Bicycle Transportation in Portland, OR: A Tale of Three Cities

Global Green; October 21, 2008
Roger Geller, Bicycle Coordinator
Portland, OR
Initial Building Blocks of Portland’s Success in Bicycle Transportation

• “Complete Streets” Policies/Laws
  – “Bicycle Bill” (1974): all streets to have appropriate bicycle/pedestrian facilities
  – State Transportation Planning Rule (TPR)
  – Regional Policies
  – Local Policies

• Dedicated Funding
  – Floor of 1% of GTR
City No. 1

where we’ve done a lot
Development of Portland’s Bikeway Network

- Lanes
- Boulevards
- Trails
Development of Portland’s Bikeway Network

1985

- Lanes
- Boulevards
- Trails
Development of Portland’s Bikeway Network

- Lanes
- Boulevards
- Trails

1990
Development of Portland’s Bikeway Network

1995

- Lanes
- Boulevards
- Trails
Development of Portland’s Bikeway Network

Lanes
Boulevards
Trails
Development of Portland’s Bikeway Network

2008

Lanes
Boulevards
Trails
facilities
Engineering
Include big bike box slide
engineering
manage transit -bike conflicts (streetcar platform bike lane)
exclusive bike phase
(scramble signal)
exclusive bike phase
(eliminating right turn on red)
exclusive bike phase
(HAWK signal)
shared lane pavement markings (sharrows)
on street bike parking (corrals)
Encouragement

• SmartTrips
  – 20,000 households per year since 2003
  – Individualized marketing
    • 3 contacts per hhold
    • 10 contacts per interested hhold
  – 9% reduction in single-occupancy auto use

• Bicycle Commute Challenge
  – 888 participating businesses
  – 9,700 individuals

• 2,100 Annual Rides
Education

• **Safer Routes to School**
  – training and classwork in 25 schools

• “Options Mobile” deployed at more than 70 events annually

• **Visibility Campaigns**
  – “Get Lit”
  – “See and Be Seen”
covered bike parking
(bike oasis)
Increasing Bicycle Use

1992:
- 83 miles of bikeways
- 2,850 daily trips

2007:
- 271 miles of bikeways
- 14,563 daily trips

Year
- 1991: Bridge Bicycle Traffic 2,850
  - Bikeway Miles 78
- 1992: Bridge Bicycle Traffic 3,555
  - Bikeway Miles 84
- 1993: Bridge Bicycle Traffic 3,885
  - Bikeway Miles 86
- 1994: Bridge Bicycle Traffic 3,830
  - Bikeway Miles 103
- 1995: Bridge Bicycle Traffic 3,207
  - Bikeway Miles 113
- 1996: Bridge Bicycle Traffic 4,520
  - Bikeway Miles 144
- 1997: Bridge Bicycle Traffic 5,225
  - Bikeway Miles 166
- 1998: Bridge Bicycle Traffic 5,690
  - Bikeway Miles 183
- 1999: Bridge Bicycle Traffic 5,910
  - Bikeway Miles 213
- 2000: Bridge Bicycle Traffic 6,015
  - Bikeway Miles 222
- 2001: Bridge Bicycle Traffic 7,686
  - Bikeway Miles 235
- 2002: Bridge Bicycle Traffic 8,250
  - Bikeway Miles 252
- 2003: Bridge Bicycle Traffic 8,562
  - Bikeway Miles 254
- 2004: Bridge Bicycle Traffic 8,875
  - Bikeway Miles 260
- 2005: Bridge Bicycle Traffic 10,192
  - Bikeway Miles 262
- 2006: Bridge Bicycle Traffic 12,046
  - Bikeway Miles 263
- 2007: Bridge Bicycle Traffic 14,563
  - Bikeway Miles 266
Increasing Bicycle Use

1992: 83 miles of bikeways, 2,850 daily trips

2008: 274 miles of bikeways, 16,711 daily trips
Increase in Bicycle Traffic

Bridge and Non-Bridge Locations 2007

Based on counts from 31 locations city-wide (113%)
Based on counts from 50 locations city-wide (115%)

One-Year Increase (since 2006)
Non-bridge: 18%
Bridge: 21%

Increase since 2000/2001
Non-bridge: 113%
Bridge: 115%

Based on manual and automated bicycle counts
People Reporting the Bicycle as their Primary Commute Vehicle

2007

Source: City of Portland Office of the Auditor:
Service Efforts & Accomplishments Report 2006-07

Citywide: 6%
People Reporting the Bicycle as at least an Occasional Commute Vehicle

2007

Source: City of Portland Office of the Auditor:
Service Efforts & Accomplishments Report 2006-07

Citywide: 16%
Bicycle Commuting in Portland

People Reporting the Bicycle as their Primary Commute Vehicle & Secondary
2007

explosion in bike culture & commerce

- breakfast on the bridges
- bike summer
- mini bike winter
- midnight mystery ride
- zoobombers
- move by bike
- bikeportland.org
- $100 million local industry
- bike fashion
- pride in place: Portland as “bike city”
- politics
City No. 2

where we’ve invested so little
Capital Improvements on Portland's Bikeways

0.7% of PDOT's capital budget!
0.7% of PDOT’s capital budget!
Expected PDOT Capital Expenditures 2008-2012
By Mode of Transportation

