Eastgate
Transportation Study
TRANSPORTATION COMMISSION
JUNE 14, 2018
Welcome and Introductions

Transportation Department Project Management

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Principal: Xiaoping Zhang

PM: Jeanne Acutanza

Prior Bellevue work: Bellevue Way SE HOV Lane, East Main Station Area Plan, KCM Route 245 Speed and Reliability
Council Direction

Eastgate/Factoria Congestion Reduction

- Determine transportation system improvements needed to meet established mobility standards and guidelines in 2024 and 2035.
- Consider existing plans and projects such as FATS, Eastgate/I-90 Land Use and Transportation
- Anticipate and embed planned WSDOT I-90 auxiliary lanes
- Use Levy funds to study, evaluate and design project concepts
- Construction may follow (Levy and/or CIP)

Current level of traffic congestion is an inconvenience to drivers, creates delays for transit riders, and adversely affects the safety and comfort of pedestrians and bicycle riders who share the roadway corridor with cars, trucks and buses.
Scope of Work and Deliverables

Document existing conditions and highlight trends
Prepare concepts for congestion reduction
Evaluate project effectiveness and priorities
Examine alternate approaches including roundabouts
Prepare planning-level cost estimates
Develop implementation strategies
Deliver final report
Planning Context

Pre-2012
- Factoria Area Transportation Study 2005
- Ped Bike Plan 2009

2012
- Mtns to Sound Greenway
- Eastgate Annexation
- Airfield Master Plan
- Eastgate I-90 CAC Recommendations

2014
- Bellevue Transit Master Plan

2015
- Comprehensive Plan Update

2016
- ST 3 Approved
- Bellevue College Master Planning
- Bellevue Pedestrian and Bicycle Implementation Initiative
- Bellevue Transportation Levy

2017
- Transportation Strategies Report
- Eastgate Land Use Code Amendments
- METRO CONNECTS Adopted
- I-90 Peak Use Shoulder Study Begins
- 150th Ave SE Projects
Findings Current Context

Projects Local and Regional

Baseline and Trends

- Vehicles
- Transit
- Bicycles
- Pedestrians

Future Conditions and Potential Investments
Eastgate and Factoria Transportation Projects

- **Eastgate Protected Bike Lane**
  - In Design

- **Mountains to Sound Greenway Trail**
  - In Design

- **150th Avenue SE Intersections**
  - In Design
Regional Plans

Connecting Washington
- Auxiliary Lanes I-90 (2020)
- I-405 Bellevue to Renton ETL and Widening (2024)

ST 2 & 3
- Link to Bellevue (2023) and Redmond (2024)
- I-405 BRT (2024)
- Link Issaquah to S. Kirkland (2041)

METRO CONNECTS
- RapidRide (Redmond to Renton, Kirkland to Eastgate)
- Other Service Expansion

Trails
- Eastside Rail Corridor
**WSDOT I-90 Corridor Improvements**

- **I-90 Auxiliary Lanes**
  - Constructed by 2021

- **Fully Funded**

- **Eastgate Plan DOT1 and DOT2**
Existing Conditions and Trends
## MMLOS Metrics Standards and Guidelines

<table>
<thead>
<tr>
<th>Mode</th>
<th>LOS Metric</th>
<th>LOS Standard</th>
<th>LOS Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle</td>
<td>Volume/Capacity or Average Delay at Intersections</td>
<td>V/C: 0.80-0.95. Delay: 20-80 sec. Varies by land use context</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Typical Urban Travel Time/Speed on Arterials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pedestrian</td>
<td>Sidewalk and Landscape Width</td>
<td>12-20 feet Varies by land use context</td>
<td>Design varies by land use context</td>
</tr>
<tr>
<td></td>
<td>Pedestrian Comfort, Access and Safety at Intersections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td>Level of Traffic Stress on Corridors</td>
<td>Design to achieve LTS varies by roadway traffic speed and volume</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level of Traffic Stress at Intersections</td>
<td>Maintain corridor LTS at intersections. Design components vary by context</td>
<td></td>
</tr>
<tr>
<td>Transit</td>
<td>Passenger Comfort, Access and Safety</td>
<td>Varies by transit stop/station typology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transit Travel Speed on Corridors</td>
<td>14 mph on Frequent Transit Network corridors between activity centers</td>
<td></td>
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</tbody>
</table>
Vehicle LOS

