

Pittsfield Charter Township: Rain Garden



2012

Help our Rain Garden Grow

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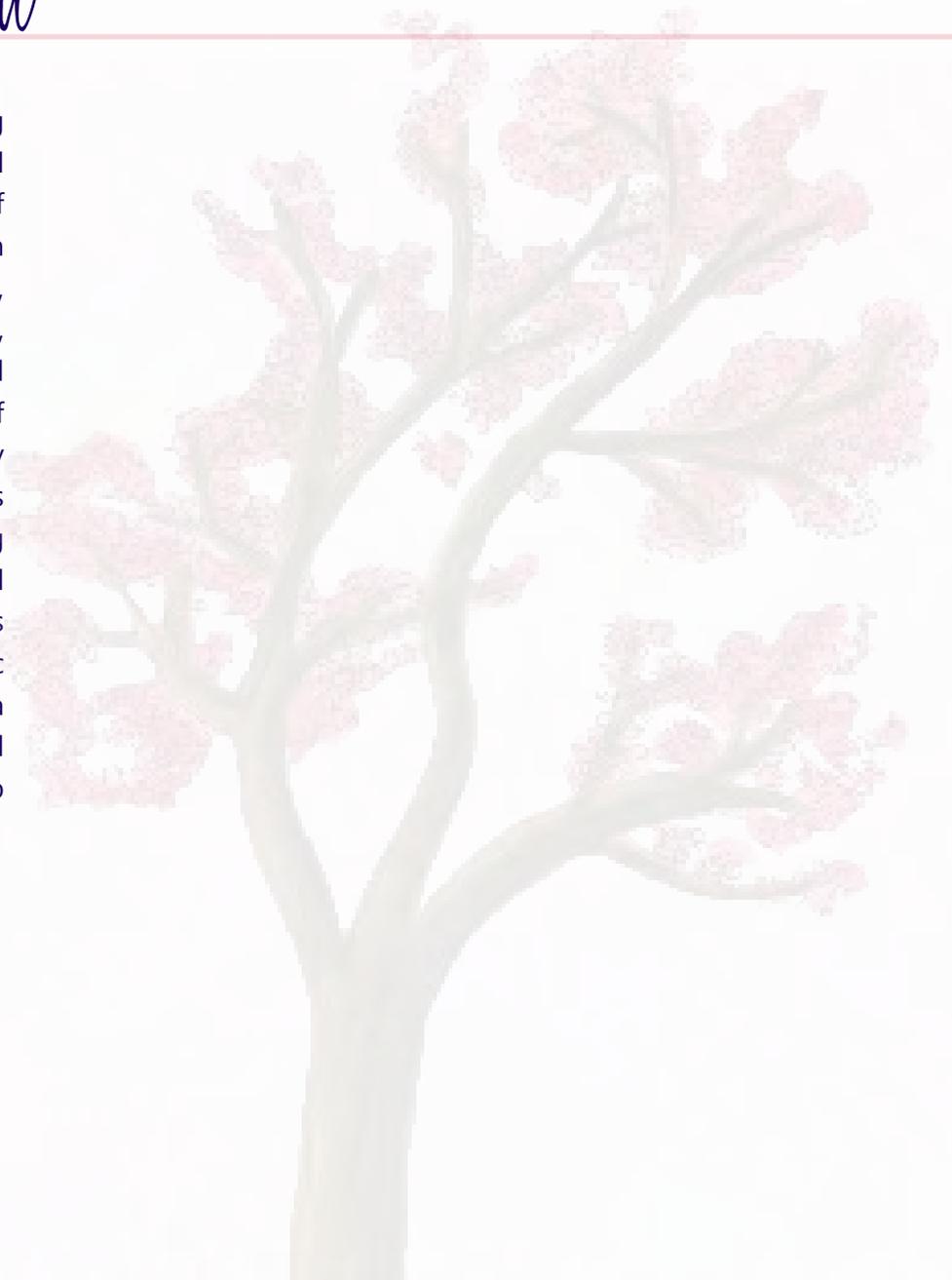
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Township Description

Incorporated in 1834 and covering approximately 28 square miles, Pittsfield Charter Township is a vibrant community of over 35,000 residents. With a wide spectrum of land uses including commercial corridors, business parks, agricultural lands, park land, open spaces, and many strong residential neighborhoods boasting a variety of housing options. Pittsfield is bordered by the cities of Ann Arbor and Saline as well as Ypsilanti and York Townships. Considering the existing mix of urban, suburban, and rural influences, along with the various mixture of land uses and its demographic diversity; Pittsfield is poised to take a leadership role in setting the gold standard that balances environmental stewardship and economic prosperity.



