

# HARBOR DISTRICT RIVERWALK OVERLAY- DESIGN STANDARDS CHECKLIST

[Link to Harbor District Standards](#)

**NOTE:** The standards in this checklist are not inclusive of all standards and requirements within the Harbor District Riverwalk Site Plan Review Overlay Zone. It is only meant to compliment the [Harbor District Riverwalk Design Standards](#) document, which you must be fully aware of and in compliance with.

Fill out the fields below. Please note if you believe a field is not applicable to your project.

## 1. Project Information

Project Address(s): 311 & 615 E. GREENFIELD AVE. MILWAUKEE, WI 53204

Contact Name: Alyssa Remington, Redevelopment Authority of the City of Milwaukee

Contact Phone Number: (414) 286-5802

Total Riverwalk square footage: 123,025 SF

Linear footage of river frontage: 2,984 LF

Type of Project (land use): 8 - Riverwalk

River dependent use:

☒ Yes ☐ No

*River dependent uses include, but are not limited to: Bulk material operations that ship or receive materials by barge; Marinas; Recreational and commercial boating facilities; Waterfront dock and port facilities for commercial, cargo, or passenger uses; Bridge abutments; Waterfront recreational amenities such as kayak and canoe launches; and, other uses that require waterborne transportation on the river (Page 6).*

Describe your overall project (summarize your proposal):

The Harbor District Riverwalk is a public open space redevelopment project located along the Kinnickinnic River in Milwaukee's Harbor District. At close to three quarters of a mile in length, the project is a generational opportunity to build the largest section of riverwalk in Milwaukee's overall riverwalk system. The project will result in an iconic public space that provides recreational, transportation, and environmental benefits to residents, employees, and visitors in the area, and will showcase the successful coexistence of commerce, community space, and ecological restoration.

## 2. Site Specific Considerations (Pages 14-15)

Existing seawalls?:

☒ Yes ☐ No

*Repair or replacement may be needed.*

Existing concrete bulkheads?:

☒ Yes ☐ No

*Existing concrete bulkheads are not required to be removed, but should be incorporated into the Riverwalk Trail design or, at a minimum, accommodate the Design Standards set forth.*

Contaminated soils:

☒ Yes ☐ No

*Will require a Phase I and II Environmental Assessment to determine the extent of the contamination. Management plans are required.*

Is your site adjacent to a Public Access Point? (Page 11):

☒ Yes ☐ No

*Identity and/or Directional Signage shall be provided where the multiuse path intersects with streets or other public access points. Informational signage is recommended to be placed along the Riverwalk at primary accesspoints and other major pedestrian and bicycle access points (Page 42-43). Further discussion with City staff may be required.*

Is your site adjacent to a Public Right-of-Way Connection? (Page 30-31):

☒ Yes ☐ No

*Public right-of-way connections serve to connect the Riverwalk Trail back to the street network and are designed to support connectivity, ease of access, accessibility, and safety. Certain design standards are required and referenced on Page 30.*

## 3. Riverwalk Typology/Width

Required trail typology is determined by the system map on page 11 as well as the land use adjacent to the Riverwalk being developed.

Check one box:

	Riverwalk Typology on Map (Page 11)	
	Multi-Use	Urban
Pedestrian Activated First-Floor*	<input checked="" type="checkbox"/> 25 feet	<input type="checkbox"/> 15 feet
Non-Pedestrian Activated First-Floor**	<input type="checkbox"/> 25 feet	<input type="checkbox"/> 25 feet

If both typologies occur on the site, please explain:

Not Applicable

*\*Pedestrian activated 1st floor uses: commercial and active residential uses (see page 18).*

*\*\*Non-pedestrian activated 1st floor uses: manufacturing, transportation, storage and wholesale trade uses, parking lots, storage yards, and other similar uses, unless meeting the exceptions on page 18.*

#### 4. Pavement Materials & Compliance (Page 32-33)

Riverwalk Trail construction shall consist of paving materials that ensure adequate strength, accessibility, and safety to users, including emergency vehicles. All Riverwalk segments are required to be inclusive and accessible. ADA-compliant ramps shall connect public walkways and points of public access to the Riverwalk. Whenever possible, paving materials should comply with green infrastructure and stormwater management objectives. All paving materials should utilize neutral colors, primarily in gray or earth-tones.

