
Riverwalk Design Guidelines for the Historic Third Ward District

Milwaukee, WI

James Piwoni, AIA



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INTRODUCTION

Purpose:

The following Third Ward Riverwalk Guidelines serve to reinforce and extend those Riverwalk guidelines prepared by the City of Milwaukee. By way of review, site specific analysis and concept illustration we hope to provide those involved with implementing the Third Ward Riverwalk a broad and in-depth understanding of the design issues and design potential for this project.

Presenting these notions in an illustrated guideline form is consistent with the processes established in 1990 with the adoption of the Design Guidelines for the Historic Third Ward and the establishment of the Third Ward Architectural Review Board. The images for these guidelines draw heavily on the in place result of the Downtown Riverwalk Project of the past four years. That effort has resulted in many wonderful settings for pedestrian enjoyment. To review and learn from these successful settings is reasonable and appropriate. Added to the local experience are images from other places which allow us to expand our horizons. All of the illustrations are presented to promote greater understanding with the intent of enriching the quality and character of the results. None are intended to represent specific solutions but each demonstrates key concepts.

Disclaimer:

The ideas presented in this design guide provide a basis for understanding the potential for developing the River's edge in the Historic Third Ward District. While these Guidelines present various images and ideas they do not relieve the respective building owner's and their design professionals from compliance with all local, State and Federal codes, ordinances and other regulatory requirements that may impact riverfront development. The Author and the Historic Third Ward Association, Inc. assume no liability for finalized plans and subsequent construction. It is the responsibility of each design professional to use their judgement and knowledge as they apply the concepts presented herein.

Definition:

Riverwalk: "A pedestrian public place designed for all people adjacent to or on the Milwaukee River providing physical and visual access to the waterway, as well as enjoyment of the experience of the river for such uses as, but not restricted to, boating, fishing, viewing and pedestrian travel."

RIVERWALK SYSTEM DESIGN CHARACTERISTICS

PART I: Extending the Public Space Networks

The Downtown Riverwalk network weaves a new pedestrian system through the heart of the City creating a multitude of new and interesting vistas and vantage points as well as access points to the water. PART I of this document examines the key ideas for extending the Downtown system into the Historic Third Ward District.

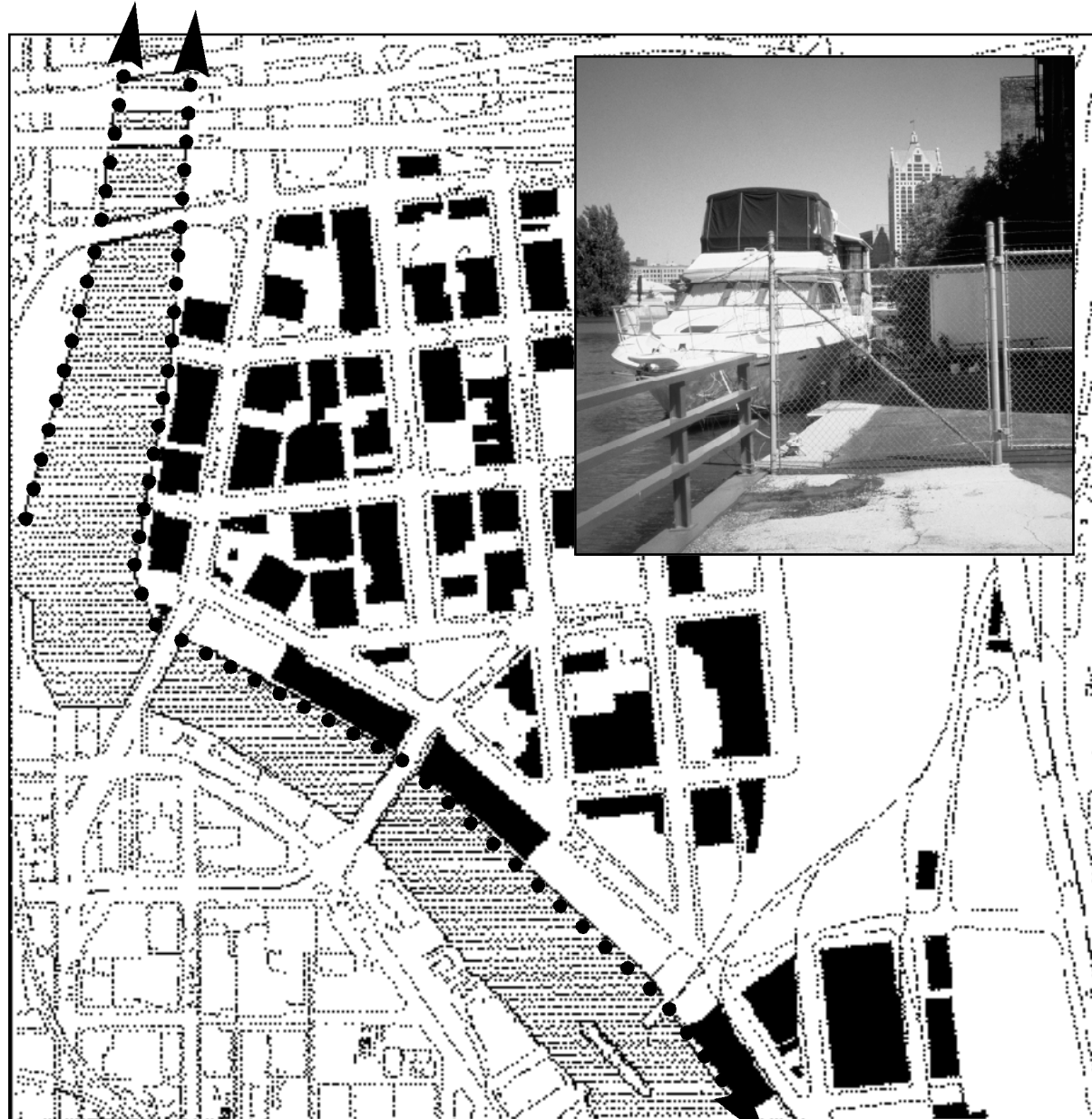
THIRD WARD RIVERWALK - Extending the Public Space Network

Functional Continuity

DESIGN GUIDELINE: The Riverwalk shall provide for a continuous publicly accessible walkway to and along the water's edge. Fences or other security barriers blocking access to or along the water are prohibited.

The Third Ward Riverwalk shall be designed to be a functionally continuous system. At each parcel along the length of the river accommodation shall be made for the Riverwalk to pass. Each segment's design shall be coordinated with adjacent segments with consideration given to how and where the segments will connect.

Safety railings and/or safety barriers are anticipated, however, they are subject to Architectural Review Board design review.



Establish a Continuous Path System Without Security Barriers

Extending the Public Space Network

Functional Continuity



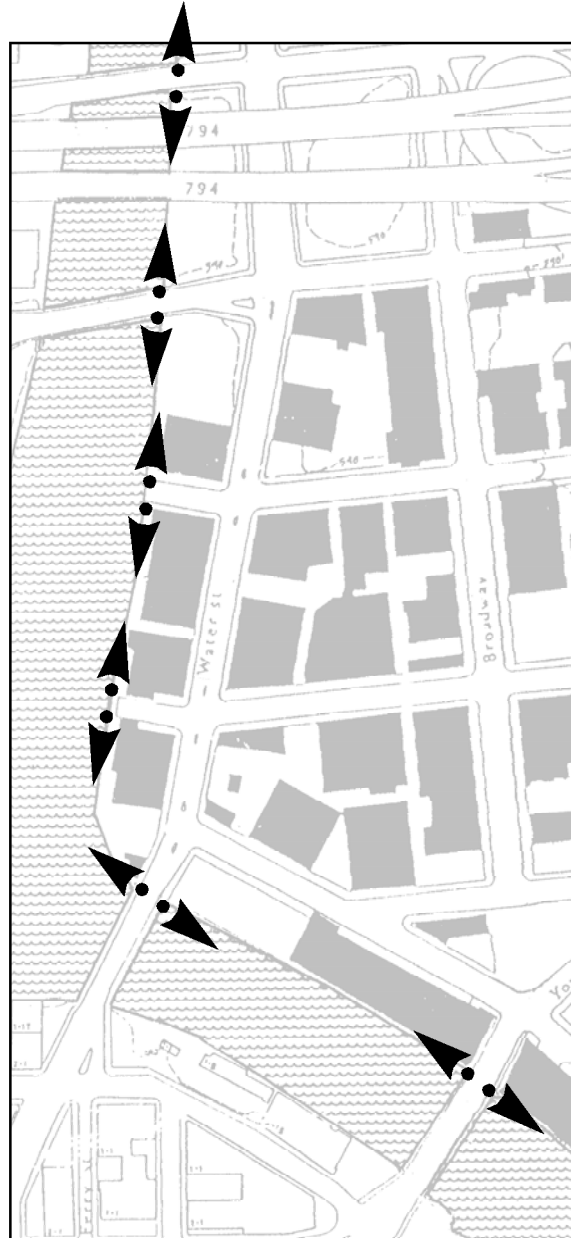
Continuous Waterside Esplanade (*Venice*)

THIRD WARD RIVERWALK - Extending the Public Space Network

Access to Public Ways

DESIGN GUIDELINE: The new Riverwalk system should connect with the public street system wherever the systems intersect.

