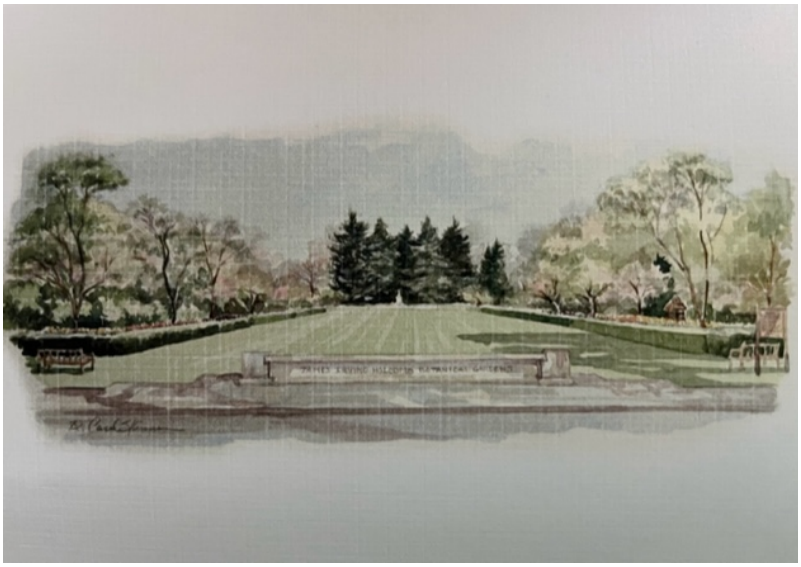
Indiana Native Plant Society

Restoration of Holcomb Gardens: The Mall Plantings

Design Notes & Drafts, March 2024



Links to project resources

All of the documents relating to the project can be found in a google folder here. Documents include:

- Project Outline and Proposal Details
- History of Holcomb Gardens
- Clute Report 1929
- Fairview Park History
- Early Garden Chart Plan
- Woody Perennials List 1935
- Redesign of Holcomb Gardens circa 1948
- 1948 Plant List & Characteristics
- Site photos February 2024
- Site photos September 2023

Designs by Coralie Palmer, Elise Hagan & Sarah Gray on behalf of INPS
Prepared by Coralie Palmer, President, Indiana Native Plant Society

Site Overview

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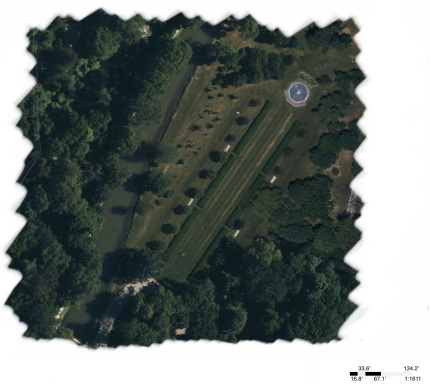


