PORTLAND PARKS & RECREATION

Healthy Parks, Healthy Portland

South Waterfront Greenway Development Plan

Design Component- Phase I

December 8, 2004

PDC PORTLAND DEVELOPMENT COMMISSION

RIVER RENAISSANCE

Discover the River SOUTH WATERFRONT

SOUTH WATERFRONT GREENWAY DEVELOPMENT PLAN
DESIGN COMPONENT – PHASE I

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Preface

In March 2003 the City Council adopted the Phase 1 Report t o Council on the Project Goals recommending that the Parks Bureau take the lead on the development of the Greenway Development Plan (GDP). The GDP, under Title 33, would embrace a more holistic and integrated approach and encourage innovation, flexibility, public/private partnerships and design excellence. The South Waterfront Plan described the Greenway Development Plan as follows: To achieve the highest quality greenway for South Waterfront, there is strong interest in designing the greenway as a unified whole with participation by all stakeholders. In addition, the plan can provide certainty over time for property owners, as well as efficient and coordinated permitting while ensuring a clean and healthy river for fish, wildlife and people. There are several key issues within the GDP; meeting the (5) objectives of the City's River Renaissance program, integration of river and upland habitat with high-density urban development and connectivity to the City's existing pedestrian and bike trail system. After 1.5 years of intense work the GDP Design Elements has been completed and generally

accepted by all stakeholders. The Parks Bureau creation of the GDP included several other Bureaus' working in partnership with each other and with effected property owners, stakeholders, the general public and PDC. The principal Bureau's included Planning, PDOT, PDC, Environmental Services, Development Services and the Office of Sustainable Development.

The Council's adoption of the design plan through resolution will be the first step in a validation of the design efforts as the first step in multi-step adoption process. The subsequent elements will include an implementation component for acquisition, capital improvements, governance and O&M concerns. These elements will also be merged with a plan by the Bureau of Planning and Development Services to create a codification and design guidelines proposal to be integrated into Title 33 through Council

action under Ordinance in the late spring of 2005. The final adopted GDP is intended to enliven and beautify the district while the aspirations for the greenway reflect local commitment and efforts to revitalize the Willamette River as a healthy natural system and to create a continuous trail and places for the public to enjoy the river. Sustaining the quality, beauty and safety of the South Waterfront Greenway is a critical issue for the city, the adjacent property owners and the users, humans, fish and wildlife.

Support the upcoming resolution before Council for adoption of the South Waterfront Greenway Development Plan design concept with additional support to continue to develop the implementation strategy and codification work to complete the entire plan before Council in the late spring of 2005.

Greenway Civic Beach, Lawn and Plaza at the end of Gibbs

South Waterfront Greenway Development Plan

Innovation, flexibility and design excellence were brought to task in the planning and design approach to the GDP. Based on an open competitive Request for Proposals process, the final consultant team selection of Portland's Walker/Macy Landscape Architects and Urban Designer with Thomas Balsley Associates of New York. The combination of the local skilled knowledge and technical base of Walker/Macy with the internationally know waterfront design talents of Thomas Balsley Associates. Charged with the task of balancing and integrating a proposed high-density urban community with that of a functional wildlife habitat in a river environment, both located in a former industrial landscape with brownfield characteristics.

With all but two buildings on two blocks designed within a 130-acre district with only a street plan approved and a projected 15-20 year build-out scenario, flexibility in design was critical to the success of the overall Greenway Plan. This flexibility is best reflected in the

'kit-of-part" for the urban and greenway interface area characterized as the 15-foot minimum Universal Accessway (Figure XX). The details of how the Greenway Plan design may respond to future site-specific development proposals and transportation and development capacity issues that will result from on-going studies in these disciplines. Additional flexibility is also present in the current design for the neighborhood and civic scale plazas, parks and gathering nodes and overlooks. This is also true for the design of the Gibbs Street Plaza between the OHSU Tram landing and the Willamette River. Conversely, the GDP elements that require the greatest adherence to the integrity to the current plan are those that address the river bank and related upland Salmonid habitat conditions and the dual trail system for pedestrians and wheeled vehicles such as bikes, roller blades and skateboarders

South Waterfront Greenway Plan

Forward

"Think of our life in nature-daily to be shown matter, to come in contact with it - rocks, trees, wind on our cheeks! The solid earth! The actual world! Common sense! Contact! Contact! Who are we? Where are we?

- Henry David Thoreau

According to the 1986 *President's Commission on Americans Outdoors*, Greenways are nothing new. Historically, a greenway or a similar form of open space used existing routes such as abandoned rail lines and canal ways to create connections between places. Described broadly as linear parks, open spaces and protected areas in cities, suburbs or the countryside, they tend to draw and bring people together and have the added benefit of providing open space and protecting vital water resources for fish and wildlife and recreation

The historical roots of the greenway idea are over 100 years old. They can be found in the concepts that define the Adirondack Park Region, in metropolitan open space systems that where implemented in a number of American cities in the late 19th and early 20th century. Similar concepts can be also found in the greenbelt concepts advanced by Ebenezer Howard in 1898. Howard was an early partner of Fredrick Law Olmsted and they had worked on the first plans for New York's Central Park. The greenway concept also took root in the early plans for linear parks for several units in the National Park Service. In addition, the so-called greenline concepts that emerged in the 1970's contributed to the evolution of greenways. The awareness of development and land ownership patterns in England and Wales National Parks and the creation of the Scenic Rivers and Recreation Trails programs by the US Congress in the 1960's furthered the discussion.

In Oregon, the concept of a Willamette Greenways took root in the governor's race of 1966 between Tom McCall and Robert Straub. At a news conference in Portland then Secretary of State Straub announced his concept to "Rediscovery the Willamette River" through a system of trails for pedestrians and bikes that would stretch from Eugene to Portland. While losing to McCall as Governor, Straub's idea was embraced by McCall. In 1967, Governor McCall issued an executive order creating a "Governor's Willamette River Greenway Committee" The Oregon Legislature authorized passage of a bill to create the Willamette River Park System based on the recommendations of this committee. In 1976, the Land Conservation and Development Commission (LCDC) established boundaries for the Willamette Greenway. As a result of this early legislation in the 1970's, 3 regional parks and 43 access areas were created. Since that time, public perception of the value of the greenway has matured. Recently, this change in values is most significant in Portland and the Metro region as will be evident in the proceeding pages of this report.

On November 11, 2004 the Portland City Council adopted the city's River Renaissance Vision which embraced the Willamette River as the city's front yard and sets the broad range of goals for how Portland embraces the concept of what role greenways play in the future development of the city.

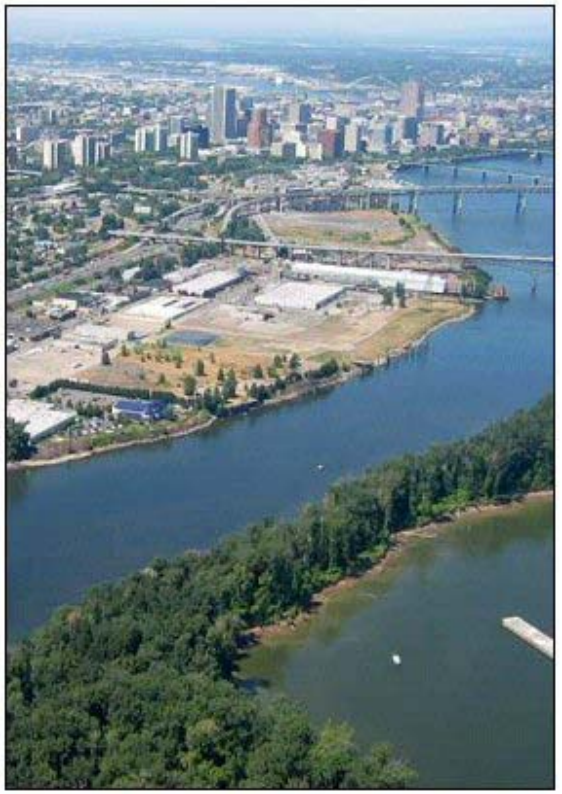
I. Introduction

The Willamette River has always played a central role in the history and growth of Portland and that of the State as a whole. This role has become more critical in recent times since the river is also seen as an open space, wildlife habitat, and recreation resource and as a key element for fostering a sense of place in the community.

The South Waterfront Greenway Development Plan (GDP) has achieved an integrated and balanced design that fuses the goal of creating a new high-density urban community with the desire of the public to create habitat in the Willamette River.

The GDP project site is located along the western bank of the Willamette River within the South Waterfront District. The District is an approximately 130-acre site located adjacent the city's central district and just south of the Marquam Bridge in southwest Portland. The greenway will be 1.2-miles in length and approximately 100-feet wide, as measured from the March 2002 top of bank, and roughly 20-acres. Combined, the greenway and district create one of the most exciting design and development opportunities in Portland to date. The district has the potential to reflect our commitment to both a high-density urban community and exemplary treatment of the banks of the Willamette River. Bringing these two elements together is a stimulating design challenge that has very little precedent in the community. Searching for examples of rivers that retain their natural edge environment and fit into the urban fabric as they flow through a city yields surprisingly little - the GDP is a unique opportunity to create such a synthesis.

To date cities have built seawalls and rip rap edges to protect against rivers and take advantage of rivers visual and recreational qualities without consideration of their natural functions in the environment. This lack of precedent of integrating a river's natural condition with an urban area increases the likihood that Portland can create something new and valuable in the South Waterfront District.



View looking north over Ross Island and the South Waterfront District toward Downtown Portland

This Greenway Plan is the next step in the City's commitment to enhance the livability of South Waterfront District and to implement the City's commitment to the *River Renaissance* vision. The GDP will promote a harmonious relationship between people and the river, and to restore fish and wildlife habitat all through an exemplary greenway design. This effort has involved an interdisciplinary city, stakeholder and consulting team to synthesize the complexities of the cultural, social, economic and environment factors and gives it meaningful form.

Throughout the development of the City of Portland's South Waterfront Plan, cohesive design and development of the greenway was a critical element. Significant effort by city staff and much of the publics input focused on achieving a new approach to greenway

standards and development in the South Waterfront District. A new land use plan, adopted by the City in November 2002, envisions an exceptionally vibrant, high density, mixed-use neighborhood with 10,000 jobs and more than 3,000 housing units. The neighborhood will feature multiple transportation modes - streetcar with connections to the Central City and eventually Lake Oswego, an aerial tram connection to the District with OHSU on Marquam Hill, bicycles, pedestrian on an exemplary riverfront greenway that connects to regional trails and parks and open spaces throughout.

Recent Project Background

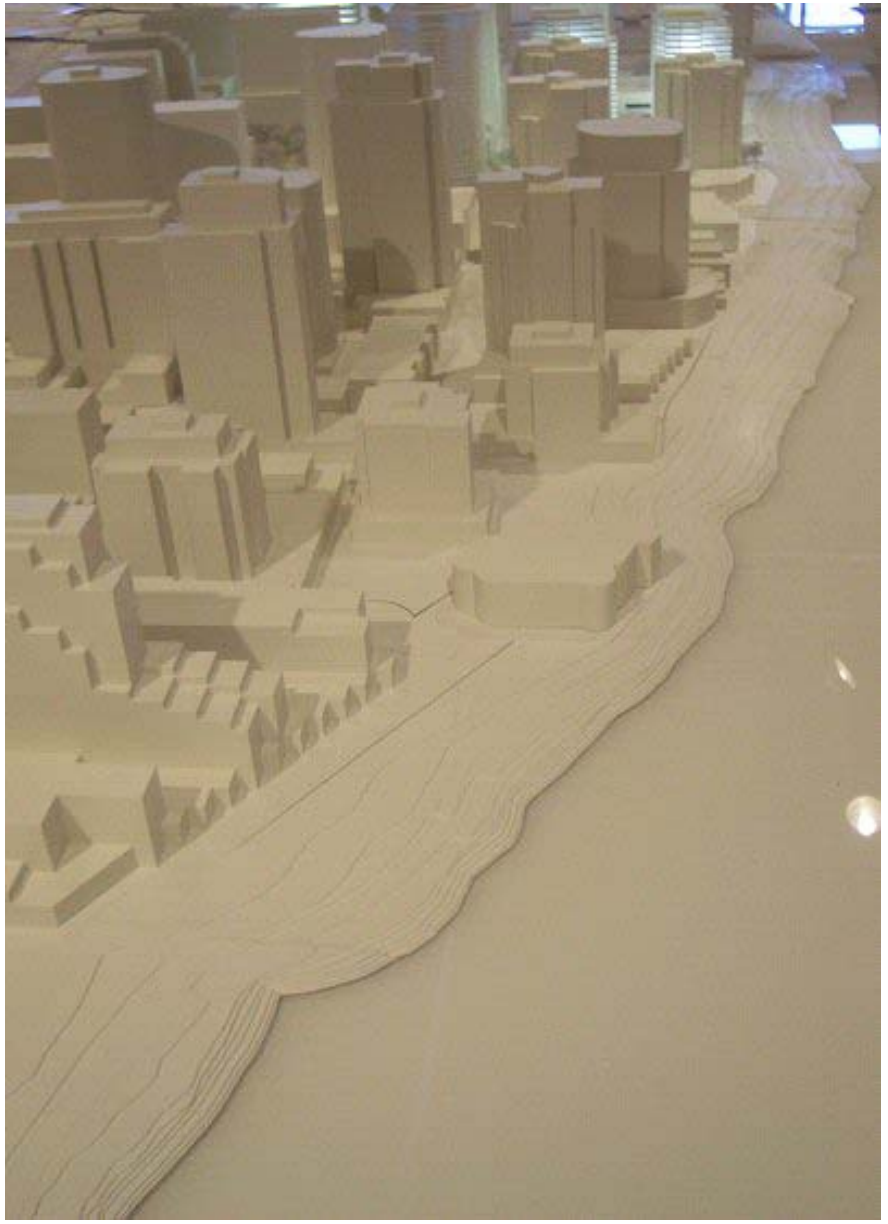
The *Central City Plan,* adopted in 1988, called for the district to transition from an industrial district to an urban mixed-use community, however few changes occurred. The *North Macadam Framework Plan* (1999) was developed as a guide to public and private investment in the urban renewal district. In 2002, the *South Waterfront Plan* was adopted as the land use plan for the area. South Waterfront's proximity to downtown, Portland State University, and Oregon Health & Sciences' medical and educational facilities on Marquam Hill place it in center of Portland's Science and Technology Quarter.

On November 13, 2002 the City Council adopted the South Waterfront Plan and the Zoning Code for South Waterfront. The *South Waterfront Plan* calls for 10,000 jobs and a minimum of 3000 housing units to be added to the district by the year 2019. The area is expected to be a vibrant mix of offices, educational and medical facilities, condominiums and apartments, retail uses, an urban plaza, a neighborhood park and an exemplary riverfront greenway.

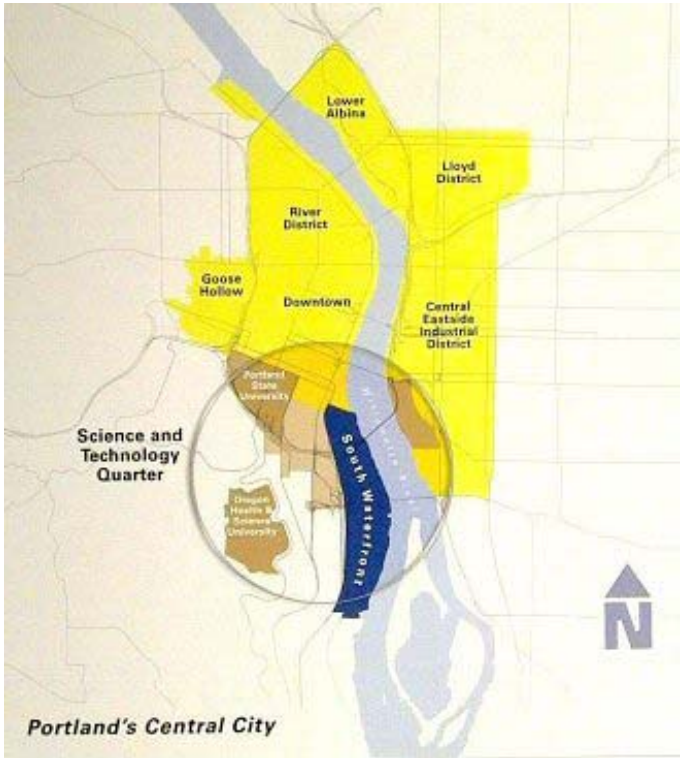
The Code, Title 33.510, spells-out (3) options that a proposed river front development can implement in the greenway; standard code provisions, a discretionary design or, the as yet to be developed "Greenway Development Plan". Under a Phased scenario Council directed staff create a South Waterfront (SWF) Project Goals Report, Phase (2) as the Greenway Development Plan and Phase (3) as the implementation strategy. In March 2003 the City Council adopted the Phase 1 Report to Council on the Project Goals recommending that the Parks Bureau take the lead on the development of the Greenway Development Plan (GDP). The GDP, under Title 33, would embrace a more holistic and integrated approach and encourage innovation, flexibility, public/private partnerships and design excellence. The South Waterfront Plan described the Greenway Development Plan as follows: "To achieve the highest quality greenway for South Waterfront, there is strong interest in designing the greenway as a unified whole with participation by all stakeholders. In addition, the plan can provide certainty over time for property owners, as well as efficient and coordinated permitting while ensuring a clean and healthy river for fish, wildlife and people."