**Figure 19. Pavement Materials**

Materials	Poured-in-Place Concrete	Wood Decking	Steel Grating	Asphalt*	Decomposed Aggregate	Permeable Pavers	Wood Block Pavers
Primary	X	X	X*	X†	X‡		
Secondary	X	X	X	X	X		
Supplemental / Accent	X	X	X	X	X	X	X

*\*Steel grating may be used as a primary material only in transition zones such as bridges or over-water segments.*

*†Asphalt is a primary material for the Multi-Use Typology, but is not permitted as a primary material for the Urban Typology.*

*‡Decomposed aggregate may be used as a primary material for the 2' shoulders alongside trail in the Multi-Use Typology*

Primary Materials:

- ☐ Poured-in-Place Concrete
- ☐ Wood Decking
- ☐ Steel Grating
- ☒ Asphalt
- ☐ Decomposed Aggregate

☒ Other, describe: Elevated deck at Kinnickinnic Avenue and the Inlet Bridge are concrete surface materials. Surfaces may include "pre-cast" concrete sections, but will be functionally equivalent to "poured-in place" concrete.

Secondary Materials:

- ☒ Poured-in-Place Concrete
- ☒ Wood Decking
- ☒ Steel Grating
- ☐ Asphalt
- ☐ Decomposed Aggregate
- ☒ Other, describe: Concrete Unit Pavers

Supplemental/Accent:

- ☐ Poured-in-Place Concrete
- ☐ Wood Decking
- ☐ Steel Grating
- ☐ Asphalt
- ☒ Decomposed Aggregate
- ☐ Permeable Pavers
- ☐ Wood Block Pavers
- ☐ Other, describe: \_\_\_\_\_

The Riverwalk Trail has no more than a zero (0) to five (5) percent longitudinal slope and no more than a 1.5% cross-slope to comply with all relevant and current codes, standards, and regulations (page 17)

- ☒ Yes
- ☐ No (justify below)

Describe your overall Riverwalk pavement plan:

The riverwalk pavement strategy consistently conforms to the Riverwalk Standards being a 14-foot wide paved surface with appropriate shoulders given. The secondary materials occur at strategic points where terraces or gathering spaces occur to provide additional space for users. All accent/supplemental materials exist in gathering spaces along the riverwalk zones, and are not used at paths of travel.

## 5. Furnishings (Page 34-37)

Appropriate furnishings and fixtures shall be provided throughout the length of the Riverwalk to make it attractive and functional for users. Site furnishings should prioritize environmentally and socially responsible choices that are easily maintained and fit within the context of the Riverwalk, as well as create a unified aesthetic for the Riverwalk. Aesthetic and material choices demonstrated in this section were selected through a comprehensive community engagement process, and aim to embody the industrial, rustic Harbor District brand.

The property owner shall maintain site furnishings, including trash receptacles and lighting. Final furnishings and materials are subject to review and approval by the City Plan Commission.

Benches:

Linear footage of river frontage: 2,984 LF

Number of benches: 28

Materials: wood & weathered steel

Location(s): Evenly spaced throughout riverwalk

*Benches/seating shall be included in every Riverwalk segment, and no more than 200 feet apart.*

Tables and Chairs

Number of tables: 7

Materials: wood & weathered steel

Location(s): Evenly spaced throughout riverwalk

*Tables and chairs are encouraged throughout the Riverwalk, especially at public access points which are encouraged to feature larger seating and gathering areas. Other examples of appropriate placement include parks, unique viewing areas, and plazas. These sites should be strategically located along the Riverwalk.*

Trash and Recycling Receptacles:

Number of trash receptacles: 10

Number of recycling receptacles: 6

Materials: fabricated metal w/plastic liners (per manf)

Location(s): Evenly spaced throughout riverwalk

*Trash receptacles shall be placed along with tables and seating areas.*

Railings and Guardrails:

Linear footage of railings and/or guardrails: 1,826

Materials:

powder coated steel

☐ N/A

*Railings along naturalized/soft edging shall be installed at the discretion of site owners and design professionals. Site conditions will dictate the need for railings along soft/ naturalized conditions. Along hard or River-Dependent use edge conditions, railings or guardrails are required where pathways are located within three feet of the water's edge, except where the Riverwalk is adjacent to boat docking or a marine operation area.*

Fencing:

Linear footage of fencing: 0

Materials:

*Adjacent property fencing renders no need for fencing at riverwalk/not applicable*

☐ N/A

*Owners may place fencing at the landside edge of the 25-foot Multi-Use Riverwalk Zone (or further inland) if they so desire. The standard for fencing is not limited to a single design type, however quality and durable materials are required and will be approved by the City Plan Commission.*

Describe your Riverwalk furnishing plan:

The furnishing plan shall conform to riverwalk design standards with specified manufactured furnishings. Additional seating is provided with custom terrace and cast-in-place seating elements that visually tie with the site aesthetic.