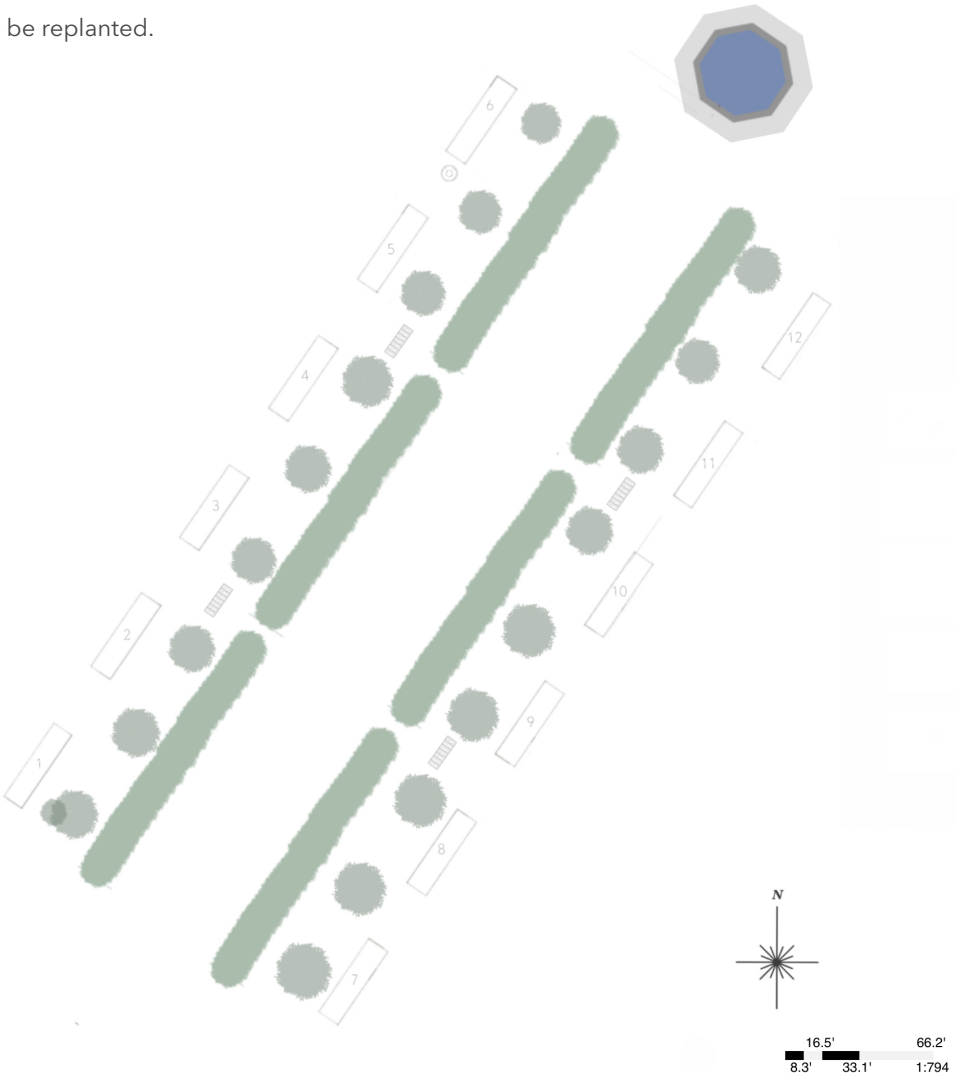
Site Details

"The Mall is in the northern half of the Gardens and likely traces its origins back to the original design of the botanical garden that sat in this location prior to the Holcomb Gardens' dedication. Based on original plans, the botanical garden took the shape of a cross with a long axis, which is presumably the basis of the current Mall, as Holcomb and Lindberg never sought to destroy the existing gardens, but to reimagine, reorganize, and rearrange them. The Mall is a rectangular grass area with the reflecting pool and statue of Persephone on the northern end, and a stone bench and sign at its southern end, reading "James Irving Holcomb Botanical Gardens 1950." Lining the interior of the grass area are broad-leafed evergreen hedges and Taxus cuspidate set in three sections on each side. On the outside of the Mall was a series of flower beds, with six on each side of the Mall. Between the evergreen hedges and the flower beds, trees were planted in even intervals with nine trees planted on each side of the Mall"

[From:Gaines, D., Robideau, E. & Zahniser, K. DRAFT, A History of Holcomb Gardens, Historical Research Associates Inc, 2022].

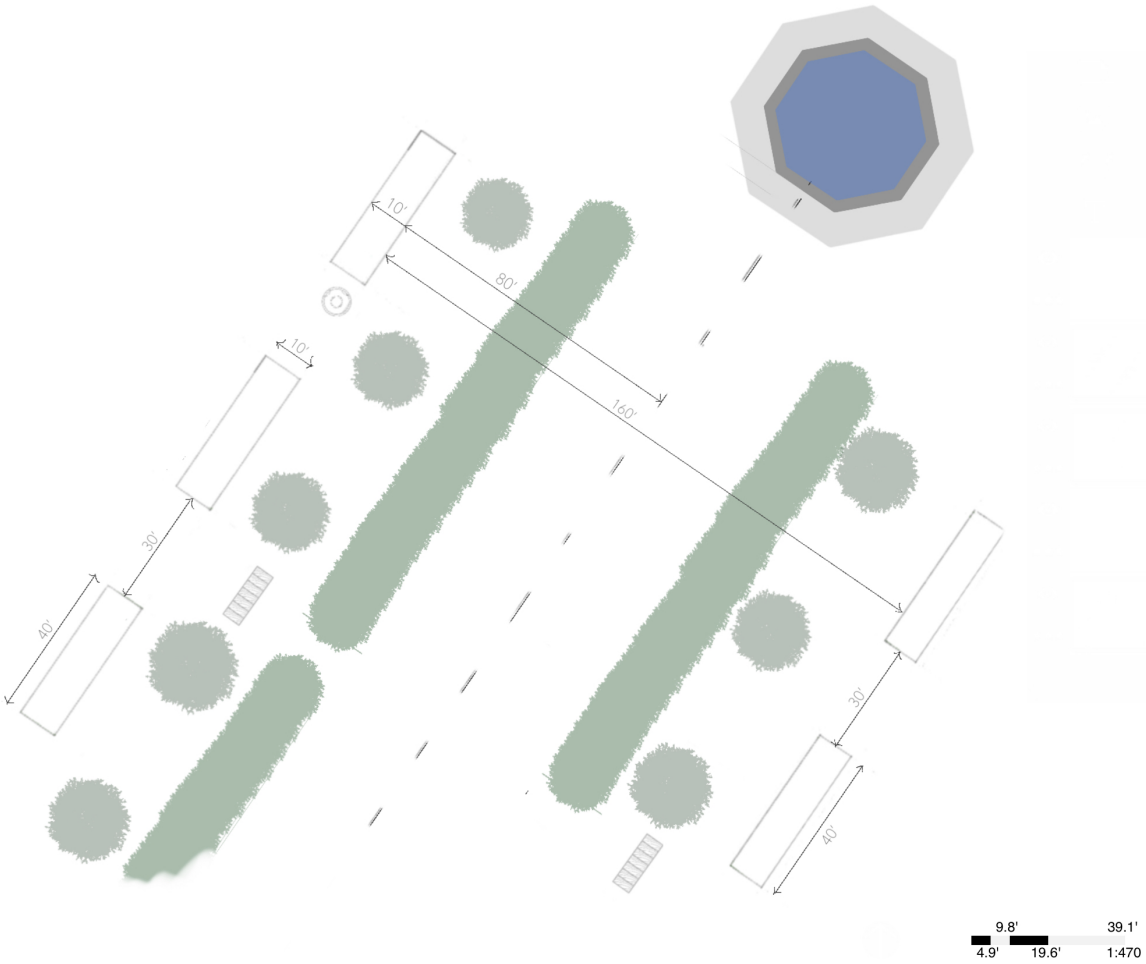
- Due to a loss of Grounds staff, plant theft, and destruction during COVID-19, the Holcomb Gardens flower beds fell into disrepair, were covered, and now need to be replanted.

- The initial restoration phase consists of 12 beds, 10' x 40' each, six on either side of the yew row on either side of 'The Mall', walking down to the beautiful statue of Persephone. Two additional curved beds (13 and 14) are to have size confirmed and are envisioned as being added in a second phase. This replicates the 1948 core design layout for this section of the gardens, while reducing the size of the planted areas (where the 12 beds were 10 'x 50' each).



Spacing and Placement

- Placement of the 10′ x 40′ beds is shown below. Placement is very similar to the original design, though spacing is altered slightly to take into consideration the reduced bed size and the now mature size of *Taxus* hedges and *Malus* trees.
- The stone benches and the circular monument on the northwest side of the mall are also taken into consideration for placement.
- Inside edges of the beds are 80′ from the central line up the Mall, approximately 160′ from each other, and each bed is 10′ wide.
- Each bed is 40′ long, with 30′ gap to the next bed. Two beds run alongside each section of the long *Taxus* hedges. To ensure lengthwise spacing is correct at the ends, lengthwise placement can be marked using the stone benches as a guide - a line drawn through the center of the benches should intersect the 30′ distance between beds 2 & 3, 4 & 5, 8 & 9, and 10 & 11, and should measure 15′.



