

# BELLE ISLE

## NATURE EXPLORATION AREA

URBAN DESIGN COMMITTEE  
CONCEPTUAL REVIEW  
MAY 21, 2024



MARVEL



# SITE CONTEXT: BELLE ISLE IMPROVEMENTS PLAN



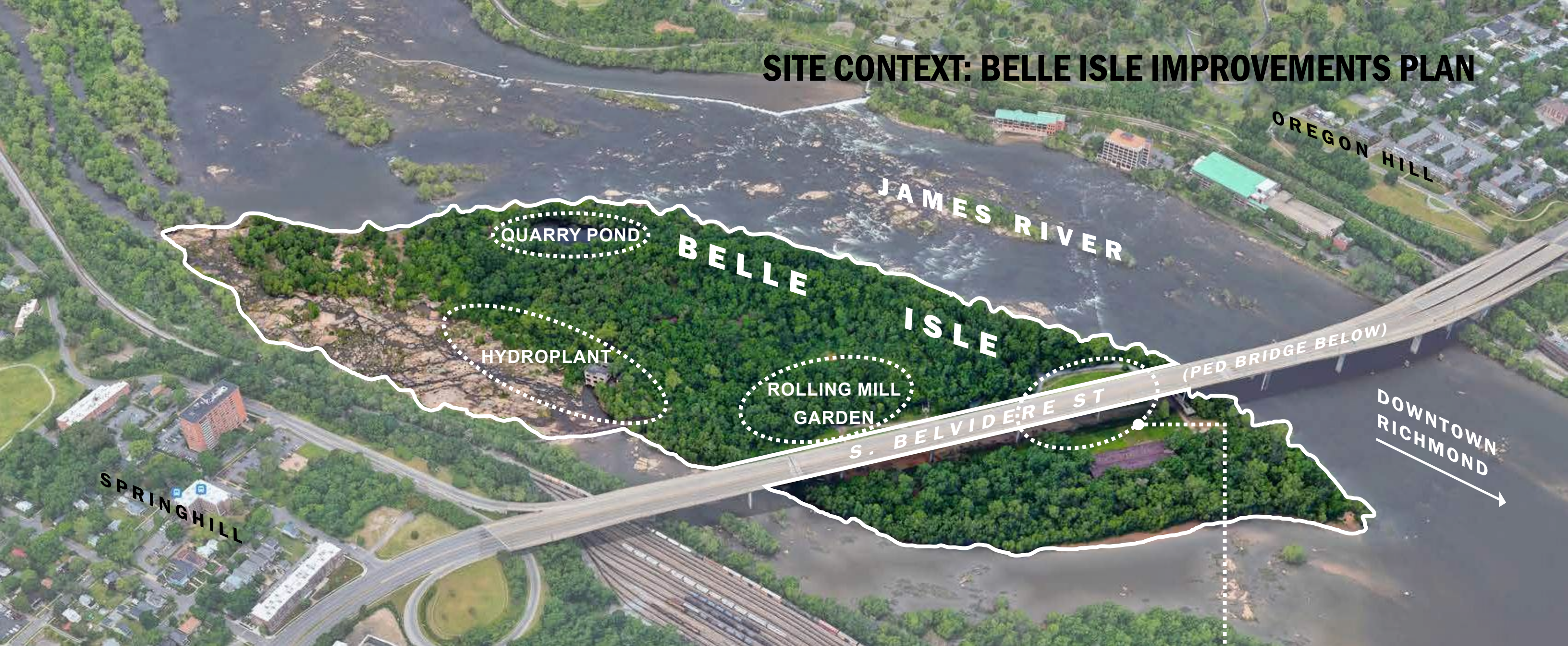
In November 2023, the Belle Isle Improvements Plan was created. The James River Parks System and Friends of James River Park have worked alongside Marvel to construct a safer and more welcoming Belle Isle, one that celebrates both its wild nature and its industrial past. **The project completes the island loop with four key areas to better serve the recreational**

**and conservation needs of the community** by providing visitor amenities, conserving native species and habitats, and refurbishing old structures to be safer and universally accessible. The four key areas are the Hydroplant, Belle Isle Gateway, Rolling Mill Garden, and the Quarry Pond.





# SITE CONTEXT: BELLE ISLE IMPROVEMENTS PLAN



The Gateway is the most visible and accessible public space on the island and also the least activated. Stemming from the heavy use of the Bike Skills Area, the area seeks to create recreational opportunities for more visitors by placing them closer to the park's entrances. FOJRP & JRPS have identified the following projects for early implementation in the Gateway Area:

- A nature exploration area for children
- An updated pump track / bike skills area
- An arrival area for gathering & passive uses
- Adaptive reuse of the existing Nail Shed
- A landscape of native plant communities
- A future restroom & ranger station



The Gateway





# NATURE EXPLORATION AREA



**Zucker Natural Exploration Area in Prospect Park  
Brooklyn, NY**

Belle Isle is a popular destination. For conservation purposes, JRPS would like to concentrate park activities in dedicated areas.

