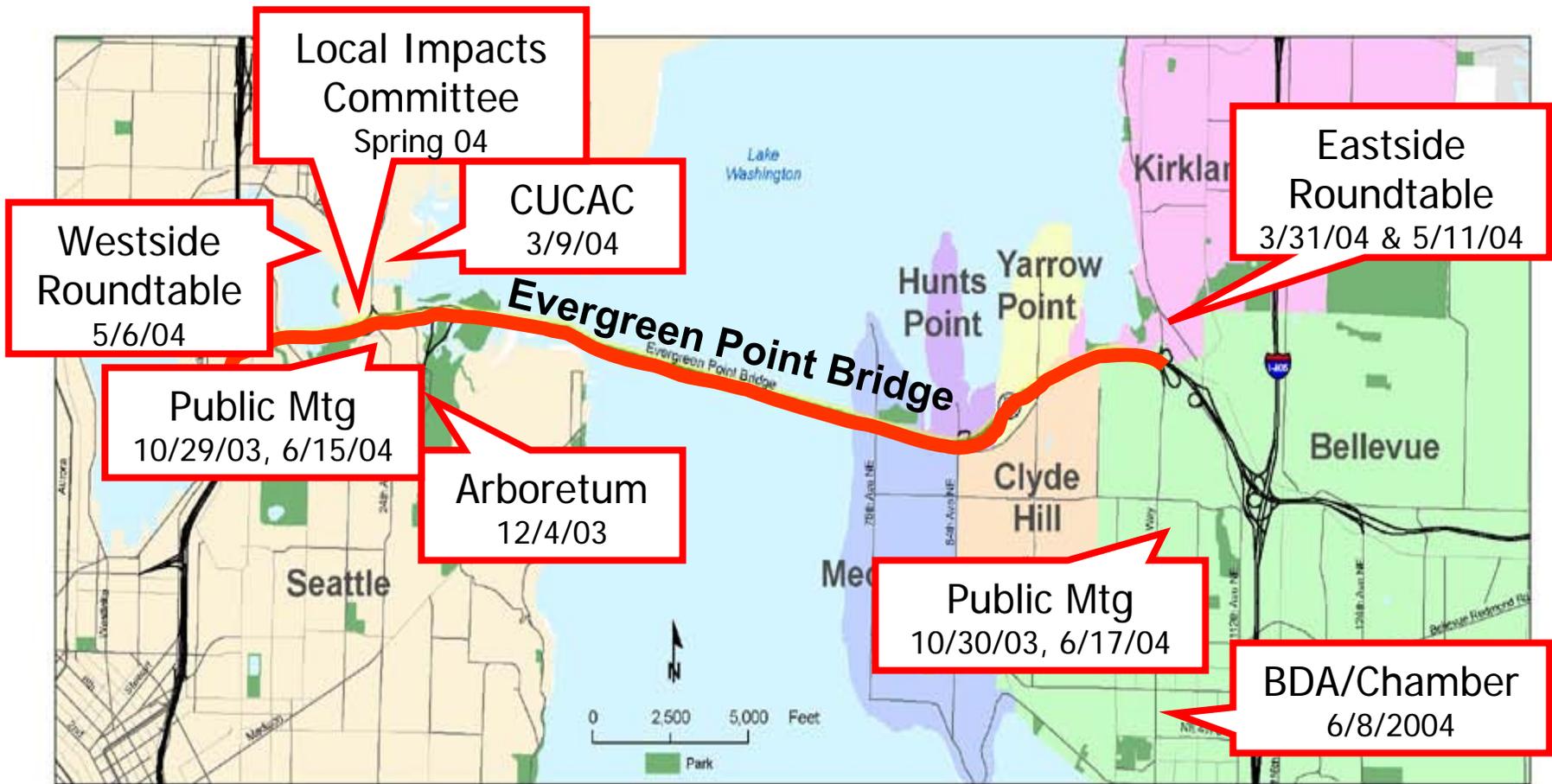
- Alternatives and Construction Techniques
- Section 4(f) and 6(f) Evaluation
- Public and Agency Coordination
- Environmental Justice
- 8-Lane Alternative Traffic Operations Analysis