## 6. Lighting (Page 36-37)

Review the Harbor District Lighting Design Standards on pages 37 and 38 and affirm below that you have met each of the standards.

Check all standards that you have been able to meet.

☒ Product

*For pedestrian lights, Tandem Light Straight Series pole with A16-BP18R, mast arm mount light fixture from Structura, or approved equal. For bollards, Moka Bollard by Metalco or Bright Bollards by Streetlife.*

☒ Pole Height

*Preferred pole height is 17.5'. Avoid abrupt changes in fixture height between properties.*

☒ Fixture Height

*Height for pedestrian light fixtures is less than 20 feet with a maximum allowable light fixture height of 20 feet. The primary fixture shall be located on the path-facing side of the pole.*

☒ Finish and Color

*Pole and fixture finish shall be Light Grey. Base panel materials shall be weathering steel.*

☒ Color

*LED bulbs should provide warm white light with a color temperature of 3000K and below. The light color should emit a warmer light color and less blue (cool) light. Cool blue light is more harmful to many animal species.*

☒ Foundation

*Pole to be placed upon a foundation designed per the site's soil conditions and local codes.*

☒ Light Levels

*Provide adequate light levels for pedestrian safety and security considering visibility, continuous illumination of vehicular use and other areas, avoidance of dark or un-illuminated areas, etc. Light levels at the property lines should not exceed 1 footcandles (Fc) adjacent to active properties, while light levels should not exceed 0.5 Fc at non-active property lines. Light levels and uniformity ratios should not exceed recommended values, per Illuminating Engineering Society of North America (IESNAiesna) RP-33 or 20. For more information see: [darkskysociety.org/handouts/LightingPlanGuidelines.pdf](http://darkskysociety.org/handouts/LightingPlanGuidelines.pdf)*

☒ Dark Sky

*Luminaries should be dark-sky compliant and be equipped with shields so that light does not shine into adjacent residential or institutional areas or negatively affect wildlife. Specifications and/or product data sheets, specifically highlighting the color temperature, light fixture height, and shield is required for review and approval.*

Describe your overall Riverwalk lighting plan, and any standards which you believe are not applicable. If your lighting fixtures meet the intent of these standards but are slightly different, please explain:

The overall lighting approach is to conform to the Riverwalk Design Standards.

Equivalent to pole A16-BP18R is provided.

## 7. Landscaping (Page 38-39)

Total Riverwalk square footage: 123,025

Linear footage of river frontage: 2,984

Required landscaped areas. At least 10% of the total square footage of the required Riverwalk Zone must consist of landscape elements as described on pages 38-39:

☒ 10% or greater. Exact %: 27.6

☐ Less than 10%. Exact %: \_\_\_\_\_

Number of trees: 108

Species of trees:

Additional room needed for response. See attachment at end of this checklist.

*There shall be one shade tree per 40 feet of Riverwalk frontage. Trees are not required to be placed at regular intervals and can be placed in groupings to comply with this requirement.*

*Each tree shall be provided with a four (4) foot width of exposed soil at the ground surface. If soil quality is of particular concern, soil chemistry tests should be conducted to inform any mitigation needed. Soil compaction should be evaluated to determine the need for tilling or soil amendment. A minimum of 24 inches of engineered soil media layer depth is required.*

Review the Harbor District Landscaping Design Standards on pages 37 and 38 and affirm below that you have met each of the following standards.

Check all standards that you have been able to meet:

☒ Plant Sourcing and Selection

*Plants are nursery grown, legally harvested and native or adapted species, with an effort to achieve plant species diversity*

☒ Aesthetics

*Aesthetics should relate to the surrounding context, and plants should be selected to promote seasonal interest. Planting along the riverbank should be naturalistic. Four-season interest should be considered when selecting plants.*

☒ No Invasive Species

*Exotic and invasive species shall not be permitted along the Riverwalk. Exotic plants are those not native to the United States, while invasive species are those considered both non-native and fastgrowing, able to spread to the point of disrupting native and natural plant communities or ecosystems.*

☒ Minimized Disturbance

*To the extent possible, owners should minimize site disturbance and re-vegetated disturbed areas with native and adapted species.*

☒ No Turf Grass:

*No turf grass shall be installed within the 15-foot or 25-foot Riverwalk Zones.*