A Nature Exploration Area (NEA) is a safe environment to explore nature for beginners, and an introduction to Belle Isle to new visitors.



**Nature Exploration Area at Museum of Life and Science  
Durham, NC**



**Nature Exploration Area at Rolph Nicol Park  
San Francisco, CA**





# EXISTING SITE CONDITIONS



**MARVEL**



# SITE PLAN



The Shed

Planting Area

Seating Area

Landscape Berm

Planting Area

Bridge Above

Bridge Piers

Landscape Berm

Hillside Seating

**NATURE EXPLORATION AREA**

Seating Area

Bike Skills Course

Landscape Berm

Entry Area

Seating Area

Planting Area

Belle Isle Loop Trail

0' 25' 50'





# NATURE EXPLORATION AREA PRECEDENTS

## LOG JAM & RAPIDS



Logs | **Climb + Balance + Hop + Crawl**

## RIVERBANK



Boulders | **Climb + Balance + Hop + Run Around**

## FOREST



Tall Posts | **Hop + Climb + Jump**



Rocks | **Climb + Balance + Hop + Run Around**



Mulch/Gravel Pit | **Build + Dig + Sculpt**



Short Stumps | **Step + Hop + Run Around**



# NATURE EXPLORATION AREA PRECEDENTS

## HILL



Log Amphitheater | Gather + Learn + Hop + Climb



Stump Terrace | Gather + Learn + Hop + Climb

## FALLEN TREE



Trunk & Branches | Climb + Balance + Crawl



Loose Materials | Build + Stack + Pretend Play



# NATURE EXPLORATION AREA PRECEDENTS

## EDGING & SURFACING



Timber edges to contain mulch



Edge as a Play Feature | Balance + Walk

## SEATING



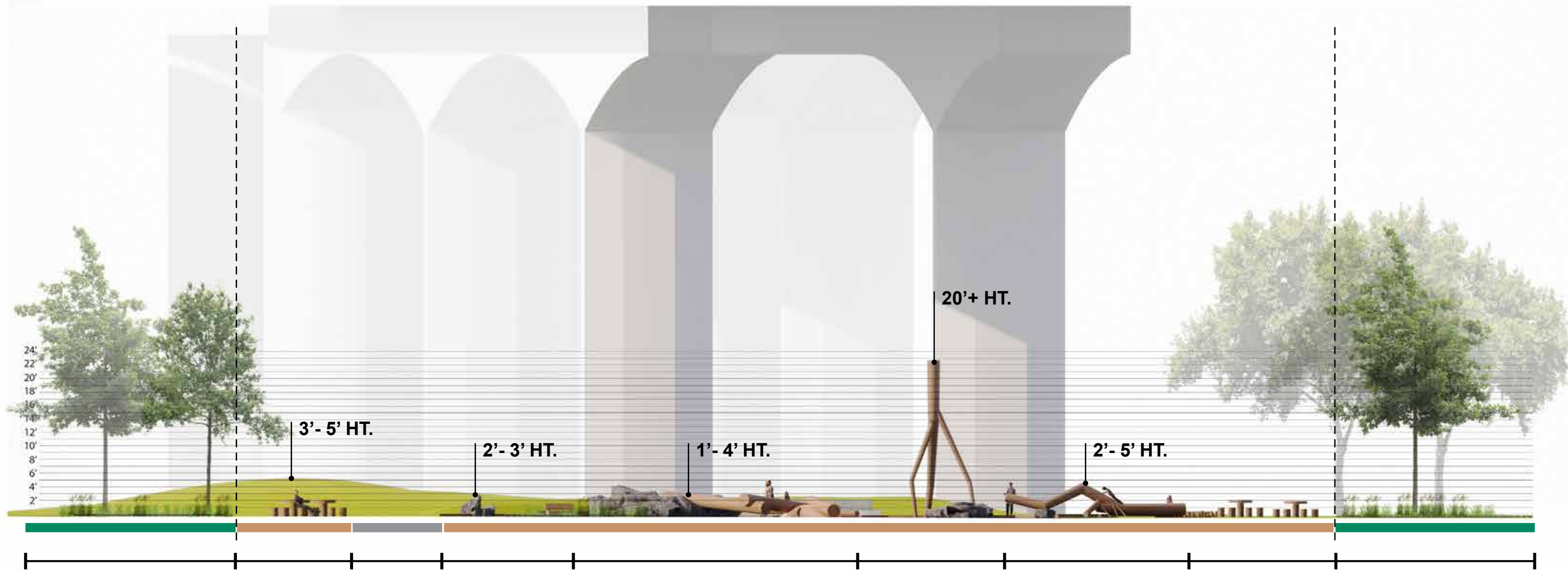
Stump Tables & Chairs | Learn + Picnic  
+ Collect



