

Depot Park: An Ecological Showcase

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Woodland Wildflower Garden

Green roof retrofit on Depot Park gazebo

Woodland enhanced by native plantings

Westside rain garden

West woodland seating area

Woodland mill race area

Wetland room

Wetland boardwalk west entrance

Wetland overlook and amphitheater

Recreation river room



Wetland Boardwalk



Master Plan

Scale 1" = 30'

Parking lot redesign to increase tree cover and reduce runoff

New rain garden to treat parking lot runoff

Enlarged and expanded rain garden chain

Formal access points to the millrace

Wave garden



Wetland Room

Wetland boardwalk east entrance

River view room

Streambank stabilization plantings

New plantings around South entrance

Depot Park Zones



Parking lot retrofit

Enhanced and enlarged rain garden

Wave garden

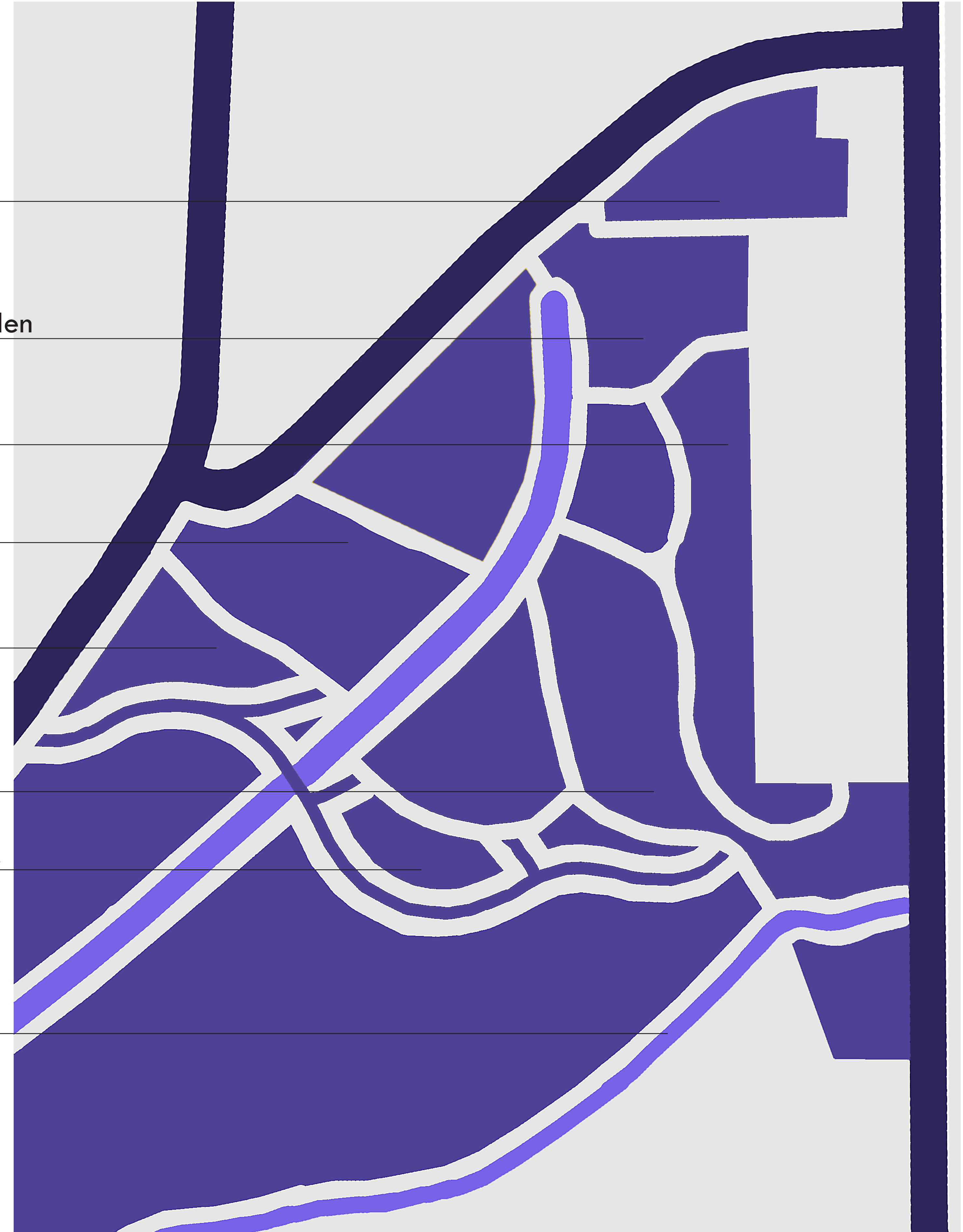
Historic west side

Wildflower garden

River rooms

Wetland experience

Streambank stabilization



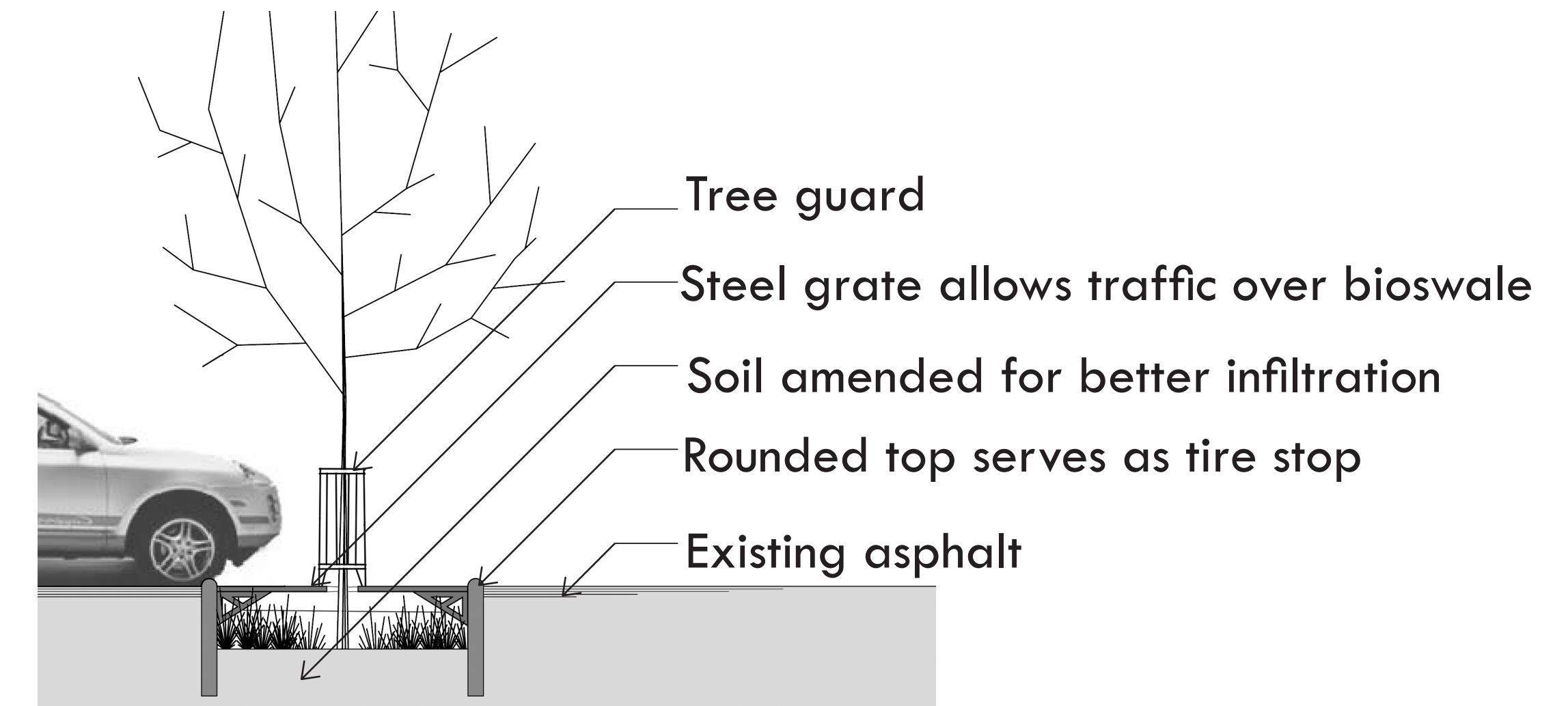


Parking Lot Retrofit

Parking Lot Retrofit Plan



Covered Infiltration Trench Section A- A'



Salt tolerance and plants

Salt on the roadways is common in Michigan, causing damage to plants along roads and walkways. Excessive salt can reduce a plants ability to absorb water and take up nutrients. Some symptoms include leaf discoloration, browning and early fall color. It is important to select the correct plant for a specific location like raingardens. Here are a few salt-tolerant plants, for more visit your local nursery or the Michigan State University Extension of Oakland County.