The Future Vision

Challenged for two decades by brownfields concerns, multiple ownership, a lack of basic infrastructure and an economic driver, the first major redevelopment is now underway in the District. Within the heart of South Waterfront, a major redevelopment project called the Central District, spearheaded by Oregon Health & Science University (OHSU), River Campus Investors (RCI) and North Macadam Investors (NMI) is under development. OHSU intends to expand its Central City campus from Marquam Hill into South Waterfront, with additional research and academic space. The plan is consistent with the City's vision of creating a research center and a growing bioscience industry sector. As part of this vision, a tram will knit together OHSU's campuses, shuttling researchers, physicians and students between campuses within minutes, landing with 2-blocks of the Greenway. The Central District will accommodate office and laboratory jobs combined with condominium towers, apartments, thriving neighborhood retail and services, an average 100-foot wide Greenway, a neighborhood and pocket park and a conference hotel. The Greenway and Central District parks system is intended to promote livability in the district while the aspirations for the greenway reflect local commitment to revitalize the Willamette River as a healthy natural system and to create an excellent recreational resource and connection to the river. These objectives will further be evaluated as a creative response to the goals established in both the Federal Clean Water and Endangered Species Act (ESA).



Model of the South Waterfront Central District area viewing north



Portland's Research and Technology Center Concept

Portland's River Renaissance

The South Waterfront Greenway is seen a critical element in the implementation of the city's River Renaissance Vision. During the past century, the health of our rivers has been severely compromised. At the same time, significant progress has been made in ending some of the most destructive practices. To continue restoring our rivers, streams and their watersheds, what's needed is continued commitment, an enthusiasm for innovation, an openness to partnerships, an unprecedented level of public education, participation and bridges that forge connections across boundaries. Portland has a history that proves we're up to the task. In 1974, Portland closed the Harbor Drive Freeway on the river's west bank now, Tom McCall Waterfront Park is a place for concerts, festivals, dog-walking, roller-blading, sweetheart strolling, picnics, poems in stone, maritime history, and is one of the most popular places in town.

Of more than thirty miles of Willamette riverfront in Portland, there are a mere dozen public parks, half that many motorized boat launch sites and only three of those are public. Boulders, riprap, stone walls, brambles and steep slopes today line the shores but that's no deterrent to dreams of better access. People would like to connect to the Willamette through waterside parks, trails, viewpoints, bikeways, river taxis, ferries, docks and marinas. They appreciate that the river can provide richly textured experiences with Festivals, Parks, Habitat, Playgrounds and Shipyards, Restaurants, Art Centers and Urban promenades. Even a wish for "a large, visible artwork to really define the waterfront, like the Statue of Liberty does for New York and the Opera House for Sydney." Welcome to your river, Portland's Front Yard".

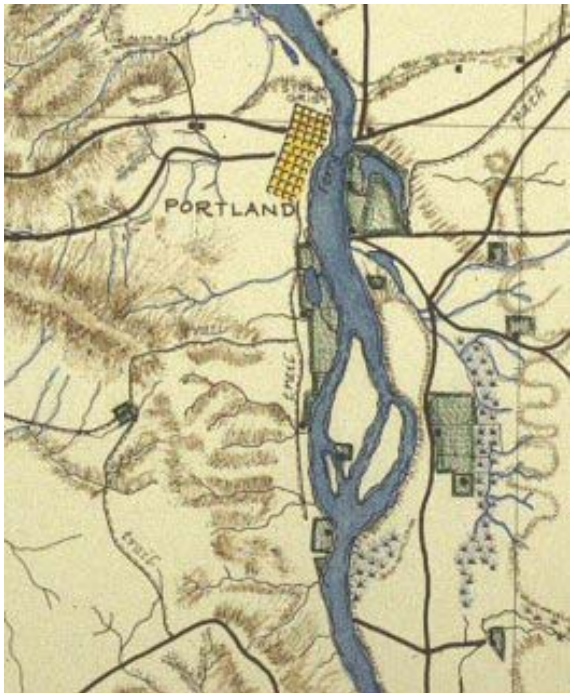

Kayaking on the Willamette with Ross Island in the background

The River Renaissance Vision includes five mutually supportive and interrelated themes:

1. Ensure a clean and healthy river system for fish, wildlife and
2. Maintain and enhance the city's prosperous working harbor.
3. Embrace the river and its banks as Portland's front yard.
4. Create vibrant waterfront districts and neighborhoods.

5. Promote partnerships, leadership, and education.

Bold concepts and ideas are also promoted in the *River Renaissance Vision.* Ideas like restoring Ross Island as a natural area in the center of the city, building a world-class monument in a prominent riverfront location, and reconfiguring the I-5 Freeway to bring together both sides of the Central City and revitalize waterfront districts. While not possible today, these bold ideas were proposed to stimulate imagination and prompt a community



Sketch Map of Portland c1850's

discussion about what Portland's riverfront can be in 50 years and beyond.

While development of the South Waterfront Greenway has yet to be realized, the plan exemplifies the River Renaissance approach by striving to achieve multiple goals simultaneously. These include job creation, the development of an exciting urban community, increased riverfront access for Portlanders, innovative stormwater management and enhancing fish and wildlife habitat.

II. Environmental and Cultural History

The purpose of the Environmental and Cultural Developmental History is to provide an overview of the historical elements of the district to inform and give guidance to the design context of this stretch of the Willamette Greenway. It is also intended to illuminate important aspects that had a significant influence on the geography and settlement patterns of history in South Portland that resulted in the development patterns we see today. Another key intent of this study to provide a context for greenway interpretation to bring this unique history to life for the current city populous and future residence of the district.

Environmental Development

The known environmental history of the South Portland area is scarce with many factors remaining unknown. What is known is that over 10,000 years ago during the time of the Missoula Floods, the Portland area was under several hundred feet of frigid water. As the waters receded wildlife began to occupy the area. Shortly thereafter Native Americans began to roam the region in search of game and slowly occupy the region.

The toe-slope and riverbank of what would later become known as Marquam Hill and the Willamette River proved to be the best location for both wildlife and hunters to transverse north and south along the bank of the river as they traveled between the Columbia River and the fertile fishing grounds at Willamette Falls in Oregon City. In one respect, it could be acknowledged that the future route of 99-West and later Interstate-5 was established some 8,000 years ago.

Much of the Portland's downtown area north of the district was covered by dense forest. A unique habitat area of riparian forest of mixed conifer and deciduous trees marked the South Waterfront area. It is highly likely that there were large expanses of thick Cottonwood groves as well as substantial riverbank fluctuations of the Willamette River's flooding and course change activity. Based on postulations from information gathered from soil conservation maps, vegetation surveys, and watershed maps, it appears that streams drained from the adjacent west hills down across the site to the Willamette River. The pooling of water in a small depression area south of the Ross Island

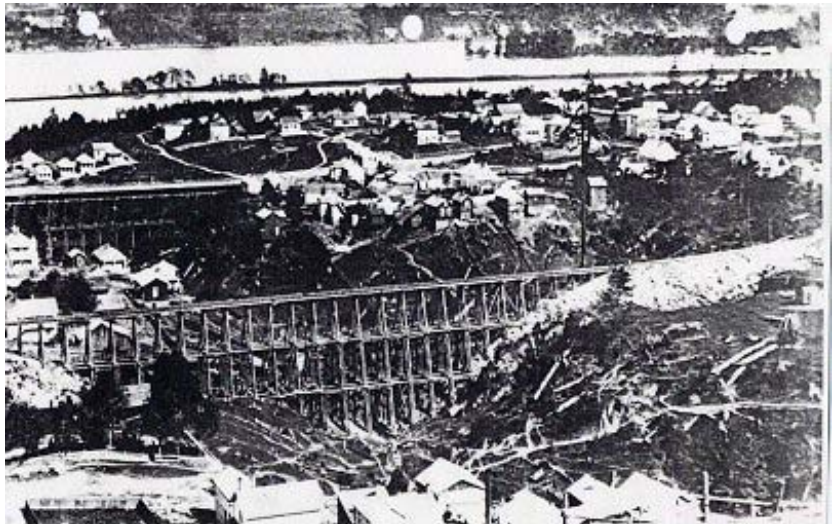
Bridge most likely held creek and flood water. It is understood that this area was a naturally occurring seasonal wetland. This assumption is supported by the accounts of early settlers and later property owners who encounter pooling of water in this area.

As the population of Portland and the Northwest as a whole grew in the middle to late 19th century the demands of commercial use of the riverfront for industrial operations from the 1880s through the 1960s brought tremendous modifications in the natural line of the riverbank and radical changes in the environment. The review of existing documentation completed in this report reflects present day Moody Avenue was the original railroad alignment to the river's original bank. Wetlands were filled and waterways once feeding these lowlands were diverted into storm outfalls. The undulating, irregular form of the riverfront has evolved into a raised, flat and linear form with artificial extensions into the river.

The stands of Cottonwood trees seen in historic photos that lined the original low lands of the riverfront have all but disappeared. Former and current manufacturing and industrial uses have left behind significant contaminants contributing to an official Brownfield designation for the district (South Waterfront Plan 2002).

Cultural Development

It is known that early Native Americans; Chinook, Clackamas, Tualatin, Multnomah and many others utilized a trial paralleling the river leading to the fishing grounds at Willamette Falls to the south. There are no known Native American encampments at the district site. The earliest known use of the South Portland area by non indigenous people is in the 1830s when trappers and traders moved along an established Indian trail located at the base of the West Hills.

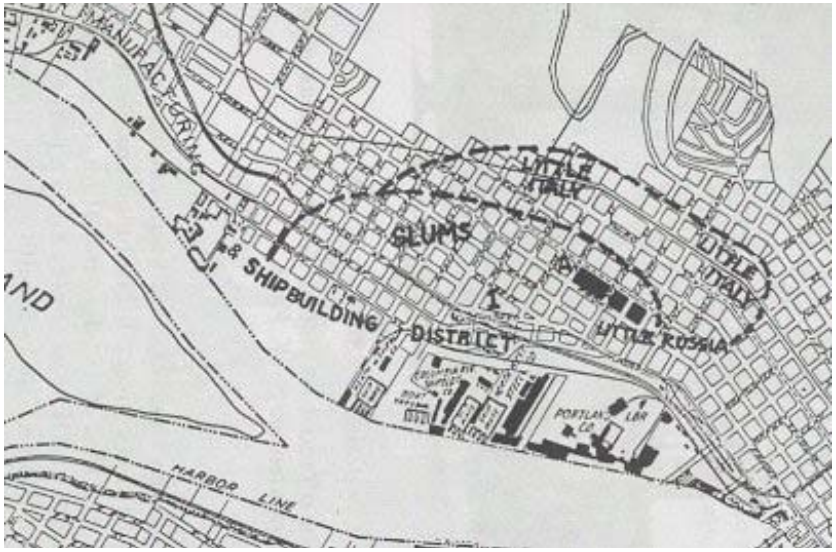


South Portland viewing east over the Marquam Gulch to Ross Island

Its adjacency to the river allowed for easy trade and transportation of goods. Portland's first cabin, built in 1842 by William Johnson, a former sailor on the USS Constitution in 1812, was located near the area of SW Macadam and Gains. The cabin site may have also proven to be a good location for travelers to cross the river to the East bank due to the proximity of Ross Island.

South Portland's waterfront has played a key role in the development of the city. Its transformation from a natural flood plain, to farm, to industrial land is a pattern that has shaped many riverfront cities in the country. Early Portland was a western outpost for settlers seeking to prosper in a vast wilderness. Their focus, which can be seen in the history of South Portland's development, was to utilize the primary natural resource of the river and timberlands to fuel the development of the city. South Portland played a key role in this development providing an easily accessible riverfront for lumber mills, manufacturing and transportation. The use of this one time lowland for primary transportation routing, starting with a Native American trail, evolving into a pioneer roadway, railway and now an interstate highway, has had profound impact on the district and in the ongoing evolution of Portland. Salvage yards, lumber mills and shipbuilding governed the riverfront for decades. These uses fueled the economy of the city and established its early identity as a vibrant industrial city destined to grow and prosper.

Given this robust attitude, natural resources were seen as materials for fueling industry. Creeks and drainage in the district were redirected away from industrial uses. The lowlands were constantly in flux, being filled over 25 feet high, docks and piers constructed, inland lagoons developed for log storage. Industrial activities continued up until the beginning of the 21st Century at a smaller scale.



South Portland c1900 to 1950's

Zidell Marine is the last remaining such industrial use in the district. Some of the industrial character of the area's past can be seen today in the landfills, abandoned docks and piers, and industrial remnants.


Zidell Marine operations at the Ross Island Bridge

The upland Marquam Hill areas and the lowlands crossing the Marquam Gulch to the north were developed into residential uses. This area became known as South Portland, one of the original districts to be incorporated into Portland. It was originally made up of five individual communities: Fulton Park, Terwilliger, Lair Hill, Corbett and South Portland. The South Portland area functioned as a critical "gateway" and "stop over" neighborhood (Figure ?) for many Jewish, Italian and Russian immigrants who arrived to find work in the ship yards and lumber mills with affordable housing situated near one another. This area supplied much of the needed working class labor for the rapid growth in population and housing occurring in the city from the 1880s through the 1940s. The river's edge and adjacent landscape played an integral role in furthering the development of the city through maritime, commercial, industrial, and transportation activities. This area was the threshold for passage between the central business district of Portland and the agricultural activities of the Tualatin Valley. To accommodate the industries, man-made modifications in the landscape were made and brought significant change to the social and cultural hubs of the area.


Zidell Marine and Schnitzer operations c1970's

This district served as a point of passage for north south travel and as a valuable resource for its natural topography and strategic location adjacent to the river and played an ever-evolving role in the development of Portland. As it progresses now to a mixed-use residential neighborhood it continues its direct link to the city's growth.

III. Greenway Development Plan Goals Process

This section provides a basis for discussions revolving around crafting a set of project goals. These goals are viewed from at least three key perspectives; the view of the City Bureaus, the project's Stakeholders and, the goals for the Greenway Plan itself as stated in the Report to Council – March 2003. At the initiation of the development of the Greenway Plan several committees were established to help guide and comment on the progress of work.

- Among these; an 11- member City Corps team was formed. The City Corps was organized under the Parks Bureau and comprised of representatives from; the Bureaus of Planning, Development Services and Environmental Services, Transportation, Sustainable Development, Endangered Species Act program and the Portland Development Commission. In addition to the City Corps, two additional committees were from, the Project Advisory Team (PAT and the Partnership Group (PG).
- The PAT is comprised of project public/private stakeholders to guide key project policy, planning and design direction.
- The PG is comprised of project public/private stakeholders to guide the GDP implementation strategies. To direct the interdisciplinary approach to the project the key stakeholder Bureau's that formed the City Corps, PAT and PG crafted goal statements that reflect their approach to the greenway.

Aside from the goals stated previously regarding the River Renaissance Vision, As the lead Bureau in the creation of the GDP the goals of the Portland Parks Bureau offered a key to the design of the greenway. While the goals of partner bureaus, stakeholder and interested parties are incorporated in the design of the GDP, the full text of these goals is stated in the report Appendix A.

IV. Key Design Program Concepts and Plan Responses

Partnership A collaborative partnership of citizens, neighbors, businesses, community organizations, property owners, city bureaus, and governments will help ensure that the resulting plan can be implemented and has the necessary support. The formation and function of the PAT and PG have achieved partnership goals, in part. Further, the GDP process contained an expansive and inclusive Public Involvement Program that is more fully described in a later section of the report.

The River

Understanding the subtle influences of the Willamette River is an important goal. The river itself is perhaps the most immutable and most changing aspect of the greenway experience. Becoming aware of its motion and rhythms can provide a moment of calm in an otherwise hectic urban environment. The changing water levels and colors, the reflections of sky and clouds, and the sounds of waterfowl attract our attention and reconnect us to nature. The historic role of the river to native peoples and prior generations can connect us to our past. An imaginative Greenway can incorporate these aspects of the river.

The Greenway Plan addresses these subtle aspects of the river by accommodating wildlife habitat, human contact and establishing and protecting significant viewsheds of the river and Ross Island. There are several opportunities to access river overlooks and direct access points to the river, especially at the "Civic Beach" and the 3 boat docks.

South Waterfront District full build-out Concept

2003

Restoring the River Bank - Protecting the River

The River's natural resource values will be recognized particularly in the context of the larger Willamette Watershed. The opportunity to improve natural conditions along the bank, in-water and adjacent uplands will be taken. Access and views will be provided in an integrated fashion. A goal of the GDP is to plant the bank with native riparian plants, in natural plant communities. The bank can be graded to a gentle slope providing visual or physical access to the water and improved shallow water habitat for fish. Where there are opportunities, in-water work to improve fish habitat will be created and integrated into the overall design of the greenway. Particular attention also will be paid to lighting and in-water structures, such as covered docks, that can detract from habitat values. The desire to provide access for people will be considered in the context of the need to limit human disturbance in sensitive bank and upland habitat areas as well as in the water at strategic fish habitat locations such as shallow water habitat. In addition, the Greenway is considered by the City to provide an opportunity to creatively integrate rainwater flows with the natural and built environment. Creative treatment of rainwater with swales and vegetated filters are an element of the project. Rainwater will be managed in such a way that sediments and contaminants are not transferred to the river.

In response to these 6 basic concepts the Greenway Plan proposes that:

- Natural Resource Values are defined in the larger environmental habitat context of the "Ross Island Reach" of the Willamette between the Marquam and Sellwood Bridge and, the west bank drainage of the Marquam and Woods sub-watershed basins.
- Improvements to River Bank and Upland Conditions in the greenway also extends to includes the "Fingers of Green" into the urban development through right-of-way "green streets".
- The predominance of native plant communities are augmented with a healthy and sustainable mix of "Friends of Natives" to increase the chance of survival, provide for a more drought tolerant environment with less use of potable water and decrease long-team operations and maintenance costs.
- Riverbank Grading and Shallow Water Habitat have been proposed under an extensive engineering review and opportunities and constraints

analysis of extant conditions. Based on this analysis, virtually the entire riverbank has been re engineered to maximize low-gradient slopes and shallow-water habitat, especially in the north and south third-sections of the greenway.

