Madison Corridor Bus Rapid Transit
Concept Design Study

Open House #3
May 6, 2015
Mission, vision, & core values

Mission: deliver a high-quality transportation system for Seattle

Vision: connected people, places, and products

Committed to 5 core values to create a city that is:

• Safe
• Interconnected
• Affordable
• Vibrant
• Innovative
Presentation overview

• What is Bus Rapid Transit (BRT)

• Why BRT for the Madison Corridor?

• Participant Exercise
What is Bus Rapid Transit?
A flexible, high performing rapid transit mode that combines a variety of physical, operating, and system elements with a quality image and unique identity.
A flexible, high performance rapid transit mode combining physical, operating, and system elements with a quality image and unique identity.
The results?

FASTER SERVICE

INCREASE RELIABILITY

IMPROVE PASSENGER EXPERIENCE

NEW RIDERS

AFFORDABLE MOBILITY
Why BRT for Madison?
What Makes Madison Street... **MADISON?**

- **Shortcut to Home**
  - Lake Washington

- **Both a Diagonal and a Grid Street**

- **Education & Medical Facilities**
  - Diverse, Car-free People
  - 10% of Seattle Jobs, 30% of Population

- **Hilly, Narrow Terrain**
  - Kitsap Connection, Central Waterfront Linkage

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**Welcome to the Central Area**

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**Virginia Mason**

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**Seattle Skyline**
Current bus service can be slow and unreliable

On-time means: <1 minute early and no more than 5 minutes Late
Current bus service can be slow and unreliable

Travel time reliability

7.0 min.

variability between shortest and longest run
Madison corridor buses are crowded

Passenger loads

- Northbound
- Southbound
- Seated Capacity
Dense and developing corridor

Over 35 planned, permitted, and under construction projects within 2 blocks of corridor

Within 2 Blocks of Madison:
~ 1.5M sq.ft. commercial/retail
~ 2,300 housing units
Downtown Seattle mode share

**Downtown Seattle mode share**

- **Transit**: 45%
- **Drive Alone**: 31%
- **Rideshare**: 9%
- **Walk**: 7%
- **Bike**: 3%

**Fastest Growing Commute Modes 2012-2014**

More Downtown workers are discovering that the best commutes are short commutes. Downtown Seattle added 6,000 new residential units between 2012-2014, so it’s no surprise that transit and non-motorized commutes (walking, bicycling, teleworking) were the fastest growing modes.

Source: Commute Seattle
Madison corridor has high rate of no car households

Lack of Access to a Private Vehicle Ratio*
(by Census Block Group)

- 0%
- 1% - 10%
- 11% - 20%
- 21% - 30%
- 31% - 50%
- 51% - 100%

*Persons able to drive (population between 16 – 85 years old) versus total number of vehicles available by blockgroup
Source: US Census 2000
Connection to regional transit services

Participant responses in the web survey indicated the following high priority transfer points with the BRT line.
Priority improvements in the Madison corridor

**ANSWER OPTION**

- Transit Service reliability (how likely the bus will be on time)
- Pedestrian crossing and safety
- Sidewalk conditions along Madison
- Transit passenger comfort and waiting environment
- Maintaining or improving current driving speeds through the corridor
- Maintaining or increasing turn opportunities for cars
- Maintaining on-street parking
- Maintaining commercial load zones
- Maintaining car passenger load zones

**PERCENTAGE OF RESPONDENTS**

- **VERY IMPORTANT**
- **IMPORTANT**
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept 2014</td>
<td>Early outreach; Purpose and Need</td>
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<tr>
<td>Nov 2014</td>
<td>Neighborhood design workshops</td>
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<tr>
<td>Jan. 2015</td>
<td>Web survey</td>
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<tr>
<td></td>
<td>Alternatives developed</td>
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<tr>
<td>Feb - April</td>
<td>Technical analysis</td>
</tr>
<tr>
<td>May</td>
<td>Public and stakeholder outreach</td>
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<tr>
<td>June</td>
<td>Develop draft Preferred Alternative</td>
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<tr>
<td>July</td>
<td>Public presentation of draft Preferred Alt.</td>
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<tr>
<td>Fall</td>
<td>Preferred Alternative</td>
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Participant Exercise
Purpose & process

• Share information
• Gain feedback on key trade-offs and decisions for the project
• Will be used to shape preferred alternative
• Same survey is online through May 24
Who is in the audience?
Where do you live?

A. In Seattle, within 10 blocks of Madison Street
B. In Seattle, but over 10 blocks from Madison Street
C. Outside Seattle, but in the Puget Sound area
D. Outside the Puget Sound area
What is your age?

A. 17 or younger
B. 18 – 24
C. 25 – 44
D. 45 – 64
E. 65 or older
How many immediate family members live in your household (including you)?

A. 1
B. 2
C. 3
D. 4
E. 5 or more
Do you own a vehicle (car, pickup, or motorcycle)?

A. Yes, 2 or more
B. Yes, 1
C. No, but I drive using car sharing and/or rental cars
D. No, I rarely or never drive
How often do you travel on public transit (one-way trips)?

A. 5 or more times per week
B. 2 – 4 times per week
C. 2 - 4 times per month
D. Once a month or less
E. I don’t ride public transit
Bus Rapid Transit Features
How important would each of the following BRT features be in influencing your decision to use transit or use transit more frequently?