Native plant rain garden and swale plants



Purple Coneflower

Joe pye weed

Red twig dogwod

Salt tolerant plants



Witch-hazel

New England Aster

Wild Lupine

Summersweet



Village Office Rain Garden Expansion

Village Office with Expanded and Enhanced Rain Garden



Rain garden receives water from both parking lots

Gravel inlet filter

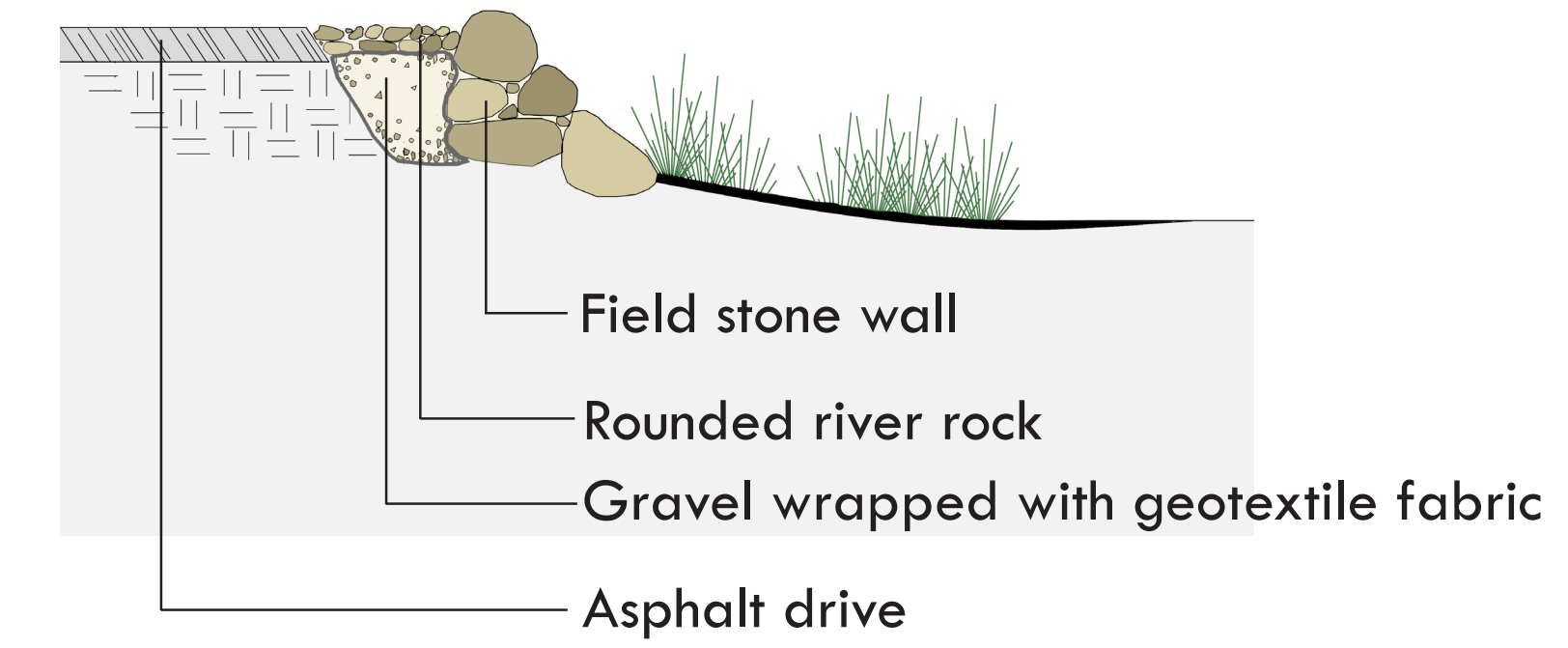
Expanded and enhanced rain garden

Beginning of enlarged and expanded rain garden chain

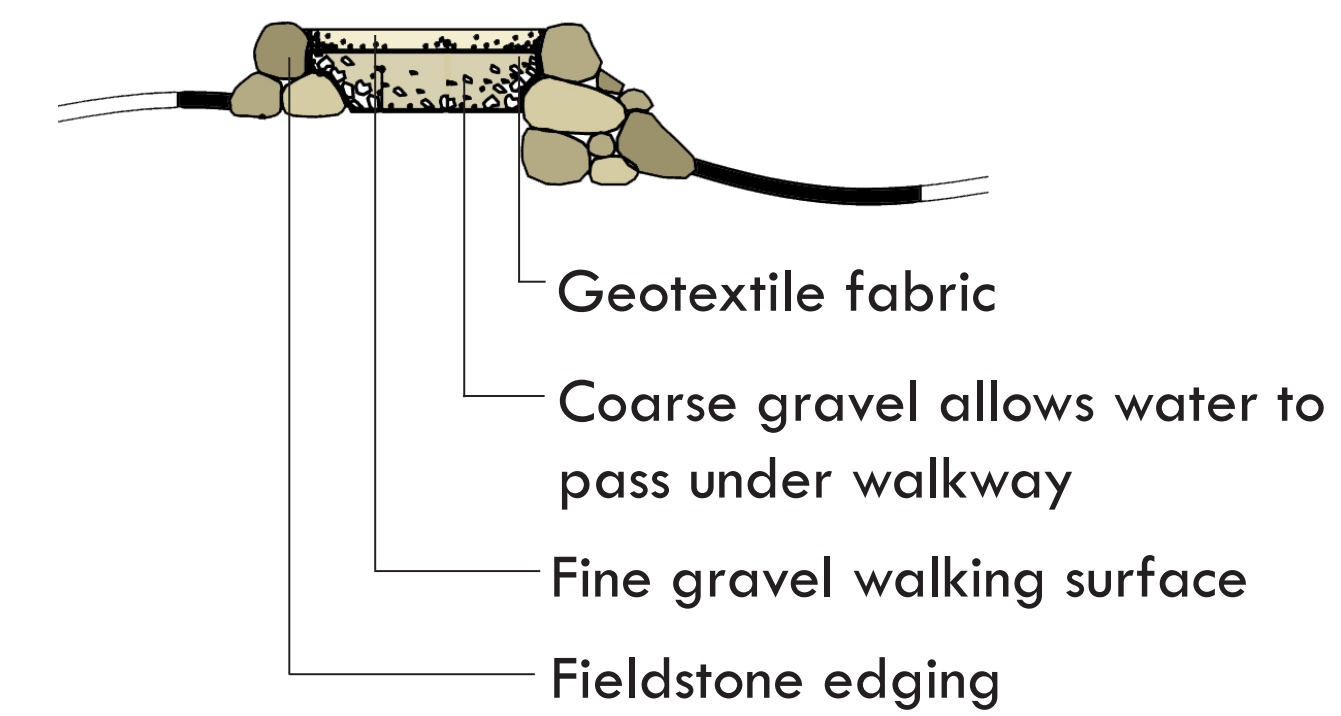
Boardwalk over rain garden



Gravel Inlet Filter



Walkway Detail