Design Layout

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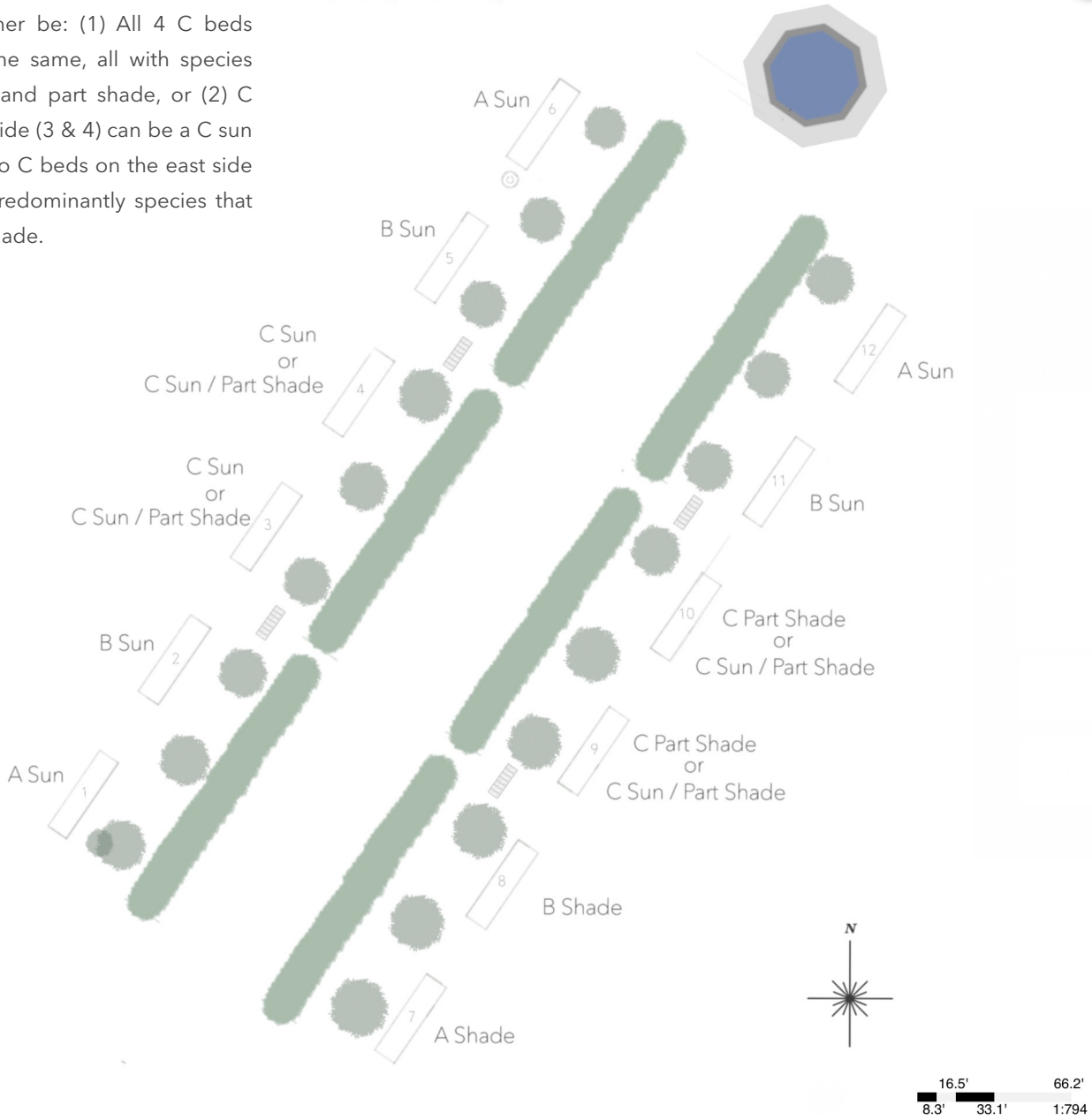
- To ensure a cohesive formal structure that takes into consideration the geometry of the site, the various viewpoints as visitors enjoy the gardens and the differing conditions with changing aspect, shade and moisture levels, the following overall design layout it proposed.

- Three key designs will be in beds A, B and C. The ABCCBA layout illustrated below gives longitudinal symmetry, while A, B and C beds on the east and west will mirror each other to provide transverse symmetry.

- Both beds A and B have sun versions and shade versions, as beds 7 & 8 are in quite deep shade and will require different species to thrive. The design structure will be the same in the sun and shade versions, with different species taking on the functional design roles. Looking from the fountain down the Mall with the clearest vista of the site, the mirrored A sun beds (6 & 12) will hopefully give a strong impact and an intentional, formal look to the gardens. Viewed from the south looking towards the fountain, the overall structure will be mirrored, but the large curved *Taxus* hedges at the southern end block a clear view, and so having A sun and A shade with different species should not reduce the formal look of the plantings.

- C beds could either be: (1) All 4 C beds (3,4,9 & 10) are the same, all with species that will take sun and part shade, or (2) C beds on the west side (3 & 4) can be a C sun version and the two C beds on the east side (9 & 10) can be predominantly species that will thrive in part shade.