- The principal areas of in-water work for habitat are located in the north and south sections and 4 drainage cove outfall areas of the greenway. The area flanking the old Sheridan outfall cove has also been developed into a cove, slough and offshore island to further enhance the extant in-water habitat for Salmonids adjacent and underneath the Marquam Bridge.
- Rainwater Management in the greenway has been approached from a comprehensive and integrated perspective. As stated previously, the greenway's environmental context extends to include the Marquam and Woods sub-watershed basins that stretch west into and beyond Marquam Hill. The rainwater management concept also considers water movement, treatment and retention in the district as a whole and specifically, the greenway manages it's own rainwater resulting in cool clean water entering the river and it's adjacent habitat. These concepts are further defined in the appendix.

Asphalt slurry applied for river bank stabilization

Project Design

The projects' success will be based on an interdisciplinary approach that utilizes a compelling juxtaposition of riparian environment and habitat, art, urban design, architecture, landscape, and history. In addition, creative ways to incorporate existing built elements, such as gantry cranes, rail tracks, and pier and hardscape remnants from the district's industrial past, into the greenway design will be considered. With the concepts for the greenway design's inclusion of habitat described in previous sections and with art being discussed in a subsequent section, the focus of this section on Project Design will address 5 of the 7 elements noted and includes an additional component, interpretation. The subject of architecture, history and artifact are combined into one element.

- In general, the Urban Design context for the greenway is based on several factors while the site specific design is based on the concept of integration and balance of a high-density urban development with that of a natural appearing river's edge. See Appendix B for a list of Urban Development values added and Appendix C for an Urban Habitat Opportunities diagram in response to the project's program objectives.
- The architectural stylings of the greenway are based on the sites' industrial past. The architecture of the past is centered on the timber, ship dismantling and building and steel salvage operations. In this regard, the architecture of the greenway utilizes historic artifacts from the site while also using the industrial past as a design motif for interpretive impressions. The "Art Plan" for the greenway, Appendix D conveys this concept in further detail as do the greenway site illustrations.
- The landscape design of the greenway is based on six plan "zones" that have been identified. In the east/west direction these zones are: 1) Riverbank, 2) Upland and, 2) Urban Interface. In the north/south direction these zones are: 1) Northern 2) Central and, 3) Southern.
- The Riverbank landscape design is based on maximizing the wildlife habitat environment. The Upland landscape is oriented toward human habitat and circulation with strategic consideration of wildlife migration. The Urban Interface zone is designed to be flexible for development while protecting the base objective and integrity of the greenway.
- The north/south orientation of the landscape is based on the opportunities and constraints analysis that indicated the north and south thirds of the greenway contain the highest characteristics for functional habitat and the Central area contains the best values for human habitat in the form of people places such as the Civic Beach, Lawn and Plazas flanking Gibbs Street. Gibbs Street is

seen as the central east/west public "spin" of the district connecting the OHSU Tram with the greenway.

- With the rich and diverse history of the district interpretation is a key design element that will bring this locale to life. Interpretive elements in narrative, illustrative as well and integrated into the design of site specific components of the greenway are reflected in the design and further discussed in the Art Plan. Interpretation will be considered for the Native American culture that transversed the area, the industrial heritage and livelihood and settlement patterns of the Corbett, Terwillinger and Lair Hill neighborhoods of South Portland.

The River, the Greenway Trail and the Urban Community

Develop a greenway trail corridor that integrates the high-density urban development and the native riparian corridor. The City envisions the creation of a riparian corridor from which rooms for human use are carved along the trail.

This may mean that urban elements appear along the trail, or that the riparian environment crosses the trail corridor to approach the developed areas. The waters edge viewpoints and river access and the native shore environment are important components. The trail is an important element for the district's employees and residents, and serves as a link for the City's overall system of trails and to the Central City. Connectivity to other elements of the City's trail system is a Goal of the GDP. Within the GDP, the split trail, separating wheels and pedestrian's, increases safety and also enhances the respective experiences of trail users. The success of the split trail resides in the effective divider, which becomes a design element.

Greenway Trails, Pedestrian to the east and Wheels to the west.

As the split trails transverses the greenway from north to south there are several landscape rooms that appear in the form of neighborhood parks and rest stops and meadows of visual relief that when considered in there totality create a sense of place for the immediate neighborhood. The largest "room" is that for a regional community in the form of the Civic Beach, Lawn and Plaza. The trail system also provides a number of opportunities to access the river both visually and physically by way of overlooks, docks and a pier. All east/west streets have a direct access to and through the greenway. A number of east/west "green streets" provide for a sense that the greenway moves up from the river and into the urban development as well as function to treat and convey district rainwater.

Integration and Transition

The clear distinction between public and private space, and the locations where these distinctions can blur is a key aspect of a successful plan. Buffers between high-density development and the greenway will be needed in some locations. In key places these features should merge - the greenway and dense urban development through fingers of green and green streets extending into the interior of the district.

This concept is addressed in the urban transition or "interface" area in the form of the Universal Accessway (UA). The UA is discretionary in use for each property owner and provide flexibility for development. The UA is pedestrian oriented with limited vehicle access. The UA's loop north/south connecting the east/west streets. A 6-foot greenway sidewalk defines the western edge of the greenway and serves as the interface with the 9-foot urban development. When combined this 15-foot UA serves many functions including activation of the urban interface with the greenway, helps to define the public and private realm of the greenway and provides the flexibility that is needed for future development. See Exhibit B for UA matrix diagram.

Wildlife Corridors

The protection of linear wildlife corridors is a Goal of natural area management in a highly fragmented, urban landscape. Wildlife corridors are critical because they increase the effective amount of habitat that is available for species, reconnecting pieces of isolated habitat and reducing the rate of wildlife extinction.

Continuity of the wildlife corridors is principally focused on the riverbank conditions for Salmonid habitat. But for the Civic Plaza area in the Central portion of the greenway, significant effort has been made to provide as much continuity as possible for the upland and tree canopy realms of the greenway.

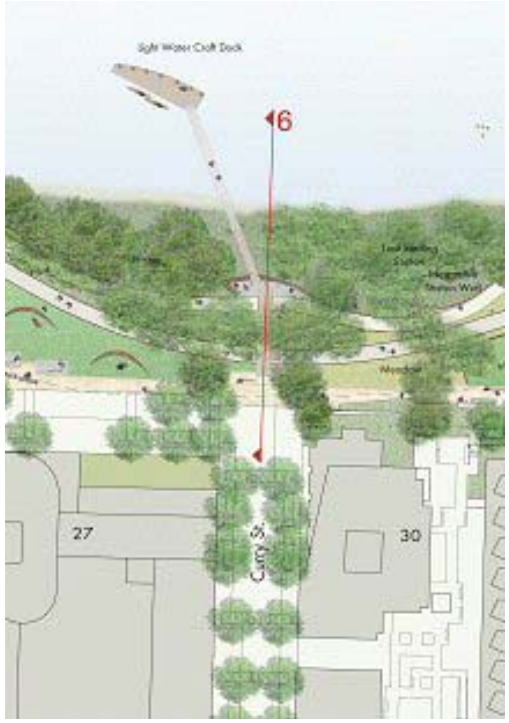
River Access and Water

Access to the water's edge is important for people and a key goal of the GDP. The Greenway Development Plan is a method for coordinating access points in a logical rhythm and spacing that supports the natural resource while accommodating human activity. Two access points may fall on one property and none on another, as the logic that develops will be based on river and bank conditions and people's movements, rather than property ownership. Three to five water access points along the greenway were discussed during the development of the South Waterfront Plan. The Greenway Development Plan examined the variety of elements that need to be considered in reaching a conclusion. District boosters and transportation advocates have long promoted the idea of watercraft service to South Waterfront. Locating water service stops under bridges for legibility has been a key element of the idea, with a long-considered site being under or near the Ross Island Bridge.

The opportunities and constraints analysis identified several key locations for river access and water taxi docks. This effort was cross-reference with the need for protection of sensitive habitat to reach the conclusions presented in the GDP. This conclusion calls for 5overlooks and 3 docks and a pier. There are 2 water taxi and transient docks proposed. One dock adjacent the Ross Island Bridge and the Civic Plaza and one adjacent the Old Spaghetti Factory near the southern end of the greenway north of SW Bancroft Street.

Response to Opportunities

The existing condition of the riverbank throughout South Waterfront provide potential design cues for the project. There are numerous remnants of previous industrial and shipbuilding activities. A goal of the Greenway Development Plan will be to provide creative responses to these opportunities. The greenway's response to these opportunities is discussed in detail in the Project Design section and the Art Plan, Appendix D.



Light Watercraft Dock at SW Curry

Recreation

Explore opportunities to create passive and active recreational activities on to and adjacent the River such as canoeing and kayaking.

The primary recreation activities in the greenway are passive such as walking, bicycling, skating, bird and wildlife viewing and lounging with a book or for a picnic. In addition, there are two small neighborhood scale parks with interactive water play features. In terms of canoes and kayaks, a light watercraft dock is designed for public access at the end of Curry Street. It is also of note that the two additional community parks in the district will augment the recreational functions of the greenway with more active recreational opportunities.

Importance of Art

The greenway is an opportunity to incorporate art in special places or in a sequential manner that unifies the trail experience.

This opportunity has been addressed in both the immediate context of greenway design and long term considerations for future art installations. Art in the greenway was addressed in the original consultant solicitation process and in the selection of a conceptual artist, Buster Simpson, early in the design process. Parks worked closely with the Regional Art and Culture Council (RACC) to develop the concept of art in the greenway and then to procure the service of an artist to develop an art plan for the greenway and district. The full text of the art plan can be viewed in Appendix D. In summary, the art plan developed several concepts for integration of art in the greenway design.

Public Art-Making Process

Personal aspirations and public accountability create an exciting common ground for artists, agencies, and the community. As a provocateur, trickster, and healer, the artist can stimulate thinking as well as present a visually legible image with a disarming, poignant viewpoint. Artists working in the public must be cognizant of the responsibilities and obligations inherent in shared space. The approach can vary from temporary to permanent projects, collective or individual efforts, site-specific or self

contained, and, on rare occasions, stand-alone pieces. The implementation strategies range from self-initiated to commissioned projects to design team collaborations. Collaborations among artists and historians, scientists, writers and other design professionals are highly encouraged.


Liberty Ship Bow on the Willamette

Design-team projects incorporating an artist from the outset provide both a seamless and cost-effective outcome. A larger pool of funding sources is available when an interdisciplinary team approach is taken for public art projects. From an administrative standpoint it is imperative that the goals of any Art Plan be reviewed and integrated into future development projects in a timely manner. A long lead-time in selecting an artist is important.

Projects should develop incrementally so that artists, communities, and agencies can learn and grow concurrently. In this way, thoughtful, site-specific, and creative expressions can evolve into unique solutions.
Public art requires a time commitment for all involved, especially to administer a successful program. Public art is on the frontline of community education, providing lessons in civics, art, and social actions. The following recommendation "sketches" provide a schematic framework for further refinement.

Specific concepts adopted by the Greenway Plan are:

- There are a variety of artifacts, incidences, and anomalies on site that should be preserved or worked with. As development continues many of these details will be lost. It is the discussion of the designers as to the merits of inclusion of these relics of time (manhole covers, concrete processing detail of tower, trees, beaver, big block)
- Artists should be invited to browse the *Scrapyard of Transformative Potential* and to claim material which they wish to work with, a list of these artists would be made available to future developers and a network established to provide an inventory of "artist made building parts" and/or sculpture.
- Similar to the *Scrap Yard of Transformative Potential* opportunity, unwanted stone and concrete material could be made available to stone workers, landscape artists, and others.
- Commission painters and two-dimensional artists to graphically portray concepts onto the promenade as a pedestrian forum. Ideas can range from reproducing pages out of the urban design guidelines historical accounts and images, technical habitat observations, social observation to ideograms and stories. The medium and techniques will be selected when the pavement material is determined.
- Develop an art competition for each of the street ends with the intent to create a new place. A set of guidelines to assure respect of the habitat while encourage neighborhood socialization would be part of the common linkage.
- Develop a workshop between habitat specialists and interested artists for a scientific collaboration of art and habitat. The installations can be temporary, seasonal, dynamic, responsive to river level rise and fall and any number of natural phenomena. This could be an ongoing project particularly with ephemeral habitat structures which later become offerings to the rising river.
- Commission an artist to develop an approach to marking the overlay of loft lines of the various ships build at this boat yard during WWII. Perhaps the construction of some aspects could be collaboration with the Zidell Shipyard. The historical significance of this site and the roll it has played in war and commerce is worth telling.
- Set up a relationship between community and artist with the goal to collaborate on the establishing of a community garden. This could become an important next step in creating a sense of community as people make decisions and work toward a common goal. The artist will serve as a catalyst and provide the social armature through the "art of gardening" bringing together this diverse new community.

Interpretive Plaza for public art and artifacts

Security and Maintenance

The greenway can be an asset or a liability. If the greenway is easy to secure and maintain, it will be an asset to the South Waterfront District. If design components are ill conceived the greenway could prove to be a liability and a deterrent to the early success of creating this district. A related topic is the transition from public to private space and the need to communicate the level of desired permeability. Careful consideration of these aspects of design is essential to project success and s significant Goal of the project.

Careful consideration had been given to the issues of security in the greenway and how that relates to maintenance objective. The concept of "defensible space" is a key element in the program objective for the project. This objective can not only be addressed through design but should consider a program for security that

build on the commitment of the neighborhood and the concept of "eyes on the greenway" that is utilized in many communities. To help in the facilitation of the security issues, Parks convened a meeting of security experts to review the Plan. Participation in this discussion was a representative of the Portland Police and Fire Bureaus, Portland Parks Public Safety Office and Parks Security Ranger. To meet the security demands of the greenway, consideration has been given to lighting, pathway location and design, physical barriers to access the trails from heavy vegetated areas and the type and location of overall vegetation. Further, emergency vehicle access to and through the greenway is provided. As the plans for the greenway mature, additional consultation fir security will be refined and implemented.

Operation and Maintenance

A critical goal of the project is to assure that the final design can be affordably operated and maintained. The Greenway Development Plan process needs to examine alternative ways to operate and fund these ongoing costs and a preferred approach should be presented to City Council along with the final plan.

The recommendation needs to consider the equitable balance of public and private benefit and possible sources of funds.

Parks has developed an operation and maintenance cost estimate for the project and included that estimate in the Appendix section of the report. In addition, the Operations and Maintenance element of the Plan is being addressed in a coordinated but separate process by the Portland Development Commission staff through the Partnership Group. The development of this information is summarized in the Appendix E and will be the subject of the next phase, Phase II of the Implementation Strategy.

V. Public Participation Process

There has been extensive public involvement on the greenway and the South Waterfront District Plan. Therefore, the public involvement for this phase of the greenway will be directed at very specific design alternatives. Portland Parks and Recreation along with the Project Advisory Team and PDC organized and hosted the Public Open House meetings. The consultant team provided all presentation materials, present information verbally as needed, engage in discussions and interact creatively with the public. A series of project newsletters and briefs were mailed to several neighborhood associations and given a broad-base distribution. The city staff and consultant team responds thoughtfully to all survey and discussion conclusions, modifying the project direction accordingly. There were 3 Public Open Houses and 5 public "stop and talks" to present the project information to the public.

These Open House events focused on building an understanding and general consensus for the direction of the Greenway Plan.

Public Open House #1

Public Open House #2

Open House #1
Review of existing conditions & analysis
Review of 3 alternative concepts
Survey of preferences
newsletter
project primer & briefs
Boat Tour

Open House #2
Presentation of Concept design plan for comment.
Review of Concept design alternatives for the Central District
Survey of preferences
Newsletters
Slide Show

Open House #3
Presentation of Schematic design plan for comment.
Review of schematic design alternatives for the Central District
Survey of preferences
Newsletters
Slide Show

By the Numbers:	***Meeting Attendance***
Property Owner Meetings	12 with at least 10 people
Stop & Talks	5 with at least 150 people
Open House at OMSI	1 with at least 80 people
History Slide Show	2 with at least 75 people
TRAM Design/Related Proj.	1 with at least 300 people
Project Advisory Team	1 with at least 20 people
City Corps	1 with at least 12 people
Open House #2	1 with at least 60 people
Open House #3	1 with at least 35 people
AIA & ASLA	1 with at least 25 people
Design Review Commission	2 with at least 20 people
CCACD	1 with at least 8 people
Urban Forestry Commission	2 with at least 30 people
Public Presentation	1 with at least 75 people
League of Women Voters	1 with at least 12 people
Totals	**31 with at least 912 people**

In addition, two public surveys were developed and distributed to stakeholders. The full text of these surveys is included in the Appendix XX

VI. Greenway Implementation

Funding the construction, operations, and maintenance of the South Waterfront greenway creates challenges and opportunities. The city, property owners, environmental advocates and other stakeholders will need to work together to achieve the aspiration of a first class greenway that benefits the district, the city, and the region as well as fish and wildlife. This Goal will be accomplished through close coordination with the PDC. In close collaboration with the Greenway Development Plan process, the Portland Development Commission (PDC) will lead an effort to examine implementation issues, including phasing, construction financing, and support for operations and maintenance.

While the work program for this Implementation Strategy is still being developed, it is expected that this effort will proceed in concert with the design work so that both pieces can inform the other. The process to develop and coordinate the work program for the Implementation Strategy will include inter-bureau collaboration and cooperation. See Appendix E for preliminary memo on Implementation Strategies from PDC.