Total Expected Expenditures: $275 million

- Motor Vehicle: Freight: $65,680,561 (23.9%)
- Motor Vehicle: Road Rehabilitation: $72,513,554 (26.4%)
- Motor Vehicle: General: $51,965,351 (18.9%)
- Pedestrian Streetscape: $42,657,107 (15.5%)
- Project Development: $20,406,038 (7.4%)
- Transit: $16,914,521 (6.1%)
- Bikes: $4,959,575 (1.8%)

Legend:
- Motor vehicle preservation & rehabilitation
- Motor vehicle freight
- Motor vehicle general purpose
- Pedestrian streetscape
- Transit
- Project development
- Bike
PDOT’s Proposed Capital Funding 2008-2012 (Before Safe, Sound & Green)
PDOT’s Proposed Capital Funding 2008-2012 (With Safe, Sound & Green)
Annual Spending per Capita and Mode Split

You Get What You Pay For?

Cities
(Population)

Groningen (182,000)
Amsterdam (743,000)
Copenhagen (504,000)
Berlin (3,410,000)
Portland (537,000)

City No. 3

the city we want
4 Types of Transportation Cyclists

Strong & Fearless

Interested but Concerned

Enthused & Confident

No way No How
Cyclist Injury & Fatality Rates per distance cycled

Source: J. Pucher & R. Buehler "Making Cycling Irresistible: Lessons from the Netherlands, Denmark, and Germany" Accepted for publication in Transport Reviews, Vol 28, No. 4, July 2008
4 Types of Transportation Cyclists

- **Strong & Fearless**
  - will ride regardless of facilities
  - trip distance is not such an issue
  - less than 1% of population

- **Enthused & Confident**
  - comfortable in traffic with appropriate facilities
  - prefer shorter trip distances
  - 7-10% of population

- **Interested but Concerned**
  - not attracted by bicycle lanes
  - not comfortable in traffic
  - will ride in low-volume, low-speed conditions (boulevards, off-street)
  - ~60% of population

- **“No Way No How”**
  - ~30% of population

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**No way No How**

**Interested but Concerned**
- Not attracted by bicycle lanes
- Not comfortable in traffic
- Will ride in low-volume, low-speed conditions (boulevards, off-street)
how do we attract “interested but concerned”? 

• comfort
• safety
• attractiveness
• direct routes
• connected system
bicycle
boulevards
Bicycle Boulevard

City Code 16.90.030.
Bicycle Boulevard: A roadway with low vehicle traffic volumes where the movement of bicycles is given priority.
Bicycle Boulevard

To Make A Good Bicycle Boulevard You Need:

- Low Traffic Volumes – diversion
- Low Speeds – traffic calming
- Easy Crossing of Arterial Streets – signalization, curb extensions, median refuges
- Way-Finding – signs, markings
- Priority for People on Bicycles – impediments to motor vehicles, bike boxes, prominent markings

People To Feel Safe And Comfortable On Superb Facilities
Expanding Portland’s Bicycle Boulevards

Add in:

BTA N/NE Boulevards
City’s Safe, Sound & Green
SW Trails Bikeways
attention & separation
Portland’s “$150 Million List”

- NP Greenway Trail
- Sullivan’s Gulch Trail
- Barbur Blvd Cycletrack
- Greenway Trail Modernization
- “Brooklyn Bridge”
- NE 7th Avenue Bridge
- Halsey Street Overcrossing
- SW Bikeways
- Milwaukie LRT Multi-Use Path
- East Portland I-205 Bike Bridge
- 120 Miles of Bicycle Boulevards

- Area Improvement Package
- Expansion of Smartrips Program
- Sunday Parkways
- Expand SR2S Program
- Neighborhood Pedestrian Safety Improvements
- Collector Street Sidewalk Construction
- High Crash Intersection Improvements
Portland's $150 Million Plan

Active Transportation Investments
Bicycle and Pedestrian Improvements
$150+ Million Project List

Other Projects

<table>
<thead>
<tr>
<th></th>
<th>Est. Cost</th>
<th>Funds Needed</th>
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<tbody>
<tr>
<td>Area Improvement Package</td>
<td>$8 M</td>
<td>$8 M</td>
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<tr>
<td>Safe Routes to School</td>
<td>$20 M</td>
<td>$10 M</td>
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<td>Smart Trips</td>
<td>$1 M</td>
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<td>Sunday Parkways</td>
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<td>Neighborhood Pedestrian Safety Improvements</td>
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<td>Collector Street Sidewalk Construction</td>
<td>$23 M</td>
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<td>Construction of Bicycle Boulevards</td>
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<tr>
<td>High Crash Intersection Improvements</td>
<td>$6.5 M</td>
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February 2008
To Get to the City We Want

• **Policies**
  – prioritize the bicycle

• **Funding**
  – building a system, providing education, encouraging bicycling costs money

• **Designs**
  – better designs to enhance comfort and safety
  – designs that communicate transportation hierarchy
Numbers to Consider

0.04%
Percentage of state budget we’d need to spend $18 per capita on bicycle facilities & programs in Oregon’s urban areas

1.3%
Percentage of state transportation budget we’d need to spend $18 per capita on bicycle facilities & programs in Oregon’s urban areas

0.33%
Percentage of Portland’s annual budget Portland would need to spend $18 per capita on bicycle facilities & programs
For more information:

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search for “Platinum”