Rain Garden Overview

The impetus for the Rain Garden is Supervisor Mandy Grewal's commitment to making the Township Administration Building a point of community pride that conveys a sense of place, an appreciation for beauty and a joyful spirit. In addition, the Rain Garden will be used as a demonstration project for community members to replicate. In an effort to create such an aesthetic for the community, the Township has invested in developing a concept design and plan (see Appendix A.) The next step is securing \$88,500 in sponsorships to fully fund the project (see Appendix B.)

The Rain Garden will contain elements to mitigate the stormwater that collects in a low lying area of the Township Administration Building grounds adjacent to Michigan Avenue / US-12. The drainage of this particular section is comprised of impervious soil; a condition that is common in this region. The Rain Garden will be designed to serve as a demonstration project with the goal of inspiring residents, business owners and passers-by to replicate the beauty and functionality of a rain garden at their homes, businesses, and work sites.

As an extension of her belief in the value of community art, Supervisor Grewal envisions incorporating a year-round garden of colorful six foot tall floral sculptures to draw attention to the Rain Garden even in the depths of winter. A local artisan, specializing in custom architectural glass and steel mosaics, has expressed an enthusiastic interest in creating an installation of native wild flower replicas (see Appendix C.)

Further, plantings will be selected to encourage the nesting of Michigan songbirds by providing suitable habitat to promote their nesting success. The urbanization of farmland, wetlands and open space has diminished the protective cover available for successful nest placement. The Rain Garden will incorporate plantings that attract butterflies and encourage nesting by birds such as the American Goldfinch, Yellow Warbler, Northern Cardinal, Cedar Waxwing, Blue Jay, American Robin, Brown Thrasher, Eastern Kingbird, Field Sparrow and Gray Catbird (see Appendices D & E.)

Project Description

There currently exists a sizeable depression in the front yard of the Township Administration Building (6201 W. Michigan Avenue, Ann Arbor, MI 48108.) This low spot retains rain water run-off and frequently presents as a quasi retention basin - not unlike many of us experience in our yards at home.

To promote sustainable stormwater management strategies and to improve the curb appeal of the front yard at the Township Administration Building, the services of a certified landscape architect were utilized. Once the requisite \$88,500 in sponsorships is secured, the architect, specializing in stormwater management, will provide technical assistance in planning, constructing and maintaining the rain garden to mitigate our small retention area and entice community members to consider designing rain gardens of their own.

The Rain Garden installation will be constructed to mitigate the previously described low spot that collects and retains rainwater in the front yard of the Township Administration building. Trees will be an important component of this project in terms of aesthetic, water filtration and carbon sequestration properties of the rain garden.

It is our intent to lead by example; creating an appealing aesthetic that includes trees, decorative plantings, and mosaic sculptures to lure community members to visit and learn about Rain Gardens and their value in capturing and filtering rain water run-off. We seek to inspire community members to take the initiative, be imaginative and enthused about constructing Rain Gardens of their own thereby supporting the natural habitat of our region.

The Township Hall's prime location along US-12/Michigan Avenue, raises the likelihood that this Rain Garden will be seen by large numbers of passersby from a region that extends well beyond the Township boundaries. US-12/Michigan Avenue serves many different communities, including Pittsfield, Ypsilanti, and York Charter Townships, as well as the cities of Ann Arbor, Ypsilanti, Milan, Adrian, Britton, Clinton and Tecumseh. In total, US-12/Michigan Avenue directly impacts a combined resident population of more than 250,000 which increases to more than 300,000 during the day with commuting workers and students. In fact, the Michigan Department of Transportation (MDOT) ranked US-12/Michigan Avenue the highest volume 2-lane road in MDOT's 10-county University Region.

This route also provides pass-through access for more than 1,175 students to the University of Michigan, Eastern Michigan University, and Washtenaw Community College educational facilities and an additional 2,700 access to jobs at the University of Michigan. US-12/Michigan Avenue also provides indispensable access to four regional hospitals - Ann Arbor Veterans Hospital, the University of Michigan Hospital, St. Joseph Mercy Hospital Ypsilanti, and St. Joseph Mercy Hospital Saline.

Community Benefits

Pittsfield Charter Township retains a NPDES¹ Phase II Stormwater MS4² jurisdictional permit. Located in both the Huron River Watershed and the River Raisin Watershed, Pittsfield participates in the activities coordinated by the Huron River Watershed Council and is engaged in educating residents about how they can be part of promoting the health of our Watersheds and play an important role in enhancing the Urban Water Cycle. The Rain Garden will provide a highly visible and appealing model for home and business owners to emulate.