VII. Zoning Code

In adopting the South Waterfront Plan, City Council established required development standards for making greenway improvements in the South Waterfront District. These standards require an average 100-foot setback for new development, the dedication of a 30-foot wide trail easement, minimum landscaping standards, and other requirements intended to provide a minimum standard for greenway improvements in the district. Although these standards expand upon the greenway standards applied elsewhere in the City, a greater vision for greenway was desire by Council. Thus, the Greenway Development Plan (GDP) process was initiated to provide a more holistic alternative to the baseline standards of the code.

The Zoning Code provides that applicant's (1) use the base standards, (2) go through greenway review to propose greenway improvements that are consistent with or improve upon the base standards, or (3) use the GDP. Unfortunately, the review process for using the GDP was not included in the original code language adopted to implement the South Waterfront Plan. This is due to the fact that it was uncertain what the GDP planning process would produce with regard to the design of trail alignments, habitat areas, general landscape design, recreation amenities, and other design features.

The current version of the GDP provides a great amount of design detail. However, it does not provide construction-level specificity, able to serve as an outright alternative to the greenway standards currently in the Zoning Code. Additionally, the GDP may need to be refined further due to any number of future site conditions, financial issues, or other unknowns. Thus, a design process needs to be created to guide regulatory implementation of the GDP yet also provide flexibility and the ability to alter the GDP if necessary.

The Greenway Development Plan Codification Project will develop and codify this process. This project will create the South Waterfront Greenway Master Plan (GMP). The GMP will provide design guidance for implementation of the plan and will outline the quasi-judicial review process to consider development proposals and modifications to the GDP as well as improvements along the greenway interface.

Specifically, applicants who choose to use the GDP as an alternative to making standard greenway improvements as currently directed by the Zoning Code will use the GMP. The Bureau of Development Services and the Portland Design Commission to ensure that the basic design of the GDP, as presented in the Final Schematic Design, is developed to the greatest extent feasible will use this document.

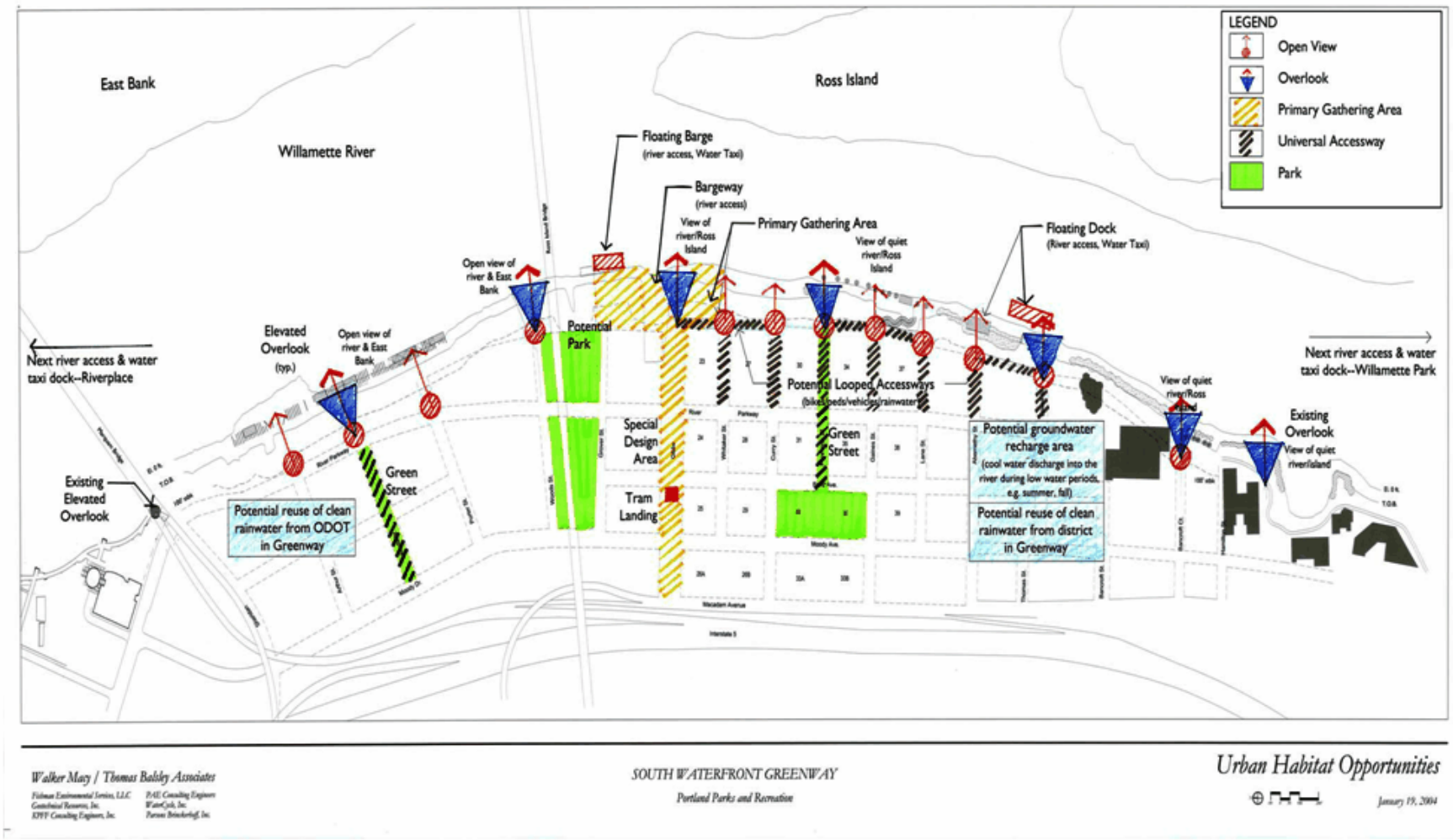
The GMP will contain design guidelines and criteria addressing potential modifications to the GDP should unforeseen site conditions be discovered that requires design changes. Additionally, a process to allow design modifications based on specific criteria will also be outline by this document. It is anticipated that the Portland Design Commission will review most reviews of South Waterfront greenway improvements and modifications to the GDP. However, appeals to Design Commission decisions and significant modifications to the GDP would be required to go to City Council. It is believed that this process will significantly reduce the review time and expense associated with greenway design reviews, yet insure that certainty is provided to stakeholders, property owners, and City bureaus, who participated in the development of the GDP.

The GMP will also provide design guidance for private and publicly held properties along the interface with the greenway. This will ensure that these lands are developed in a manner consistent with the

GDP. Specifically, if the interface is developed in advance of implementation of the GDP, and the GDP needs to be altered due to unforeseen circumstances, the master plan will require modification of the GDP in a manner consistent with the approved design of the interface.

The Bureau of Planning will lead the Greenway Development Plan Codification Project with assistance from the Bureau of Development Services, Portland Parks and Recreation, and Portland Development Commission. Development of the GMP will be guided and reviewed by the Portland Development Commission and Planning Commission. Additionally, it is envisioned that a Citizens and technical Advisory Committee (CTAG) will be convened to provide input on the development of the master plan. The CTAG will likely meet two to three times and at least one public open house regarding the master plan will be held. It is anticipated that the GMP will be ready for City Council review and adoption by second or third quarter of 2005.


East Bank
Willamette River
Ross Island
Riparian planting
(leaf & litter drop, insect drop, shade, woody debris, small animal habitat, cover for wildlife movement) elev.±10' to elev.±30', typ.
Regrade overly steep bank
(increase stability, increase horizontal width of riparian planting zone, reduce maintenance costs) elev. ±10' to elev. ±30' typ.
Potential upland tree groves
Regrade Riverbank
(provide shallower slopes for variety of vegetation types)
Potential excavated "lowland"
(willow/ash grove, frequent flooding, fish refuge during high water)
Concrete slurry "hard point"
(provides protection from high velocity flows)
Regrade overly steep bank
Existing concrete wall
(provides protection from high velocity flows)
Bio-Swale
(with root wads & native plants)
Existing conifers
(raptor roosts)
Regrade slopes
(add material to toe of slope--protects conifers, adds to shallow water habitat)
Walker Macy / Thomas Balsley Associates
SOUTH WATERFRONT GREENWAY
Portland Parks and Recreation
Riverbank Habitat Opportunities



Walker Macy / Thomas Balsley Associates

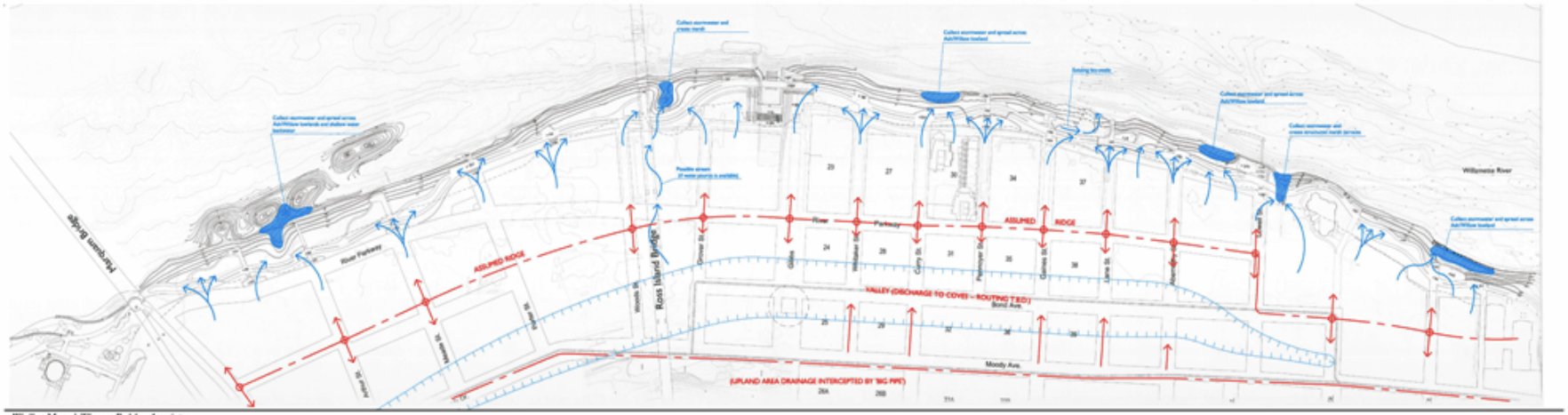
Fishman Environmental Services, LLC
Centerbrook Resources, Inc.
EPFF Consulting Engineers, Inc.
PAE Consulting Engineers
WaterCycle, Inc.
Parsons Brinckerhoff, Inc.

SOUTH WATERFRONT GREENWAY

Portland Parks and Recreation

Urban Habitat Opportunities

January 19, 2004


Marquam Bridge
River Parkway
ASSUMED RIDGE
Ross Island Bridge
Grover St.
Gibbs St.
Whitaker St.
Curry St.
Pennoyer St.
Baines St.
Lane St.
Abernethy St.
Ludlow St.
River Parkway
ASSUMED RIDGE
Willamette River
VALLEY (DRAINAGE TO COVE) - ROUTING T.B.D.)
Bond Ave.
Moody Ave.
(UPLAND AREA DRAINAGE INTERCEPTED BY 'BIG PIPE')
Walker Macy / Thomas Balsley Associates
SOUTH WATERFRONT GREENWAY
Portland Parks and Recreation


Ross Island
Willamette River
Infrastructure
Site Plan
August 16, 2004
Marquam Bridge
River Parkway
Ross Island Bridge
Grover St.
Gibbs St.
Whitaker St.
Curry St.
Pennoyer St.
Baines St.
Lane St.
Abernethy St.
Ludlow St.
Bond Ave.
Moody Ave.
Macadam Avenue
Thomas St.
Bancroft St.
Willamette River
Walker Macy - Thomas Balsley Associates
SOUTH WATERFRONT GREENWAY


Willamette River
Ross Island
Illustrative
Site Plan
August 16, 2004
Willamette River
Ross Island Bridge
Marquam Bridge
River
Parkway
Bond Ave
Moody Ave
Moody Dr
Macadam Avenue
Walker Macy - Thomas Balsley Associates
South Waterfront Greenway


Habitat & Vegetation Site Plan
Willamette River
Ross Island
Ross Island Bridge
Marquam Bridge
Macadam Avenue
Willamette River
SOUTH WATERFRONT GREENWAY


Illustrative Site Plan Central District
Willamette River
Gibbs St
Legend
Pedestrian Trails
Bike Trails
Buildings
Shrubs
Meadow
Lawn
Trees
SOUTH WATERFRONT GREENWAY

Sections

August 16, 2004

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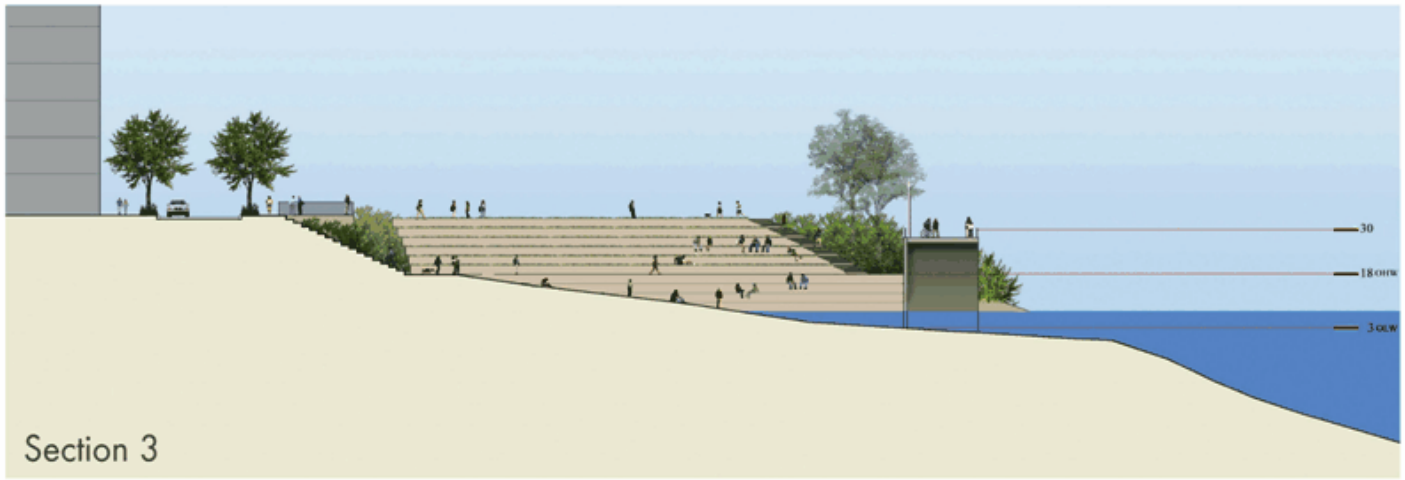
SOUTH WATERFRONT GREENWAY



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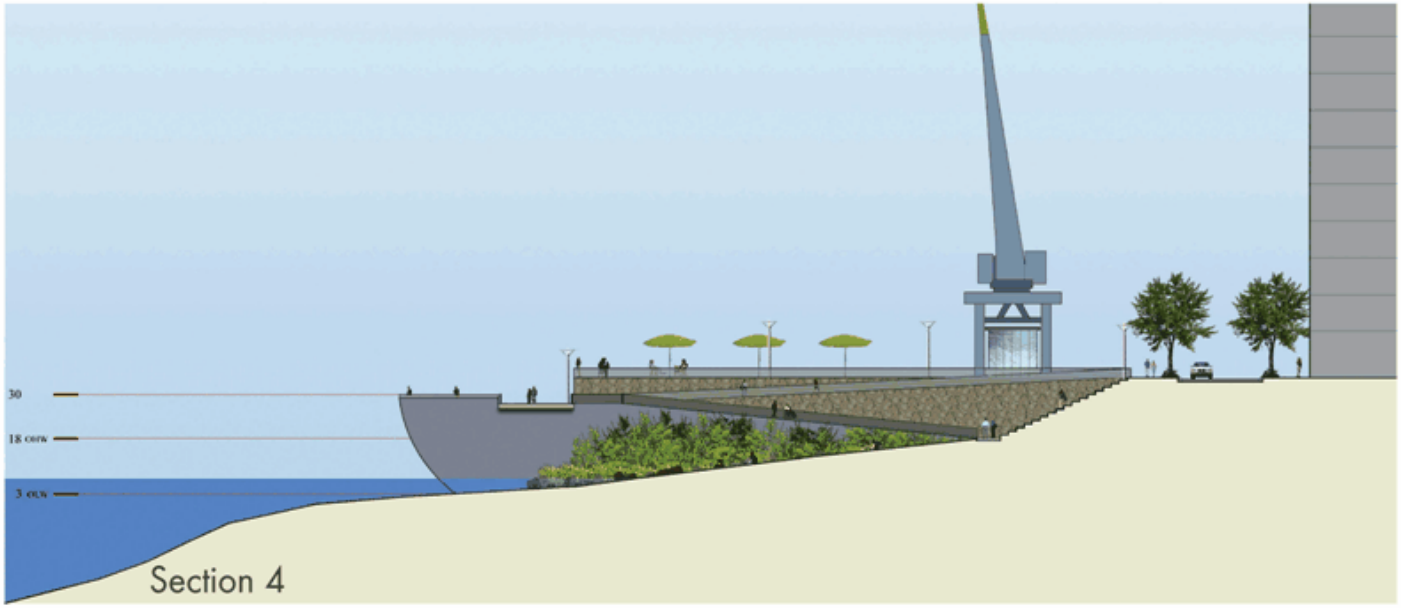