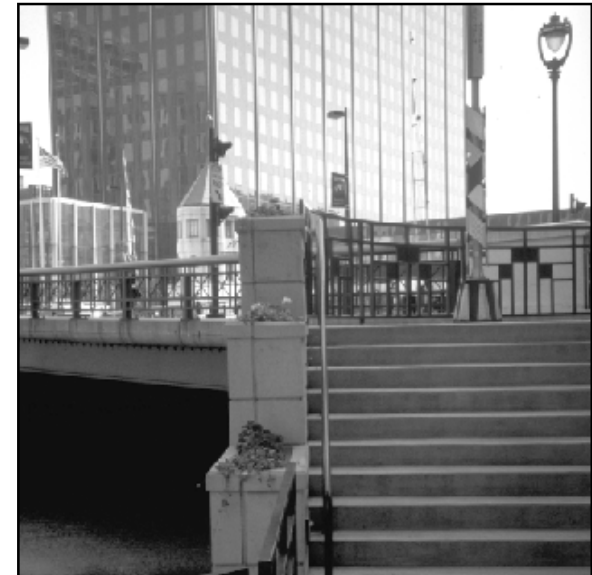
The system shall be accessible from the intersecting public streets and sidewalks as well as other adjacent public land or spaces.



Access from Public Rights-of-Way



Grade Change at Bridge



Pedestrian Transition at Bridge

Extending the Public Space Network

Access to Public Ways



Connection of the Street to the Water at the Rialto Bridge (*Venice*)

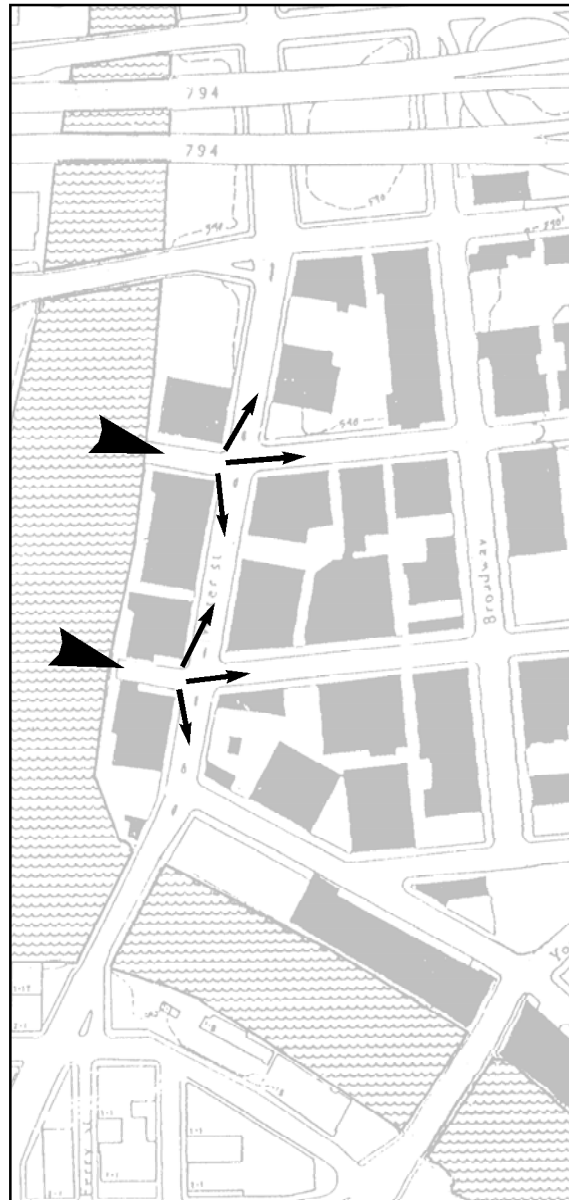
THIRD WARD RIVERWALK - Extending the Public Space Network

Connection to the River

DESIGN GUIDELINE: Street stub ends shall be designed as public arrivals and main gateways from the River to the Historic District and vice versa.

In order to extend the benefits of riverfront development and river access to the whole district each stub end street meeting the river should be developed functionally and symbolically as civic arrivals that graciously interconnect the water traffic to the streets and businesses of the Historic Third Ward.

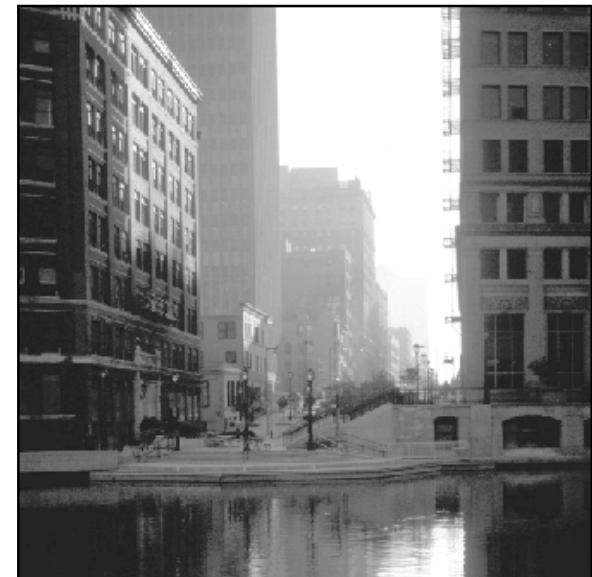
The design should encourage access between the Riverwalk and the Third Ward, and should seek to establish a continuity of experience between these two distinct environments.



River Access



River Access at Chicago St.



Stub End Plaza at Mason St.

Extending the Public Space Network

Connection to the River



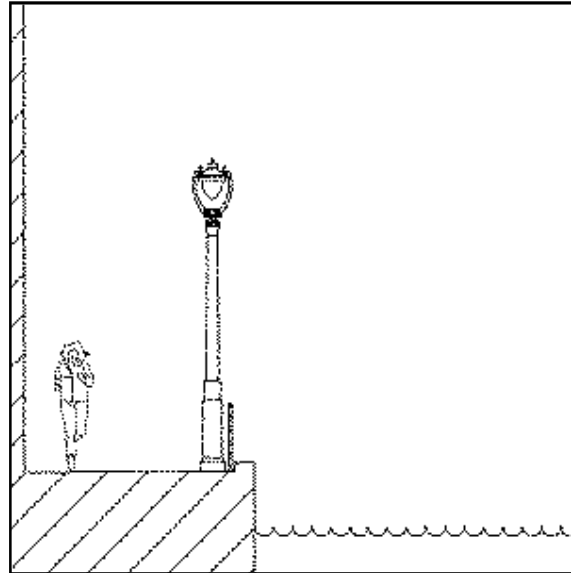
Main Gateway - Piazzetta of St. Mark's (*Venice*)

THIRD WARD RIVERWALK - Extending the Public Space Network

Pathway Placement - Technical Concepts

DESIGN GUIDELINE: The Riverwalk shall typically average 12 feet in width with a minimum unobstructed width of 8 feet and normally (per DNR) be built on the land immediately adjacent to the river.

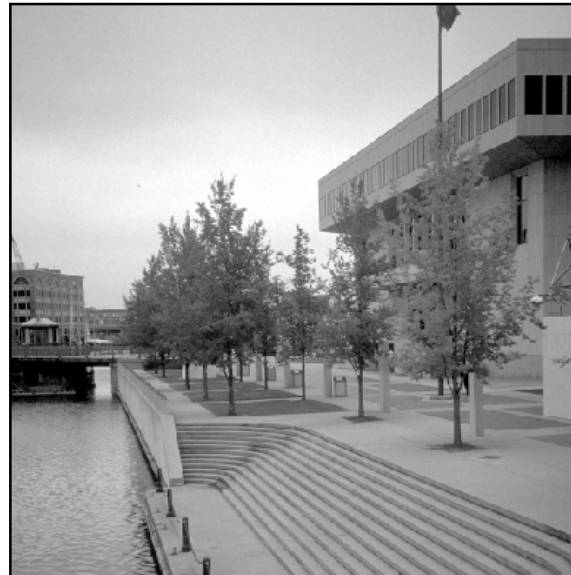
However, where possible the Riverwalk should take advantage of opportunities to become wider if doing so will provide settings that promote activities at the River's edge (see PART II of these guidelines).



12'-Wide Section at Water's Edge



Existing Third Ward Site



Performing Arts Center River Plaza



Milwaukee Center River Edge Walk



Wide Promenade at River Thames (*London*)

THIRD WARD RIVERWALK - Extending the Public Space Network

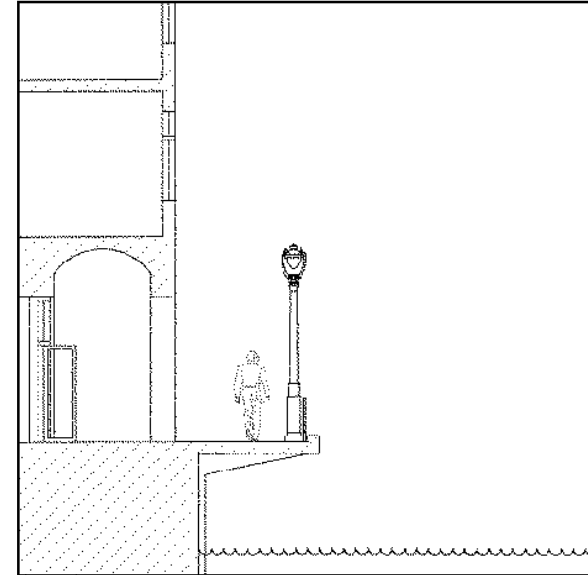
Pathway Placement - Technical Concepts

DESIGN GUIDELINE: Riverwalks may extend beyond the river's edge but shall not obstruct navigation or bridge maintenance.