A. Very important
B. Important
C. Not important
D. No opinion
More spacious platforms with high-quality shelters, amenities, and lighting.

A. Very important
B. Important
C. Not important
D. No opinion
Rail-style platforms and near level boarding, which reduces time to load passengers by up to 50%.

A. Very important
B. Important
C. Not important
D. No opinion
Real-time arrival information and better transit system signage at each station.

A. Very important
B. Important
C. Not important
D. No opinion
Public realm enhancements such as public art features, landscaping, and street trees.

A. Very important
B. Important
C. Not important
D. No opinion
Special BRT vehicles with higher capacity, wider doors, and a distinct look.

A. Very important
B. Important
C. Not important
D. No opinion
Project Extent and Station Locations
Proposed Corridor Extent and Station Locations
Two options for eastbound BRT pathway in downtown.

<table>
<thead>
<tr>
<th>Marion Street</th>
<th>Spring Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Better transfer to Colman Dock</td>
<td>• Better transfer to Link light rail and Downtown Seattle Transit Tunnel</td>
</tr>
<tr>
<td>• Slightly less on-street parking reduction and loading zone reduction</td>
<td>• Slightly more on-street parking and loading zone reduction</td>
</tr>
<tr>
<td>• Less expensive due to existing trolley wire</td>
<td>• Transit lanes benefit Route 2</td>
</tr>
</tbody>
</table>
Two options for eastbound BRT pathway in downtown.
Which do you prefer?

A. Marion Street
B. Spring Street
C. No opinion
Five options for downtown terminus station.

Which do you prefer?

A. Spring – 1st Ave
B. Spring – Western
C. Spring – Alaskan Way
D. Marion – 1st Ave
E. Marion – Western
F. No opinion
Station in the vicinity of I-5 between 3<sup>rd</sup> Ave and Terry Stations.

Which do you prefer?

A. West of I-5 near 6<sup>th</sup> Ave
B. East of I-5 near 8<sup>th</sup> Ave
C. No opinion
The project is considering 2 options for an eastern end to the BRT service.

Which do you prefer?

A. 23rd Avenue
B. Martin Luther King Jr. Way
C. No opinion
Changes to the Madison corridor
Transit only lanes make BRT reliable and improve travel time.
Between 8\textsuperscript{th} and 20\textsuperscript{th} side or center transit lanes could be employed.
## Side running transit lanes

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stations can be in the sidewalk, furniture zone which offers more space for waiting passengers</td>
<td>Speed and reliability may be poorer as buses share lanes with right turning vehicles</td>
</tr>
<tr>
<td>Fewer left turn restrictions may be necessary</td>
<td>Sidewalk stations are less visible and unique</td>
</tr>
<tr>
<td>Right-turning traffic can share the transit lane</td>
<td>Sidewalk stations may result in crowding and conflicts with other pedestrians</td>
</tr>
</tbody>
</table>
### Center running transit lanes

**SAMPLE CENTER-RUNNING BRT CROSS SECTION**

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Most reliable because no traffic allowed in bus lane</td>
<td>- Center island platforms can take more space, which might reduce space for other right of way uses</td>
</tr>
<tr>
<td>- Center stations are highly visible and create a unique feel to the street</td>
<td>- Some left turns movements are restricted (at minor intersections)</td>
</tr>
<tr>
<td>- Stations can double as a safe refuge for pedestrians crossing the street</td>
<td></td>
</tr>
</tbody>
</table>
Where would you prefer transit lanes between 8th and 20th Aves?

A. Side of the street
B. Center of the street
C. No opinion
The project will change eastbound corridor travel times.

Eastbound auto

Eastbound transit
The project will change **westbound** corridor travel times.

**Westbound auto**

**Westbound transit**

![Graph showing travel time comparisons between existing, side, and center configurations for both auto and transit westbound travel.](image-url)
The project will improve transit reliability.

- **7.0 min.** variability between shortest and longest run
  - Existing: Mixed Traffic

- **0.6 min.** variability between shortest and longest run
  - Center-Running

- **0.8 min.** variability between shortest and longest run
  - Side-Running
How do you feel about the tradeoffs between auto and transit travel time?

A. I support proposed changes to auto channelization to improve transit speed and reliability

B. I do not support these changes

C. No opinion
Parallel Bicycle Route
The Madison BRT project is helping to design a parallel bicycle facility.
One-way protected bike lane
Two-way protected bike lane
Which bike facility option do you prefer for Union Street between Broadway and 27th Ave?

A. One-way protected bike lane
B. Two-way protected bike lane
C. No preference
Thank you for your input!
## Next steps

<table>
<thead>
<tr>
<th>Year/Timeframe</th>
<th>Activity</th>
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<tbody>
<tr>
<td>May 2015</td>
<td>Outreach Activities Continue</td>
</tr>
<tr>
<td>May</td>
<td>Web Survey Available</td>
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<td>Fall</td>
<td>Locally Preferred Alternative</td>
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<tr>
<td>2016-2017</td>
<td>Project Development &amp; Final Design</td>
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<tr>
<td>2018</td>
<td>Construction</td>
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<tr>
<td>2019</td>
<td>Service Opens</td>
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Questions?

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http://www.seattle.gov/transportation/madisonbrt.htm

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