Soil Conditions

- A report from the NRCS for this location gives the following data (with a full report here)

Custom Soil Resource Report

Marion County, Indiana

Ge—Gessie silt loam, 0 to 2 percent slopes, frequently flooded, brief duration

Map Unit Setting

National map unit symbol: 2w55w
Elevation: 340 to 1,000 feet
Mean annual precipitation: 37 to 46 inches
Mean annual air temperature: 48 to 55 degrees F
Frost-free period: 145 to 180 days
Farmland classification: Prime farmland if protected from flooding or not frequently flooded during the growing season

Map Unit Composition

Gessie, frequent, brief, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gessie, Frequent, Brief

Setting

Landform: Flood-plain steps, natural levees, flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy alluvium

Typical profile

Ap - 0 to 8 inches: silt loam
Bw - 8 to 41 inches: loam
C - 41 to 79 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.8 inches)

Interpretive groups

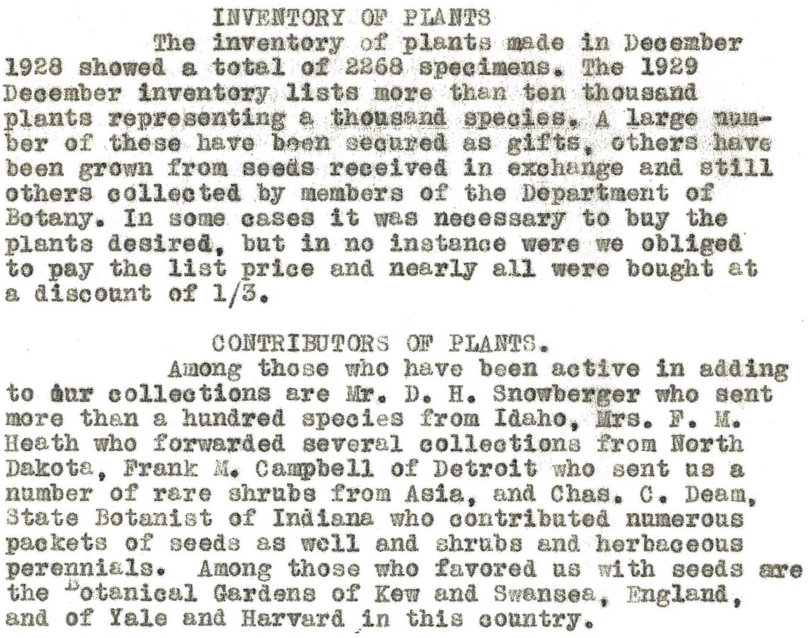
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Ecological site: F111XA005IN - Dry Alluvium
Hydric soil rating: No

Bed Design and Species Selection

- I have started an initial plant list here - Sarah, Mary and Elise please do go in and edit!

- A Morpholio Trace project file with the outline of the beds, to scale and on the site map with surrounding trees is available here .
- A Morpholio Trace file with the 1940s plans and bed designs laid in position and to scale on the site map is available here.
- The project with the 1955 additions to the plantings, again laid in position and to scale on the site map, is available here

- Close ups of the 1948 and 1955 designs are here.
- A description from the 1920s is here
- A woody perennials list from 1935 is here
- Plant lists and characteristics from the 1948 plantings are here
- Site photos February 2024
- Site photos September 2023



INVENTORY OF PLANTS

The inventory of plants made in December 1928 showed a total of 2368 specimens. The 1929 December inventory lists more than ten thousand plants representing a thousand species. A large number of these have been secured as gifts, others have been grown from seeds received in exchange and still others collected by members of the Department of Botany. In some cases it was necessary to buy the plants desired, but in no instance were we obliged to pay the list price and nearly all were bought at a discount of 1/3.

CONTRIBUTORS OF PLANTS.

Among those who have been active in adding to our collections are Mr. D. H. Snowberger who sent more than a hundred species from Idaho, Mrs. F. M. Heath who forwarded several collections from North Dakota, Frank M. Campbell of Detroit who sent us a number of rare shrubs from Asia, and Chas. C. Deam, State Botanist of Indiana who contributed numerous packets of seeds as well and shrubs and herbaceous perennials. Among those who favored us with seeds are the Botanical Gardens of Kew and Swansea, England, and of Yale and Harvard in this country.

"Different flower varieties were planted in each flower bed, including 148 varieties of Paeonia officinalis, 108 types of Syringa spp., and over 12,000 Tulipa gesneriana"
[From:Gaines, D., Robideau, E. & Zahniser, K. DRAFT, A History of Holcomb Gardens, Historical Research Associates Inc, 2022].

- The design brief is to incorporate and honor the earlier iterations and history of the garden, while using only species that are native to Indiana (and all straight species).
- Looking at the historical plant lists there are actually a significant number of native plants in there which will be a wonderful foundation and allow us to replicate some areas of the design as faithfully as possible. We will carefully review the history, pictures and original plans to incorporate as much of the concept and aesthetic of the Holcomb & Lindberg-designed 1948 gardens as possible into the design. We will look to translate and adapt the original concept, incorporating design, ecological and practical maintenance considerations, and taking into account the slightly different scale of new planting beds and the increased maturity of the surrounding trees.
- We will try and also incorporate details where possible from the earlier iterations of the park, including where possible the ideas and visions from the earlier landscape architects (such as Sheridan) and plants from Dr Willard Clute's botanical gardens. Mike Homoya kindly noted that he has encountered many specimens in the Friesner Herbarium that were collected from campus, many (most?) collected by Friesner himself, and that some of the specimen labels say "Butler University Botanical Garden". It would be wonderful to try and include native species that were present in the Botanical Garden, and highlight this, and the link to Friesner, in signage and / or accompanying educational materials. Also the link to Charles Deam mentioned in the excerpt above is wonderful!