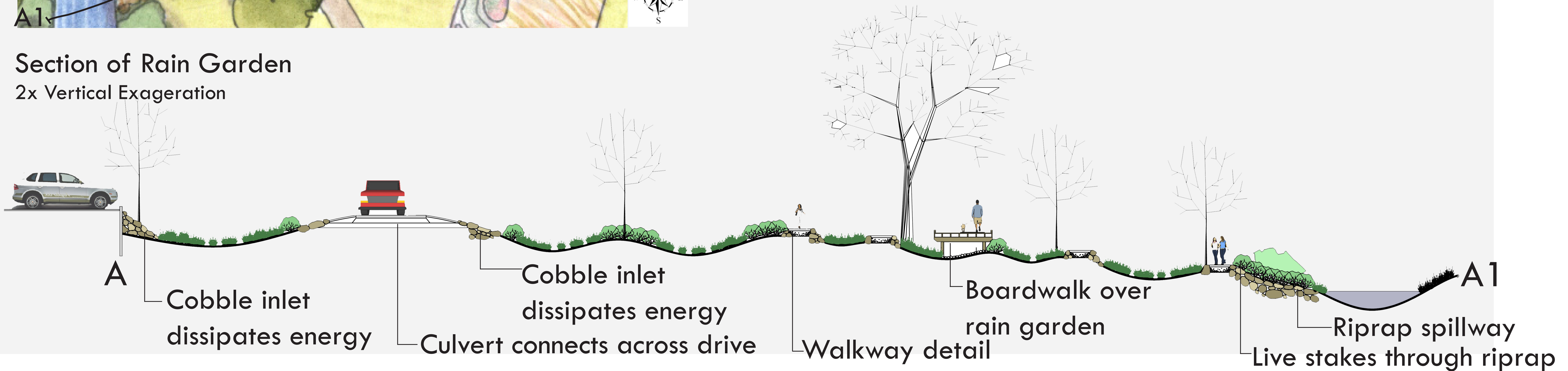


Solar Sculptures



Section of Rain Garden

2x Vertical Exageration



Cobble inlet dissipates energy

Culvert connects across drive

Walkway detail

Boardwalk over rain garden

Riprap spillway
Live stakes through riprap



Historic West Zone

West Woodland and Historic West Side



Green roof retrofit for gazebo

Existing bridge

Woodland enhanced by native plantings

West woodland seating area

Formal access points to the millrace

West woodland millrace area

Green Roof Gazebo Retrofit



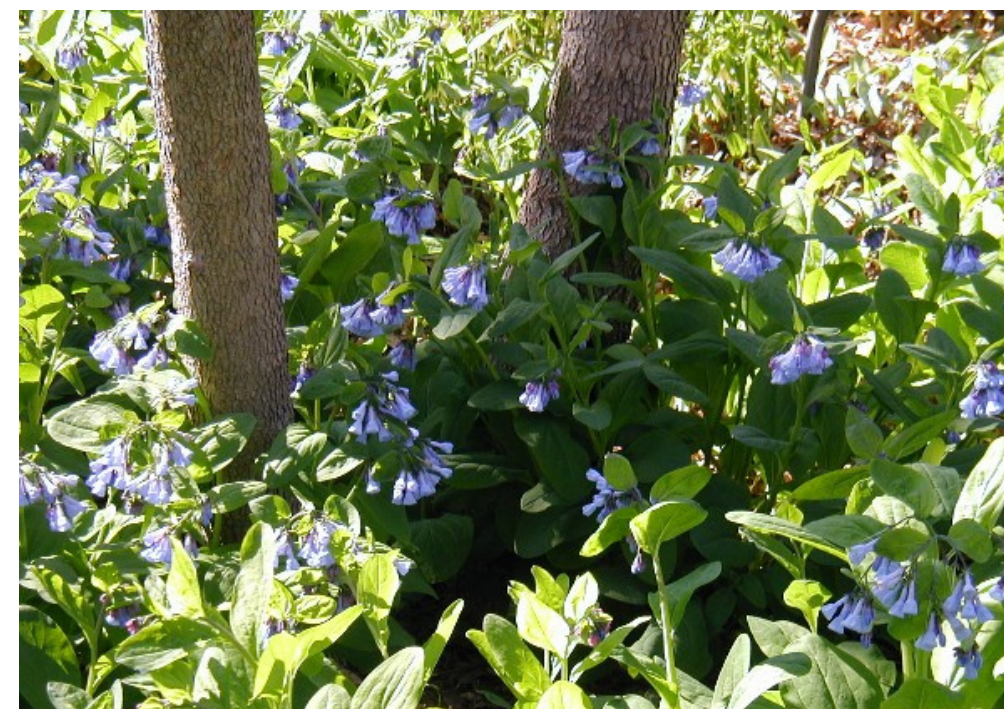
Woodland Garden Perspective