The Riverwalk can be floating, pile-supported or cantilevered.



Edge Too Narrow for Public Access



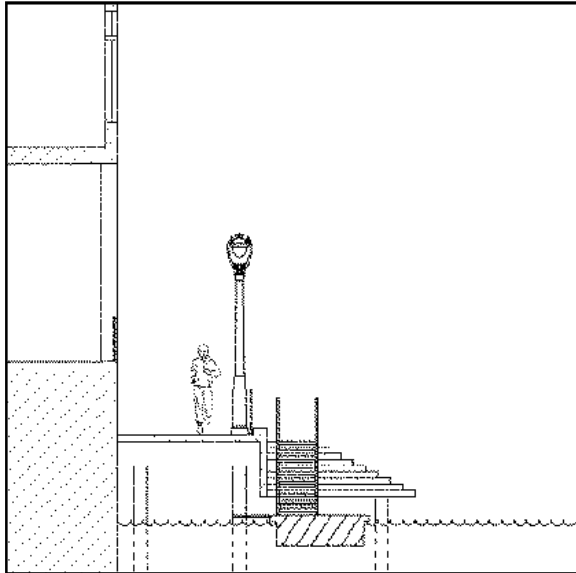
Cantilevered Section



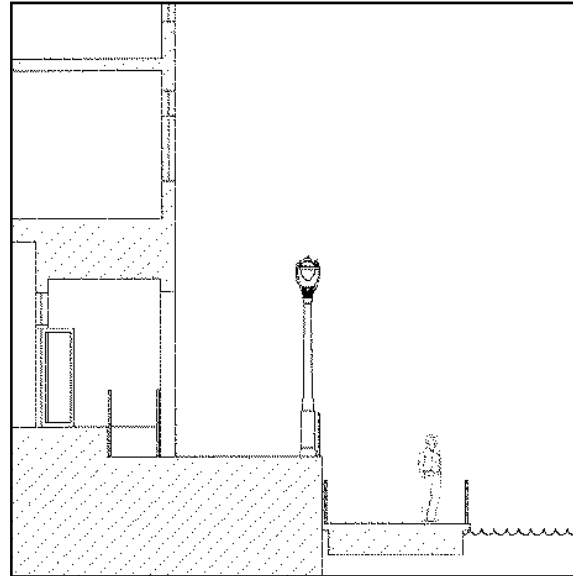
Milwaukee Center Cantilever

Extending the Public Space Network

Pathway Placement - Technical Concepts



Pile-Supported Section



Floating Surface



Empire Building Stair on Piles



Existing Third Ward Floating Dock

THIRD WARD RIVERWALK - Extending the Public Space Network

Pathway Placement - Experiencing the River

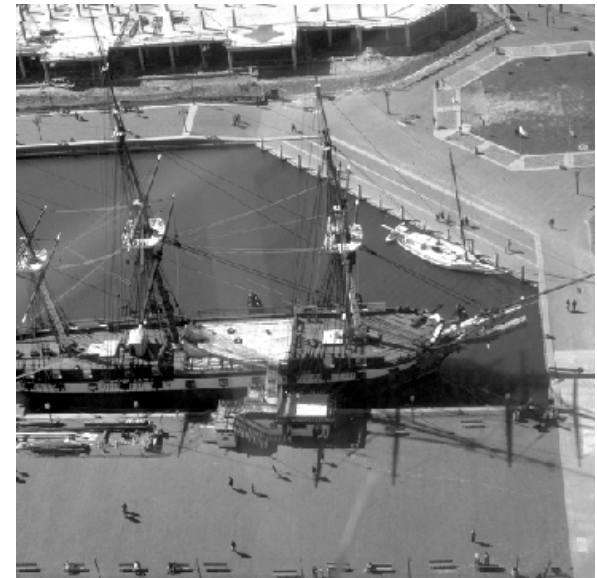
DESIGN GUIDELINE: Overview - Observation towers and platforms along the Riverwalk are desirable but shall be subject to architectural design review board approval and should be accessible to the public.



Proposed Mary Miss MIAD Tower (*Model*)



Overview (*Venice*)



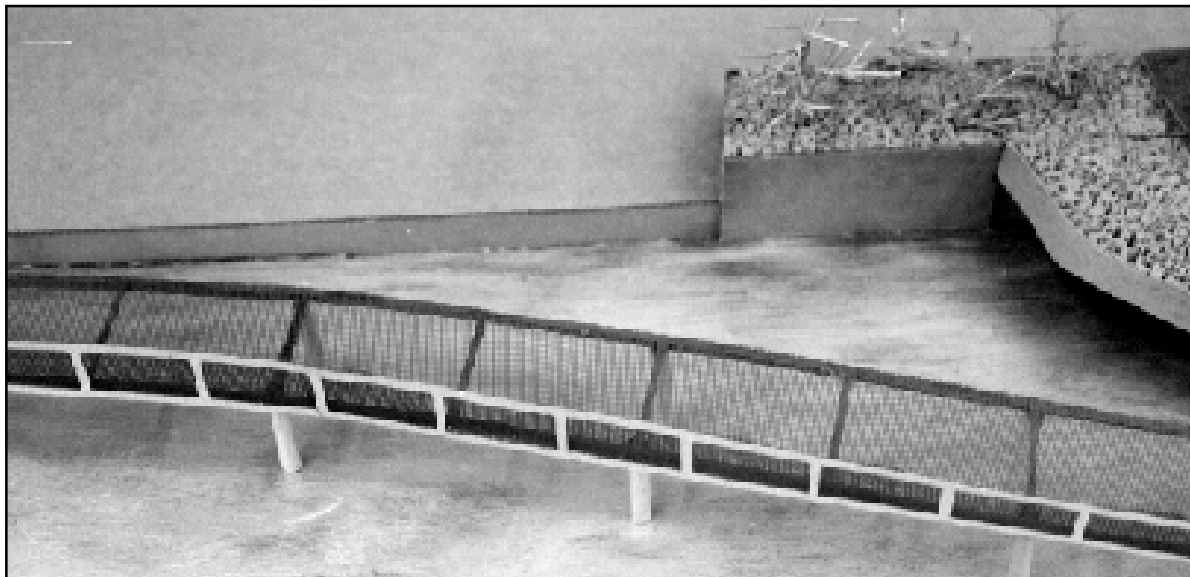
Overview (*Baltimore*)

Extending the Public Space Network

Pathway Placement - Experiencing the River



Stepping Stones Offer Adventure But Are Not the Primary Path (*Toronto*)



Proposed Mary Miss Historic Third Ward Riverwalk (*Model*)

DESIGN GUIDELINE: Bridging - Opportunities for locating the Riverwalk with water on both sides may be proposed as an occasional alternative path integrated with conventionally placed segments.

See page 2 Riverwalk definition and preceding guidelines as basis for conventional placement.

THIRD WARD RIVERWALK - Extending the Public Space Network

Pathway Placement - Experiencing the River

DESIGN GUIDELINE: Touching the Surface - To intensify the presence of the river, the public Riverwalk should be positioned as close to the water level as possible with due respect to professional judgment and discretion.

Be advised that water level on the Milwaukee River is not controlled. Measures shall be taken to clearly understand and respond to ever-changing river levels.



People Love to Touch Water (*Minneapolis*)



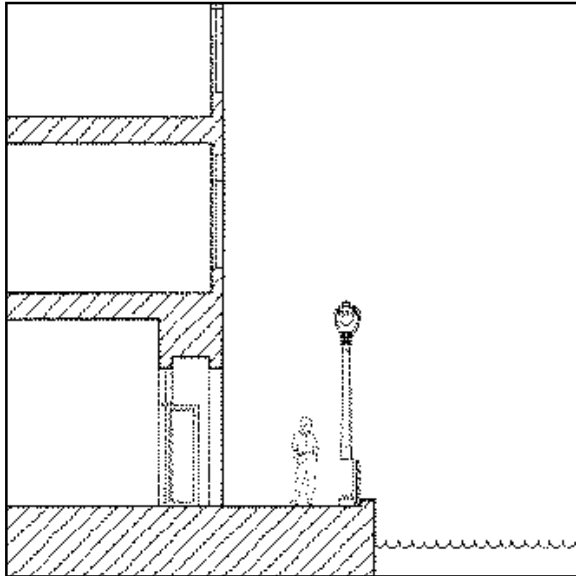
Water Steps (*Toronto*)



Riverwalk (*San Antonio*)

Extending the Public Space Network

Pathway Placement - Economic Development



Commercial Space on the Riverwalk



Cafe on the Riverwalk

DESIGN GUIDELINE: To encourage private investment with frontage along the river, the Riverwalk should be positioned with appropriate proximity to the adjacent building's floor elevations.