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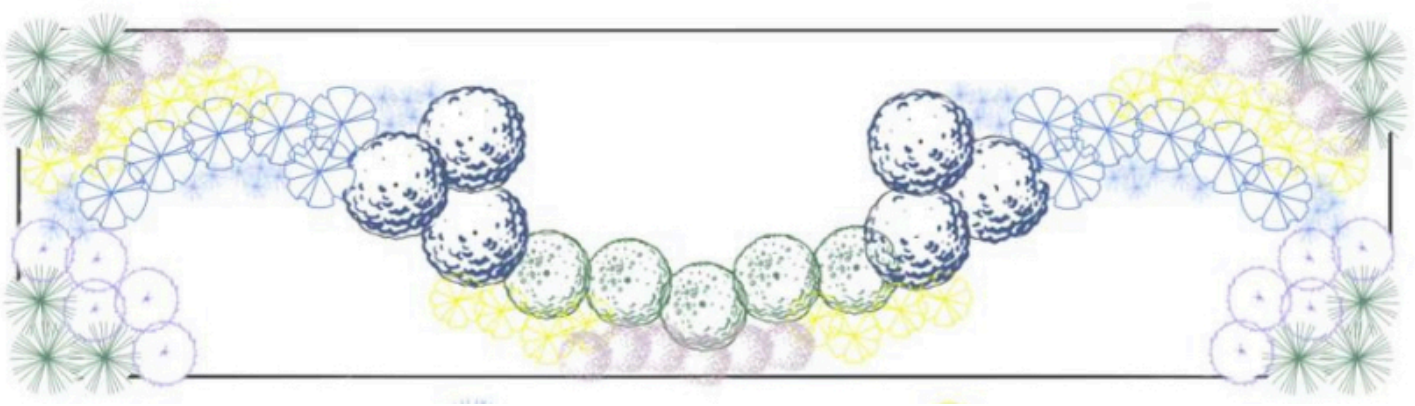
First Draft - Design 'Bones' for all beds



Prairie dropseed	*Sporobolus heterolepis*
Aromatic aster	*Symphyotrichum oblongifolium*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Downy skullcap	*Scuttelaria incana*
Common bluestar	*Amsonia tabernaemontana*
Wild blue indigo	*Baptisia australis*

•An initial plan is to keep a similar overall structure to the earlier designs for the beds, with all bed designs having a structural 'spine' of larger perennials or shrubs and the same 'waves' line that they had, with 'peony replacements' on one side, and the iris / other perennial replacements along the other. People will be viewing the beds from all four sides, so it is envisioned that the central long 'spine' is of taller plants, coming down to shorter plants at all four edges of the rectangular beds. Having large impactful drifts / swathes, and repeating at the corners will help with the desired formal look, while having some diagonal swathes may also help to connect the long plantings.

•We have created 6 designs (A sun, A shade, B sun, B shade, C sun, C part shade) .

•Having year-round interest and floral resources (especially in early spring and late autumn), keystone plants and as much diversity at the family and genus taxonomic levels as possible would be wonderful for increasing the ecological value of the plantings

•Considering seasonality: Spring - Amsonia, Baptisia and golden Alexanders as foundational; Autumn - asters and goldenrod as foundational. In Spring and Autumn, there is some consistency throughout the gardens for a cohesive, formal feel. In Summer, with the wonderful diversity of blooms, we play around with the color a bit more, increasing both the interest for human visitors and the floral resources and host plants for wildlife. A beds - cool colors, B's medium and C's warm / hot colors.

- Having some species that are consistent throughout all the beds will help to keep the whole garden cohesive - *Baptisia australis, Amsonia tabernaemontana* and *Scutellaria incana / ovata* should be happy in all the conditions and be able to provide some of the key structure. *Batista* and *Amsonia,* paired with *Zizia aurea* would be a lovely anchor for all of the beds.
- Dense planting, and underplanting will help to create a tapestry of plants, reducing weeding and maintenance needs. Plant combinations have been carefully chosen to account for phenology, competition and functionality both above and below the soil line.

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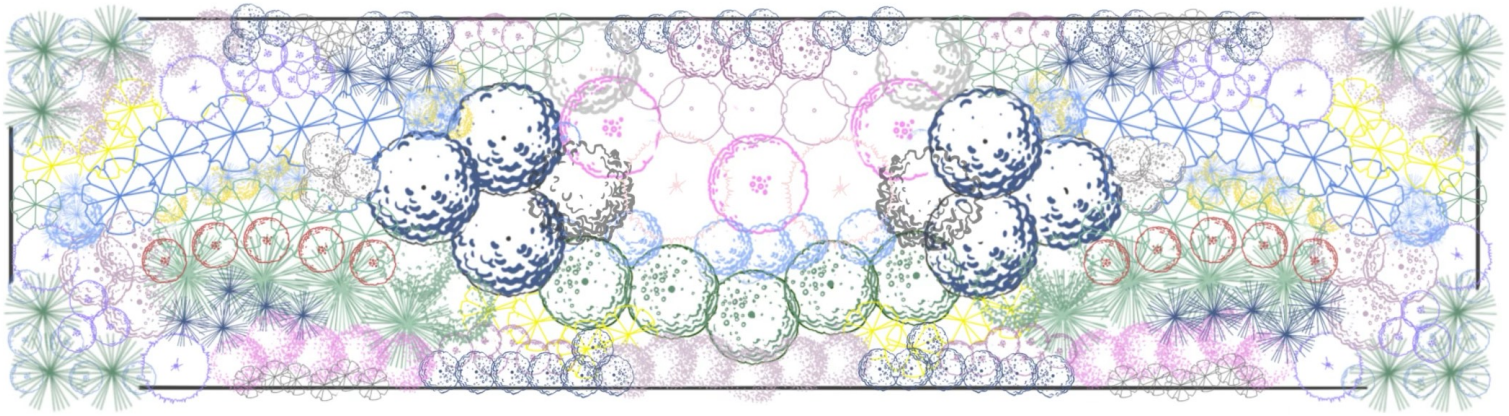
Design A Sun - Beds 1, 6 & 12