Section 4

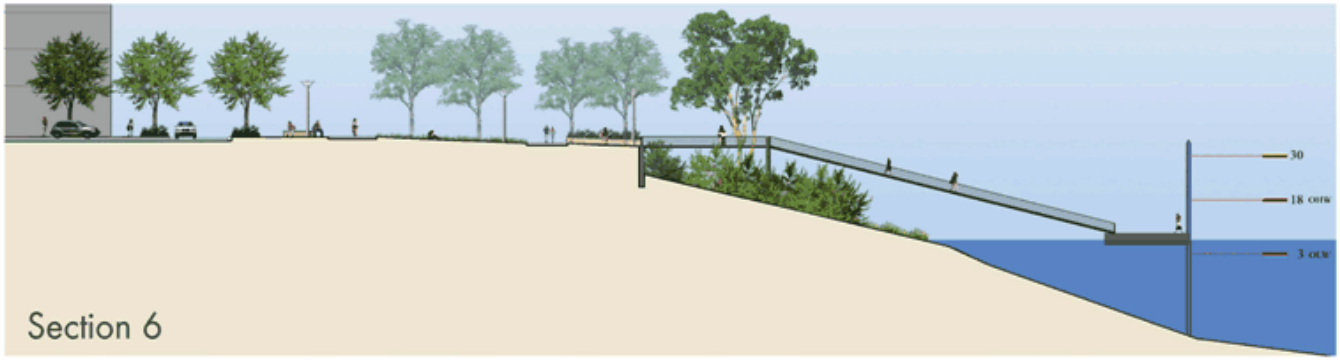
Sections

August 16, 2004

Walker Macy · Thomas Balsley Associates

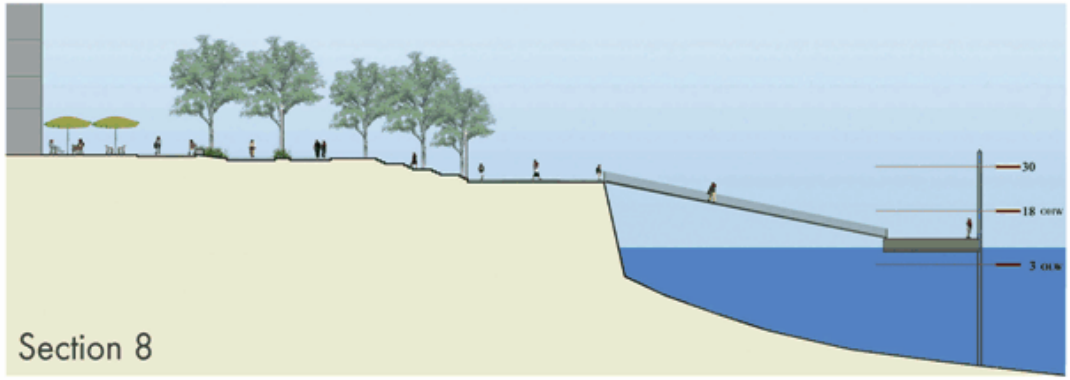
SOUTH WATERFRONT GREENWAY

Section 5



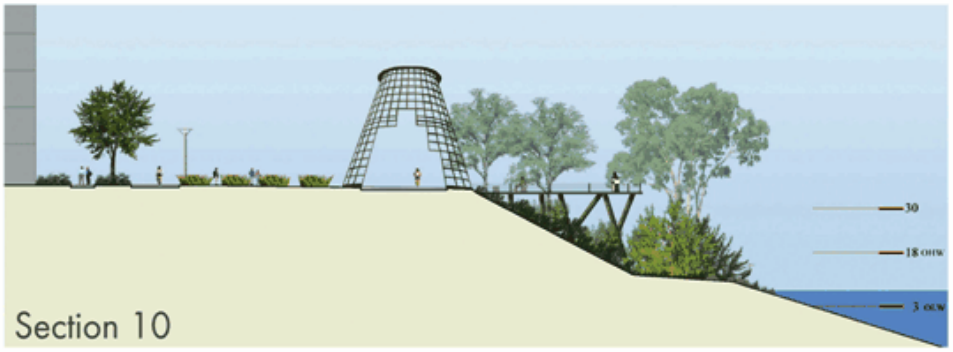
Section 6

Section 7



Section 8

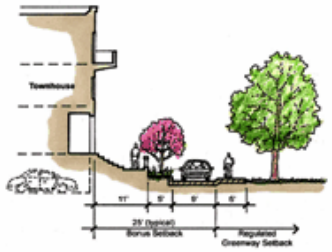
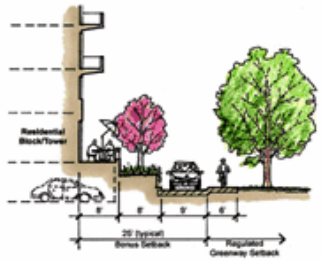
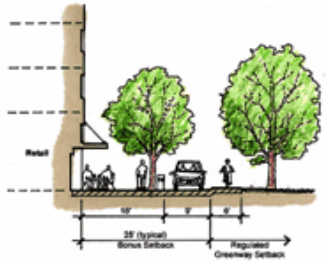
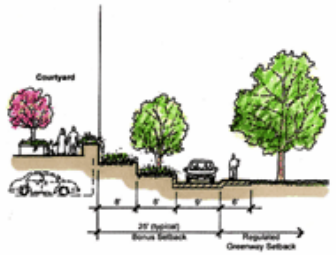
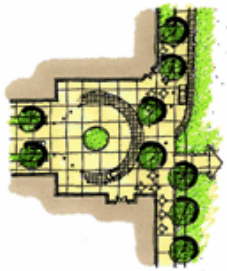
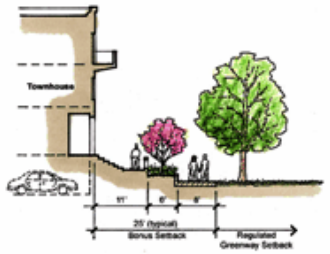
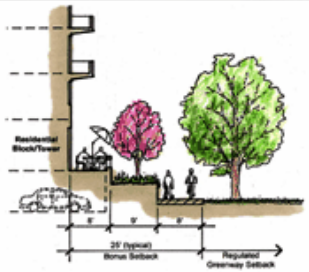
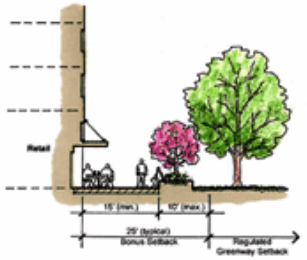
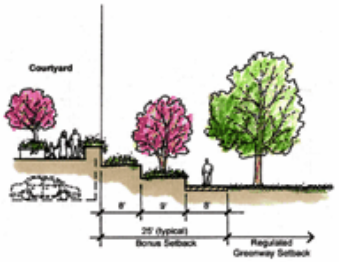
Section 9

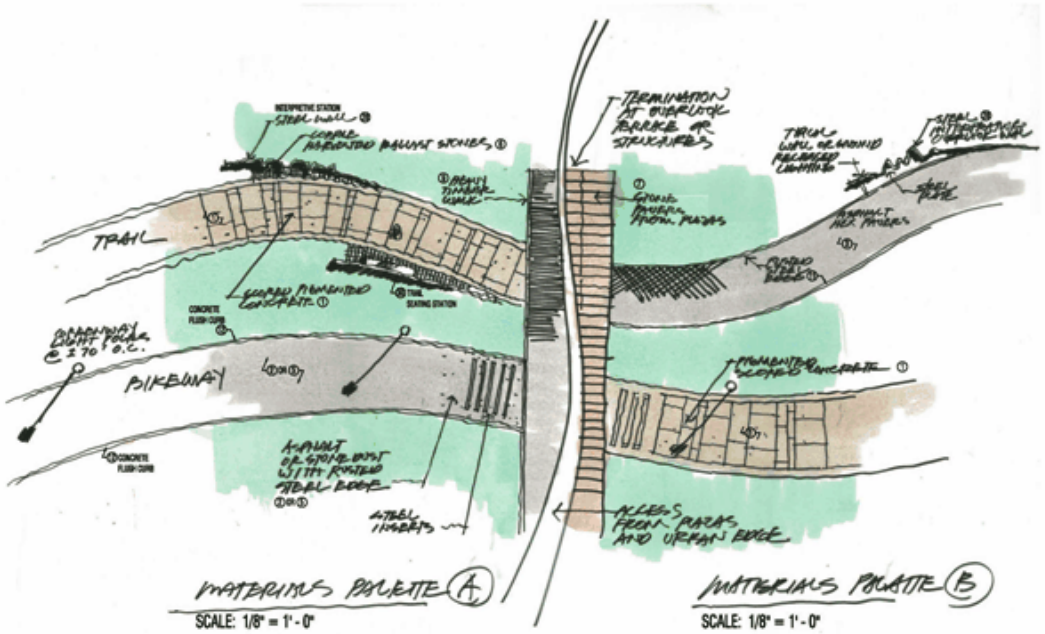


Section 10

Greenway Interface Matrix

Urban Design Group
Bureau of Planning
May 28, 2004

Greenway Interface	Adjacent Development Condition			
	Townhouse	Residential Block/Tower	Ground-Floor Retail	Courtyard/Open Space
Includes Universal Accessway				
	 Includes Universal Accessway — Does Not Include Universal Accessway		 Includes Universal Accessway — Does Not Include Universal Accessway	
Does Not Include Universal Accessway				


TRAIL
BIKEWAY
TERMINATION AT OVERLOOK RAMP OR STRUCTURES
ACCESS TO PARKS AND URBAN EDGE
MATERIALS PALETTE A
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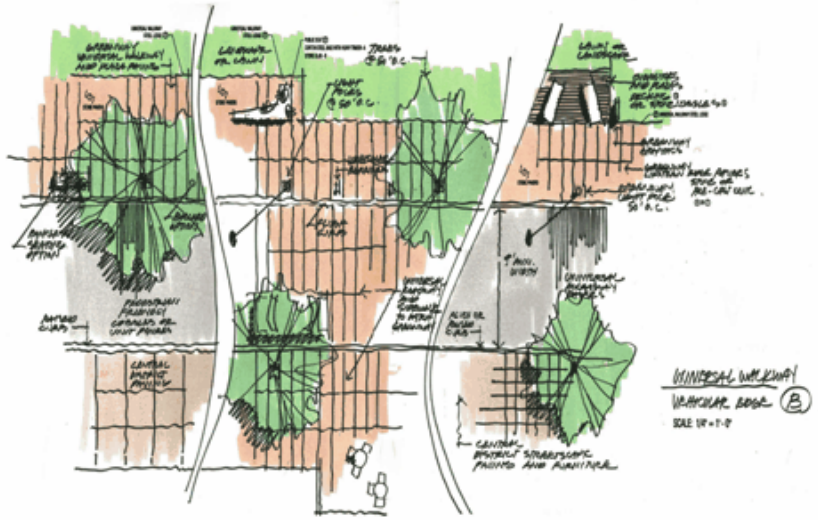
MATERIALS PALETTE B
SCALE: 1/8" = 1' - 0"


MINERAL WALKWAY
URBAN EDGE B

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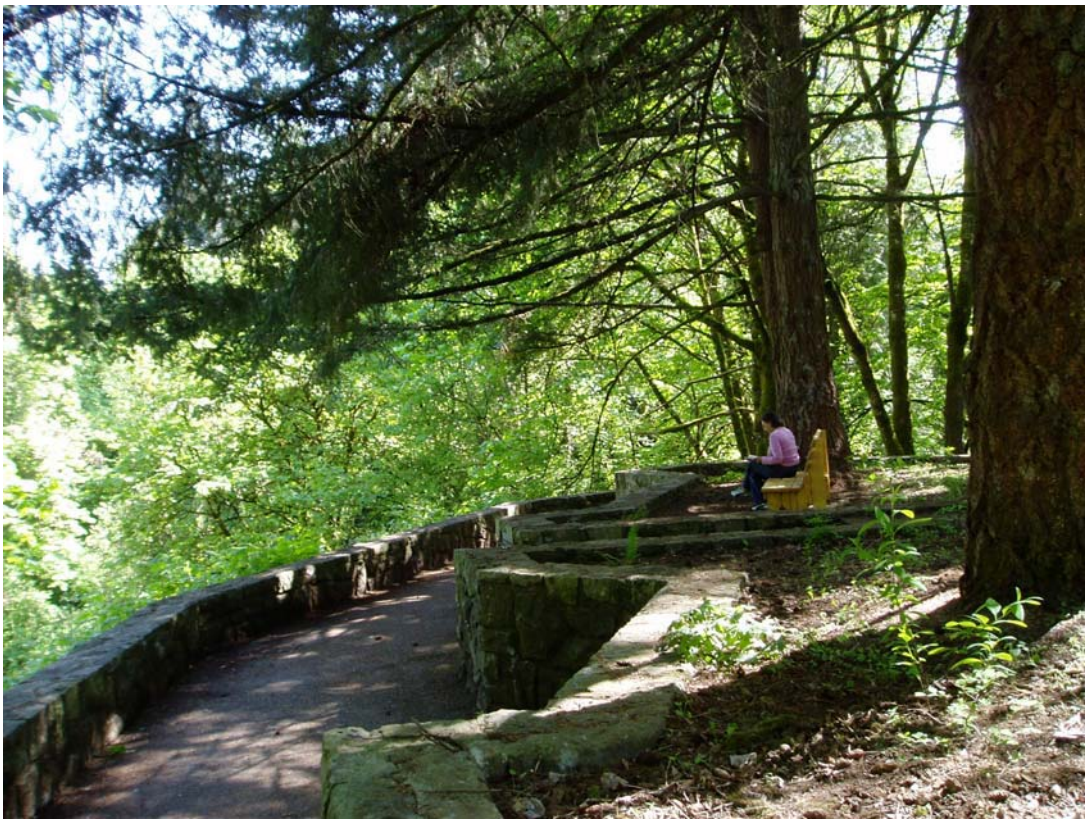
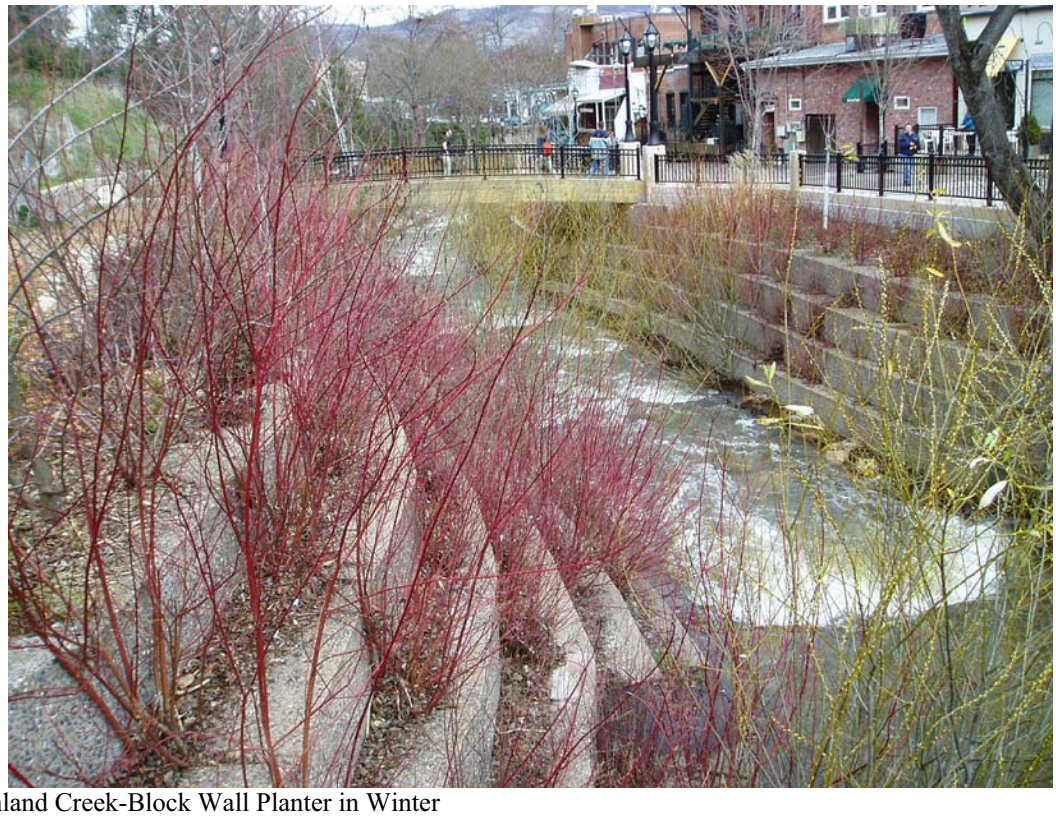
Fir/Maple Grove



River overlook-Fir Grove

Fir/Maple Woodland –Open Understory

Ashland Creek- Block Wall Planter in Summer



Ashland Creek-Block Wall Planter in Winter

Willow Lowland

Floodplain Cove

Emergent marsh-shrub-woodland shore

Tributary Riparian

Oak Madrone-meadow

Oak Woodland-Meadow

Gravel Bar-Shallow Water

South Waterfront Design Guidelines

and the

Greenway Design Guidelines for South Waterfront

December 20, 2002

RIVER RENAISSANCE

CITY OF PORTLAND, OREGON
BUREAU OF Planning

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Section I
Introduction

DESIGN GUIDELINES IN SOUTH WATERFRONT

Central City Fundamental Design Guidelines

Because South Waterfront is a subdistrict of Portland's Central City Plan District, the *Central City Fundamental Design Guidelines* apply throughout the South Waterfront plan area. The fundamentals serve as the base set of design guidelines for all subdistricts of the Central City and address basic issues about the design of buildings in an urban environment. The introduction of the *Central City Fundamental Design Guidelines* contains a detailed description of the Central City's design guideline system and design review process.

Copies of the *Central City Fundamental Design Guidelines* are available at the Bureau of Planning – please call 503-823-7700, or visit our web page at www.planning.ci.portland.or.us. Copies of the document can also be obtained from the City's Development Services Center, at 503-823-7526.