Log Bench | Sit + Climb + Balance



# SITE SECTION: EAST-WEST



Planting

Seating

Path

LOW

MIX

MODERATE

MIX

Seating

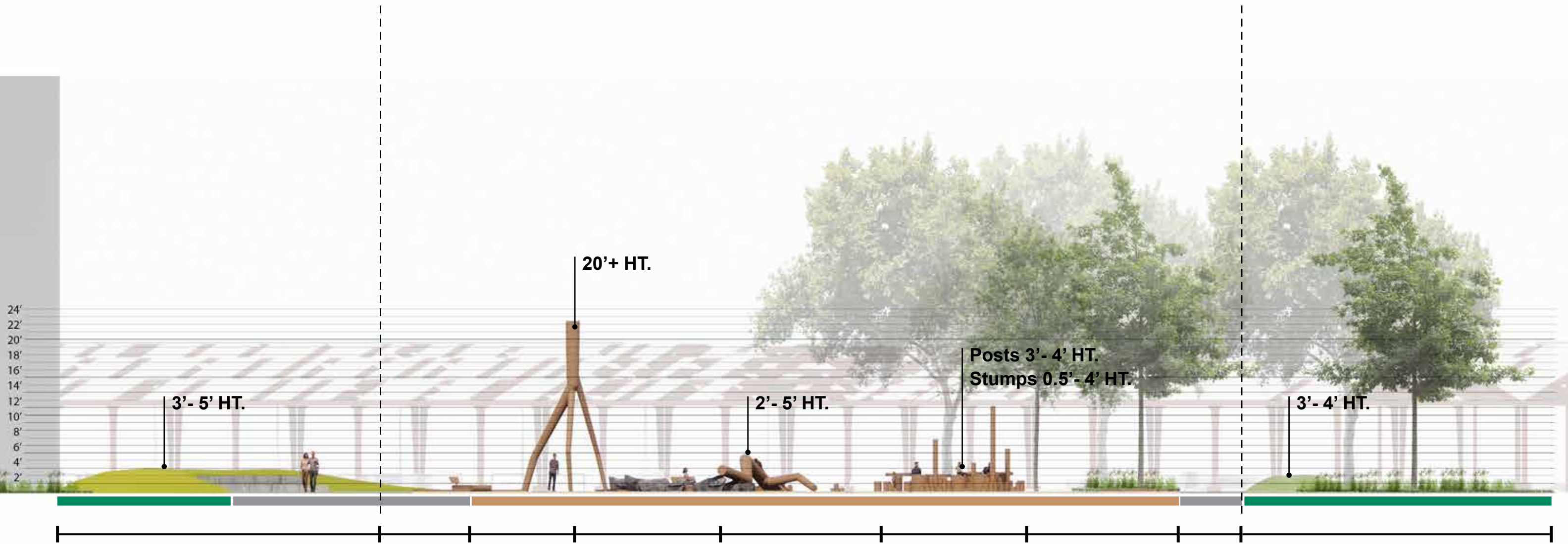
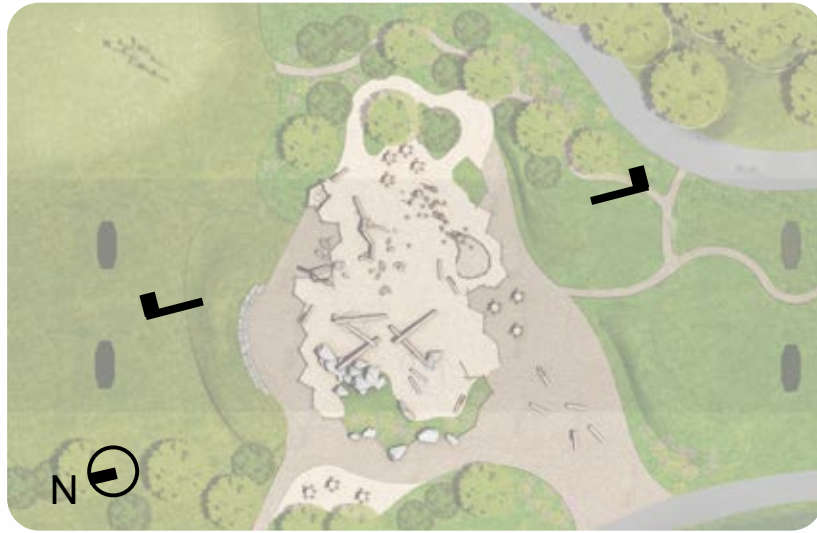
Planting