Woodland garden plants



Wild columbine



Wild geranium



Woodland phlox



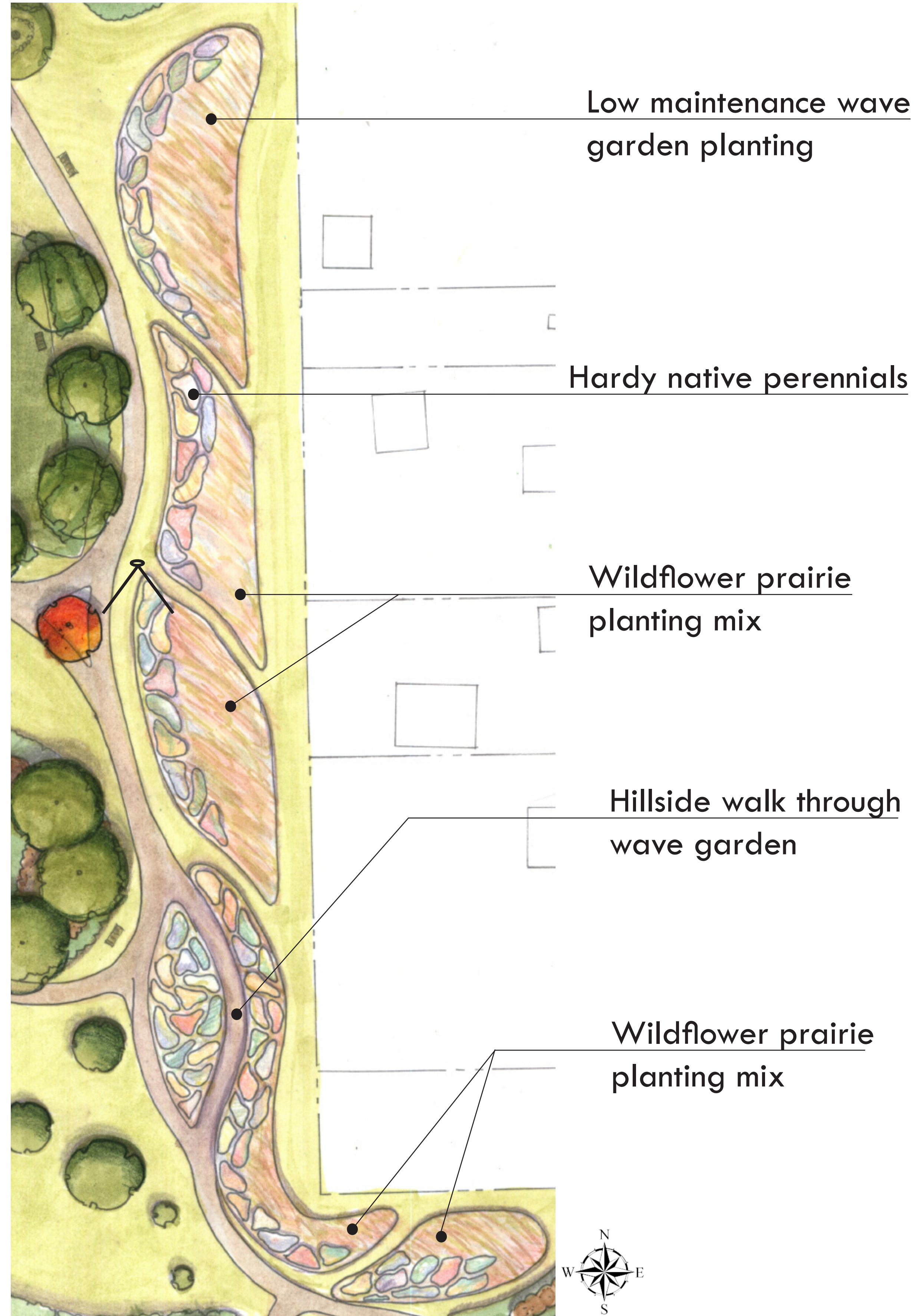
Foam flower



Wave Garden

Wave Garden Walk Perspective

Wave Garden Plan View



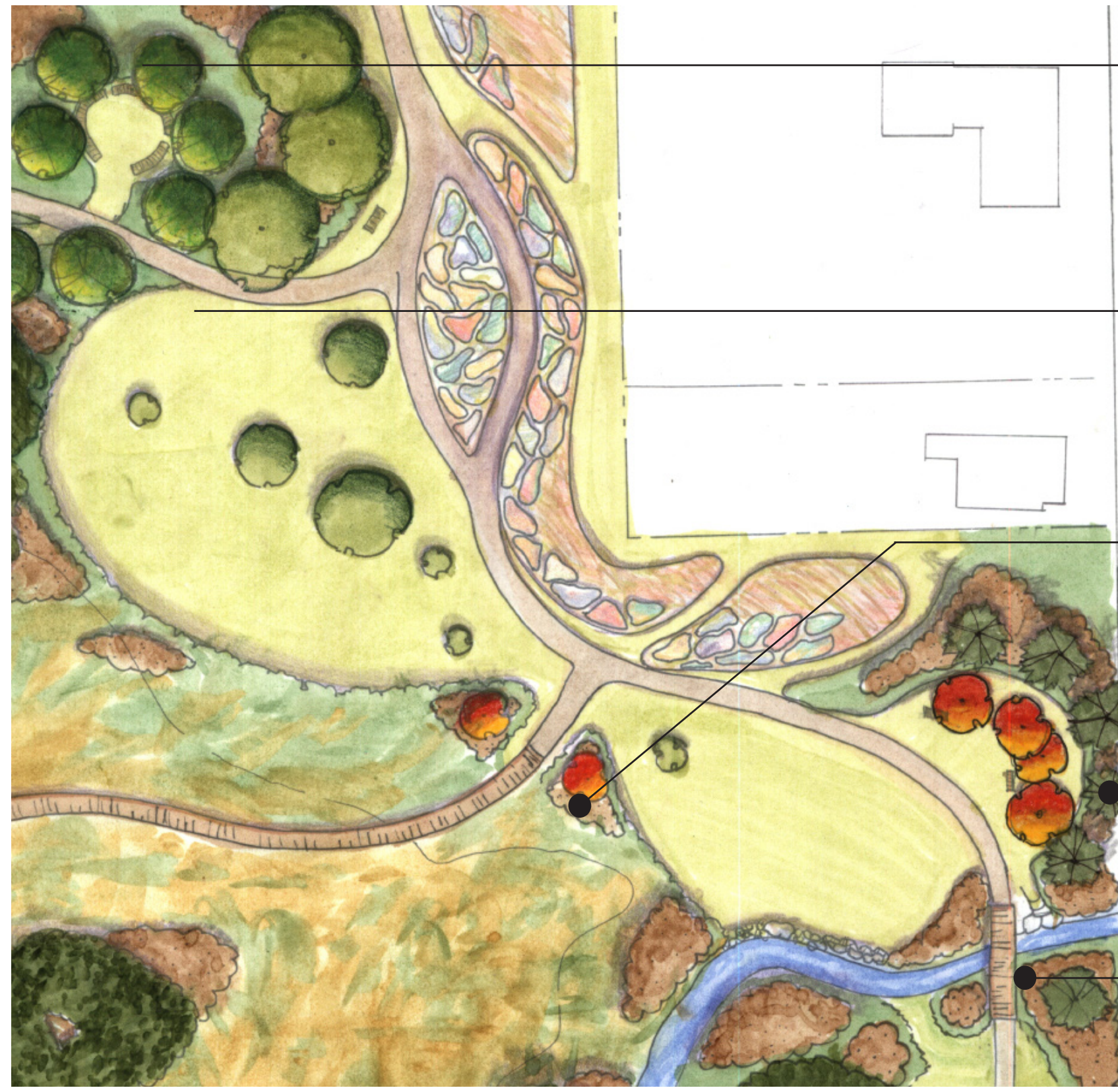
Wave Garden Precedents





River Rooms

River Rooms Plan



Wetland river room

Recreation room

Wetland boardwalk east entrance

River view room

Streambank stabilization plantings

View from Clinton River Bridge



Wetland Room Perspective



Clinton River View





Streambank Plan

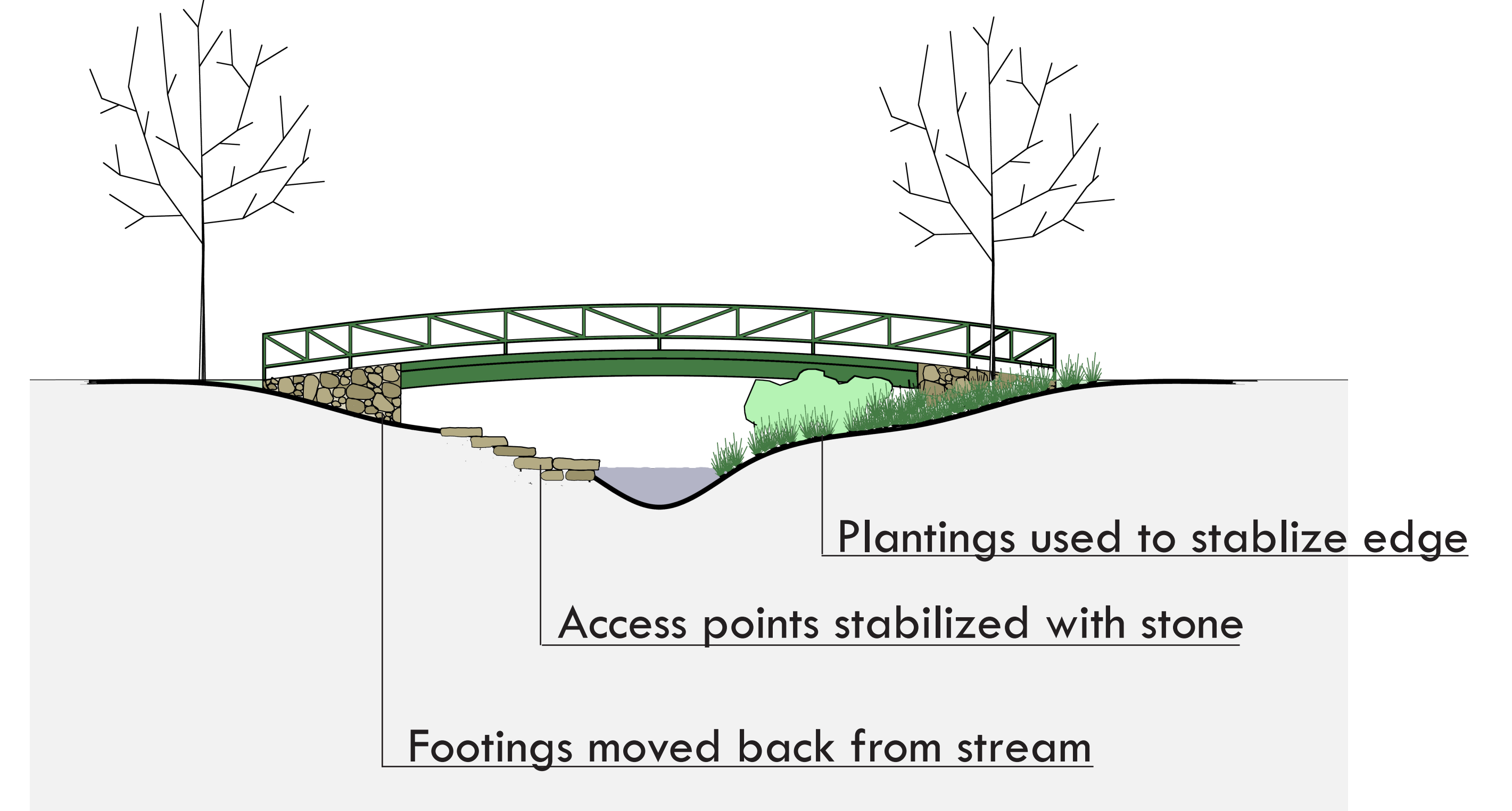
Streambank Stabilization