South Waterfront Design Guidelines and the Greenway Design Guidelines for South Waterfront

The *South Waterfront Design Guidelines* and the *Greenway Design Guidelines for South Waterfront* – both contained in this document – supplement the *Central City Fundamental Design Guidelines*. These two sets of guidelines add layers of specificity to the fundamentals, addressing design issues unique to South Waterfront and its greenway.

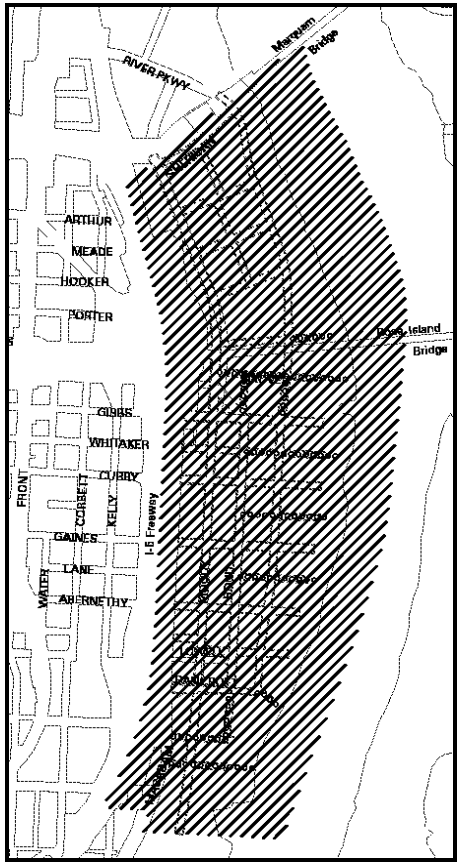
The *South Waterfront Design Guidelines* apply to all development proposals in South Waterfront within the design overlay zone, identified on zoning maps with the lowercase letter "d" (indicated by the hatched area in Map 1 on page 8). These guidelines primarily focus on the design characteristics of buildings in the area, including those along Macadam Avenue, at the western edge, to those facing the greenway and river.

The *Greenway Design Guidelines for South Waterfront* apply to development within the greenway overlay zone, identified on zoning maps with a lowercase letter "g" (indicated by the hatched area in Map 2 on page 8). These design guidelines focus on the area roughly between the facades of buildings facing the river and the water's edge.

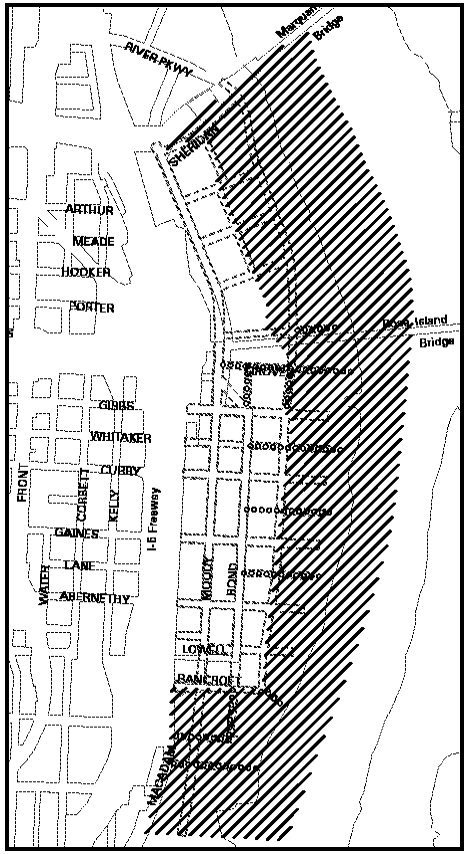
Compliance with the design guidelines in this document can take many different forms for different proposals -- discussion of proposed designs among the applicant(s), design review staff, and the Portland Design Commission is encouraged. Design guidelines are intended to state broad design objectives and to provide guidance; they should not be construed as prescriptive standards.

DESIGN GUIDELINES IN SOUTH WATERFRONT (continued)

Map 1 Design Overlay Zone ("d")



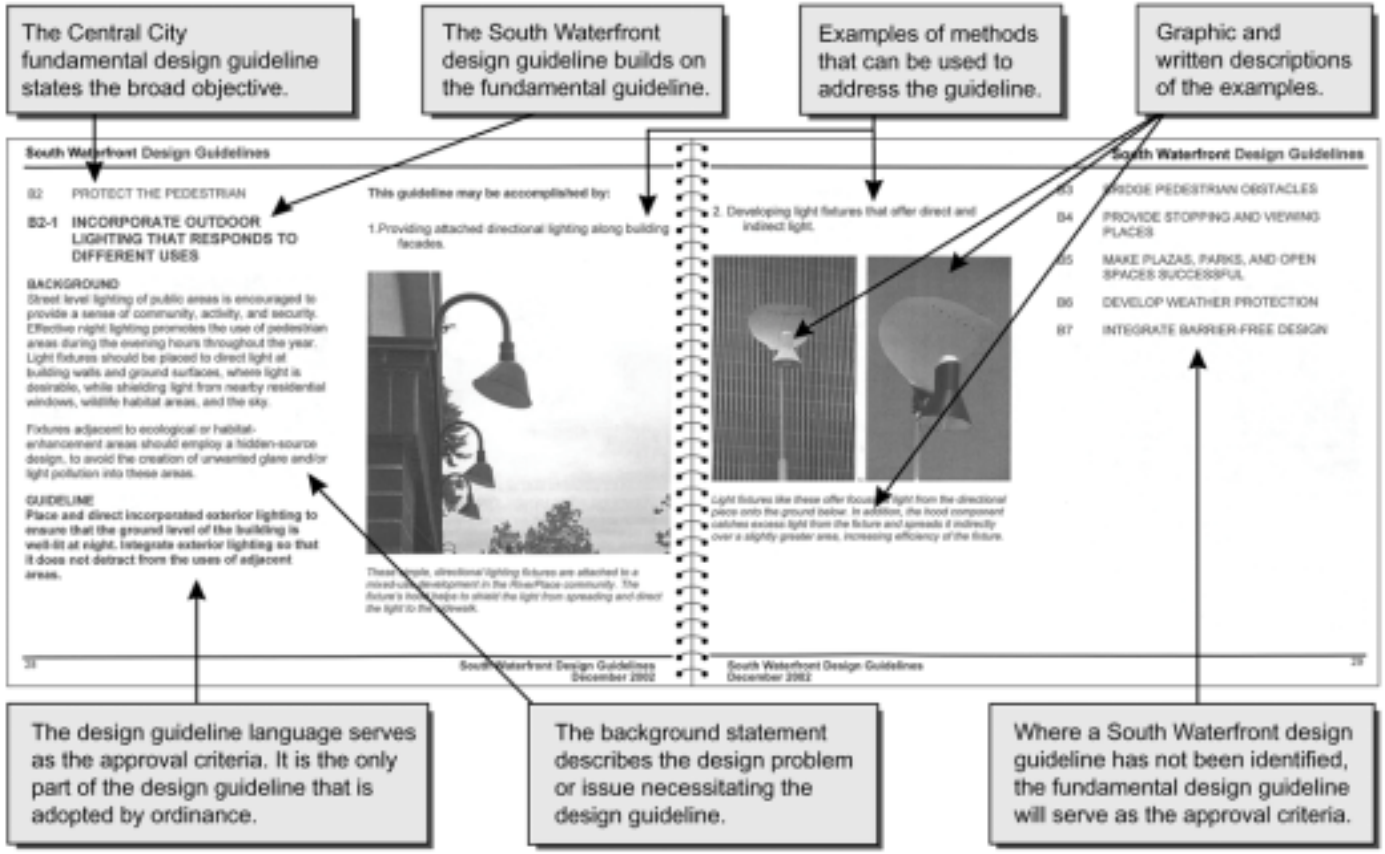
Map 2 Greenway Overlay Zone ("g")



USING THE GUIDELINES

South Waterfront Design Guidelines

Each guideline addresses a single issue and has the same structural components:



USING THE GUIDELINES (continued)

Greenway Design Guidelines for South Waterfront

Because these guidelines address issues specific to the Willamette River Greenway, they do not nest easily within the framework of the *Central City Fundamental Design Guidelines*. These guidelines have the same structural components as the *South Waterfront Design Guidelines* (including the background statement, guideline language and examples, as shown on the preceding page); and are simply numbered 1 through 4.

Section II

South Waterfront Design Guidelines

South Waterfront Design Guidelines

A PORTLAND PERSONALITY

A1 INTEGRATE THE RIVER

A1-1 DEVELOP RIVER EDGE VARIETY

BACKGROUND

Completing the Willamette River Greenway through South Waterfront will link RiverPlace and John's Landing areas. Many different qualities and opportunities exist along South Waterfront's extensive shoreline. Developing river edge variety within new development will make it one of the most enjoyable segments of the entire Willamette River Greenway system.

Building mass and/or edges facing the river and adjacent to the greenway should express a diversity of building forms to avoid the creation of a "wall" along the greenway. Variation in the horizontal planes of buildings, as well as the vertical facades facing the river, help to transition from South Waterfront's interior of formal, urban buildings in an enclosed setting to the diverse character of the greenway.

Articulation of these building façades with human-scale elements will help to complement the greenway and add to the overall diversity of South Waterfront's built edge. Building elements, such as bay windows, balconies, roof terraces, awnings or large windows with locations for plants (such as in window boxes or on window sills), are encouraged to create a human scale at the lower levels of buildings.

GUIDELINE

Vary the footprint and façade plane of buildings that face the Willamette River to create a diversity of building forms and urban spaces adjacent to the greenway.

This guideline may be accomplished by:

1. Configuring the building's mass to be perpendicular to the river.

This is the end of one wing of the Tanner Place Condominiums in the River District. Narrower sections of the building face the pedestrian accessway to the north, reducing the overall mass of the building facing the pedestrian and bicycle-only environment. This plan layout would produce a dynamic set of building facades facing the greenway and would also create opportunities for semi-public outdoor spaces, such as the entry courtyard to the right.

2. Articulating the façade plane to step down to the greenway.

This apartment building on the South Park Blocks steps its façade in several increments down to meet the open space of SW Park Avenue and the Park Blocks themselves. This more aggressive strategy for stepping the building façade results in a richly textural set of heavily-glazed projecting bays.

This guideline may be accomplished by:

3. Articulating building facades that face the Willamette River with human scale elements.

These buildings in Vancouver, BC, have incorporated human-scaled elements including large expanses of window glazing, terraces oriented to the street, and large canopies to offer weather protection to pedestrians. Elements like these and others help to bring the scale of large buildings down to the scale of the people that live, work or visit in them.

4. Breaking up the building's mass to develop a variety of volumes.

This housing project in Vancouver, BC, has developed a three-story podium of rowhouses at its base. The building has also incorporated a taller tower component that has been pushed to one side of the podium, creating a varied building footprint and the perception of a smaller overall building mass.

This guideline may be accomplished by:

5. Developing a varied set of horizontal plane and vertical façade shifts.

The 1900 SW Fourth Building, in the South Auditorium District, has integrated a series of planters and seating ledges, a recessed band of windows, and a lower volume of the building to strengthen its relationship to the pedestrian/bicycle accessway of SW 3rd Avenue and the adjacent Lovejoy Plaza.

6. Using divisions inherent to the building type to break up potentially monolithic building forms.

The designers of this residential development in Vancouver, BC, have used projecting bays to accentuate the divisions between individual dwelling units. The cumulative effect of this technique results in an undulating façade plane, offering lots of visual texture.

A2 EMPHASIZE PORTLAND THEMES

A3 RESPECT THE PORTLAND BLOCK STRUCTURES

A4 USE UNIFYING ELEMENTS

A4-1 INTEGRATE ECOLOGICAL CONCEPTS IN SITE AND DEVELOPMENT DESIGN

BACKGROUND

South Waterfront offers a rare opportunity to integrate and enhance the district's urban and natural contexts. As the designs of the district's future buildings will be highly urban and contemporary, a contextual and ecological approach to the development and site designs will strengthen connections to adjacent neighborhoods and ecological assets. It is important for the district's urban development to build strong relationships with surrounding neighborhoods and the ecological landscape. The landscape context of South Waterfront will reflect its transitional nature as a highly urbanized area, lying between the forested West Hills, the Willamette River, and Ross Island.

In South Waterfront, site designs that build upon the inherent contrasts between intensely urban and ecologically-sensitive areas will be the defining quality of the district. Creating landscapes that integrate ecologically-sensitive plantings in the spaces between buildings will add to the area's diversity while helping to unify its overall development. Taking advantage of opportunities to plant native and native-like trees typical of riparian and upland areas, in concentrations with other indigenous plants, will establish ecologically-diverse plant communities as counterpoints juxtaposed with urban landscape elements. Plazas (or plaza-like gathering places), unobstructed stopping and viewing locations, or other more intensive human-activity areas incorporated into building site designs strengthen South Waterfront's urban character and add to the area's diversity.

New development in South Waterfront can also benefit from the integration of ecological concepts, implemented on the exterior of buildings with sustainable building principles executed throughout the rest of the structure. "Green" or "high-performance" buildings can complement the landscapes created in the spaces between them by integrating ecological landscape elements with the building forms and technologies. Examples of ecological concepts for new development include the creation of multipurpose sunspaces, passive heating and cooling systems, shading and trellis systems, among many others. The City's Office of Sustainable Development, or the United States Green Buildings Council (USGBC) have more information on green building strategies.

GUIDELINE

Incorporate ecological concepts as integral components of urban site and development designs.

This guideline may be accomplished by:

1. Juxtaposing ecologically-sensitive site designs with intensely urban buildings and site elements.

This is a picture of one of the office buildings at the Daimler-Chrysler headquarters complex in Berlin, Germany. In the foreground is an artificial pond that has been lushly planted with wetland species of reeds and other plantings. The scale and design of the building and its site play off each other to emphasize the special qualities of both.

This guideline may be accomplished by:

2. Integrating ecological landscape elements in site designs.

This is an image of a vegetated water feature at the Daimler-Chrysler headquarters complex in Berlin, Germany. Part of the intensely urban complex can be seen in the water's reflection. The combination of native and native-like plantings, irregularly-placed blocks of stone and seemingly-naturally occurring sandbanks work together to offer a serene alternative to the development's urban character.

3. Developing special landscape environments.

The Water Pollution Control Lab in Cathedral Park has an integrated system of water and wetland gardens. South Waterfront has a similar relationship to the river and new development could emphasize renewed ties to the river and its ecology by recreating wetland gardens. These heavily landscaped spaces offer serene settings for contemplative pursuits, as well as rare opportunities for the incorporation of wetland vegetation.

This guideline may be accomplished by:

4. Creating interior spaces within buildings that celebrate and take advantage of exterior environments.

This is an interior view of the sunspace at the Prisma Building in Nuremberg, Germany. This multifunctional space provides a solar heated gathering space for the various tenants of the mixed-use building. It implements passive cooling strategies through plantings and by using water collected outside the building and bringing it inside. These features also strengthen the connections between the exterior and interior environments.

5. Incorporating sustainable building practices or techniques into development designs.

This is a view looking south from the roof terrace on the Ecotrust Building in the River District. The development and design team of this building made sustainability a high priority. A significant amount of construction materials were recycled, an eco-roof has been incorporated (on other sections of the building's roof), an aggressive day-lighting strategy was employed and some spaces in the building have reused discarded materials, such as old industrial doors. These examples are only a few of the many sustainable strategies implemented by the building.

A4-2 INTEGRATE STORMWATER MANAGEMENT SYSTEMS IN DEVELOPMENT

BACKGROUND

Stormwater management is a critical component of development everywhere. Integrating solutions within development retains, redirects or otherwise prevents stormwater from entering city systems and the river. On-site retention and management of stormwater greatly reduces impacts on adjacent collection areas, ecosystems and treatment facilities. South Waterfront provides exceptional opportunities for the implementation and integration of new stormwater management systems.

There are many different types of stormwater management systems. They range from eco-roofs or the incorporation of pervious surfaces, such as sand-set brick paving, to more comprehensive systems that reuse stormwater to irrigate landscape plantings.

Rooftop retention systems require enhanced structural components of the building, and need to be factored into the early stages of the design process for their successful integration. Water features that incorporate stormwater management capabilities with their aesthetic functions provide multiple benefits. Water features providing stormwater management capabilities often require early consideration for an integrated overall site and building design.

GUIDELINE

Integrate innovative stormwater management systems with the overall site and development designs.

This guideline may be accomplished by:

1. Developing multifunctional stormwater management systems.

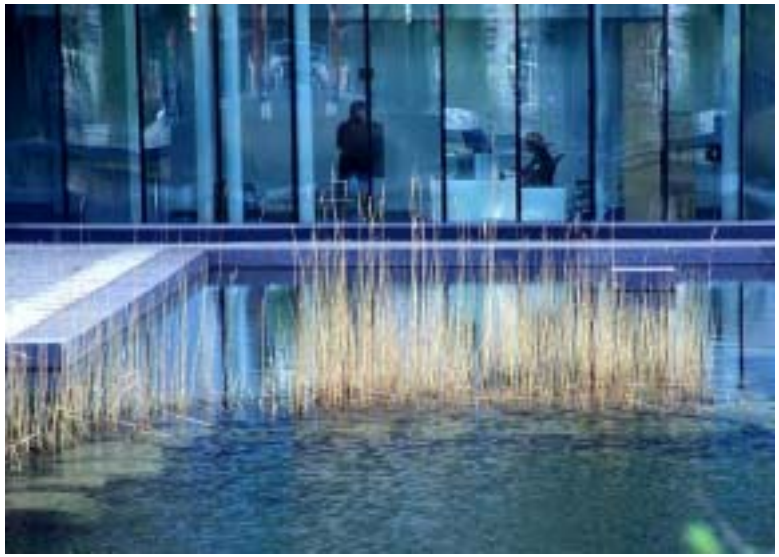
This is a view of the courtyard at the Buckman Terrace Apartment complex. The courtyard's planted areas have been designed to function as stormwater retention facilities. In addition, (and typical of most courtyards) the courtyard offers visual and physical relief for the residents of the building.

