Bus Rapid Transit and Land Use Developing the Next Frontier

ULI Seattle
ULI/Curtis Regional Infrastructure Project



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ULI Rose Center

Mission:

". . . to encourage and support excellence in land use decision making. By providing public officials with *access to information, best practices, peer networks* and other resources, the Rose Center seeks to foster creative, efficient, practical, and sustainable land use policies."

ULI Rose Center

How this webinar works:

- All callers are muted during the presentation
- To ask a question-
 - Type your question into the *Question* or *Chat* box, the moderator will review and present your questions to the panelists.

ULI Rose Center

Give us your Feedback!

- Email us <u>rosecenter@uli.org</u>
- Complete our survey via Survey Monkey

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Today's Discussion

Bus Rapid Transit—an Emerging Issue Ready for the Taking

ULI Seattle's Bus Rapid Transit and Land Use Initiative:

- How it worked
- Conclusions

Outcomes and Lessons Learned:

- City of Seattle
- King County Metro Transit

Open Q & A



Is Bus Rapid Transit ...

- Light rail on rubber tires?
- Express buses in HOT lanes?
- Bus-only corridors or busways?
- Buses that, like magic, almost always hit green lights?







Clockwise starting top right: Pittsburgh busways; interior of Orange Line bus, Los Angeles; 95 Express BRT in Broward County, Florida; EmX BRT Line in Eugene-Springfield, Oregon

What is BRT? The Technical Definition ...

A flexible, high performance rapid transit mode that combines a variety of physical, operating and system elements into a permanently integrated system with a quality image and unique identity.

Federal Transit Administration/National BRT Institute, 2009



BRT: Like Building an Ice Cream Sundae

Areas Undergoing Innovation

- Running ways or corridors
- Stations
- Vehicles
- Fare collection
- Intelligent Transportation System technologies, including Transit Signal Priority
- Service and operations
- Branding



Frequent and Reliable Service

- Los Angeles Orange Line: 20 hours a day; peak service every four minutes
- Cleveland Health Line: 24 hours a day; peak service every four minutes
- Kansas City MAX: 20 hours a day; peak service every 10 minutes
- Eugene-Springfield EMX: 18 hours a day; peak service every 10 minutes
- RapidRide's Target: 24 hours a day; peak service every 10 minutes



Significant "Station" Infrastructure, Often Highly Visible from the Street





Seattle

Five questions to ask about BRT in your community:

- 1. **Speed to Destinations**. How "rapid" is the service, especially compared to traveling by car to major destinations?
- 2. Frequency. How frequent is the bus service? What's the time penalty for missing a bus? How convenient are connections to local or regular bus service?
- **3. Stations.** How impressive are the stations? Does the station infrastructure—the shelter, boarding areas, signs, walkways, landscaping, and parking facilities—signal a strong identity and leave a positive impression?
- 4. Connections to the Surrounding Neighborhood. How easy, pleasant, and safe is it to walk within a half-mile of the stations?
- 5. "Open" or "Closed" Corridor. Is the rapid transit corridor open to multiple bus routes? Does it allow private shuttles? Without transferring to another bus, is there a way to link places not within walking distance of stations to the rapid transit corridor?



ULI Seattle's BRT and Land Use Initiative

Developing the Next Frontier

Capitalizing on Bus Rapid Transit to Build Community



2011



BRT in the Puget Sound Region

Part of an ambitious vision for a regionally integrated transit system:

- Light Rail
- Commuter Rail
- Streetcars
- Traditional and express buses
- Arterial BRT

King County RapidRide:

- A line service began in October 2010; B line in 2011
- Service on the C and D lines will begin in 2012;
 E and F lines in 2013
- 64 total miles of service
- High-use corridors: 10 million transit trips per year
- Projected 50% ridership increase with RR





What kind of BRT is RapidRide?

