Panel on Infrastructure

- Presented by:
  - Parks
    - Mike Houck and Sue Donaldson, Portland Parks
  - District Energy Project
    - Tom Osdoba, Office of Sustainable Development
  - Transportation
    - Sue Keil, Portland Department of Transportation
    - Michael Powell, Portland Streetcar, Inc.
Building Parks Infrastructure in and around River District URA

Acquire Land:
• To meet needs of growing population

Make Parks
• Develop new parks and trails
• Renovate old ones
Parks meet River District URA Goals for:

- **Relationship with River**
  Willamette Greenway Trail
  Riverside Parks

- **Healthy Economy**
  Parks improve property values;
  Parks attract people

Monica Spoelstra Metz:

*The parks in the Pearl have had a huge impact for the Pearl District Business Association. The PDBA puts information about parks in their walking tours and advertising for the District ...*
Housing Diversity & Community Identity

• People want parks close to home
• Parks are for everyone – a variety of parks are needed
• Size & capacity of parks must meet needs now and in the future

Neighborhood Connections

• Parks, green streets and Greenways make the city walkable, liveable & active

Sustainability

• Parks are key components of the city’s green infrastructure
PROJECTS Outside URA Boundaries 1-5 years

North Park Blocks
Rebuild O’Bryant Square

A New North Park Block Study:
A re-Vision of North Park Blocks based on emerging physical & social context, incorporating Post Office Site and exploring (past) ideas for extending the park blocks north to the river

Design & Construct New Park Block based on re-Vision
Make simple interim improvements so people can use the park until then
PROJECTS

Access to the River

*Inside URA Boundary*

Build Greenway under Fremont Bridge

1 - 5 years

*Both in and outside URA Boundary*

Acquire Riverfront Property

1- 10 years
PRIORITIES: Adjust URA boundaries to include key projects:

- O’Bryant Square
- New North Park Block
- Land Acquisition along River
PRIORITIES: Add new projects within existing URA boundary

- Post Office Site
- Expand study scope to include space for parks and role of North Park Blocks in District
- Build Greenway Trail under Fremont Bridge
- Land Acquisition along River
Challenges to creating an interconnected system of urban parks to meet future needs

• Land:
  cost
  parcel size
  availability

• Rising Construction Costs

• Unpredictable Funding
Future Opportunities

5 years & beyond ...

The New North Park Blocks
A New Riverfront
<table>
<thead>
<tr>
<th>Project Description</th>
<th>Estimated Cost</th>
<th>PDC Investment</th>
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<tbody>
<tr>
<td>O’Bryant Square</td>
<td>$5.5 m</td>
<td>$1.5 m</td>
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<tr>
<td>New Park Block development</td>
<td>$3 m</td>
<td>$1.9 m</td>
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<tr>
<td>N. Park Blocks Update (incl. P.O. site)</td>
<td>$300 k</td>
<td>$200 k</td>
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<tr>
<td>Park acquisition (Riverscape)</td>
<td>$2 m</td>
<td>$1 m</td>
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<tr>
<td>Greenway Trail (Fremont Bridge Gap)</td>
<td>$650 k</td>
<td>$400 k</td>
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<tr>
<td>Acquire riverside park land</td>
<td>$4 - 10 m</td>
<td>$4-7 m</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>$15.5 - 21.5 m</strong></td>
<td><strong>$9-12 m</strong></td>
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</table>
Other Projects

Within River District URA
- Skateparks *(under I-405)*
- Community Garden(s)

West of I-405
- Park Acquisition west of I-5
- Couch Park Improvements

Northwest Area
- Community Center Analysis

+ Synergies with green streets and pedestrian enhancement projects
Summary

Adjust URA boundaries to include:
• O’Bryant Square
• New North Park Block
• Riverfront Land for Acquisition

Add projects to existing URA list:
• Greenway Trail Gap
• Post Office Site Study Scope
• Riverfront Land Acquisition
District Energy Project
Objectives

Sustainability Objectives
– Sustainability goals in North Pearl District Plan
– Contribute to GHG emission reduction goals
– Contribute to local energy efficiency and security by shifting from “high value” gas and electric heat to low grade, alternative heat sources

Economic Objectives
– Return on investment based on debt costs, risk and community benefits
– Cost of service comparable to customer alternatives
– Provide long-term energy price competitiveness and stability to residents and businesses
Each development would be responsible for its own heating system.

Heating systems are installed by developers and owned and operated by the ultimate building owners.

The majority of heating would be met with electricity and a smaller portion with natural gas.

Developers (and purchasers) typically are very sensitive to first costs. As a result, there is some bias in the market against more efficient and/or alternative technologies with higher capital, even where these have lower lifecycle costs (combined capital and operating costs).
Proposed Utility Model

- Provide heating and domestic hot water (DHW) and potentially cooling as a utility service with costs recovered through a rate to building owners.

- Building owners responsible for allocation of heating costs among occupants.

- Heat supplied to buildings through low-temperature hot water distribution system (two-pipe system); cooling through similar cold water system.

- A utility would own distribution system and energy transfer stations within each building. Utility also may own heat plant(s) or could contract for heat from a third party.

- Hydronic heating systems required in connected buildings. Configuration is flexible (e.g., baseboards, in-floor radiant or fan coils).
Why a Utility Model?