2. Celebrating the stormwater functions of typical building elements.

These scuppers at the Water Pollution Control Laboratory have been developed to cascade water from the building's roof into the wetland garden at the northern end of the site. This is a rather poetic and celebratory solution to a typical building element that could otherwise function unnoticed.

This guideline may be accomplished by:

3. Considering the potential aesthetic functions of stormwater management systems.



This image shows a view into an office environment across a stormwater retention pond. Locating the pond with this relationship to the adjacent uses allows the pond to provide visual relief to the workers from the office spaces within the building.

4. Integrating recreational rooftop facilities.

The 200 Market building in the South Auditorium District has developed a series of grass roofs for the lower portions of the building. This portion is being used by the building's workers for one of the regularly-scheduled bocce ball tournaments.

This guideline may be accomplished by:

5. Creating comprehensive systems that advertise and celebrate the building's stormwater.

These channels incorporated into the building's columnar structure are actually displaying stormwater collected off the building's roof in open channels. This display of typically hidden building elements works in conjunction with other components of the system to successfully and comprehensively integrate stormwater into the building's systems.

6. Incorporating eco-roofs.

An eco-roof is a vegetated roofing system that can retain the majority of a building's stormwater on the roof. In addition, they contribute to a building's energy efficiency. Mature plantings on eco-roofs in urban areas also provide aesthetic functions by creating green oases that enhance views from nearby tall buildings.

A5 ENHANCE, EMBELLISH AND IDENTIFY AREAS

A5-1 CONSIDER SOUTH WATERFRONT'S HISTORY AND SPECIAL QUALITIES

BACKGROUND

The Willamette River serves as an important natural highway to and through the Willamette Valley. Throughout history, the Willamette River and its riverbanks have provided numerous functions. The river itself creates a huge amount of open space that brings sunlight and air down to the lowest understories of the riparian zones. The gently sloping banks have provided easy access to the river, which allowed for basic needs of food and water to be met. Native Americans and the early pioneers in the area took advantage of South Waterfront's riverbank as an ideal campsite location.

The maritime industrial character of South Waterfront dates back to the early 1900s. The natural floodplain forming the bank of the Willamette River furnished the correct slope for the gravity-slide methods to access the river used by the early shipbuilding industry and the Willamette River's channel is deep enough in this section to accommodate deep-draft ships. In the early 1900s, the area became the site of several shipbuilding, scrap metal and steel fabrication operations. The shipbuilding industry was reversed in more recent times when World War II Liberty ships and other war vessels were brought upstream and docked for dismantling and the salvage of scrap steel.

The majority of the heavy maritime industrial activity in South Waterfront was located in the northern part of the district, roughly between the Marquam Bridge and SW Gibbs Street, just south of the Ross Island Bridge. South of Gibbs, the recent history of South Waterfront is more diverse. This area has gone through several phases of development and re-development during the previous century. The area has seen uses that have included industrial, light-industrial, commercial and even residential types. In 1988, the area (then named the North Macadam subdistrict) was rezoned as part of the *Central City Plan* from an industrial designation to a commercial zone as the area was no longer being used as a major industrial location.

Adaptively reusing artifacts or materials present in existing structures as elements of, or structural systems for, interpretive signs, benches, kiosks, lighting fixtures, public art, facilities serving water transportation, water features, and/or paving materials are potential methods for emphasizing the area's history.

New expressions, such as public art or water features that create new or highlight existing qualities of South Waterfront, are encouraged. These could "showcase" industrial artifacts from South Waterfront's past, such as ships, port/gantry cranes or wharves. The integration of these elements with site and development designs is important to achieve the area's urban design goals.

These types of elements should be sized and placed on or in the project to be visible from adjacent areas intended to accommodate public pedestrian movement and/or gathering. Additionally, functional building elements, such as awnings, windows, doors, and exterior lighting, can be creatively designed as identifying features to strengthen the character of South Waterfront.

GUIDELINE

Consider emphasizing and integrating aspects of South Waterfront's diverse history in new development proposals.

When included in the development proposal, integrate works of art and/or water features with site and development designs.

This guideline may be accomplished by:

1. Reusing or recycling elements of South Waterfront's past in new designs.

These industrial remnants, along South Waterfront's riverbank, could be reused as part of a new riverbank design. They could serve as a structure for new in-water habitat environments or potentially as part of a new riverfront access opportunity.

2. Combining works of art, stormwater management systems, and water features.

This image shows an approach that combines stormwater management and works of art. Their successful integration draws attention to both. The sculpture's placement adds to the visual relief offered by the water feature and provides different views from different locations around this office complex in Germany.

This guideline may be accomplished by:

3. Developing projects to integrate and enhance historic features.

The Ross Island Bridge is one of the district's most prominent historic features. New development adjacent to the bridge has special opportunities to create strong relationships with the bridge's graceful (upper image) and rhythmic (lower image) structural systems.

4. Using district elements and/or artifacts as inspiration for new works of art.

These cranes at the Zidell Marine barge-building facility (upper image) are indicative of the scale of heavy industrial manufacturing equipment. From a certain point of view, the cranes might have served as a contributing inspiration for the over-scaled spider sculptures in the lower image.

B1-1 FACILITATE TRANSIT CONNECTIONS

BACKGROUND

Building on the historic Jefferson Street trolley line, the transportation system in South Waterfront is anchored by the Moody-Bond spine that extends the length of the district. This corridor will serve as the primary vehicular mobility route, offer bus service, and help to extend streetcar service potentially to Lake Oswego.

The alignment for these transit services is within walking distance to the greenway and river transportation, and is consistent with the patterns of development densities in the district. In order to minimize the real or perceived distances between development in the area east of the Moody-Bond corridor and transit services, it is important to have convenient and direct pedestrian connections. Design decisions, such as orienting main building entrances to streets served by transit, can significantly enhance the accessibility of those facilities and potentially increase ridership.

GUIDELINE

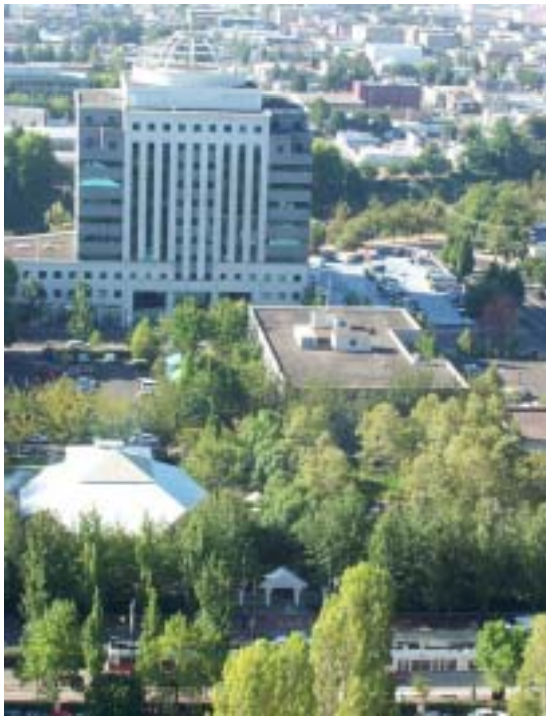
Orient the main entrances of buildings at streets served by public transit to conveniently and directly connect pedestrians with transit services.

This guideline may be accomplished by:

1. Orienting main building entries or primary access locations to transit facilities.

These two images show examples of buildings in downtown Portland that have oriented main entries or primary access locations to transit facilities. The upper image is of the Nordstrom's department store and the MAX alignment on SW Morrison Street, and the lower image is of the Hilton Hotel expansion building and the transit mall on SW 6th Avenue.

2. Creating direct access connections from development to transit facilities.



This image shows an office building in the Lloyd District (in the background), and a planted accessway (in the foreground, and identified by the gabled portico) offering a direct connection from the building to the MAX alignment on NE Holladay Street. This heavily-planted accessway not only provides an effective transit connection, but also relief from the built environment around it.

B1-2 ENHANCE ACCESSWAY TRANSITIONS

BACKGROUND

The new River Parkway and its accessways that lead to the greenway offer a special opportunity to enhance and unify the urban and natural contexts of South Waterfront. One way to accomplish this is through landscape designs and treatments that incorporate indigenous plants that are linked with the greenways more intensive ecological landscape treatments.

Accessways connect the internal street network of South Waterfront to the greenway. The *South Waterfront Street Plan* identifies all accessway connections and their classifications. The term "accessway" specifically refers to the actual transportation path that is used to connect one area or use to another. The transportation component is augmented by building setback areas that create a space defined on either side by building frontages. Many of the accessways provide east-west transitions from the urban interior of South Waterfront to the greenway and the river.

Landscape designs in accessway setback areas should support pedestrian and bicycle movement. Arrangements of plantings can be incorporated within the accessway or building setback area to offer stormwater collection and/or dispersal functions, such as swales or stormwater planters. Development adjacent to accessway paths intersecting with the greenway should blend species of vegetation used in the interior parts of the district with those used in the greenway. Plant species in accessway setback areas are encouraged to be native or native-like and coordinated with the greenway's treatment. Surface materials that provide some permeability to stormwater yet provide a hard, smooth surface for biking and walking are encouraged where these types of movements are intended.

GUIDELINE

Integrate landscape elements within accessway setback areas with accessway transportation components to enhance transitions from South Waterfront's interior to the greenway.

This guideline may be accomplished by:

1. Developing transitional landscaping within accessway setback areas.

This accessway connection in the River District is oriented to pedestrian and bicycle transit, but can accommodate vehicle traffic to parking areas. The paving materials between the trees are pervious, offering some stormwater management capability.

2. Developing accessways that serve as extensions of the greenway.

This is a view looking south on SW 3rd Avenue in the South Auditorium District. The connected canopy of the trees overhead creates a feeling of enclosure by natural shadow, contrasting with the light of the open space that can be perceived in the distance. The rhythmic use of shadow and light can be used to guide people down the accessways from interior locations in South Waterfront.

This guideline may be accomplished by:

3. Developing stormwater management facilities within the accessways and/or building setback areas.

This image is of a landscaped swale in the Buckman Terrace Apartment complex's courtyard. The swale and movement paths on either side give an indication of a stormwater design that could be developed within South Waterfront's accessways.

4. Enhancing connections to the greenway trail.

This image shows a view looking down a waterfront trail in Vancouver, BC. The woman with a dog in the lower right-hand corner of the image is accessing the trail system from an off-trail location. The connection is marked by a change in paving material and color, as well as a break in the landscaped median separating pedestrian from wheeled traffic.

This guideline may be accomplished by:

5. Developing shelter opportunities along accessways.

This sheltering canopy is along a waterfront trail in Vancouver, BC, but indicates a flexible type of shelter that could be used for covered bicycle parking, to set up vending carts, or to arrange some chairs for a small gathering.

6. Incorporating a mixture of plantings to create extensions of the greenway into the district.

Developing accessway connections with dense plantings (in a manner similar to this heavily planted path) will help to extend the greenway into the district. The mixture and density of the plantings creates a special, bucolic character, emphasizing a natural stronghold in a dense urban setting.

B2 PROTECT THE PEDESTRIAN

B2-1 INCORPORATE OUTDOOR LIGHTING THAT RESPONDS TO DIFFERENT USES

BACKGROUND

Street level lighting of public areas is encouraged to provide a sense of community, activity and security. Effective night lighting promotes the use of pedestrian areas during the evening hours throughout the year. Light fixtures should be placed to direct light at building walls and ground surfaces, where light is desirable, while shielding light from nearby residential windows, wildlife habitat areas and the sky, to avoid excess and/or vertical “spill” light.

Fixtures adjacent to ecological or habitat-enhancement areas should employ a hidden-source design, to avoid the creation of unwanted glare and/or light pollution into these areas.

GUIDELINE

Place and direct exterior lighting to ensure that the ground level of the building and associated outdoor spaces are well lit at night.

Integrate exterior lighting so that it does not detract from the uses of adjacent areas.

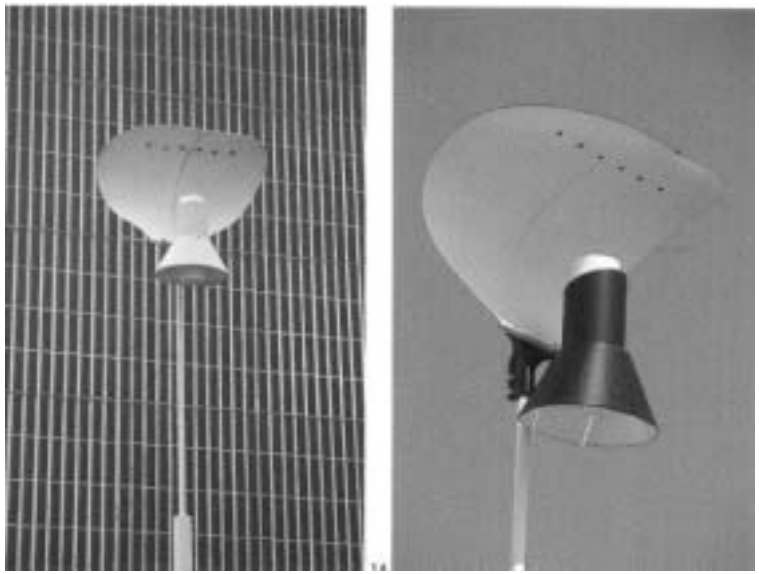
This guideline may be accomplished by:

1. Providing attached directional lighting along building facades.

These simple, directional lighting fixtures are attached to a mixed-use development in the RiverPlace community. The fixture’s hood helps to shield the light from spreading and directs the light to the sidewalk.

This guideline may be accomplished by:

2. Developing light fixtures that offer direct and indirect light.



Light fixtures like these offer focussed light from the directional piece onto the ground below. In addition, the hood component catches excess light from the fixture and spreads it indirectly over a slightly greater area, increasing efficiency of the fixture.

B3 BRIDGE PEDESTRIAN OBSTACLES

B4 PROVIDE STOPPING AND VIEWING PLACES

B5 MAKE PLAZAS, PARKS, AND OPEN SPACES SUCCESSFUL

B6 DEVELOP WEATHER PROTECTION

B7 INTEGRATE BARRIER-FREE DESIGN

C4-1 DEVELOP COMPLEMENTARY STRUCTURED PARKING

BACKGROUND

Parking structures provide parking for residential, commercial and other uses in South Waterfront. Their design should complement the design context of the area as expressed in the scale, proportion and materials of nearby buildings. Exterior facades of parking structures that expose or express sloping floors are discouraged. The exterior walls of parking structures should incorporate materials, colors and articulation to visually complement adjacent buildings.

A strategic approach to the location of parking access points minimizes the potential for pedestrian/vehicle conflicts. Placing and screening structured parking to avoid views of parked cars from the greenway or accessways strengthens the characters of these areas by reinforcing their emphasis on pedestrian and bicycle movement. Residential, commercial and institutional uses, public art and dense vegetation are examples of screening uses and/or devices.

GUIDELINE

Develop, orient and screen structured parking to complement adjacent buildings, reduce automobile/pedestrian conflicts and support the pedestrian environment.

This guideline may be accomplished by:

1. Developing parking facilities to serve multiple buildings.

Concentrating necessary parking for multiple buildings or uses in one facility significantly reduces or eliminates the need for incorporated parking in the other participating buildings. Levels 2 through 10 at the Hilton Hotel expansion on SW Taylor are used for parking. The parking developed in this building serves not only the hotel's patrons, but also several nearby uses.

2. Integrating structured parking with the building's overall design.

Incorporated structured parking at lower levels of the Gregory in the River District has been masked with decorative brick-work, applied in patterns consistent with the "neo-deco" styling theme used for the building.

C5 DESIGN FOR COHERENCY

C6 DEVELOP TRANSITIONS BETWEEN BUILDINGS AND PUBLIC SPACES

C7 DESIGN CORNERS THAT BUILD ACTIVE INTERSECTIONS

C8 DIFFERENTIATE THE SIDEWALK-LEVEL OF BUILDINGS

C9 DEVELOP FLEXIBLE SIDEWALK-LEVEL SPACES

C10 INTEGRATE ENCROACHMENTS

C11 INTEGRATE ROOFS AND USE ROOFTOPS

C12 INTEGRATE EXTERIOR LIGHTING

C13 INTEGRATE SIGNS

C13-1 COORDINATE DISTRICT SIGNS

BACKGROUND

Signs exist in a shared environment that competes for the attention of viewers. Unlike most other communication devices, a sign is influenced by its location in relation to buildings, traffic arteries, other rights-of-way and by its proximity to other signs. Signs share with architecture an ability to characterize entire sections of a city as well as a single establishment. The street has become a gallery for the many forms of sign art.

Signs should be considered as integral components of any improvement/development project. To achieve compatibility in the design of signs for a building or a storefront, developers and their architects are encouraged to establish a master sign program for the signs. This program helps guide future improvements to a building's sign system over its life span. The master sign program will address design issues of the building's sign system, including sign size, character, materials, placement, and lighting. When supporting structures of signs are exposed, they should also be considered as elements in the master sign program.

For visual harmony, signs should be complementary and respectful to the architectural integrity of buildings. Inappropriate signs can defeat the purposes of other design considerations or even detract from the land uses within an area. On the other hand, signs that respect and enhance an area can be powerful tools in achieving the results intended by the land use and design process.