MARVEL



# SITE SECTION: NORTH-SOUTH



Landscape Berm      Path      **LOW**      **MODERATE**      **MIX**      **MODERATE**      **LOW**      Path      Landscape Berm & Planting

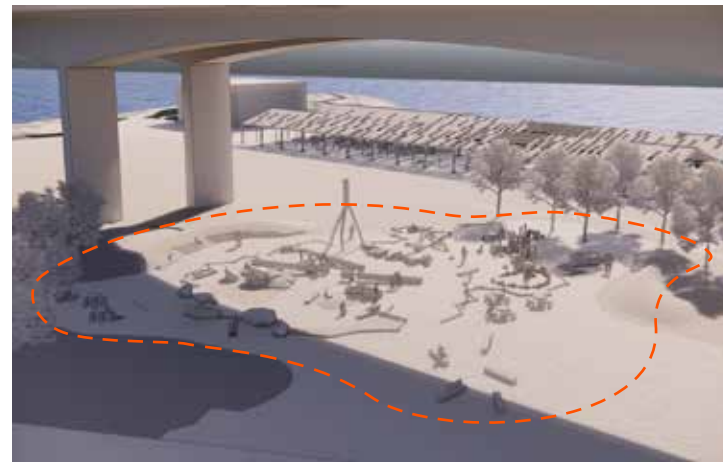




# SOLAR ORIENTATION



8am, March 21



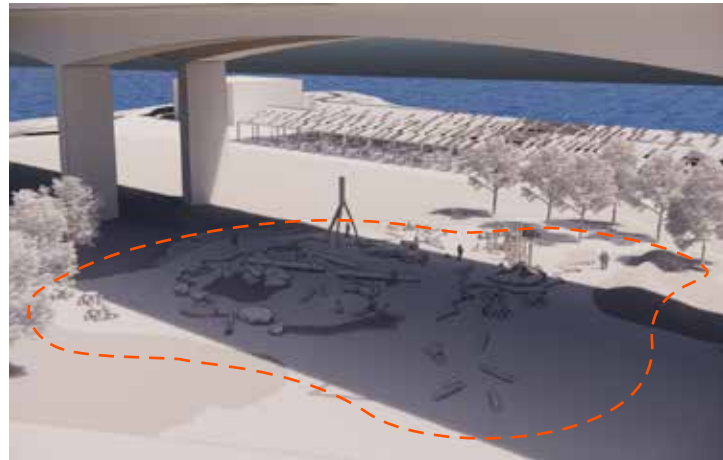
8am, June 21



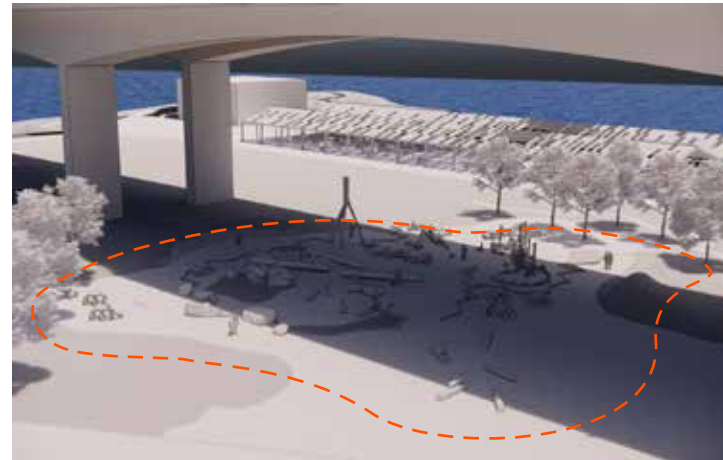
8am, September 21



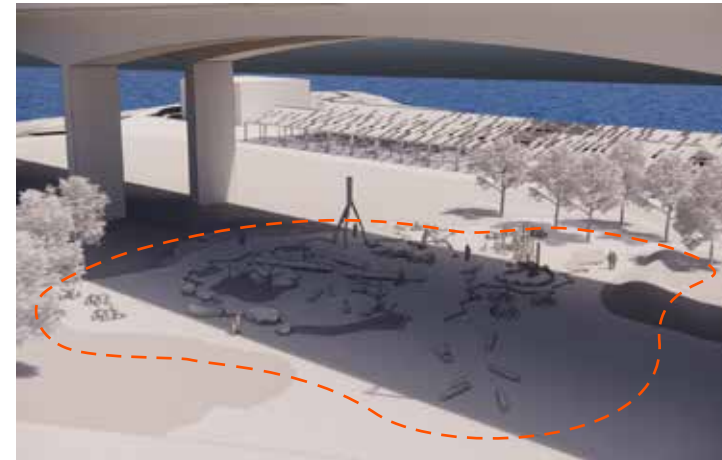
8am, December 21



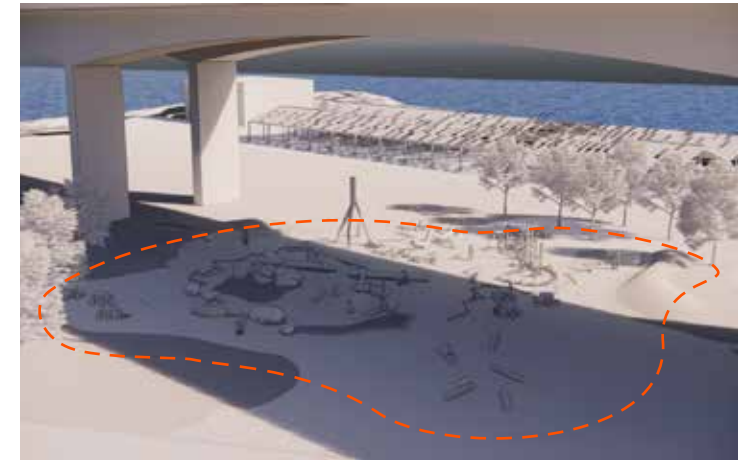
12pm, March 21



12pm, June 21



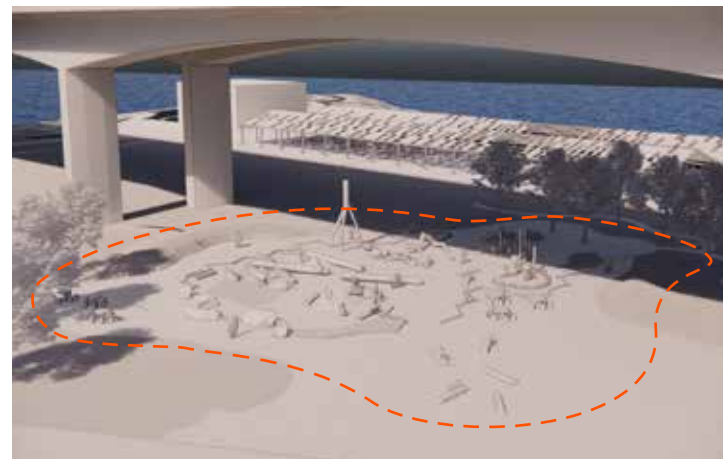
12pm, September 21



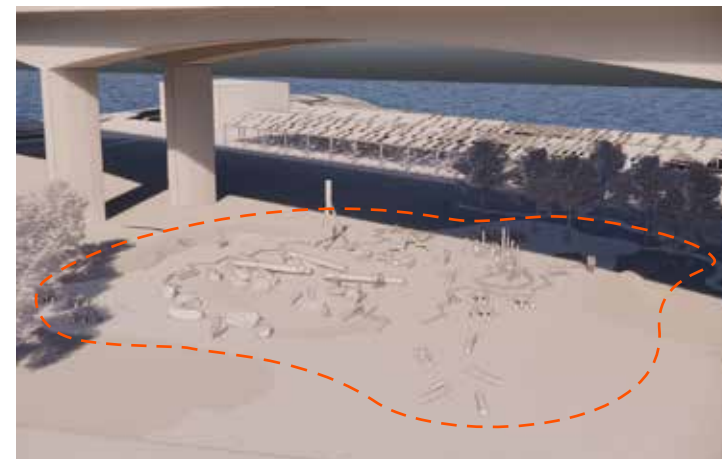
12pm, December 21



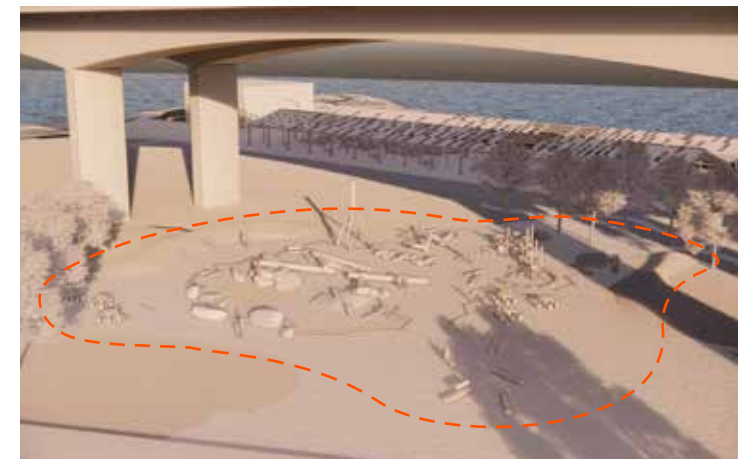
4pm, March 21



4pm, June 21



4pm, September 21



4pm, December 21



**MARVEL**



# PLANT COMMUNITIES



Alluvial Swamp	Forested Wetland	Wet Meadow	Floodplain Forest	Rich/Mesic Upland Forest	Savannah	Riverside Meadow
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**Tree**