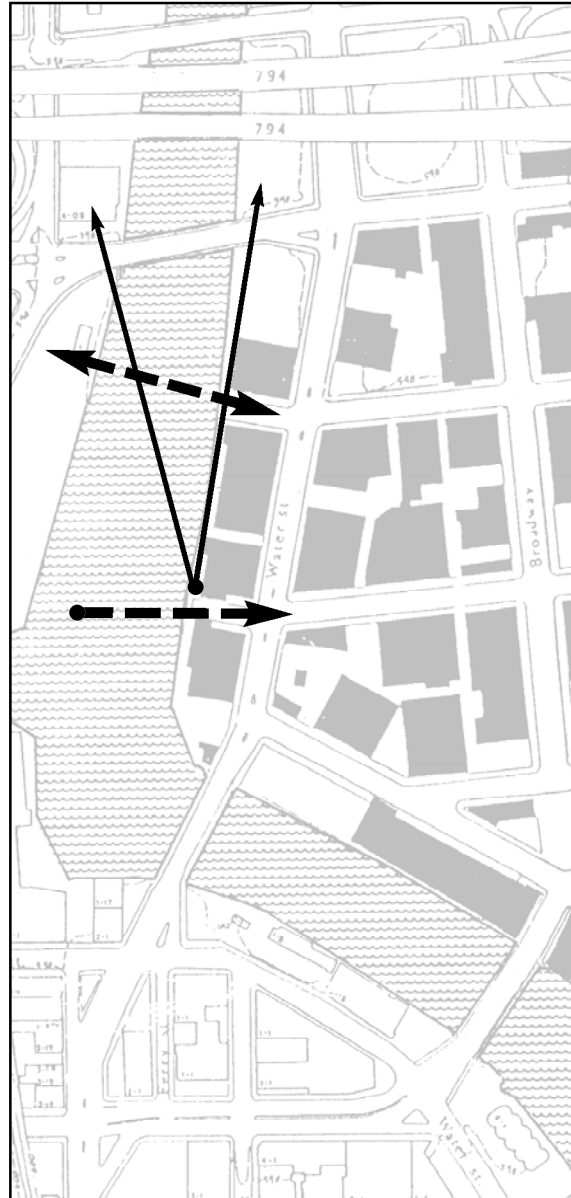
Building Entries on the Water

THIRD WARD RIVERWALK - Extending the Public Space Network

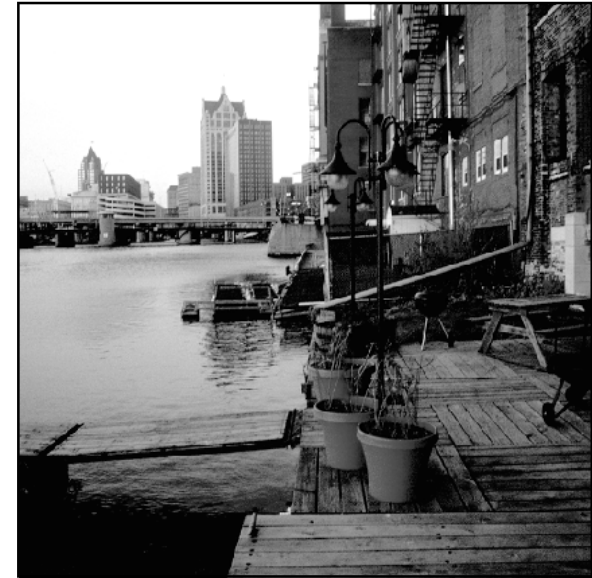
Long and Short Views

DESIGN GUIDELINE: Existing view corridors to and from the Third Ward shall be preserved and enhanced along public ways.

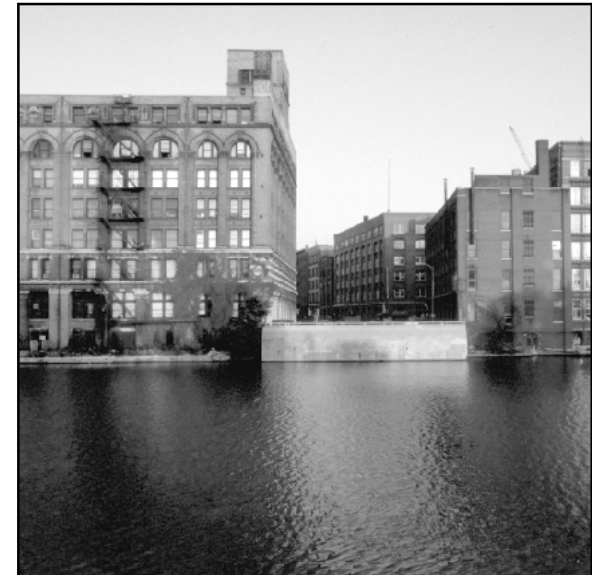
Views can play a major part in the visual impact of any urban setting. The view corridors should be considered in any design proposal for the Riverwalk. Whether these view corridors are left open or segmented with elements that frame or conceal views so as to gradually expose them as one moves along the way is left to the designer's discretion.



Panorama and View Corridors



Looking Downtown from the Third Ward



Looking into the Third Ward

Extending the Public Space Network

Paths and Places



Monuments as Destinations (*London*)



Places as Destinations



Places Along the Way

DESIGN GUIDELINE: The Riverwalk shall establish a sense of place by making a sequence of destinations linked by a river edge walk.

What's critical is the notion of a connected series of events along the way that continually rewards the Riverwalk user with discovery and delight.

Possible location of events (stars) along the way include intersections with public ways, open spaces or major institutions (MIAD).

THIRD WARD RIVERWALK - Extending the Public Space Network

Aesthetic Continuity

DESIGN GUIDELINE: The Riverwalk shall be composed of an array of consistent elements that reoccur throughout its length.

Variety with no consistent design elements can lead to a chaotic, disorganized visual image. Design and organize Riverwalk elements such that the spaces linked together by the walk maintain an aesthetic continuity that gives the whole an identity and distinguishes it as a special place.

While the notion of establishing a consistent height, datum line, for the Riverwalk above the water level creates a visually pleasing continuous base line (see examples) it may be difficult to achieve in the Third Ward.

Repetition, however, is another fundamental aesthetic device used to emphasize continuity and identity.

The organizational principle of rhythm is achieved if repetitive elements are spaced in a regular order.

The last photo displays greater consistency because it employs all three aesthetic ordering strategies.



Repetition - Harp Light Element Repeated



Datum - Consistent Landform - Horizontal Continuity (*Bath*)

Extending the Public Space Network

Aesthetic Continuity



Harp Lights Evenly Spaced but at Different Levels



Horizontal Continuity (Datum Line) with Rhythm of Repetitive Trees and Lights (London)



RIVERWALK SYSTEM DESIGN CHARACTERISTICS

PART II: Activating the River's Edge

While the previous section of the guidelines is concerned with establishing a continuous Riverwalk environment well-connected to existing public circulation networks, this section of the guidelines will address specific site conditions with design strategies for bringing each of them to life.

THIRD WARD RIVERWALK - Activating the River's Edge

Finished Edges

DESIGN GUIDELINE: All Property that is adjacent to the Riverwalk and exposed to view from it shall be addressed with design improvements that will respond to this new amenity by establishing a finished engaging edge condition at the upland side.

Existing edge conditions can be addressed in many ways. The line between this public place and private adjacent property can be a physically articulated and engaging edge, it can be developed as a connecting transition or it can be completely dissolved allowing the Riverwalk space to extend further upland. Design quality at this edge is critical.



Third Ward

Activating the River's Edge

Finished Edges



Lush and Fragrant Landscape Edges (*Bath*)



Connecting, Interactive Edge (*Venice*)



Engaging Public Space Extends from River into the City (*Bath*)

THIRD WARD RIVERWALK - Activating the River's Edge

Surface Parking Lots

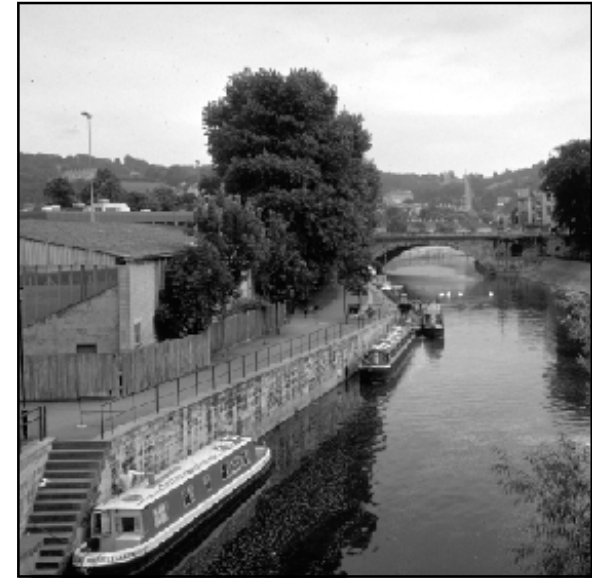
DESIGN GUIDELINE: Surface parking lots and parking structures as well as auto service uses along the river are strongly discouraged. Where surface parking occurs a landscaped edge shall visually screen the lot and provide a backdrop for articulated connections to the Riverwalk.

The City of Milwaukee's zoning ordinances prescribe specific parking lot landscape buffer requirements along streets. These Riverwalk Guidelines adopt by reference those same standards except the required landscaped setback shall be 15 feet.