RapidRide is a form of "arterial BRT":

- Routes follow commercial arterials connecting major activity centers
- Running ways in "business access transit" (BAT) lanes
- Target service level: up to 24 hours a day; peak service every 10 minutes
- Boarding areas about every half-mile
- Transit-signal-priority technologies
- Shelters and amenities at stations
- Real-time arrival information at stations
- Low-floor, three-door buses



BRT and Land Use Initiative: Project Goals

- Integrate land use into the planning and implementation of BRT
 - Reduce vehicle miles traveled
 - Achieve triple bottom line: environment, economy, equity
 - Encourage communication and mutual learning between the land use community and transit providers
- Build capacity and expertise





BRT and Land Use Initiative: Project Partners

- City of Seattle
 - Department of Planning and Development
 - Office of Housing
- City of Shoreline
- King County Metro Transit
- ULI Seattle
- ULI/Curtis Regional Infrastructure Project



BRT and Land Use Initiative: Study Methods

Three case studies:

- Cedar Avenue BRT in Dakota County, MN
- Kansas City's MAX system
- Cleveland's Health Line in the Euclid Corridor



Cleveland Health Line Station

Analysis of three station areas on two RapidRide corridors:

- Ballard: RapidRide D Line–15th and Market in Ballard (City of Seattle)
- Bitter Lake: RapidRide E Line–130th and Aurora in Broadview/Bitter Lake (City of Seattle)
- Echo Lake: RapidRide E Line–192nd and Aurora (City of Shoreline)



BRT and Land Use Initiative: Analysis Questions

Scope--within a ½ mile of each station and the next five years:

- Neighborhood design
- Transitioning auto-oriented corridors
- Range of housing
- Development opportunities and jobs
- Marketing
- Stakeholder institutions



Art at a BRT station in Kansas City

BRT and Land Use Initiative: Site Analysis Team

Mark Hinshaw, LMN Architects

Richard Kendall, The Frause Group

Craig Krueger, Community Land Planning

Ann Lin, Seneca Real Estate Group

Jim Mueller, JC Mueller LLC

Salima "Sam" O'Connell, *Dakota County - Office of Transit*

Danny O'Connor, Kansas City Area Transportation Authority

Sarah Jo Peterson, *ULI-the Urban Land Institute*

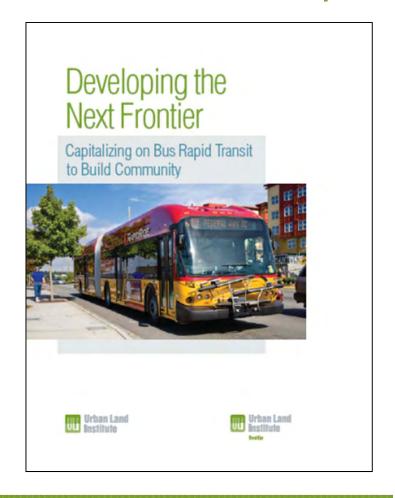
Dan Stroh, City of Bellevue



Project partners and site analysis team on tour, March 22, 2011

BRT and Land Use Initiative: Recommendations and Report

- Analysis of RapidRide as BRT
- Summaries of the three external case studies
- BRT and land use: principles and lessons learned
- Recommendations related to transit service, corridors, marketing, and stakeholder institutions
- Recommendations for the three station areas
- Report download: seattle.uli.org/brt





How arterial BRT "works" from the perspective of land use

Provides **convenient** and **priority access** to all that is available—jobs, shopping, services, housing, and friends—in the **corridor**.

Convenient access:

- Frequent service, evenings and weekends included
- In corridors that are lined with diverse land uses.

Priority access:

- Infrastructure and technology gives transit priority
- Stations and pedestrian infrastructure tell transit users they are a priority

Organizing catalyst!



Key Principles for Arterial BRT

- Focus on Corridors
- Develop Champions
- Promote Community Value





Outcomes and Lesson Learned—City of Seattle

ULI's BRT initiative validated and inspired Seattle's on-going planning work

- Seattle Planning Commission: "Seattle Transit Communities, Integrating Neighborhoods with Transit" (November 2010)
- Neighborhood Plan Update, Bitter Lake (2011)
- West Seattle Triangle Zoning and Urban Design Study (2011)
- Mayor's Job Plan: Transit Communities Policy (2011-12)
- 2012 Planning Work Plan: Transit Corridors
- Comprehensive Plan Update: Transit Communities Policy (completion 2014)



"Get to the vision, get to the neighborhoods, get to the community, get going."

Outcomes and Lessons Learned—King County Metro Transit

Key outcomes of the initiative:

- Partnering with key corridor stakeholders
- Fine-tuning of alignments
- Catalyst for multi-family development
- Quality of station access created



"Think of marketing light rail and RapidRide together. Think in terms of major corridors."

Additional Resources