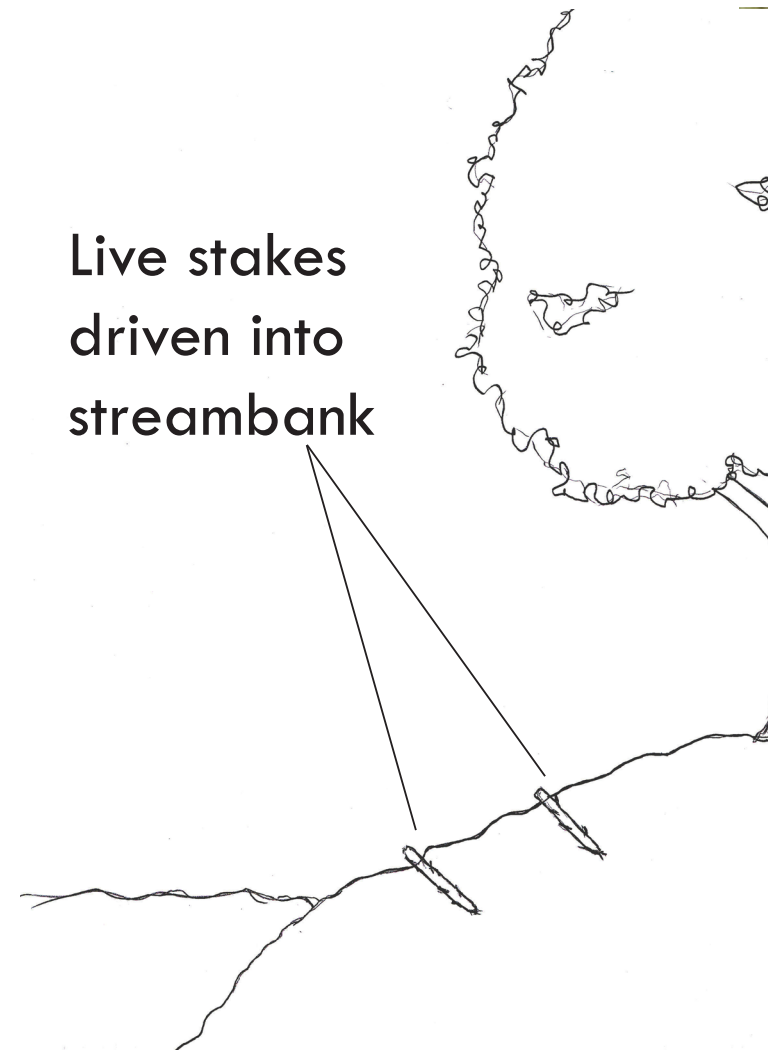
Access points stabilized with stone

Area for live staking and native planting

Improved Clinton River Crossing



Live Stakes



<http://www.salixrw.com/images/projects/Live-Willow-Stakes-1g.jpg>

Examples of Live Stakes In Use



http://www.ma.nrc.usdo.gov/news/images/sawmill_P4200056.JPG



http://www.ma.nrc.usdo.gov/news/images/sawmill_P4200057.JPG

Examples of Streambank Stabilization

Before



After



<http://www.ag.lastate.edu/centers/lawetlands/bear19-6.jpg>

<http://www.ag.lastate.edu/centers/lawetlands/bear19-4.jpg>