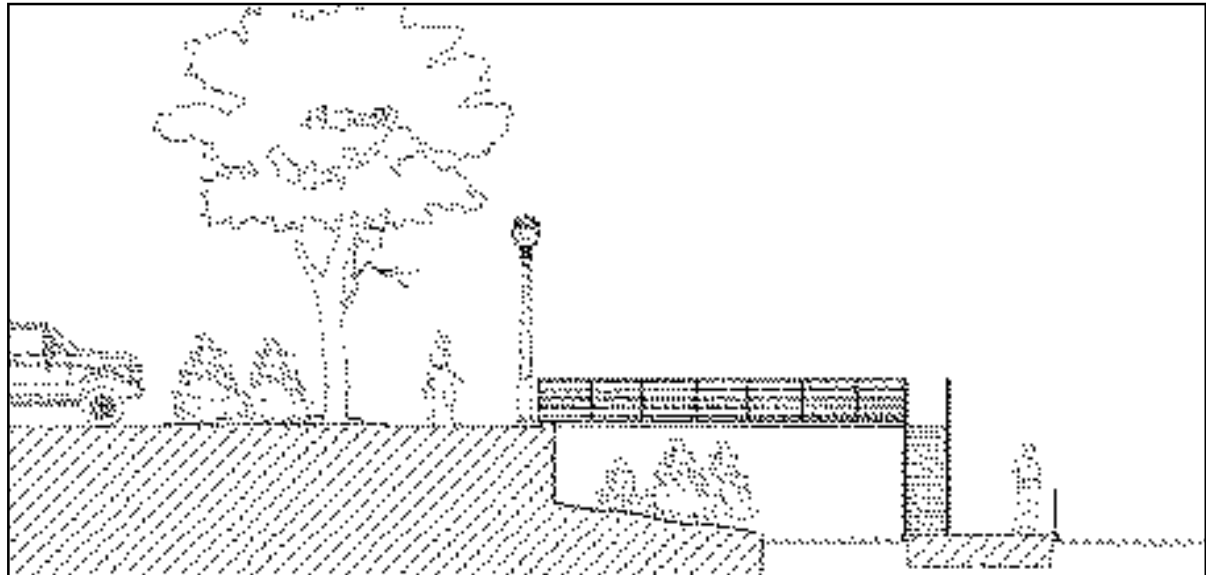
Parking structures shall conform to the Riverwalk guidelines as well as the design guidelines for the Historic Third Ward District.



Third Ward Parking Lot



Tree Line Stops Too Soon (*Bath*)



Surface Parking Lot Buffer

Activating the River's Edge

Service Alleys

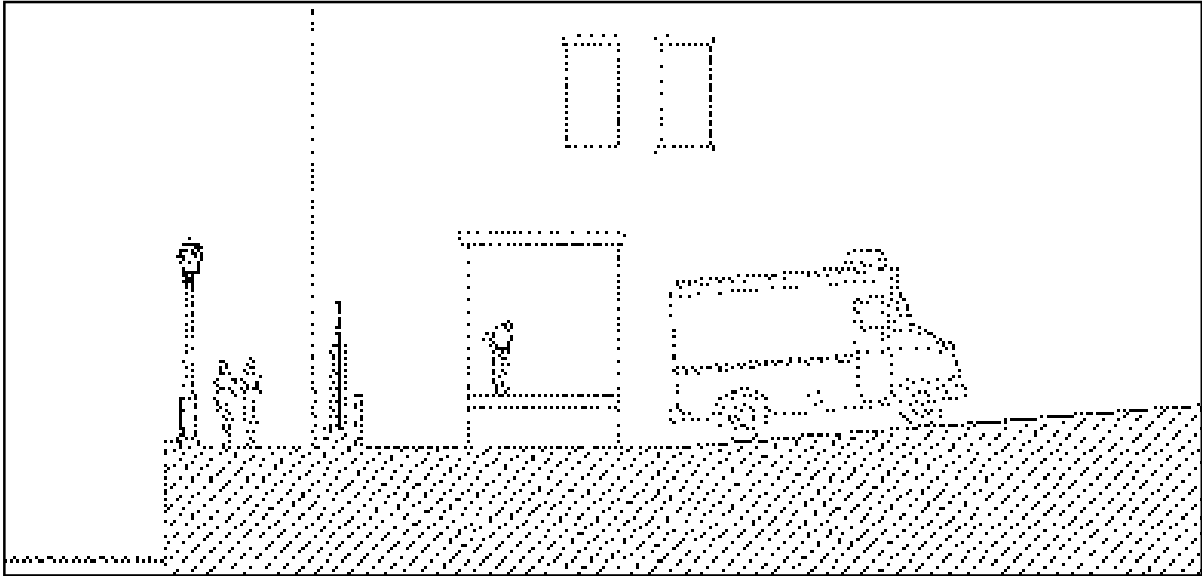


Third Ward Service Alley



Alley at Plankinton Ave.

DESIGN GUIDELINE: Where service alleys occur consideration shall be given to configuring a public access point to the Riverwalk so that pedestrians can share the alley with sporadic service vehicle traffic. If vehicle traffic is constant and represents a hazard to pedestrians or if the service alley is consistently used for refuse storage provide Architectural Review Board approved visual screening so that the service alley is clearly separated from the Riverwalk.



Functioning Service Alley Screened at Riverwalk

THIRD WARD RIVERWALK - Activating the River's Edge

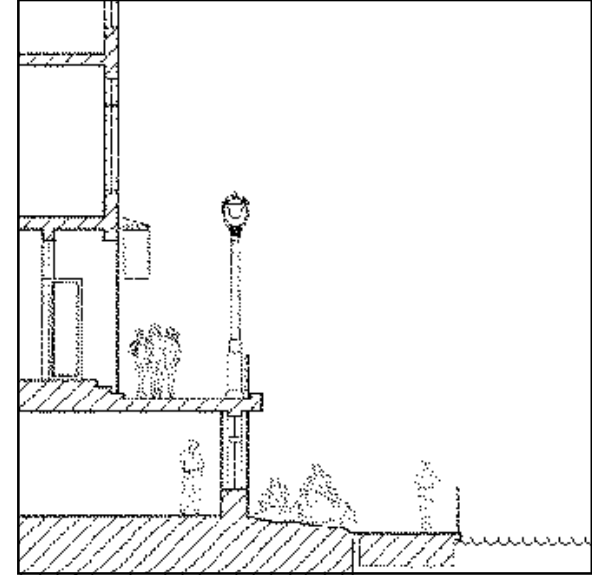
Commercial Building Uses

DESIGN GUIDELINE: Street level commercial uses overlooking the Riverwalk are strongly encouraged.

Where commercial buildings occur along the Riverwalk's edge make allowance for street level development overlooking the Riverwalk with transition spaces such as courtyards, arcades, terraces, steps, entrances, storefront windows, canopies, glass sheds, galleries, etc. Rear facade changes are subject to the Design Guidelines for the Historic Third Ward District.



Existing Third Ward River Edge



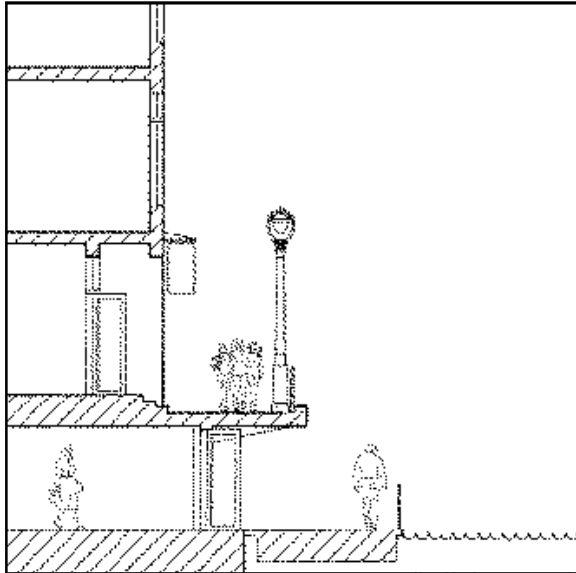
Retail at Upper Level Edge



Public Passage at River Level (*Kohler*)

Activating the River's Edge

Commercial Building Uses



Retail on Two Levels



Canopied Cafe (*Venice*)

DESIGN GUIDELINE: River-level commercial uses are encouraged, however, commercial access to river-level Riverwalk space will be reviewed on a case-by-case basis. A minimum 8-foot public passage shall always be maintained.



Public Space at River Level with Commercial Space Above (*Venice*)

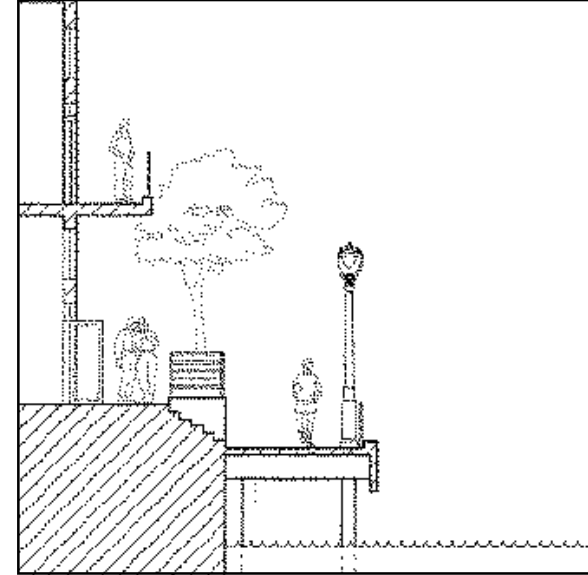
THIRD WARD RIVERWALK - Activating the River's Edge

Residential Building Uses

DESIGN GUIDELINE: Where residential uses occur along the edge, steps, terraces, yards, balconies, gardens, greenhouses, courtyards, etc. shall provide separation of the public Riverwalk from private dwelling unit windows.