Joe Pye Weed	*Eutrochium maculatum*
Little bluestem	*Schizachyrium scoparium*
Wild blue indigo	*Baptisia australis*
Aromatic aster	*Symphyotrichum oblongifolium*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Purple coneflower	*Echinacea purpurea*
Common bluestar	*Amsonia tabernaemontana*
Prairie dropseed	*Sporobolus heterolepis*
Ohio spiderwort	*Tradescantia ohiensis*
Prairie phlox	*Phlox pilosa*
Downy skullcap	*Scuttelaria incana*
Rose mallow	*Hibiscus laevis*
Foxglove beardtongue	*Penstemon digitalis*
Wild white indigo	*Baptisia alba*
Culver's root	*Veronicastrum virginicum*
Clustered mountain mint	*Pycnanthemum muticum*
Riddell's goldenrod	*Oligoneuron riddellii*
Blue vervain	*Verbena hastata*
Hairy penstemon & wild blue phlox	*Penstemon hirsutus & Phlox divaricata*
Wild blue phlox	*Phlox divaricata*
Wild iris	*Iris shrevei*
Beebalm	*Monarda fistulosa*
Boneset	*Eupatorium perfoliatum*
Hairy mountain mint	*Pycnanthemum verticillatum var. pilosum*
Swamp milkweed	*Asclepias incarnata*
Obedient plant	*Physostegia virginiana*
Great blue lobelia	*Lobelia siphilitica*

Design A Shade - Bed 7

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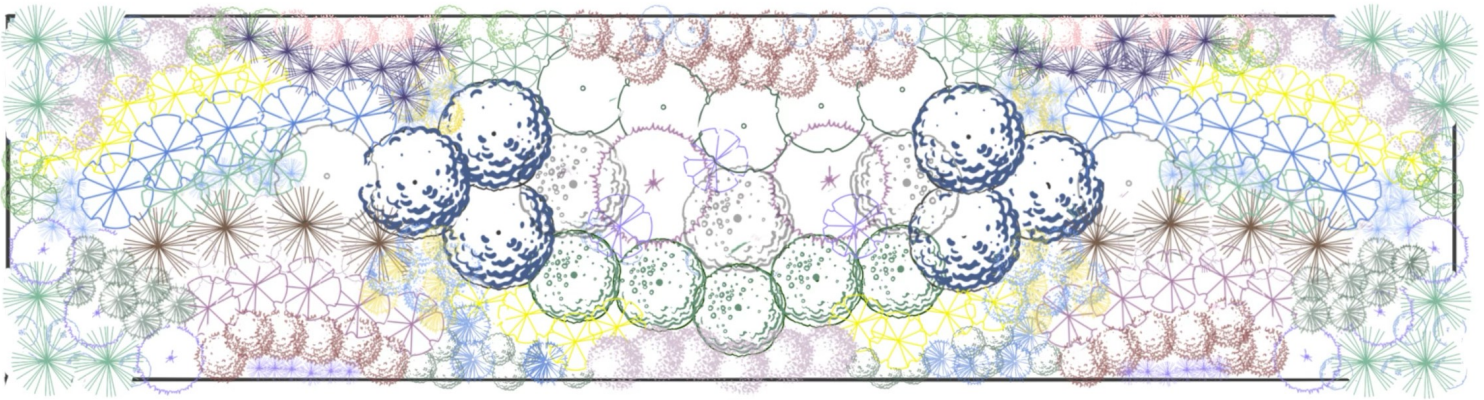

Sweet Joe Pye Weed	*Eutrochium purpureum*
Wild blue indigo	*Baptisia australis*
Blue mist flower	*Conoclinium coelestinum*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Maple leaved alum root	*Heuchera villosa*
Common bluestar	*Amsonia tabernaemontana*
White tinged sedge	*Carex albicans*
Zigzag spiderwort	*Tradescantia subaspera*
Heartleaf skullcap	*Scuttelaria ovata*
Jacob's ladder	*Polemonium reptans*
Bloodroot	*Sanguinaria canadensis*
Wild ginger	*Asarum canadense*
Virginia bluebells	*Mertensia virginica*
Zigzag goldenrod	*Solidago flexicaulis*
Culver's root	*Veronicastrum virginicum*
Blue-stemmed goldenrod	*Solidago caesia*
Wild blue phlox	*Phlox divaricata*
Bottle gentian	*Gentiana andrewsii*
Wild geranium	*Geranium maculatum*
Dwarf crested iris	*Iris cristata*
Long beaked sedge	*Carex sprengelii*
Wild columbine	*Aquilegia canadensis*
Lyre-leaf sage and hairy penstemon	*Salvia lyrata & Penstemon hirsutus*
Calico beardtongue	*Penstemon calycosus*
Black cohosh	*Cimicifuga racemosa*
Early meadowrue	*Thalictrum dioicum*
Goatsbeard	*Aruncus dioicus*
Purple meadowrue	*Thalictrum dasycarpum*
Northern bush honeysuckle	*Diervilla lonicera*

Design B Sun - Beds 2, 5 & 11

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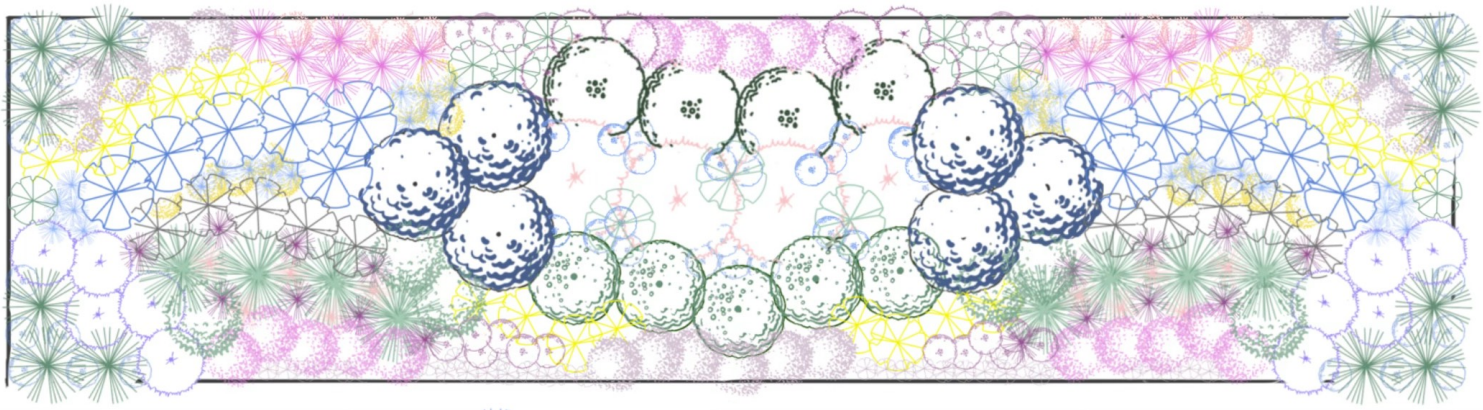