http://www.unb.ca/cr/images/Waukegan_000.jpg

Specific Streambank Plants



<http://www.frec.edu/academics/botany/RockyMountainFlora/images/Ninebark2.JPG>

Willow tree



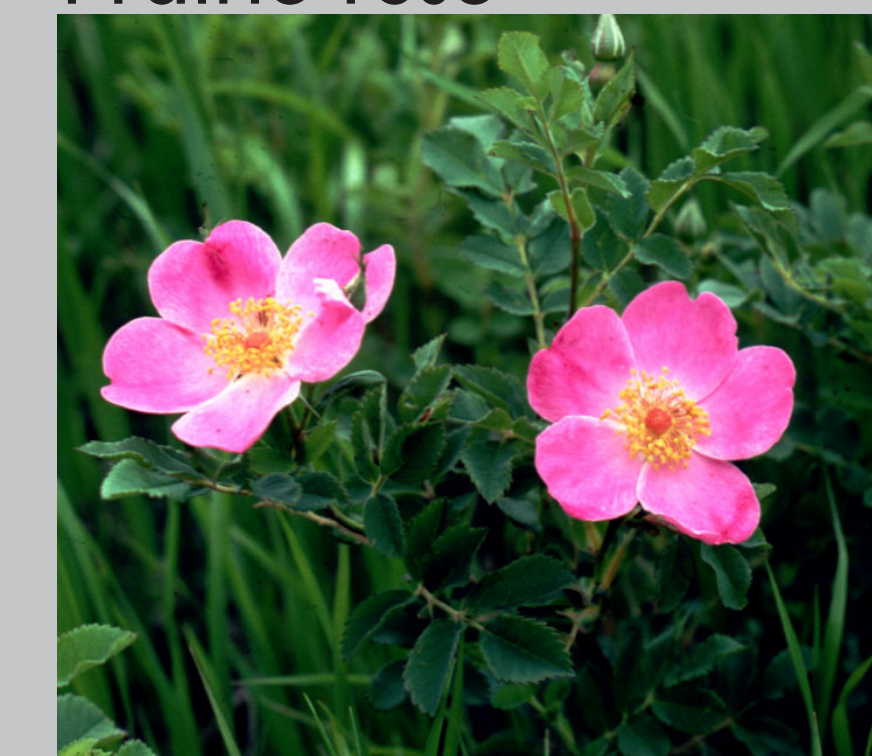
http://www.tarleton.edu/~trange/Edwards%20Pictures%2005/Summer2005_Slides/su05%20152%20sandbar.jpg

Silky dogwood



<http://plant-materials.nrc.usdo.gov/photoset/300dpi-1pg/0102.jpg>

Prairie rose



<http://www.ndsuodak.edu/instruct/wallo/images/ndfwr2.jpg>

Tufted hair grass



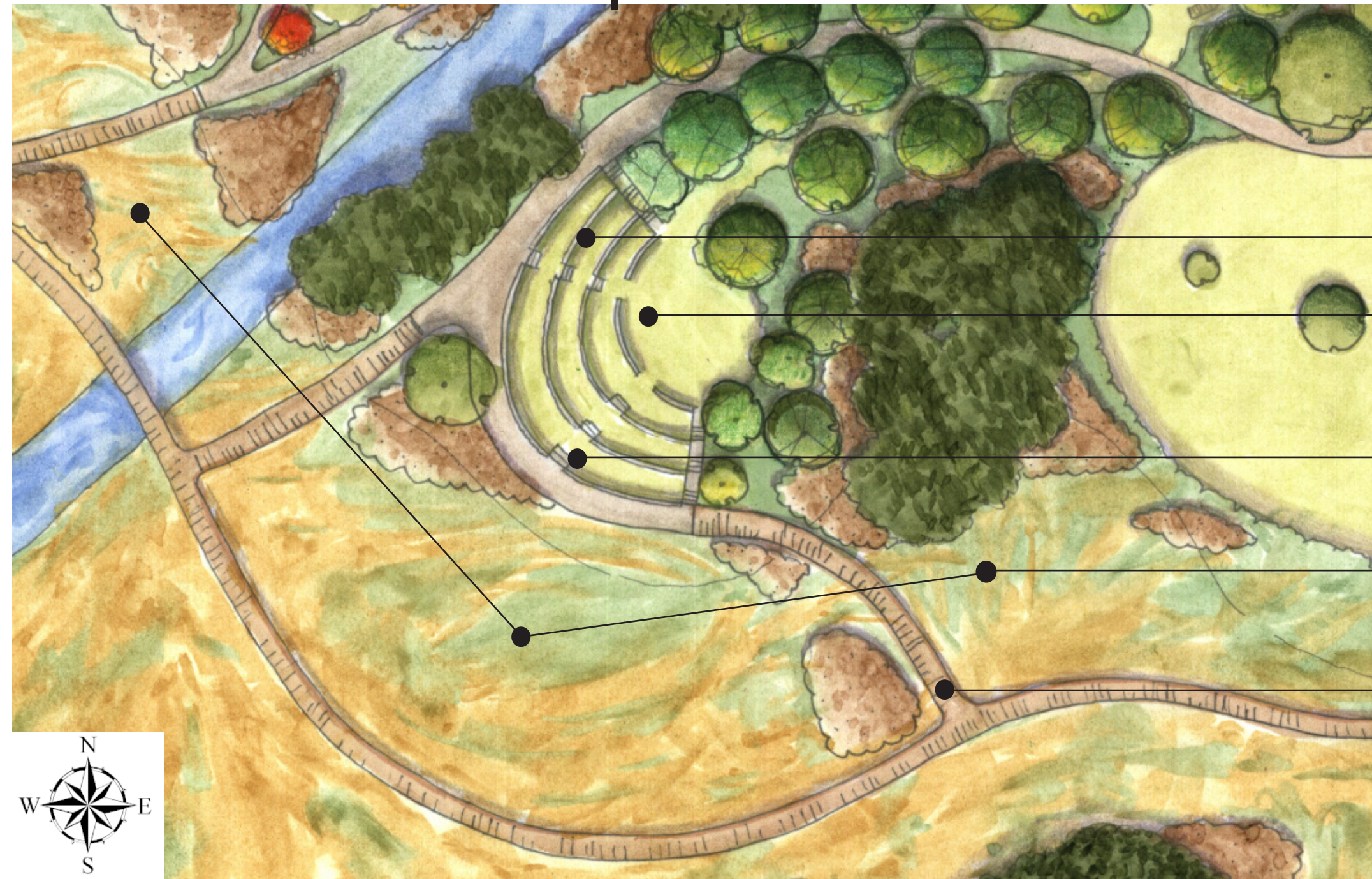
<http://www.ruhr-uni-bochum.de/boggy/html/Deschampsia.cespitosa.jpg4.jpg>