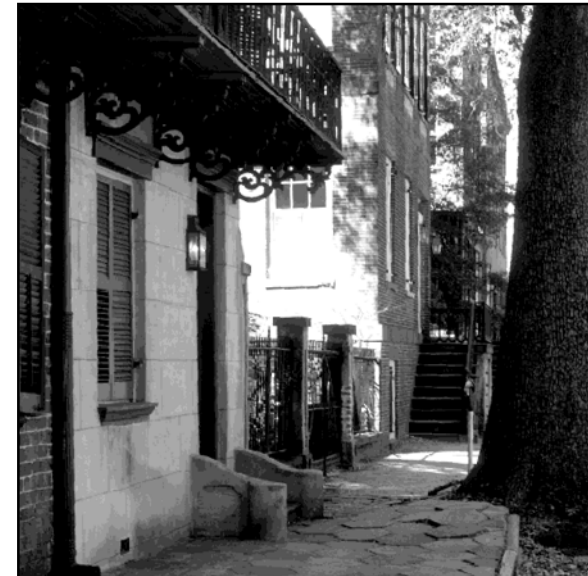
141 North Water St. - New Condominiums



Multi-Story Residential



Residential with Terraced Edge (*Bath*)



Balconies, Step and Court (*Savannah*)

Activating the River's Edge

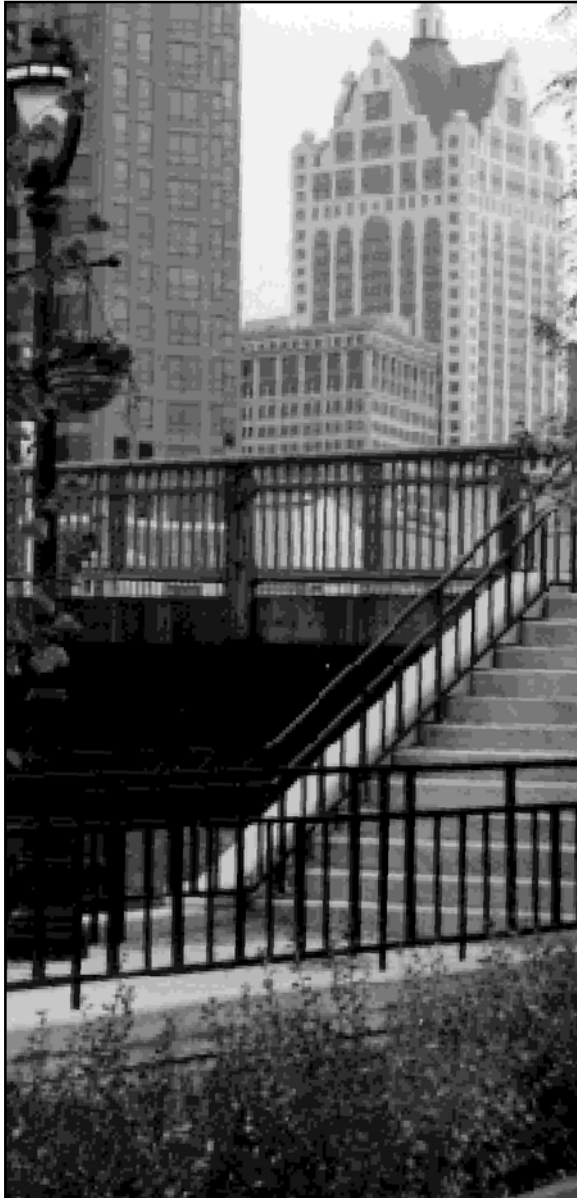
Bridge Abutments



Existing Water St. Bridge Abutment



Cascading Stair Transition



State St. Bridge Connection

DESIGN GUIDELINE: Where bridge abutments occur along the Riverwalk, stairs, handicap accessible ramps, terraced slopes, overlooks, with places for people to stop, rest and enjoy the view shall provide grade change transitions and connections.

THIRD WARD RIVERWALK - Activating the River's Edge

Public Squares at Street Ends

DESIGN GUIDELINE: Where streets terminate at the river, public spaces such as plazas, courtyards or quadrangles with transition spaces along their edge such as arcades, terraces, steps, entrances, storefront windows, balconies, etc. shall be designed to connect and extend the pedestrian environment of the Riverwalk into the city. Street facades are subject to the Design Guidelines for the Historic Third Ward District.



Existing Buffalo St. Stub End Looking West



Public Plaza (*Bath*)



Street Arcade with Vendors (*Florence*)

Activating the River's Edge

Public Squares at Street Ends



Street Promenade (*Boston*)



Covered Street (*London*)

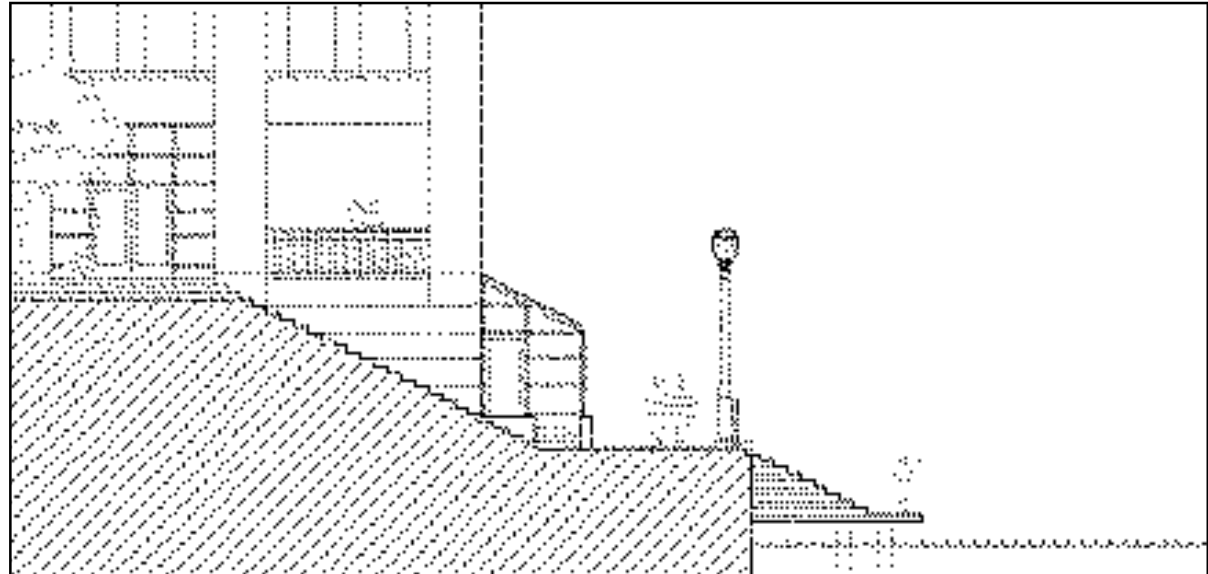


Parking Courtyard (*Sorrento*)

THIRD WARD RIVERWALK - Activating the River's Edge

Layered Spaces

DESIGN GUIDELINE: The upland edge adjacent to the Riverwalk should be articulated with layers of public and semi-public transition spaces that increase the number of activity settings and opportunities for people to occupy, use and enjoy the River's edge in all weather conditions.



Plaza, Shop Entry, Arcade, Monumental Stair, Cafe, Riverwalk, Water Taxi Stand



Balconies, Colonnades, and Level Changes (*Celebration*)

Activating the River's Edge

Open Access



DESIGN GUIDELINE: The water's edge adjacent to the Riverwalk should offer unrestricted access to the tranquil experience of the flowing river and could promote a return to natural habitat formation. Long-term boat dockage under exclusive use or control at landscaped segments is prohibited. Transient boat docking shall be permitted at approved locations.

Water's Edge Access is Blocked



RIVERWALK SYSTEM DESIGN CHARACTERISTICS

PART III: Details and Qualities

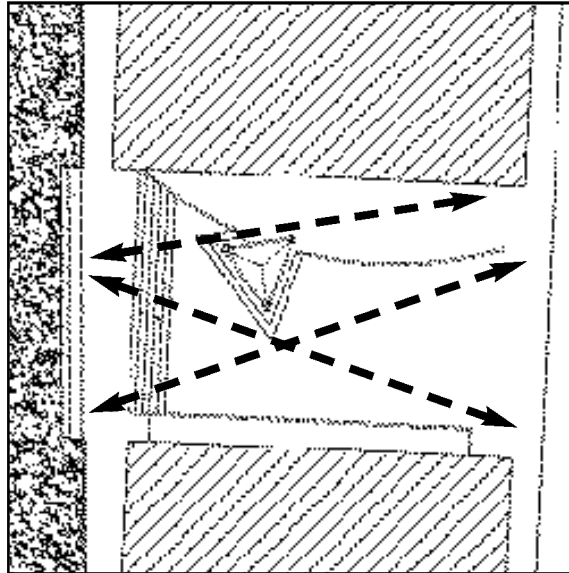
This section discusses fundamental guidelines that contribute to assembling places that are vivid, distinct and memorable. This section, like the others, largely relies on images to convey ideas. But particularly unique qualities of each environment shown are achieved by engaging other senses besides sight. Touch, smell, hearing and movement sensations should be carefully considered and tapped as sources that can contribute to the whole effect. Review the references listed in the bibliography for additional information.