Key benefits:

- Longer amortisation periods and lower carrying costs for capital
- Economies of scale and integration (e.g., reduced equipment sizing)
- Higher equipment utilisation and efficiency
- Other economies of scale in operations and maintenance costs
- Pooling of financial and operating risks
- Better environmental performance (through ability to implement alternative and/or more efficient technologies)
- Improved quality of service
- Greater flexibility to adopt alternative technologies in future

These benefits must be weighed against additional costs:

- Additional infrastructure costs of centralisation (e.g., community heat distribution pipes)
- Additional metering, billing and administrative costs
- Set-up costs and ongoing regulatory and governance costs
Benefits - Environmental

• Immediate efficiency improvements due to better equipment and integrated operations. Helps all buildings meet green building objectives.

• A community hot water heating system would provide a flexible platform for future heat sources, e.g., biomass gasification, co-generation, fuel cells and solar thermal.

• The utility could better address environmental impacts through an integrated system, rather than multiple owners each with multiple systems.
Benefits - Economic

- Takes over investment decisions from individual building owners, who are most sensitive to “first costs” and tend to install less expensive, less efficient equipment.

- Longer amortization periods, lower costs for capital, and economies of scale in purchases, operations and maintenance, enables better environmental performance and flexibility to adopt alternative technologies in future.

- If the City chooses to retain ownership, the utility can provide a long-term revenue-producing asset. Profits can be re-invested in other City initiatives or used to reduce customer rates.
Benefits - Social

• All individuals that choose to purchase or locate in buildings within the Utility service area would see reduced exposure to energy cost escalation as a result of efficiency gains (lower energy consumption), utilization of local resources such as waste heat, and the utility’s ability to change heat sources over time.

• The Utility would encourage confidence and pride associated with environmental leadership, building a robust and long-term social network.

• Customers receive premium heating services (comfortable and highly reliable hydronic heat) in all types of housing in the community, at lower cost than if buildings installed stand-alone hydronic systems.
Transportation Infrastructure Needs

Urban Renewal Advisory Group - Westside Study

November 27, 2007
River District Vision

- Central City Plan
- River District Urban Renewal Area Plans
  - River District Plan
  - Northwest Plan
  - Pearl District Development Strategy
  - North Pearl District Plan (ongoing)
- Downtown Waterfront Urban Renewal Area Plans
  - Ankeny Burnside Development Framework
  - Old Town Chinatown Framework Plan
  - NW Broadway Urban Design Master Plan
Transportation Catalyst Projects

- NW 13th Avenue
  - The “heart” of the Pearl District
  - Leverage further investment
  - $910,000 in LID funds

- Lovejoy Ramp
  - Opened up access to rail yards for redevelopment
  - $14.5 million total
  - $12.2 million federal
  - $2.3 million City

- Portland Streetcar
  - Close to 4,500 housing units and over 4.5 million square feet of commercial
  - 4.8-mile loop opened in 2001
  - $56 million
Next Generation of Priority Projects

A. Portland Streetcar Loop
B. Burnside/Couch Streetscape improvements and Streetcar
C. NW Flanders Bridge and bicycle/pedestrian improvements
D. Boardwalk Pedestrian Bridge
E. Marshall Pedestrian Bridge
F. Naito Parkway improvements
G. Union Station Renovation

= Priority Projects  = Sites of interest to PDC
Portland Streetcar Loop

- Central City Plan
  - Central City Streetcar Circulator
- Opportunity to connect District to east side
- Resolution No. 36531
- $17 million from URA
  - Maintenance facility expansion
  - Complex track work
  - Utilities and traffic control
- River District Goals: 1, 5 and 6
West Burnside/Couch

- Streetscape and Streetcar Improvements from NW 2nd to NW 24th
  - Improve connections to Downtown and Northwest
  - Improve pedestrian access and operations
  - Provide on-street parking
  - Improve transit service
- River District Goals: 2, 3, 5 and 6
West Burnside/Couch

- Economic Development
  - 10:1 Return on Investment *
  - Payback in 15 years *

* Based on PDC’s 2005 Burnside and Couch Transportation and Urban Design Plan Phase II, Catalyst Development Study
District Edge Projects

Union Station Renovation

- Historic Station renovation
- Multi-modal hub for inter and intra city service
- Development opportunities of adjacent properties
- River District Goals: 3, 4, 5 and 6

Flanders Improvements

- Provide pedestrian/bicycle connection from Forest Park to the Willamette River through the heart of the River District and Old Town/Chinatown
- New pedestrian/bicycle bridge over I-405
District Edge
Livability Projects

- Improve the pedestrian environment and reinforce the cultural character of Old Town/Chinatown
  - Street lights
  - Sidewalk improvements
  - Trees
- Implement green streets and bikeways
  - Improved pedestrian crossings
  - Additional bicycle facilities
  - Implement green streets
  - Reinforce connection to NW, improve pedestrian and bicycle access over I-405
- Improve access and circulation in the District
  - Traffic signaling and operations
# Project List

<table>
<thead>
<tr>
<th>Project</th>
<th>Schedule (years)</th>
<th>Total Cost Estimate (millions)</th>
<th>PDC Contribution (millions)</th>
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<tr>
<td>Burnside/Couch/Streetcar</td>
<td>1-5</td>
<td>$100</td>
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<td>Streetcar Loop-Eastside extension</td>
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<td><strong>$133</strong></td>
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* Old Town/Chinatown Benefits
River District

- Transportation projects will continue to meet River District URA and Central City Goals and support:
  - Enhanced livability
  - Economic development
  - Housing goals
  - Better connection to the Willamette River
  - Sustainability
  - Improved travel choices and accessibility

= Priority Projects ★ = Sites of interest to PDC