<ul style="list-style-type: none"> <li>- <i>Quercus alba</i> (White Oak)</li> <li>- <i>Magnolia virginiana</i> (Sweetbay magnolia)</li> <li>- <i>Liriodendron tulipifera</i> (Tulip Poplar)</li> <li>- <i>Nyssa sylvatica</i> (Blackgum)</li> <li>- <i>Acer rubrum</i> (Red Maple)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Juniperus virginiana</i> (Eastern cedar)</li> <li>- <i>Betula nigra</i> (River Birch)</li> <li>- <i>Cercis canadensis</i> (Redbud)</li> <li>- <i>Magnolia virginiana</i> (Sweetbay magnolia)</li> <li>- <i>Liriodendron tulipifera</i> (Tulip Poplar)</li> <li>- <i>Nyssa sylvatica</i> (Blackgum)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Quercus alba</i> (White Oak)</li> <li>- <i>Quercus falcata</i> (Southern Red Oak)</li> <li>- <i>Acer rubrum</i> (Red Maple)</li> <li>- <i>Liriodendron tulipifera</i> (Tulip Poplar)</li> <li>- <i>Cercis canadensis</i> (Redbud)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Quercus alba</i> (White Oak)</li> <li>- <i>Asimina triloba</i> (Pawpaw)</li> <li>- <i>Staphylea trifolia</i> (Bladdernut)</li> <li>- <i>Betula nigra</i> (River Birch)</li> <li>- <i>Acer rubrum</i> (Red Maple)</li> <li>- <i>Carpinus caroliniana</i> (Muscle wood)</li> <li>- <i>Liriodendron tulipifera</i> (Tulip Poplar)</li> <li>- <i>Cornus florida</i> (Flowering Dogwood)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Cornus florida</i> (Flowering Dogwood)</li> <li>- <i>Asimina triloba</i> (Pawpaw)</li> <li>- <i>Fagus grandifolia</i> (American Beech)</li> <li>- <i>Liriodendron tulipifera</i> (Tulip Poplar)</li> <li>- <i>Carya cordiformis</i> (Bitternut Hickory)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Quercus alba</i> (White Oak)</li> <li>- <i>Quercus falcata</i> (Southern Red Oak)</li> <li>- <i>Carya tomentosa</i> (Mockernut Hickory)</li> <li>- <i>Pinus taeda</i> (Yellow Pine)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Quercus alba</i> (White Oak)</li> <li>- <i>Quercus falcata</i> (Southern Red Oak)</li> <li>- <i>Carya tomentosa</i> (Mockernut Hickory)</li> <li>- <i>Pinus taeda</i> (Yellow Pine)</li> <li>- <i>Cercis canadensis</i> (Redbud)</li> </ul>
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**Shrub**