THIRD WARD RIVERWALK - Details and Qualities

Colonizing Public Spaces

DESIGN GUIDELINE: Where pedestrian spaces are wider than 16 feet urban space furnishings shall be designed to encourage people to occupy and animate settings within the space. These settings should incorporate seating.

Elements might include pavilions, monuments, fountains, market stalls, street vendors, plantings, etc. Features shall be located by establishing likely pedestrian circulation flow lines then placing them along the path edge but out of its direct flow. An 8-foot clear walking surface shall be maintained.



Plan View of Public Space



Book Stalls (*London*)



Public Outdoor Room (*Basil*)



Landscaped Courtyard (*Bath*)



Public Art (*Chicago*)



Seating and Plantings (*Boston*)



Fountain (*Munich*)



Monument (*London*)

THIRD WARD RIVERWALK - Details and Qualities

Places to Sit

DESIGN GUIDELINE: Riverwalk proposals shall provide a minimum of one linear foot of seating per 50 square feet of open space.

Riverwalk spaces shall provide for sunny spaces to sit with special consideration given to weather protection (from wind and rain), to prospect (location to be raised slightly with a view of places beyond or other pedestrian activity), and to integration with other physical elements (so empty seats are not apparent). The photos show possibilities.

Inside corner seating configurations are preferred for encouraging user interaction. Straight segments or outside corners offer users the ability to tune out others.



Stair Seats (*Venice*)



Sun



Column Base Seats (*Rome*)

Details and Qualities

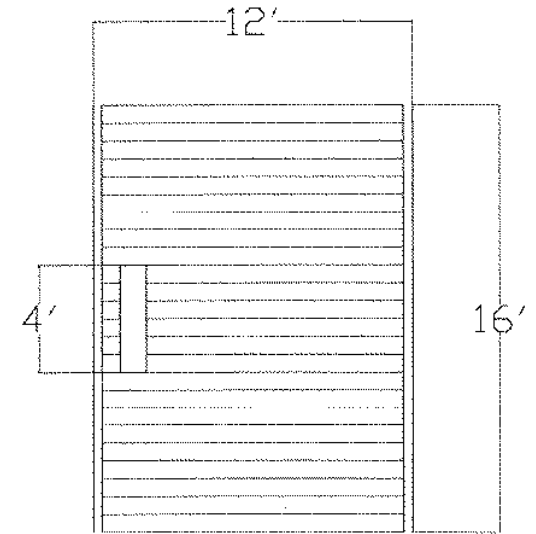
Places to Sit



Immediacy to Water



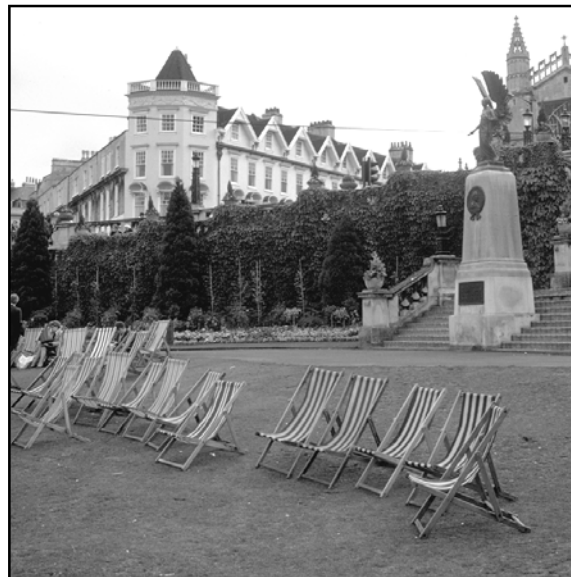
Prospect, Raised Seating (*London*)



Seating-Area-to-Walk-Area Relationship



Wall Seats



Furniture

THIRD WARD RIVERWALK - Details and Qualities

Trees

DESIGN GUIDELINE: Trees should be used to articulate and subdivide public space. They can provide both refuge and prospect for seating.



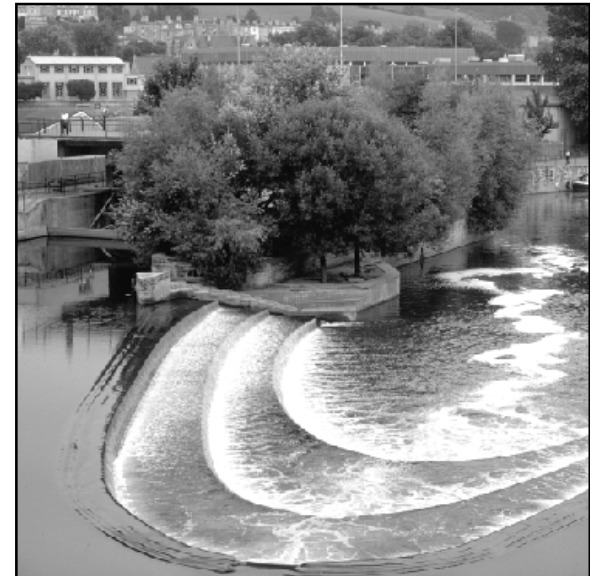
Tree as Umbrella (*Bath*)



Tree as Gate (*London*)



Arcade of Trees (*London*)



Grove (*Bath*)

THIRD WARD RIVERWALK - Details and Qualities

Plantings



Potted Plantings (*Sorrento*)



Native Vegetation (*Kohler*)

DESIGN GUIDELINE: Shrubs, flowers and grasses shall be used to enrich the sensory experience of Riverwalk users. Plantings for all seasons shall be provided.

Plants are a welcome contrast to man-made hard landscape and architecture.

Private landscaping should be consistent with the public plantings along the Riverwalk.



Raised Edge Plantings



Terraced and Climbing Plantings (*Bath*)

THIRD WARD RIVERWALK - Details and Qualities

Handicap Accessibility/Walking Surfaces

DESIGN GUIDELINE: Although continuous access may not be met due to limiting site conditions, each segment of the Riverwalk shall be accessible to the handicapped via a public way in accordance with Federal ADA requirements.

Access is encouraged through adjacent buildings as well as via public space connection points.

Submission of an accessibility plan diagramming accessible routes shall be a requirement of the approval process.



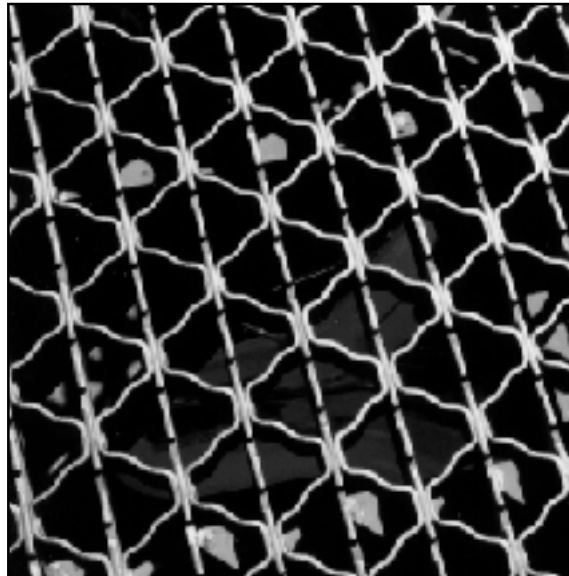
Sloped Grade



Accessible Ramp

DESIGN GUIDELINE: Paving materials and walking surfaces shall provide pedestrian scale to the places they define.

Steel grating can provide heightened awareness of flowing river below. Paving patterns should respond to adjacent facades. Wooden boardwalk reference historic mercantile wharf activity.



Street Grating



Cobblestone Drive (*Sorrento*)

Details and Qualities Lighting



Ornamental Fixture (*St.Petersburg*)



Object Lighting (*Rome*)



Facade Lighting (*Venice*)



Space Lighting (*Venice*)

DESIGN GUIDELINE: Lighting unique to the Riverwalk should enhance surfaces and objects along the way as well as light the pedestrian path and promote security for night use.

Lighting is a critical feature of the Riverwalk. Half of the time (night time), it is the most important element for bringing the Riverwalk to life. It is often used as a fundamental repetitive design element (see page 20: Aesthetic Continuity).

Lighting that is too bright as well as too dim is to be avoided. Lighting that is too dim will discourage night use of the Riverwalk for those concerned with safety. Lighting that is too bright will destroy the intimate ambiance these guidelines are striving to encourage.

THIRD WARD RIVERWALK - Details and Qualities

Overhead Elements

DESIGN GUIDELINE: Articulated overhead features are encouraged as devices to define spaces and thresholds between urban places.