Describe your Riverwalk landscaping plan, and any standards which you believe are not applicable:

Additional room needed for response. See attachment at end of this checklist.
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## 8. Stormwater Management (Page 44-45)

New impervious area:

- ☐ Less than 5,000 square feet  
☒ 5,000 square feet or more

*Properties with less than 5,000 square feet do not meet the size thresholds to trigger the Stormwater and Green Infrastructure requirements of either City of Milwaukee Chapter 120 or MMSD Chapter 13*

**Figure 25. Green Infrastructure Options**

	<i>Greenway/Vegetated Buffer</i>	<i>Bioswales</i>	<i>Wetlands</i>	<i>Rain Gardens</i>	<i>Native Landscape</i>	<i>Removal of Structures/Paving</i>	<i>Pervious Pavements/Pavers</i>	<i>Green/Blue Roofs</i>	<i>Disconnect/Redirect Downspouts</i>	<i>Underground/Aboveground Storage</i>
<b>Riverwalk Overlay Zone</b>										
<i>Riverwalk Zone</i>	X	X								
<b>Future Development Properties</b>										
<i>Areas of Low Topography</i>			X	X	X					
<i>Existing Drainage Ditches</i>		X	X							
<i>Existing Property Features</i>						X	X	X	X	X
<i>New Property Features</i>		X					X	X		X
<b>Roadways</b>										
<i>Adjacent Roadways</i>		X					X			

If LESS THAN 5,000 square feet - a minimum of one green infrastructure menu item (page 45 and table below) is required within the 15-foot or 25- foot Riverwalk Zone.

Green Infrastructure Included. Check all that are included.

<input checked="" type="checkbox"/> <i>Greenway/Vegetated Buffer</i>	<input checked="" type="checkbox"/> <i>Bioswales</i>	<input type="checkbox"/> <i>Wetlands</i>
<input type="checkbox"/> <i>Rain Gardens</i>	<input checked="" type="checkbox"/> <i>Native Landscape</i>	<input type="checkbox"/> <i>Removal of Structures/Paving</i>
<input type="checkbox"/> <i>Pervious Pavements/Pavers</i>	<input type="checkbox"/> <i>Green/Blue Roofs</i>	<input type="checkbox"/> <i>Disconnect/Redirect Downspouts</i>
<input type="checkbox"/> <i>Underground/Aboveground Storage</i>		

Describe your stormwater management plan, including the number and placement of the green infrastructure above:

Bioswales are being planned in the northern part of the site, near Harbor View Plaza. In addition, native landscaping and vegetated buffers/greenway are included throughout the project to support all stormwater needs and to address Chapter 120 of the City Ordinances and MMSD Chapter 13.

## 9. Upland and Aquatic Habitats (Page 46-51)

Riverwalk design must incorporate at least one upland habitat opportunity from Page 47. For Riverwalk segments with greater than 600 linear feet of river frontage, selected elements must be installed with a frequency of not less than one per 600 feet (i.e., a 700 foot Riverwalk segment could install at least two bat boxes, or one bat box and one birdhouse. An applicant who elects to provide an aquatic wildlife habitat element described in this chapter along the river at their property is exempt from the requirement to construct an upland habitat element.

Number of selected Habitat Elements:

Linear footage of river frontage: 3115

Total habitat elements included (1 per every 600 ft required): 16+

Habitat type included:

- ☐ Upland habitat element
- ☒ Aquatic habitat element
- ☐ Both

Upland Habitat Included:

- ☒ Increase landscaped areas.
- ☐ Butterfly or pollinator gardens.
- ☐ Bat boxes.
- ☐ Birdhouses or nest boxes.
- ☐ N/A

Aquatic Habitat Included: (See description for additional aquatic habitat measures provided)

- ☐ Fish habitat hotels.
- ☐ Waterside planters.
- ☐ Waterfowl connections from water to land.
- ☒ Naturalized edge with seawall/sheet pile.
- ☐ Enhance existing sheet pile/artificial wetland.
- ☒ Dormant woody cuttings and livestaking.
- ☐ Coir logs.
- ☐ Vegetated geogrids.
- ☐ Perforated dockwalls to connect in-stream water to wetland behind dockwall.
- ☐ N/A

Describe your Upland and Aquatic Habitat plan (type, location, materials, etc.):

The site has extensive aquatic habitat measures proposed. They include: log lunkers, a fish crib structure (sunken shipping container filled with rock and woody materials), a specifically design habitat node, and habitat brush fascines fastened to piers/decking structures.