GUIDELINE

Consider the development of a master sign program that integrates the sign system with the development's overall design.

This guideline may be accomplished by:

1. Developing master sign programs that achieve integrated sign systems.

These examples of integrated sign systems are part of the overall design scheme for the respective buildings, Liberty Centre on the left, and PacWest Center on the right.

2. Using indirect lighting for building signs.

Pioneer Place II at SW 4th and Morrison uses raised metal letters for the sign and lighting that hides its source and illuminates the sign by silhouetting the letters.

Section III

Greenway Design Guidelines for South Waterfront

Greenway Design Guidelines for South Waterfront

1. ENHANCE THE RIVERBANK

BACKGROUND

The riverbank is a critical component of the Willamette River Greenway system. Through South Waterfront, and coordinated with the environments offered by Ross Island, it offers the best opportunity for a functional, ecological corridor. The quality of riverbank enhancements supporting river and riverbank ecosystems will reflect the high priority that the city places on ecologically-sensitive redevelopment along the Willamette River. Enhancements will also need to address flood storage and protection, bank stabilization, safe public access to the water (where appropriate), and aesthetic qualities in a way that protects natural resources and public and private property.

When proposing alterations to the riverbank in South Waterfront, using re-stabilization strategies that support ecological functions will enhance the overall value of the river's edge. For example, where the adjacent river is shallow, redeveloping the riverbank with a shallower slope will enlarge the shallow-water feeding and resting areas important to the juveniles of many native fish species and other wildlife. It will also decrease the potential for flood damage by increasing flood storage capacity, and facilitate bank stability and erosion control. The riverbank can be further sculpted to create an uneven surface that would provide holes and shelves under the water during wetter months. Bio-engineered riverbank solutions are encouraged where they are compatible with the river's hydrology and other adjacent greenway functions.

Native plant species on the riverbank will enhance the riverbank's ecological functions as well as in-water fish habitats. New opportunities for the growth of vegetation or the placement of "large wood" (such as fallen timber) that overhang or penetrate the water's edge, offer shaded, protected sections of the river that are desirable for native fish species. New, diverse communities of riverbank vegetation should be well integrated so that they are self-sustaining and require little ongoing maintenance.

Public connections to the river are critical to urban life and help protect ecologically sensitive areas from random encroachment by residents and visitors. The integration of public connections and river edge spaces with bio-engineered riverbank solutions will contribute to balancing and integrating the functional ecological corridor with the urban environment.

GUIDELINE

Utilize riverbank stabilization strategies that enhance the river and riverbank ecosystems.

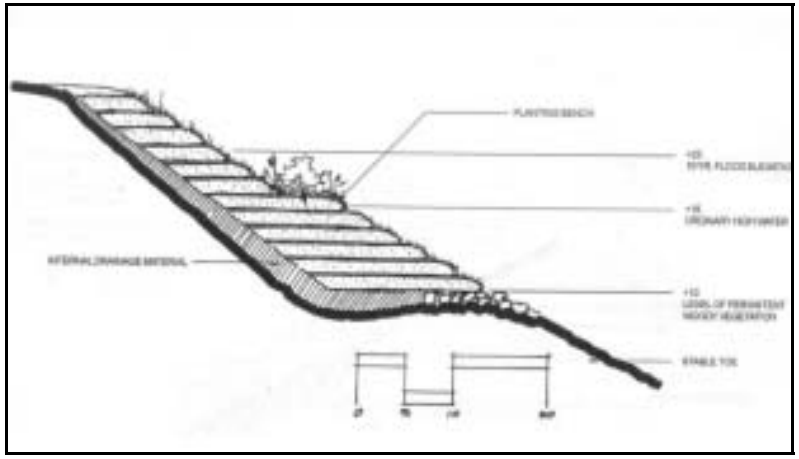
Where appropriate, integrate public access to the water that is safe and supportive of adjacent riverbank areas.

Integrate a variety of vegetation, above and below ordinary high water (OHW), that supports the river and riverbank habitats.

Note: The *Willamette Riverbank Design Notebook* offers a methodical procedure for analyzing an existing section of riverbank and developing different strategies for its enhancement. Some of these strategies would be appropriate in South Waterfront. Copies of the notebook are available from the Portland Development Commission, at 503-823-3200, or www.portlanddev.com.

This guideline may be accomplished by:

1. Implementing bio-engineered riverbanks.



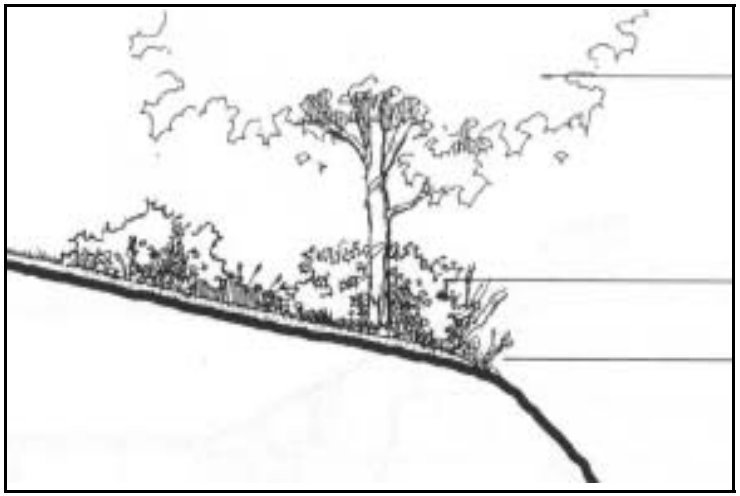
This section drawing illustrates a potential bio-engineered riverbank, which is essentially a structured soil bank. These types of riverbank systems offer the necessary structural stabilization as well as enhanced ecological functions for native species of fish and wildlife.

2. Integrating riverbank design solutions with the different greenway areas and uses.

This photo shows a bio-engineered bank along the Eastbank Esplanade (in the left foreground), that has been integrated with an adjacent urban, public viewpoint (right foreground). The viewpoint is cantilevered over a part of the riverbank, minimizing impacts to the ecological functions offered by the bank.

This guideline may be accomplished by:

3. Incorporating clustered communities of native plants along the riverbank.



The section drawing illustrates what a re-vegetated riverbank might look like. Multistoried clusters of native plants, including a mixture of trees, shrubs, and groundcovers, significantly increase the value of river and riverbank ecologies.

4. Integrating public access to the river with riverbank plant communities.

This is one of the access paths to the river at South Waterfront Park. The path has been integrated on the riverbank to take advantage of the topography, and is bordered with rough stones on either side. The stones encourage humans to stay on the path, while reducing the impact of the path on the adjacent plant communities.

2. DEVELOP A COHESIVE GREENWAY TRAIL SYSTEM

BACKGROUND

Implementation of the greenway trail through South Waterfront is critical to completing the district's transportation system and linking the RiverPlace area to John's Landing. Ensuring safe, engaging, convenient and direct public access to the trail from interior locations in the district will facilitate pedestrian and bicycle movement and help to encourage alternate modes of transportation. Where a north-south street alignment itself does not physically separate development from the greenway, each east-west street will provide a connection to the trail from the eastern end of the accessway. Additionally, private development is encouraged to provide additional access points to the greenway trail along the frontage of the development. These connections could offer more direct access from internal sections of the development and have the potential to encourage increased use of the trail system.

Well-integrated systems of night lighting will support the 24-hour character of South Waterfront. Night lighting along the greenway trail should accomplish a variety of functions, ranging from providing a sense of security to remaining sensitive to adjacent functioning areas. To enhance the trail's self-security and sense of activity, light fixtures should be placed and shielded so that only the trail and its supporting area are lit. Nearby residential and ecological areas will both benefit from a sensitive nighttime lighting strategy.

Along the length of South Waterfront's greenway, the trail will have opportunities to meander through the mixture of urban spaces and ecologically-sensitive areas, offering diversity to the greenway experience. Special topographical features, unique views, and/or special access to the river and new emphasis areas are examples of opportunities that could cause the trail to wander. Places where the trail meanders riverward of the primary trail area should be coordinated with public access connections from eastern ends of the accessways to maintain safe and easy connections to the trail.

GUIDELINE

Ensure that pedestrian and bicycle connections to the greenway trail from the adjacent accessways or urban spaces are safe, convenient and direct.

Ensure that the greenway trail, its access connections, and the accessways are well lit at night to create a sense of activity and security. Place and shield lighting fixtures so that they do not detract from adjacent use areas.

Align the trail to take advantage of the site's opportunities to enhance the diversity of trail experiences.

This guideline may be accomplished by:

1. Developing multifunctional trail designs.

These slightly elevated benches have been incorporated into the planted median of a Vancouver, BC, waterfront trail. The median separates wheeled traffic (bicycles, rollerblades, skateboards, etc.) from pedestrian movement. Elevated seating opportunities like these increase the view potential from a seated position, enhancing the overall trail experience.

This guideline may be accomplished by:

2. Integrating a mixture of planted and urban elements.

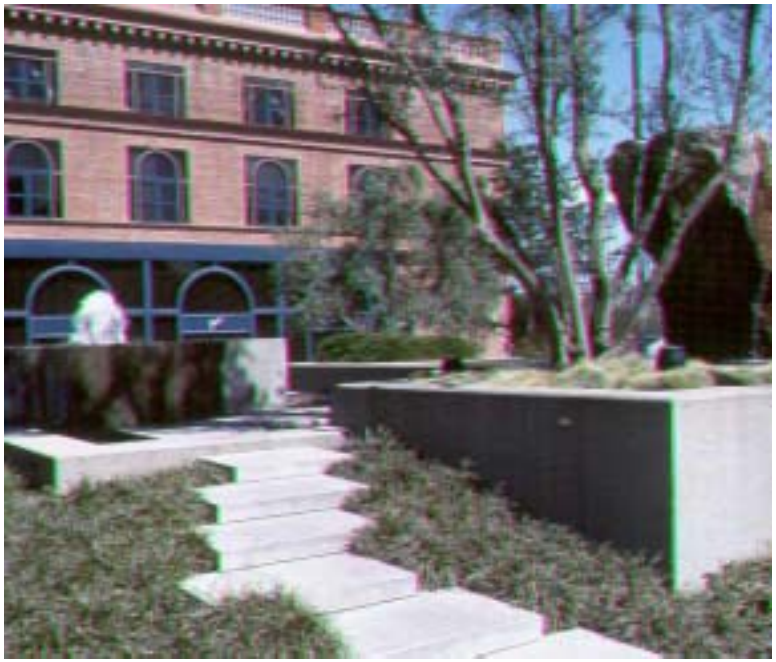
This is a view of the pedestrian portion of a split waterfront trail in Vancouver, BC. A variety of sizes and types of plantings in the median contrast with the urban character of the seating ledge, the benches and the character of adjacent development.

3. Reusing existing materials or components to add to the diversity of trail experiences.

These remnants of a building have been reused along this trail to separate trail sections. This method can be used to retain a connection to the area's history, while separating pedestrian from wheeled traffic, or possibly to separate the primary trail from a viewpoint area.

This guideline may be accomplished by:

4. Developing additional access points to the trail.



This image shows a minor access connection from a building to a trail system. The stepped access path has incorporated a variety of plants around it, helping to build a strong connection between the building and greenway characters. These types of secondary connections are enhanced when their physical links to the trail are clearly marked by changes in paving materials, lighting or signs.

5. Integrating the trail's design and development with adjacent streets.

This is an example of a trail segment that is directly adjacent to a street. In South Waterfront, roughly north of Gibbs Street, there are many opportunities to develop unique links between the trail's function and adjacent portions of River Parkway.

3. DEFINE VIEWPOINTS

BACKGROUND

Viewpoints take advantage of special opportunities along the Willamette River Greenway system. They provide locations where the public can enjoy unique vantage points of the river, ecological areas and the built environment from South Waterfront's greenway. There is one major viewpoint identified in South Waterfront, at the eastern end of Ross Island Bridge Park. There are minor viewpoints identified as well; spaces that visually link locations both to and from the river. Refer to the *Portland Zoning Code* for viewpoint locations.

Viewpoints often benefit from the incorporation of "short-duration stop" facilities that support stopping, gathering and viewing activities. Places to sit, interpretive kiosks, integrated water features, public art, and access to the water or river transportation are examples of the types of facilities that can enhance viewpoint locations. Viewpoints and associated elements present opportunities for the adaptive reuse of building materials or elements from existing structures in the area. Reused pieces of steel, concrete or other masonry, loading dock canopies and parts of cranes are examples of materials that can be considered in the design of new viewpoint facilities.

Viewpoints should be designed to be understood as extensions or supportive components of the greenway trail. They should provide enough space for groups of people to gather without conflicting with the movement portions of the trail system. Special arrangements of plants can be used to provide a sense of enclosure, and to develop a character that is distinct from the trail itself.

GUIDELINE

Define viewpoints that are understood as extensions of the greenway trail, without conflicting with the trail's movement functions.

Consider the incorporation of "short-duration stop" facilities in viewpoint design.

This guideline may be accomplished by:

1. Taking advantage of historic remnants to mark viewpoints.

Gantry Park in New York City has reused some significant industrial remnants to frame westerly views of Manhattan. Remnants similar to these exist (or have existed) along South Waterfront's riverbank and have the potential to provide strong focal points for new viewpoints along the greenway.

2. Integrating public access to the river at viewpoint locations.

This viewing location under the Marquam Bridge at the southern end of South Waterfront Park has integrated a public access path to the water. The path has been incorporated to one side of the viewpoint, maximizing the area that can be devoted to people gathering to enjoy the view.

This guideline may be accomplished by:

3. Incorporating short-duration stop amenities.

This image is of a small viewing area along the west side of Manhattan in New York City. The viewpoint offers short-duration stop amenities including movable seating, space for vending carts and access to the water. Additionally, materials such as decomposed granite and cobblestones help to define the viewpoint from the main movement sections of the trail.

4. Aligning viewpoints with major east-west connections.

This urban viewpoint is at the end of a major street in Vancouver, BC, between development and the trail, rather than between the trail and the water. It has been built up to a level above the trail to offer view locations across the trail and has also incorporated a flexible open space that can accommodate small events or gatherings.

This guideline may be accomplished by:

5. Incorporating works of art and/or water features at viewpoint locations.

This sculpture helps to mark a viewing location along a waterfront trail. Depending on the amount of space set aside for the viewpoint, developing larger-scale pieces can create smaller "windows" through which one can appreciate more specific views, in addition to the larger available panoramas.

6. Developing viewpoints as distinct places that can be understood as extensions of the greenway trail.

This larger viewing area on the Eastbank Esplanade has been designed to provide a large gathering area that is clearly defined from the main trail. It is lower than the trail (to the right), preserving some views for pedestrians and cyclists from the trail to the water. The steps, the rock stanchions, the plantings and the mesh platform (at certain locations) all work together to emphasize this location as a distinct space.

4. DESIGN DIVERSE PLANT COMMUNITIES

BACKGROUND

Landscape design is a critical component in determining the overall quality and functional capability of the greenway. The vision for landscape design for South Waterfront's greenway stresses the development of multifunctional communities of native and native-like plants that integrate the needs of the human and natural environments.

Multifunctional greenway landscapes can be achieved by creating clustered plant communities that incorporate a variety of predominantly native plants. Clustered plant communities that include groundcovers, shrubs and trees enrich the diversity of available plants for area wildlife, while helping to provide open areas where people can enjoy views of, and access to, the river as they experience the greenway. Planting design solutions that balance the ecological needs of dense vegetation with the "eyes on the greenway" concept that calls for visual permeability will contribute to the greenway's landscape character. It is important at the early stages of the design process to consider the ecological needs of plants as they mature.

The use of native and native-like plants is important throughout the greenway to provide the most ecologically functional value. Plant species should be selected based on the soil, light, moisture conditions, context and adjacent uses of a given site. Communities of native plants not only provide functional value to different natural ecology, but also to human users, through their aesthetic qualities in terms of texture, color and variety. Additionally, the use of pervious or permeable paving systems, such as sand-set bricks, porous concrete, grass-crete and decomposed granite, in auxiliary areas intended to accommodate human use greatly increases the area's ability to treat stormwater onsite.

GUIDELINE

Select appropriate species of native and native-like plants based on the soil, light, moisture conditions, context and adjacent uses of the site.

Arrange plant communities to provide ecological functions, security and connectivity to urban spaces.

This guideline may be accomplished by:

1. Developing clustered groups of diverse plants based on the site's existing conditions.

This image shows a view of planted areas near the northern end of the Eastbank Esplanade. Clustering of the different types of plants has enhanced the clusters' ecological functions while creating opportunities for views through them at intervals along this section of greenway trail.

2. Developing planting designs that balance ecological functions with the security of trail users.

This image shows some of the plantings at South Waterfront Park, near the Marquam Bridge. Mixtures of groundcovers, shrubs and trees can be arranged to maximize both the functional values of plant diversity for native species of fish and other wildlife, while providing enough visibility through them to offer users on the trail a sense of security.

This guideline may be accomplished by:

3. Integrating places for people to stop and rest within greenway plant arrangements.

This section of trail in Vancouver, BC, offers off-trail locations where trail users can stop, gather and socialize. This particular area has simply been developed as a small clearing in the plant arrangements.

4. Blending plant species used in greenway areas with those used in more interior locations of the district.

This is a densely-planted section of sidewalk in Northwest Portland. The scale and character of these plants are not typically found along sidewalks in Portland's urbanized areas, and help to highlight the relationship(s) between urban and ecological areas.

This guideline may be accomplished by:

5. Arranging plant species to create wetland habitats.

This image shows a view of an emergent wetland habitat at Willamette Park. Clusters of riparian plant species maximize ecological functional values of wetland habitats along the riverbank.