Wood Trellis (*Boston*)



Awning (*Boston*)

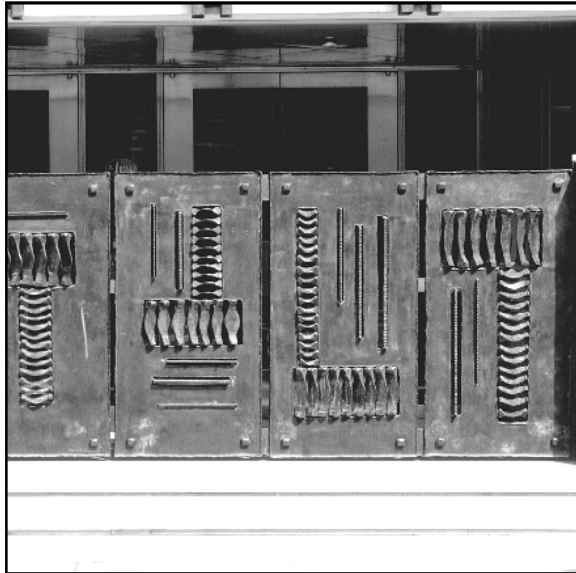


Fabric Roof (*Seaside*)

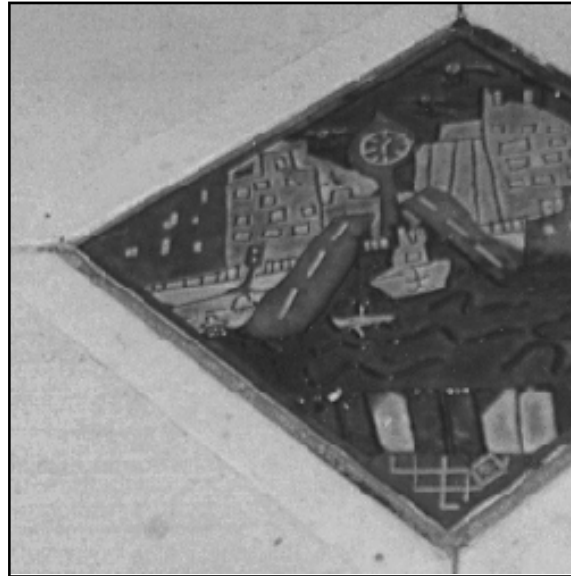


Gateway Colonnade (*Bath*)

Details and Qualities Ornamentation

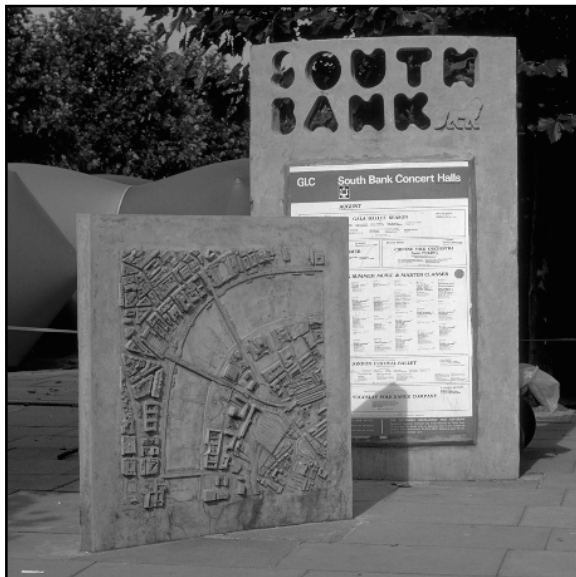


Metal Fence (London)



Cast Medallion

DESIGN GUIDELINE: Art, ornamentation and surface enrichment in close proximity to pedestrians shall be integrated into Riverwalk spaces to add meaning and celebrate local heritage.



Cast Signage (London)



Gertie the Duck

THIRD WARD RIVERWALK - Details and Qualities

Materials

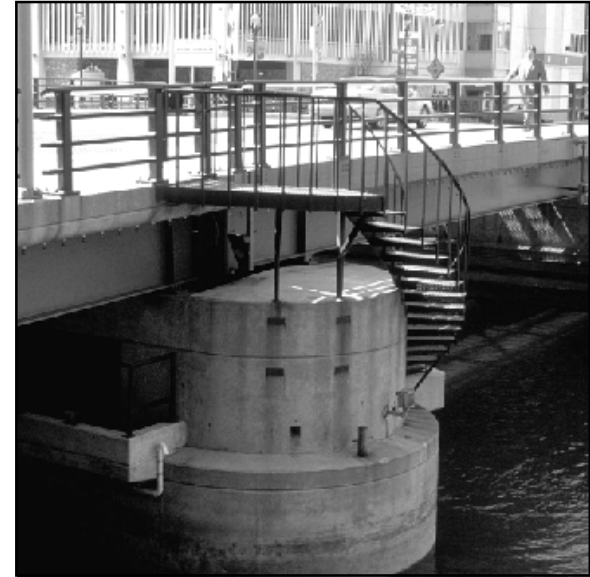
DESIGN GUIDELINE: Locally prevalent materials like brick, stone, concrete, metal, glass, and wood shall be used to relate the Riverwalk's design to the Historic Third Ward's unique image.

Materials and imagery drawn from present as well as historical elements of infrastructure as well as buildings are sources of relevant local construction traditions.

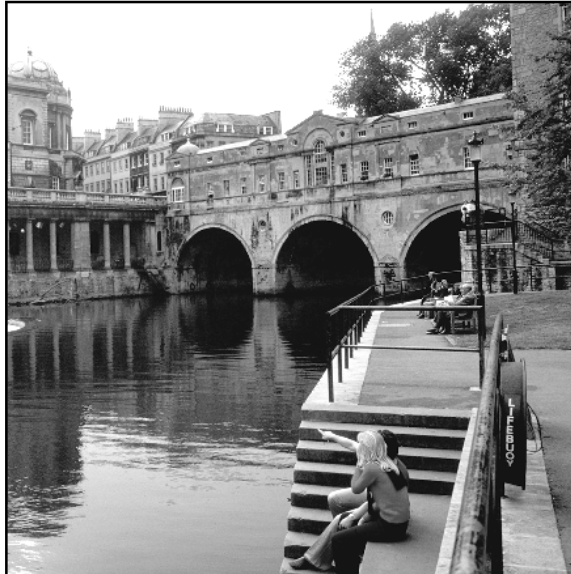
The use of asphalt, stucco, concrete block, synthetic stucco, or molded plastic is prohibited.



Timeless Masonry (*Rome*)



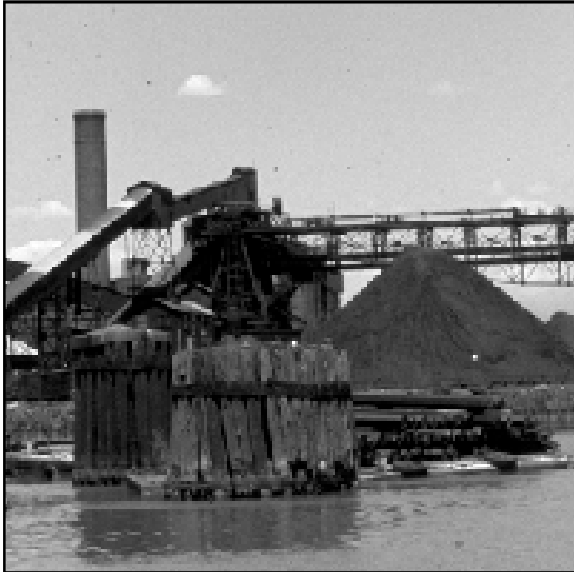
Metal Spiral Stair



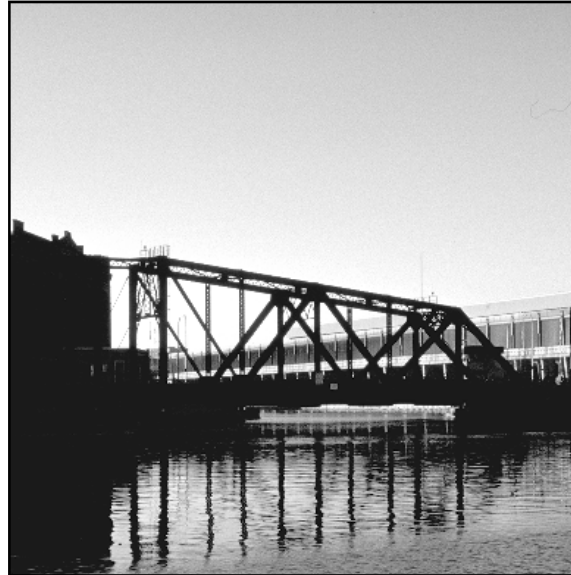
Concrete Steps (*Bath*)



Steel Plate Surface



Wooden Moorings



Third Ward Steel Bridge



Wood Boardwalk



Metal Railings

THIRD WARD RIVERWALK - Details and Qualities

Aesthetic Transition

DESIGN GUIDELINE: Along the Riverwalk where design elements of different character meet, visual transitions shall be used to clearly integrate or resolve each element visually (aesthetically).

This is a design issue more suited to a scholarly research study and perhaps an entire book. It is not easily described and discussed concisely. However, it is a critical design issue and concern of the Architectural Review Board because of the numerous separate parcels and conditions along the length of the Riverwalk. While functional transitions have been previously addressed, these pages will suggest some rather simple techniques for connecting/disconnecting elements visually. Simple techniques include alignment, bordering, framing and use of offsets or reveals. Techniques involving formal collision, interlocking forms, and overlapping patterns, (transparency), are more sophisticated and complex strategies. For successful results, these particular approaches require the skills of an experienced and knowledgeable designer.



Posts Frame Varied Railings



Border Disguises Misalignment



Arc Resolves Angles



Setback (Reveal) Allows Pattern Changes



Alignment Assures Visual Order



Overlapping Diverse Elements



Forms Align, Interlock and Use Reveals



Alley



Alley Transformed

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