Carolina rose	*Rosa carolina*
Joe Pye Weed	*Eutrochium maculatum*
Little bluestem	*Schizachyrium scoparium*
Wild blue indigo	*Baptisia australis*
Aromatic aster	*Symphyotrichum oblongifolium*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Purple coneflower	*Echinacea purpurea*
Northern blazing star	*Liatris scariosa var. nieuwlandii*
Prairie blazing star	*Liatris pycnostachya*
Rattlesnake master	*Eryngium yuccifolium*
Common bluestar	*Amsonia tabernaemontana*
Prairie dropseed	*Sporobolus heterolepis*
Ohio spiderwort	*Tradescantia ohiensis*
Nodding onion	*Allium cernuum*
Prairie phlox	*Phlox pilosa*
Downy skullcap	*Scuttelaria incana*
Clustered poppy mallow	*Callirhoe triangulata*
Wild geranium	*Geranium maculatum*
Culver's root	*Veronicastrum virginicum*
Clustered mountain mint	*Pycnanthemum muticum*
Blue-stemmed goldenrod	*Solidago caesia*

Design B Part Shade - Bed 8

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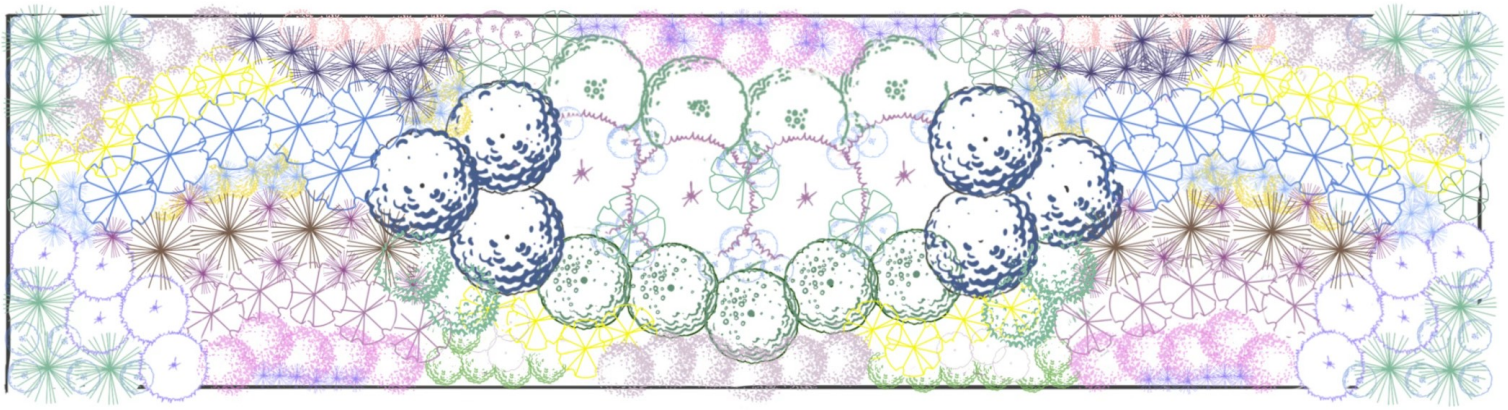

Black chokeberry	*Aronia melanocarpa*
Sweet Joe Pye Weed	*Eutrochium purpureum*
Wild blue indigo	*Baptisia australis*
Blue mist flower	*Conoclinium coelestinum*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Common bluestar	*Amsonia tabernaemontana*
Long beaked sedge	*Carex sprengelii*
Zigzag spiderwort	*Tradescantia subaspera*
Heartleaf skullcap	*Scuttelaria ovata*
Purple coneflower	*Echinacea purpurea*
Culver's root	*Veronicastrum virginicum*
Blue-stemmed goldenrod	*Solidago caesia*
Wild blue phlox	*Phlox divaricata*
Wild geranium	*Geranium maculatum*
Dwarf crested iris	*Iris cristata*
Tufted hairgrass	*Deschampsia cespitosa*
Wild columbine	*Aquilegia canadensis*
Calico beardtongue	*Penstemon calycosus*
Lyre-leaf sage and hairy penstemon	*Salvia lyrata & Penstemon hirsutus*
Wild ginger	*Asarum canadense*
Clustered mountain mint	*Pycnanthemum muticum*
Marsh phlox	*Phlox glaberrima*

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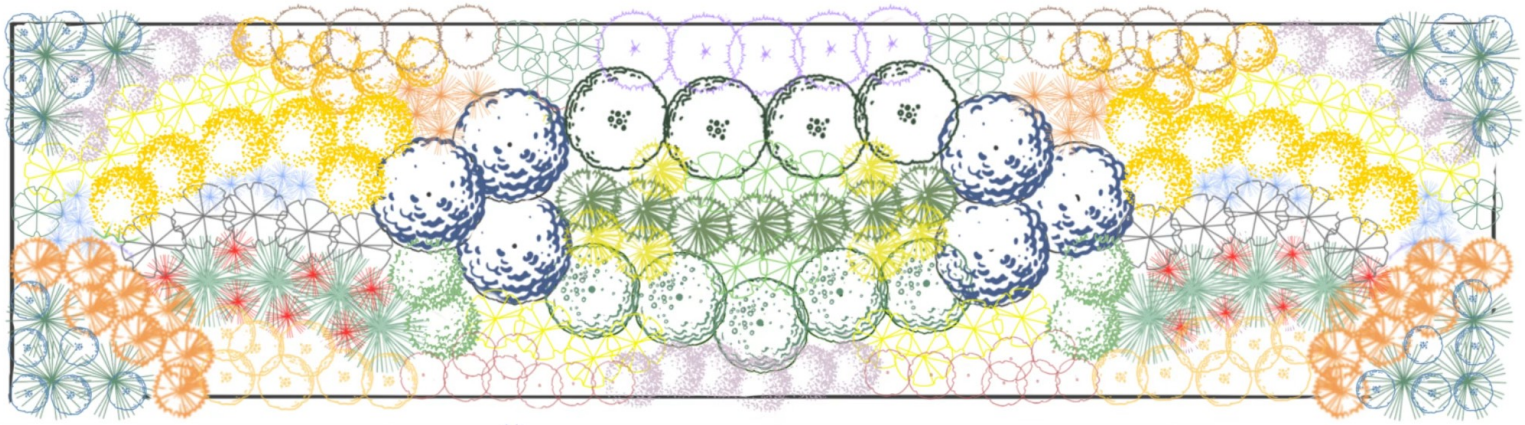
Design C Sun - Beds 3 & 4