• Volume / Capacity
• Typical Urban Travel Speed
• Trends
V/C Intersection Operations MMLOS Metrics AM & PM 2018

Eastgate LOS 0.90
Factoria LOS 0.95
Richards Valley LOS 0.85
SE Bellevue 0.80
Urban Travel Speed Richards Rd / Factoria Blvd. Corridor MMLOS Metrics

<table>
<thead>
<tr>
<th>LOS</th>
<th>Urban Travel Time on Corridors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% or more above Target Travel Time</td>
<td></td>
</tr>
<tr>
<td>From 10% over to 10% under Target Travel Time</td>
<td></td>
</tr>
<tr>
<td>From 10% under to 55% under Target Travel Time</td>
<td></td>
</tr>
<tr>
<td>From 55% under to 100% under Target Travel Time</td>
<td></td>
</tr>
<tr>
<td>More than 100% over Target Travel Time</td>
<td></td>
</tr>
</tbody>
</table>
Urban Travel Speed 148th St/ 150th St Corridor

LOS | Urban Travel Time on Corridors
--- | -----------------------------
1 | 10 % or more above Target Travel Time
2 | From 10 % over to 10 % under Target Travel Time
3 | From 10% under to 55% under Target Travel Time
4 | From 55% under to 100 % under Target Travel Time
5 | More than 100 % over Target Travel Time
Trends
Average Annual Weekday Traffic on Arterials

RICHARDS RD S/O KAMBER RD
128TH AV SE S/O SE 36TH ST
EASTGATE WY E/O RICHARDS RD
SE 36TH ST E/O 128TH AV SE
EASTGATE WY E/O 146TH PL SE
150TH AV SE S/O I-90 IC
148TH AV SE S/O SE 28TH ST
SE 35TH PL E/O EASTGATE WY

AAWDT 2012  AAWDT 2013  AAWDT 2014  AAWDT 2015  AAWDT 2016  AAWDT 2017
Pedestrian LOS

• Sidewalk and Buffer
• Intersection Treatments
• Crosswalks
# Pedestrian MMLOS Metrics

<table>
<thead>
<tr>
<th>Context:</th>
<th>Downtown</th>
<th>Activity Center</th>
<th>Neighborhood Shopping Center</th>
<th>Pedestrian Destination</th>
<th>Elsewhere</th>
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</thead>
<tbody>
<tr>
<td><strong>Component</strong></td>
<td><strong>Sidewalk Width</strong></td>
<td>Downtown Land Use Code</td>
<td>16 feet</td>
<td>13 feet</td>
<td>13 feet</td>
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<tr>
<td><strong>Arterial Crossing Frequency</strong></td>
<td>Downtown Transportation Plan</td>
<td>600-800 feet</td>
<td>600 feet</td>
<td>300-600</td>
<td>N/A</td>
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Pedestrian MMLOS Metrics

Pedestrian LOS Standards Guidelines

Arterials

16’ Sidewalk/Landscape Buffer
- Meets
- Does Not Meet

Enhanced Signalized Intersections X

Arterial Crossing Frequency
- 600’ Eastgate Activity Center
- 800’ Factoria

- Meets
- Does Not Meet
Bicycle LOS

- Corridors
- Intersections
Transit LOS

- Transit Speeds on FTN Corridors
- Passenger Comfort, Access, and Safety
- Trends
Transit MMLOS Metrics

Transit LOS Guideline

Transit Speed Guidelines

Frequent Transit Network
- >14 MPH
- 10-14 MPH
- <10 MPH

Passenger Amenities Guideline

Frequent Transit Network
1. Weather Protection
2. Seating
3. Paved Zone
4. Wayfinding
5. Bike Racks

Meets ▼
Does not meet △
Next Steps

Travel Demand Modeling

Apply Future Mode Share

Conduct AM / PM Future Operations Analysis

Consider congestion reduction project concepts

Identify projects to fill other gaps
Thank you!

Questions and comments

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