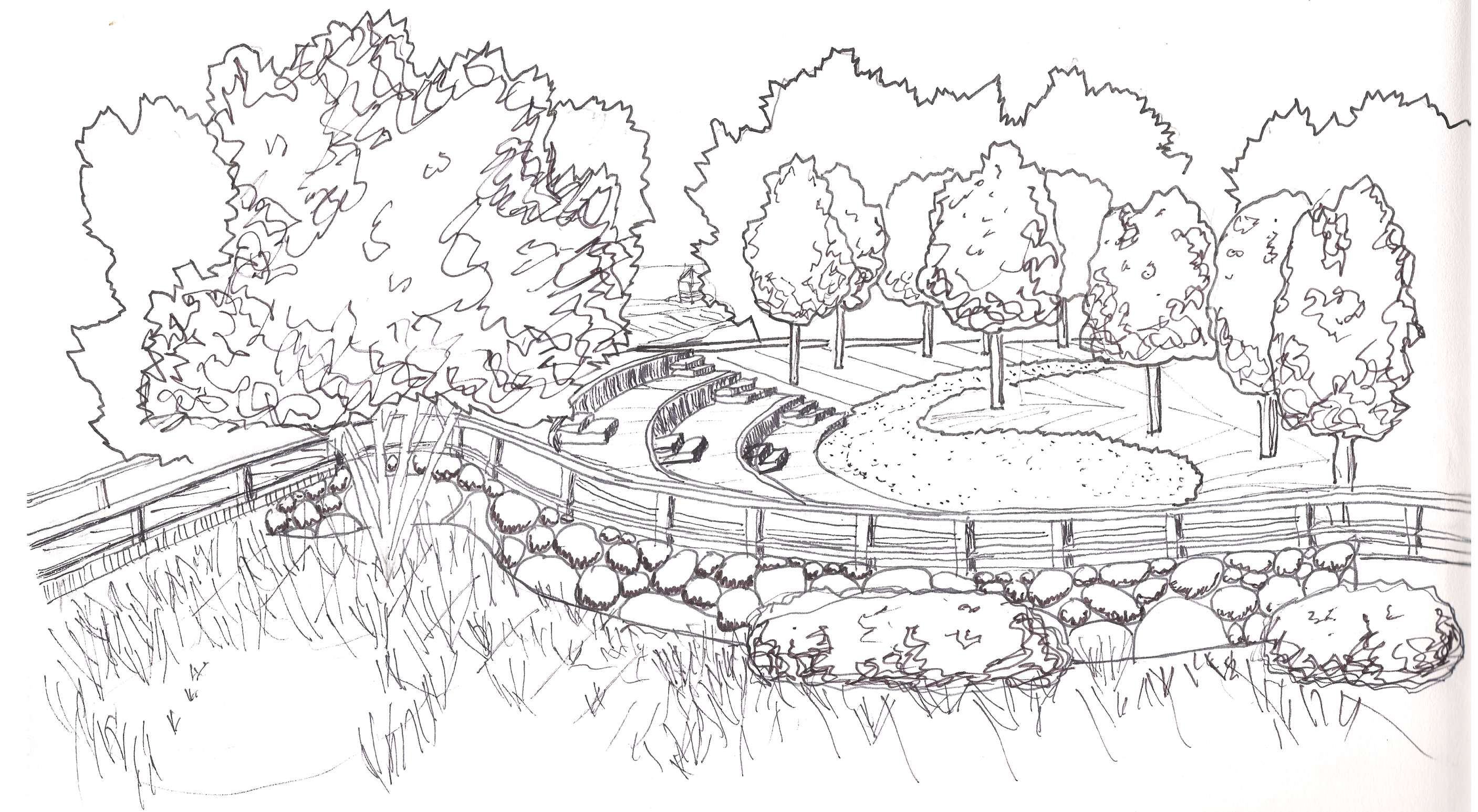
The Wetland Experience

Wetland overlook

Wetland overlook plan



- Terraced seating
- Stage
- Wetland overlook
- Initial restoration zones
- Wetland boardwalk network

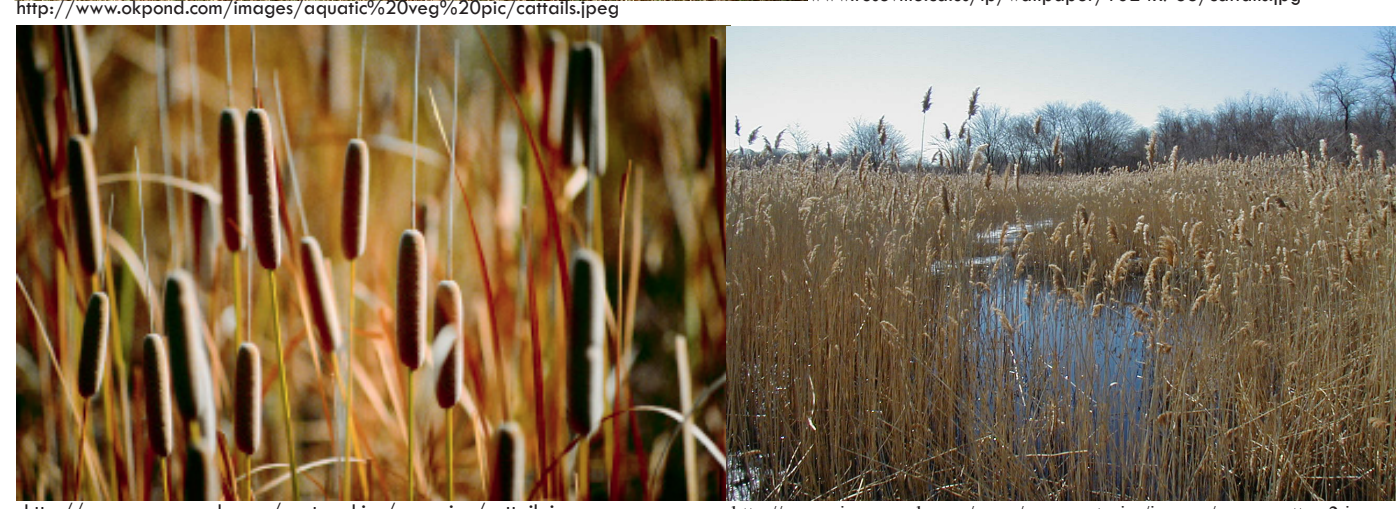


The Wetland Experience

A boardwalk system will be developed and expanded over time. The boardwalk system will help bring the visitors into the wetland and make them aware of this valuable underutilized resource