Shrubby St John's wort	*Hypericum prolificum*	Common bluestar	*Amsonia tabernaemontana*
Sneezeweed	*Helenium autumnale*	Prairie dropseed	*Sporobolus heterolepis*
Prairie dock	*Silphium terebinthinaceum*	Ohio spiderwort	*Tradescantia ohiensis*
Little bluestem	*Schizachyrium scoparium*	Sweet black eyed Susan	*Rudbeckia subtomentosa*
Wild blue indigo	*Baptisia australis*	Culver's root	*Veronicastrum virginicum*
Aromatic aster	*Symphyotrichum oblongifolium*	Clustered mountain mint	*Pycnanthemum muticum*
Wild hyacinth	*Camassia scilloides*	Showy goldenrod	*Solidago speciosa*
Golden Alexanders	*Zizia aurea*	Wild blue phlox	*Phlox divaricata*
Bradbury's Monarda	*Monarda bradburiana*	Wild columbine	*Aquilegia canadensis*
Butterfly Weed	*Asclepias tuberosa*	Celandine poppy	*Stylophorum diphyllum*
Royal catchfly	*Silene regia*	Lanceleaf coreopsis	*Coreopsis lanceolata*
Rattlesnake master	*Eryngium yuccifolium*	Michigan lily	*Lilium michiganense*

Design C Part Shade - Beds 9 & 10

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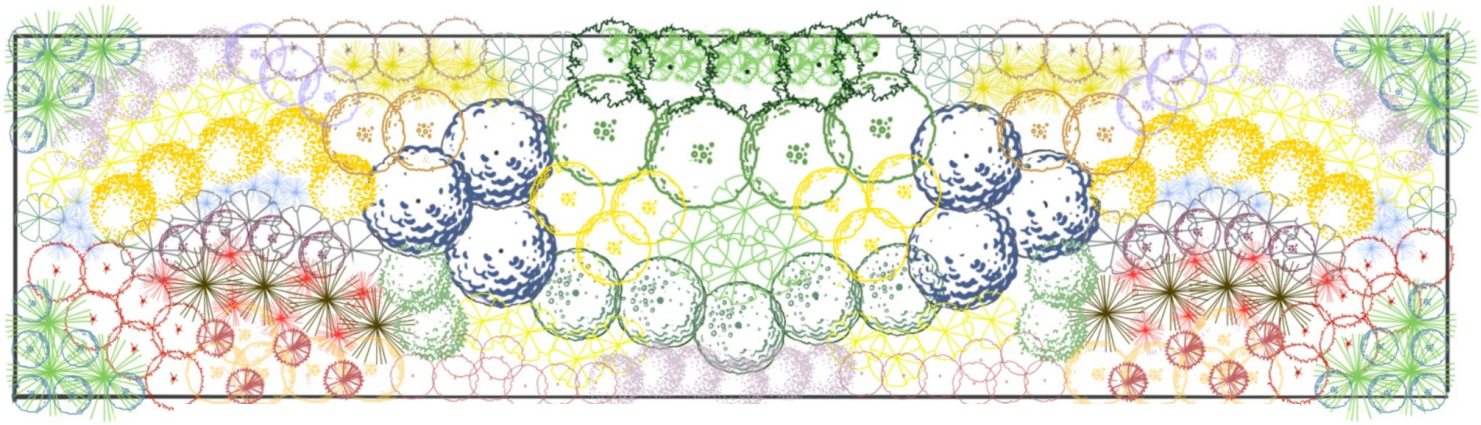

Smooth hydrangea	*Hydrangea arborescens*
Indian pink	*Spigelia marilandica*
Bellwort	*Uvularia grandiflora*
Tufted hairgrass	*Deschampsia cespitosa*
Wild blue indigo	*Baptisia australis*
Wild hyacinth	*Camassia scilloides*
Golden Alexanders	*Zizia aurea*
Bradbury's Monarda	*Monarda bradburiana*
Wild iris	*Iris shrevei*
Cardinal flower	*Lobelia cardinalis*
Foxglove beardtonge	*Penstemon digitalis*
Sky blue aster	*Aster azureus*
Yellow pimpernel	*Taenidia integerrima*
Small woodland sunflower or Woodland sunflower	*Helianthus microcephalus or H. Divaricata*

Common bluestar	*Amsonia tabernaemontana*
Golden star sedge	*Carex rosea*
Ohio spiderwort	*Tradescantia ohiensis*
Sweet black eyed Susan	*Rudbeckia subtomentosa*
Culver's root	*Veronicastrum virginicum*
Hoary mountain mint	*Pycnanthemum incanum*
Zigzag goldenrod	*Solidago flexicaulis*
Wild blue phlox	*Phlox divaricata*
Wild columbine	*Aquilegia canadensis*
Celandine poppy	*Stylophorum diphyllum*
Maryland senna	*Senna marilandica*
Bowman's root	*Gillenia trifoliata*
Fire pink	*Silene virginica*