# Schedule



*\*Subject to funding availability*

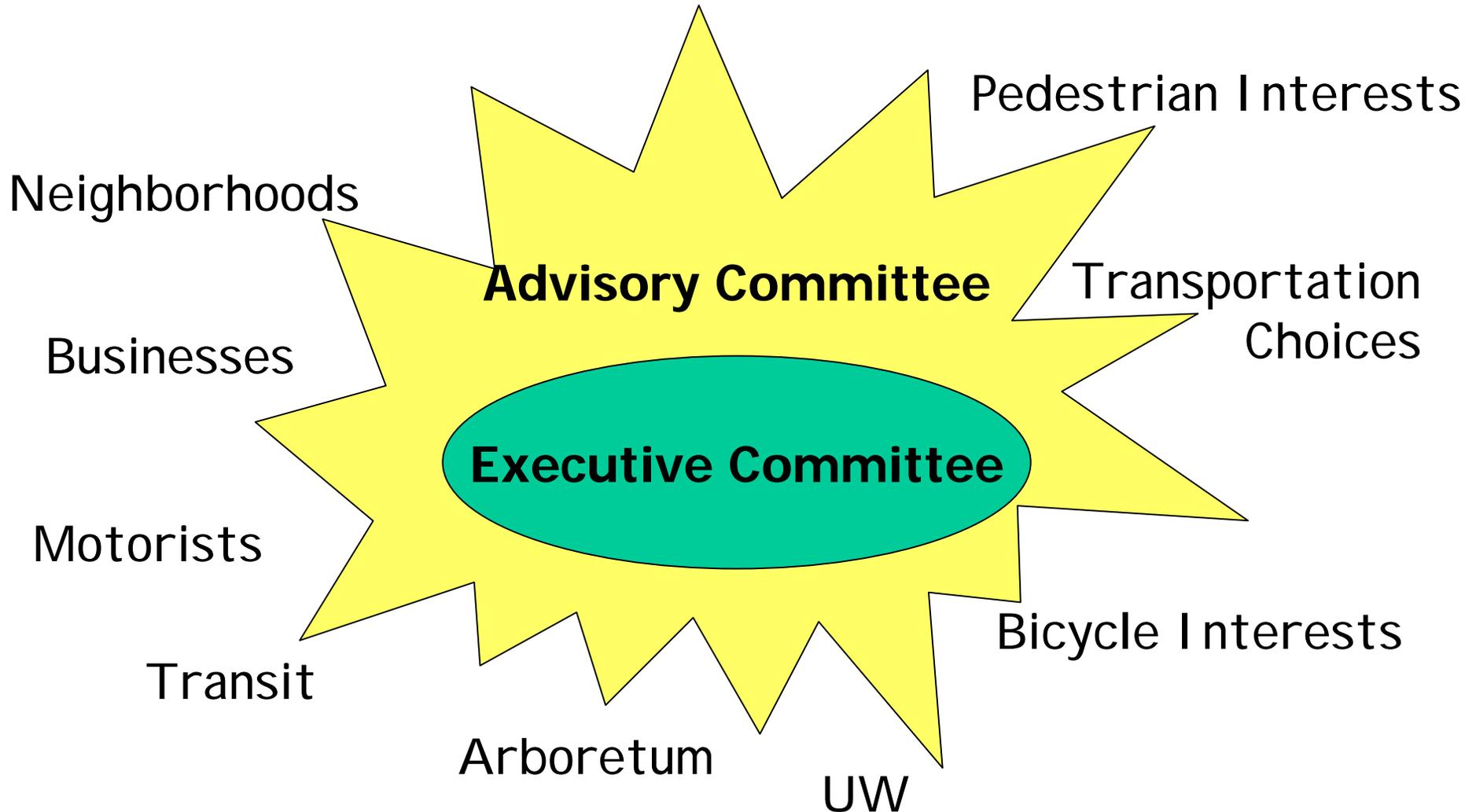
# Community Outreach



# Community Roundtables

- Lids – 10<sup>th</sup> & Delmar, Montlake Boulevard, Evergreen Point Road, 84<sup>th</sup> Avenue, 92<sup>nd</sup> Avenue
- Noise Analysis – coming soon!

# Advisory Committee Outreach



**END**