<ul style="list-style-type: none"> <li>- <i>Viburnum nudum</i> (Possumhaw Viburnum)</li> <li>- <i>Ilex verticillata</i> (Winterberry)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Itea virginica</i> (Virginia Sweetspire)</li> <li>- <i>Amelanchier canadensis</i> (Serviceberry)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Cephalanthus occidentalis</i> (Buttonbush)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Lindera benzoin</i> (Spicebush)</li> <li>- <i>Ilex verticillata</i> (Winterberry)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Viburnum prunifolium</i> (Black Haw)</li> <li>- <i>Lindera benzoin</i> (Spicebush)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Lindera benzoin</i> (Spicebush)</li> <li>- <i>Amelanchier canadensis</i> (Serviceberry)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Itea virginica</i> (Virginia Sweetspire)</li> <li>- <i>Amelanchier canadensis</i> (Serviceberry)</li> </ul>
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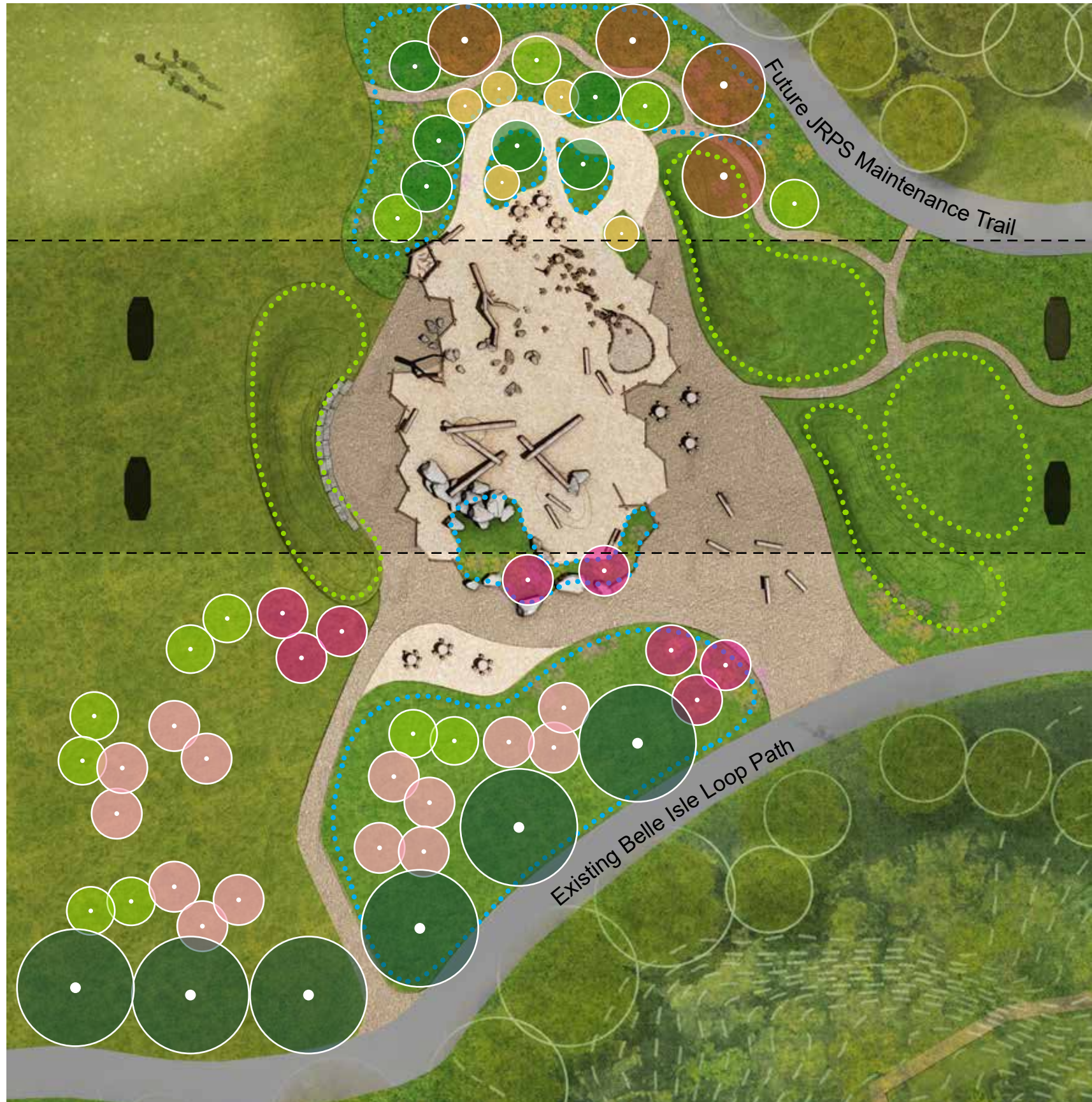
**Perennials/ Grass**

