APPENDIX I: GREENWAY DESIGN STANDARDS

The goal of this report is to develop a palette of standard design elements that will help establish a distinct identity for the Bronx River Greenway. The greenway is located within multiple jurisdictions – within NYC parklands, on New York State lands administered by the NYSDOT, within the NY Botanical Garden and the Bronx Zoo (Wildlife Conservation Society), and on City streets and rights-of-ways.

The challenges of developing a consistent palette of standard design elements along the length of the greenway include:
- The existence of proposed or approved plans for parks along the river that already include a palette of design elements;
- The route of the greenway, which travels through multiple parks and segment links that may or may not have consistent elements.
- Safety and practice issues defined in the Manual of Uniform Traffic Control Devices (MUTCD), which include specific design guidelines.

We received valuable assistance from the staff of Parks and the NYSDOT in the identification of the design elements that are currently proposed at City and State parks.

Design Approach

Ten key elements were identified and prioritized. They are:

Priority 1  Signage and site-appropriate native plantings
Priority 2  Pavement, bike racks, lighting, and trash receptacles
Priority 3  Railings, bollards, benches and bird shelters

The priority system is used to define those elements, for which:

1- Consistency is essential for the length of the greenway, extending through parks
2- Consistency is essential for the length of the greenway, extending through parks where possible
3- Consistency is recommended of the greenway, extending through parks where possible

The design elements selected are from the NYC Parks or NYCDOT standards, unless otherwise directed by NYC Parks staff. In two instances, a second tier choice may be warranted. For railings, a simple pipe rail may best reflect the environment and scale of the pathway location. For lighting and benches, there may be instances where the Riverside fixture and 1939 World’s Fair bench are in use and a brief interruption of this palette with the proposed ‘Candela’ Park fixture and 1964 World’s Fair bench would be inappropriate. In this case the Tier 2 pairing (Riverside/1939 WFB) should replace the Tier 1 pairing (Candela Park/1964 WFB). In each case the lighting and bench pairing is key.
Priority 1

Signage

Type 1: NYCDPR Greenway Signage
Type 2: NYCDPR Mile markers
Type 3: MUTCD standard for on street bikeway
Type 4: Gateway signage, Alliance prototype
Type 5: Interpretive signage, Alliance prototype compatible

(material, color)

Material: Galvanized Steel posts, Stainless steel posts
Finish: Paint – Standard Dark Green, PMS 3282 CV
Size:
Construction: Concrete pier footings (not concrete slab)

Design Intent: Provides a consistent visual reference through various parks along the Bronx River.

Related text: Hardscape goals and management practices

Site appropriate native planting

Type: Plant list developed by Bronx River Alliance
Material: Site appropriate
Finish: N/A
Size:
Construction:

Design Intent: Provides a visual reference and education for the user about Bronx River’s ecosystem
Increases ecological connectivity and habitat diversity

Related text: Landscape goals and management practices
Storm water goals and management practices
Sustainable goals and maintenance practices
Priority 2

Pavement

Type:  
Class I  Exclusive 2 way bikeway, 8'-0” wide  
Class II  Shared (with pedestrians), protected bikeway, 8'-0” wide, 1’-0” rumble strips on either side  
Class III  Unprotected bike lane with pavement symbols, 6'-0” min.  
Class IV  Unprotected, shared (with parking) bike lane with pavement symbols, 12'-0” min.  

Material: For all pavement markings, consider use of High Build Acrylic Coating to reduce volatile organic compounds (VOC’s).  
Finish: Asphalt, 7, 7F with light colored aggregate  
Size:  
Construction: For all bikeway pavement section within parks, refer to NYC Parks standards and specifications.  
For all bikeway pavement section on streets, refer to NYCDOT/ NYSDOT standards and specifications.  
Refer to AASHTO standards for design and dimensions of various classes of bikeway.  
Refer to MUTCD standards for all bike lane pavement symbols on unprotected street conditions like- minor intersections, signalized intersections, T intersections and turning lanes.  

Design Intent: To minimize pavement area by providing a material that requires little or no maintenance over its lifecycle.  
To maximize pavement albedo through the use of light colored aggregate.  

Related text:  
Hardscape goals management practices  
Streetscape goals management practices  
Greenway Signage  

Bike Racks

Type:  
HS 2 by Creative Pipe Inc., Boa10 by Dobra Design, or equal  
Material: Galvanized Steel  
Finish:  
Size:  
Construction: Concrete pier footings (not concrete slab)  
Design Intent: Provides a consistent look for the greenway  

Related text: Streetscape goals and management practices
**Lighting**

Type: NYCDOT ‘Candela’ Park/ Pedestrian streetlight  
Material: Cast Ductile Iron  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size: 15’- 18’ posts/ poles  
Construction: Concrete pier footings (not concrete slab)

Design Intent: Modern design unifies the various parks proposed along the greenway parks and provides a distinctive look for the greenway.

Related text: Streetscape goals and management practices

**Tier 2 Lighting**

Type: NYCDOT ‘TBTA’ streetlight  
Material: Cast Ductile Iron  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size: 15’- 18’ posts/ poles  
Construction: Concrete pier footings (not concrete slab)

Design Intent: Blends with the nature trails-greenway.

Related text: Streetscape goals and management practices

**Trash Receptacles**

Type: MI36 Waste Receptacle by United Receptacle, Inc. or equal  
Material: 30% Recycled Steel  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size: 36 gallon  
Construction:

Design Intent: Provides a consistent look for the greenway

Related text: Streetscape goals and management practices
**Priority 3**

**Railings**

Type: NYC Parks Sea Rail  
Material: Stainless Steel  
Finish:  
Size:  
Construction: Concrete pier footings (not concrete slab)  

Design Intent: Provides a consistent look for the greenway  
Related text: Streetscape goals and management practices

**TIER 2 RAILING**

Type: NYC Parks Pipe Rail  
Material: Galvanized Steel  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size:  
Construction: Concrete pier footings (not concrete slab)  

Design Intent: Blends with the nature trail- greenway  
Related text: Streetscape goals and management practices

**Bollards**

Type: DG5 by Urban Accessories, NY Bollards by Canterbury International, or equal  
Material: Steel  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size:  
Construction: Concrete pier footings (not concrete slab)  

Design Intent: Provides a consistent look for the greenway  
Related text: Streetscape goals and management practices

**I. Benches**

Type: NYCDPR Type D Bench (1964 World Fair)  
Material: Cast Ductile Iron  
Finish: Paint – Standard Dark Green, PMS 3282 CV  
Size:  
Construction: Concrete pier footings (not concrete slab)
Design Intent: Modern design unifies the various bench types proposed in the greenway parks, while providing a distinctive look for the greenway segments outside of parks.

**Tier 2 Bench**

Type: NYC Parks Type A Bench (1939 World Fair)
Material: Cast Ductile Iron
Finish: Paint – Standard Dark Green, PMS 3282 CV
Size: 
Construction: Concrete pier footings (not concrete slab)

Design Intent: Blends with the nature trails - greenway

Related text: Streetscape goals and management practices

**Bird Shelters**

Type: Individual bird specific
Material: Galvanized steel post
Finish: 
Size: 
Construction: Concrete pier footings (not concrete slab)

Design Intent: Requirements of birds specific to the Bronx River system; obtain from Ecology Team. Or from native bird societies for example- Bluebird nest boxes per North American Bluebird Society. The design of a project should incorporate bird shelters as a design element.

Related text: Landscape goals and management practices