Depot Park 2008



Depot Park 2030



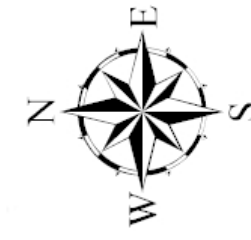
Wetland Boardwalk Experience





Wave Garden Planting Plan

Plan View



Scale 1" = 10'

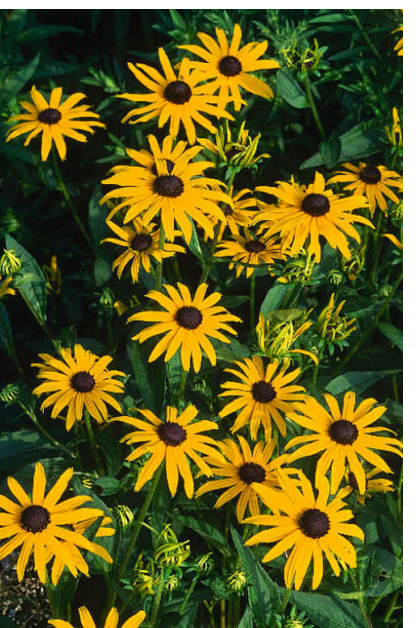


Gray headed conflower



<http://www.cedarville.edu/academics/sciencemath/silvius/prairie/ratibida.jpg>

Orange coneflower



<http://www.dkimages.com/discover/previews/1051/20045906.JPG>

Wave Garden in Bloom



Planting Key

Bed #	Plant Count	Common Name	Scientific Name
Perennials			
4, 18, 48, 53, 71	11, 10, 6, 7, 6	Butterfly weed	Asclepias tuberosa
5, 20, 29, 34, 56	9, 11, 10, 14, 8	Culver's root	Veronicastrum virginicum
19, 44, 78	12, 12, 8	Grayheaded coneflower	Ratibida pinnata
6, 22, 30, 37, 47, 52, 72	10, 13, 10, 8, 9, 7, 4	Hoary vervain	Verbena hastata
1, 21, 62, 71	10, 10, 8, 9	Marsh blazing star	Liatris spicata
33, 46, 54, 65	13, 11, 8, 8	Orange coneflower	Rudbeckia fulgida 'Goldsturm'
36, 63, 76	7, 9, 10	Prairie smoke	Geum triflorum
17, 69, 76, 76	8, 12, 8, 8	Purple coneflower	Echinacea purpurea
13, 38, 77	5, 15, 6	Showy tickseed	Coreopsis lanceolata
2, 19, 68, 74	8, 10, 10, 9	'Summer Sun' oxeye	Heliopsis helianthoides
12, 23, 28, 45, 61	15, 15, 8, 8, 9	Sweet joe-pye weed	Eupatorium purpureum 'Gateway'
7, 32, 57, 75	12, 10, 8, 11	Wild bergamot	Monarda fistulosa
9, 25, 70	10, 6, 7	Wild lupine	Lupinus perennis
Grasses			
8, 16, 35, 43, 49, 66	11, 16, 15, 8, 9, 9	Prairie Drop seed	Sporobolus heterolepus
11, 31, 41, 51, 59	11, 16, 9, 7, 9	Purple love grass	Eragrostis spectabilis
15, 40, 50, 60	9, 9, 15, 14	Side-oats gramma	Bouteloua curtipendula
3, 24, 64, 69	18, 9, 10, 10	Switchgrass	Panicum virgatum

Wave Garden Plant List

Total Qty.	Size	Condition	Common Name	Scientific Name	Notes
Perennials					
40	Plugs	Cont. 12" o.c.	Butterfly weed	Asclepias tuberosa	2-3 ft tall, orange summer flws, attracts butterflies
52	Plugs	Cont. 12" o.c.	Culver's root	Veronicastrum virginicum	4-5 ft tall, white summer flws, med green foliage
32	Plugs	Cont. 12" o.c.	Grayheaded coneflower	Ratibida pinnata	3-4 ft tall, yellow summer flws, med green foliage
70	Plugs	Cont. 12" o.c.	Hoary vervain	Verbena hastata	3-4 ft tall, purple flws, med green foliage
37	Plugs	Cont. 12" o.c.	Marsh blazing star	Liatris spicata	3-4 ft tall, magenta flower spikes, attracts butterflies
40	Plugs	Cont. 12" o.c.	Orange coneflower	Rudbeckia fulgida 'Goldsturm'	3-4 ft tall, yellow summer flws, med green foliage
26	Plugs	Cont. 12" o.c.	Prairie smoke	Geum triflorum	1-1.5' ft tall, pink summer flws
36	Plugs	Cont. 12" o.c.	Purple coneflower	Echinacea purpurea	3 ft tall, magenta summer flws, attracts butterflies
17	Plugs	Cont. 12" o.c.	Showy tickseed	Coreopsis lanceolata	2-3 ft tall, yellow summer flws, med green foliage
47	Plugs	Cont. 12" o.c.	'Summer Sun' oxeye	Heliopsis helianthoides 'Summer Sun'	4-5 ft tall, yellow summer flws, med green foliage
55	Plugs	Cont. 12" o.c.	Sweet joe-pye weed	Eupatorium purpureum 'Gateway'	3-4 ft tall, pink summer flws, attracts butterflies
41	Plugs	Cont. 12" o.c.	Wild bergamot	Monarda fistulosa	2-3 ft tall, pink summer flws, med green foliage
23	Plugs	Cont. 12" o.c.	Wild lupine	Lupinus perennis	3-4 ft tall, dark purple flws, dark green foliage
Grasses					
75	Plugs	Cont. 9" o.c.	Prairie Drop seed	Sporobolus heterolepus	2-4' tall, green and cream fall foliage color
52	Plugs	Cont. 9" o.c.	Purple love grass	Eragrostis spectabilis	3-4' ft tall, purple fall foliage color
47	Plugs	Cont. 9" o.c.	Side-oats gramma	Bouteloua curtipendula	2-3' ft tall, attractive seed heads
47	Plugs	Cont. 9" o.c.	Switchgrass	Panicum virgatum	2-3' ft tall, golden-purple fall foliage color
Seed Mixes					
0.5 acres mix			Prairie Wildflower and Grass seed mix	Selected mix similar to JFNew Native and Perennial Forb mix, consult with local native plants specialist	