Within the 50-foot Riverwalk Overlay Zone, both principal and accessory structures are permitted. Buildings and structures are prohibited within the Riverwalk Zone section, except for structures provided for public use. The river-facing façade of buildings within the Overlay Zone should be designed and treated as a principal façade and should feature the same design elements, materials, building articulation, relief, and other architectural considerations as street-facing façades.

Briefly describe your plan for the buildings, uses, or site elements outside of the Riverwalk Zone but within the 50-foot Riverwalk Overlay Zone

The project includes one shipping container style building. It will house accessible bathrooms and provide a canopy/shaded stage for daily use. The design as shown in renderings has 360 degree design consideration and all sides are treated as a principal facade.

*Glazing. When a Riverwalk Zone is allowed to be reduced to a 15-foot width due to an adjacent "pedestrian activated land use," then the Riverwalk level of the building is required to have 60% glazing (measured in a linear manner, consistent in method with 295-605-2-i-3 of the Commercial District chapter) or an equivalent level of wall articulation.*

Linear glazing percentage: \_\_\_\_\_

☒ N/A

Note: Please include a document in your exhibits that shows your linear glazing percentage calculations.

*Pedestrian Entrance. At least one pedestrian entrance from the pedestrian activated use shall connect to the Riverwalk.*

Describe pedestrian entrance connection:

Riverwalk is accessible at E Greenfield Avenue and S Kinnickinnic Ave. There are also two pedestrian connections provided to the adjacent Komatsu development.

☐ N/A

*Façade Materials. High quality façade materials are encouraged, and certain façade materials such as metal building walls, concrete masonry units and simulated stucco products are restricted per requirements found in Commercial Districts, Section 295-605-2-i-6. for façade walls, both parallel and perpendicular to the river, that occur in the 50-foot Riverwalk Overlay Zone.*

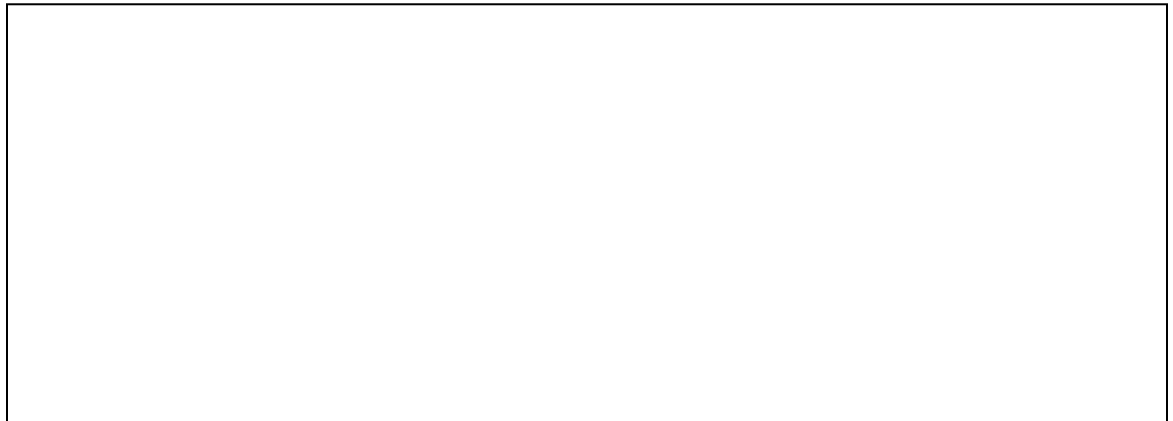
Describe façade materials:

The shipping container structure will be given high quality improvements and integrated signage, serving as an entry into the riverwalk. Refer to renderings.

☐ N/A

*Required Landscaping. In the case of site features such as parking lots, storage yards, and trash collection areas being located in the 50' Riverwalk Overlay, they shall follow the same landscaping requirements as would be required by ordinance if the condition were along the primary street frontage of a property (Landscape and Screening Requirements per Subchapter 4 Section 295-405 of the Zoning Code of Ordinances). The landscaping that is located in the Riverwalk Zone or in the public right-of-way area is not counted toward this requirement.*

Describe landscaping plan outside of the Riverwalk Zone but within the 50-foot Riverwalk Overlay Zone:



☒ N/A

*Fencing: For uses required by Chapter 295-405 of the Zoning Code to provide landscaping and screening from public streets, the landward edge of the Riverwalk Path shall be treated in the same manner as a*