<ul style="list-style-type: none"> <li>- <i>Chelone glabra</i> (White turtlehead)</li> <li>- <i>Lilium superbum</i> (Turk's cap Lily)</li> <li>- <i>Hibiscus moscheutos</i> (Swamp Rose-Mallow)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Eutrochium fistulosum</i> (Hollow Joe Pye)</li> <li>- <i>Eutrochium Purpureum</i> (Sweet Joe Pye)</li> <li>- <i>Juncus effusus</i> (Common Rush)</li> <li>- <i>Solidago rugosa</i> (Goldenrod)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Hibiscus laevis</i> (Halberd Leaf Rose Mallow)</li> <li>- <i>Asclepias incarnata</i> (Swamp milkweed)</li> <li>- <i>Ludwigia alternifolia</i> (Sweetbox)</li> <li>- <i>Carex lupulina</i> (Hop Sedge)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Commelina erecta</i> (Slender Dayflower)</li> <li>- <i>Chasmanthium latifolium</i> (River Oats)</li> <li>- <i>Mertensia virginica</i> (Virginia Bluebells)</li> <li>- <i>Salvia lyrata</i> (Lyre Leaf Sage)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Eurybia divaricata</i> (White Wood Aster)</li> <li>- <i>Erythronium americanum</i> (Trout Lily)</li> <li>- <i>Claytonia virginica</i> (Spring Beauty)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Sorghastrum nutans</i> (Indian Grass)</li> <li>- <i>Schizachyrium scoparium</i> (Little Bluestem)</li> <li>- <i>Erianthus alopecuroides</i> (Silver Plumegrass)</li> <li>- <i>Solidago nemoralis</i> (Grey Goldenrod)</li> <li>- <i>Sericocarpus asteroides</i> (Toothed White-top Aster)</li> </ul>	<ul style="list-style-type: none"> <li>- <i>Sorghastrum elliottii</i> (Slender Indiangrass)</li> <li>- <i>Conoclinium coelestinum</i> (Blue Mist Flower)</li> <li>- <i>Silene stellata</i> (Starry Campion)</li> <li>- <i>Aristida lanosa</i> (Woolly three-Awn Grass)</li> <li>- <i>Hieracium gronovii</i> (Hairy Hawkweed)</li> </ul>
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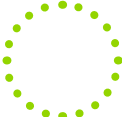




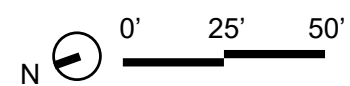
# PLANTING PLAN



## PLANTING STRATEGY

### Floodplain Forest and Riverside Meadow Tree Selections

- |   |                            |   |                      |
|---|----------------------------|---|----------------------|
|  | Pawpaw                     |  | Serviceberry         |
|  | River Birch                |  | Flowering Dogwood    |
|  | White Oak                  |  | Red Bud              |
|  | Red Maple                  |  | Berm Palette (shade) |
|  | River Palette (part shade) |  | Bridge Above         |





# RIVER PLANTING PALETTE

## TREES



**Red Maple**  
*Acer rubrum*



**White Oak**  
*Quercus alba*



**River Birch**  
*Betula nigra*



**Pawpaw**  
*Asimina triloba*



**Flowering Dogwood**  
*Cornus florida*



**Redbud**  
*Cercis canadensis*



## SHRUBS



**Spicebush**  
*Lindera benzoin*



**Winterberry**  
*Ilex verticillata*



**Serviceberry**  
*Amelanchier canadensis*



## PERENNIALS/GRASS



**Virginia Bluebells**  
*Mertensia virginica*



**Starry Campion**  
*Silene stellata*



**Lyre Leaf Sage**  
*Salvia lyrata*



**Blue Mist Flower**  
*Conoclinium coelestinum*



**Slender Indiangrass**  
*Sorghastrum elliottii*



**Woolly three-Awn Grass**  
*Aristida lanosa*



Full sun
  Partial shade
  Full shade
 
🐝
 Pollinator plant



# BERM PLANTING PALETTE



**Creeping Red Fescue 30%**  
*Festuca rubra*



● Full sun ○ Partial shade



**Chewings Fescue 30%**  
*Festuca rubra ssp. commutata*



**Annual Ryegrass 20%**  
*Lolium multiflorum*



**Kentucky Bluegrass, 'Maverick' 10%**  
*Poa pratensis, 'Maverick'*



**Rough Bluegrass 10%**  
*Poa trivialis*





# NEA MATERIAL PALETTE



**Milled Lumber**  
Edging, Balance Structures, and Fencing



**Whole Tree Structures**  
Seating / Tables / Exploration Elements



**Reclaimed Granite**  
Reclaimed Building Material for Seating



**Pea Gravel**  
Loose Material for Manipulative Play



**Gravel Paths**  
To mimic other Belle Isle Trails



**Mulch**  
Locally Sourced and Natural (not dyed)



**Vertical Natural Tree Structures**  
Sculptural Elements for Balance and Exploration



**Natural Granite Boulders**  
Locally Sourced and Natural









Log Jam

Tree Sculpture

Fallen Tree

Seating Area

Forest Stumps & Posts

Mulch/Gravel Pit

Forest Planting

Timber Edge

Entrance





Forest Stumps & Posts

Mulch/Gravel Pit

Belle Isle Loop Trial

Fallen Tree

Log Jam

Boulders

Backed Seating

Corral for loose materials



MARVEL





Log Jam

Landscape Berm & Hillside Seating

Tree Sculpture

Boulders

Seating Area

Timber Edge

Log Bench



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