*primary street property line when determining landscaping and screening requirements. Any fencing required to comply with the requirements of 295-405 shall be placed outside of the minimum required Riverwalk Zone. For security and containment purposes, fencing abutting a Riverwalk can be erected along the Riverwalk using decorative metal. Chain link and barbed wire are not permitted.*

Describe any proposed fencing outside of the Riverwalk Zone but within the 50-foot Riverwalk Overlay Zone:

☒ N/A

*Lighting. Lighting in the overlay zone shall follow requirements and standards of those set forth in the 25' Riverwalk Zone area for permitted fixtures. No high level flood lights are permitted adjacent to the Riverwalk Trail area, including at outdoor storage yards and parking lots.*

Describe any proposed lighting outside of the Riverwalk Zone but within the 50-foot Riverwalk Overlay Zone:

No lights are provided outside of the riverwalk design standards.

☒ N/A

*Signage. Within all signage categories (wall, free-standing, roof, etc), Type A signage is required for all signs located in the Riverwalk Overlay Zone. These requirements include individual letter wall signs, monument style free-standing signs, and other features associated with higher quality signage as found in Section 295-407 of the Zoning Code of Ordinances. If a free-standing monument sign is located in the Riverwalk Overlay, the design shall be compatible with the character of signs found on page 40.*

Describe any proposed signage outside of the Riverwalk Zone but within the 50-foot Riverwalk Overlay Zone:

The Harbor View Plaza Extension on the north end of the site will have integrated signage that leads users into the space, serving as a portal to the riverwalk, in accordance with riverwalk design guidelines.

☐ N/A

Review the Buildings and Sites Design Standards on pages 52-54 and affirm below that you have met each of the standards.

Check all standards that you have been able to meet:

☒ Massing and Articulation

*Building facades and opaque fencing within the Overlay Zone shall not be blank or unarticulated.*

☒ Scale

*Long uninterrupted walls beyond 100 feet in length shall have off-sets of at least 2 feet, or other means to create a pedestrian-friendly condition.*

☒ Site Elements

*Private patios and decks are permitted and encouraged in the overlay area outside the required minimum Riverwalk Zone. Patio and deck surfaces should be finished quality materials that are consistent with materials permitted in the Riverwalk Zone area. Any necessary retaining walls should be finished quality materials such as poured-in-place concrete or finished quality masonry matching the building. Dry stack block retaining wall systems are not permitted.*

☒ Storage Yards, Loading Docks and Dumpster Areas

*Service areas containing outdoor storage yards, loading docks, and dumpster areas that face the Riverwalk shall be screened using wing walls, or opaque screening or fencing.*

☒ Lighting

*Lighting in the overlay zone shall follow requirements and standards of those set forth in the 25' Riverwalk Zone area for permitted fixtures. No high level flood lights are permitted adjacent to the Riverwalk Trail area, including at outdoor storage yards and parking lots.*

If applicable, describe your plans for any of the five standards above.

The overall site is designed to align with guidelines provided in the riverwalk design standards manual. Signage shall conform in all categories, site elements are spaced appropriately, and all massing and articulation of material will follow standards.

## Attachment

### 7. Landscaping.

Per the Design Standards:

"Native or adapted species should be used in all instances, with an effort to achieve plant species diversity. Plant species exceptions may be made for species whose ranges are nearby and may move into the region due to climate change. Owners and designers should consider the site and region's natural communities, and promote and support a long-term, stable ecosystem through the plant selection and design. Plants should be selected based on the appropriateness of each unique ecological zone or community."

"Aesthetics should relate to the surrounding context, and plants should be selected to promote seasonal interest. Planting along the riverbank should be naturalistic. Four-season interest should be considered when selecting plants."

"Exotic and invasive species shall not be permitted along the Riverwalk"

List is as follows:

Acer rubrumred maple (including red maple hybrids)  
Betula nigrariver birch  
Betula papyrifera paper birch  
Betula populifolia 'Whitespire'Whitespire Birch  
Carpinus carolinianaAmerican hornbeam  
Carya ovataashagbark hickory  
Celtis occidentalis hackberry  
Gleditsia triacanthos honey locust  
Juniperus virginiana red cedar  
Ostrya virginiana eastern hop-hornbeam  
Platanus occidentalis sycamore  
Platanus x acerifolia 'Bloodgood'Bloodgood London Planetree  
Quercus alba white oak  
Quercus bicolorswamp white oak  
Quercus macrocarpa bur oak  
Quercus rubra northern red oak  
Salix spp. native and adaptive willow species  
Tilia americana basswood  
Ulmus spp.American elm hybrids