The beauty of a roadside rain garden, while difficult to measure, adds value to the aesthetics of our everyday experience. Artwork and natural plantings along a major roadway are analogous to the plant filled window boxes and sculptures that enhance the streetscape and pedestrian experience of a downtown stroll. The Pittsfield Charter Township Rain Garden will serve as an example of the sensory pleasure that color and visual interest can add to functionality.

¹ National Pollutant Discharge Elimination System

² Municipal Separate Storm Sewer Systems

The Pittsfield Charter Township Rain Garden will provide a unique and iconic landmark. The distinctive architecture of the Township Administration Building will be complimented by the sweeping design of the Rain Garden that forms a visual brush stroke from the entry drive to the western terminus of the administration building. Even when the ground is shrouded in snow; the trees, shrubs and floral sculptures will be reminders of the promise of the coming Michigan springtime.

At maturity, the rain garden will offer a living laboratory for school children, among others, to visit and experience the feeling of gratification that can come from blending stewardship of the land with artistic expression and wildlife conservancy.

Home and business based rain gardens, precipitated by the irresistible example of the Pittsfield Charter Township Rain Garden project, will have a cumulative positive impact by filtering runoff pollution, reducing mosquito breeding, improving overall water quality, protecting rivers and streams and creating habitat for birds and butterflies.

Funding

Pittsfield invested \$5,000 beginning in the late fall of 2009 to develop the Rain Garden concept plan, utilizing the professional services of a local landscape design firm.

On February 11, 2010, Pittsfield Charter Township received a \$1,000 grant from the Washtenaw County Water Resources Commissioner's Office as part of their Stormwater Phase II Permit Program. These funds were provided and utilized to support the development of the concept plan.

On April 27, 2010, Pittsfield Charter Township was awarded a \$3,000 matching grant for purchasing and planting trees as a part of the 2010 DTE Energy Foundation Tree Planting Grant Program.

To fully develop the Rain Garden as envisioned, and additional \$88,500 must be secured. All donors will be recognized on signage that is prominently and permanently displayed as part of the Rain Garden attesting to the community's support for the concept. Naming opportunities are available for donations of \$10,000 and above.

Contributions may be tax deductible charitable donations (see Appendix G.)

Summary

The Pittsfield Charter Township Rain Garden is an expression of Supervisor Mandy Grewal's commitment to making the Township Administration Building a point of community pride. A professional landscape architect has developed a rain garden/entry planting concept to mitigate the rain water retentive low spot on the grounds of the Township Administration Building that fronts on Michigan Avenue/US-12. In addition to the environmental benefits, the Rain Garden will create an iconic landmark to inspire community members and passers-by to replicate the concept at their homes and places of business. As a living laboratory, the Rain Garden will provide an outdoor classroom for school children, among others, to learn about rain garden construction and wildlife habitat conservation. Inclusion of original mosaic sculptures will underscore an appreciation for artistry and illustrate a commitment to engage local talent.

An additional \$88,500 will fully construct the rain garden/entry planting concept with interpretive signage and amenities to encourage visitors. Contributions at all levels will become part of the permanent display. Naming opportunities are available for donations of \$10,000 and above. Contributions may be tax deductible charitable donations (see Appendix G.)

Appendix A

Landscaping Concept Plan



Appendix B

Budget

Revenues

\$ 1,000.00	Washtenaw County Water Resources Commissioner, SP II Grant
\$ 1,200.00	In-Kind Volunteer Hours 8 hours @ \$15 x 10 volunteers
<hr/>	
\$ 2,200.00	<i>Total Revenues</i>

Expenses

\$ 5,000.00	Rain Garden design and planning consultant
\$ 12,000.00	Grading, stripping grass layer, squeeze bore at sidewalk for drainage
\$ 15,000.00	Top soil, compost, mulch, lawn seed, P-free fertilizer
\$ 25,000.00	Trees 40 Native Canopy Trees (balled & burlapped) 10 Small Native Ornamental Trees (balled and burlapped) 15 Native Trees
\$ 15,000.00	Perennials \$5,000.00 Native Plugs \$10,000.00 Cultivated Native Perennials/Grasses
\$ 7,500.00	Interpretive signage, steel bed edge, benches
\$ 5,000.00	Sculpture design, create, install
\$ 5,000.00	Song bird nesting habitat
\$ 1,200.00	Associated labor costs.
\$ 90,700.00	<i>Total Expenses</i>

\$ 2,200.00	<i>Total Revenues</i>
(\$ 90,700.00)	<i>Total Expenses</i>
<hr/>	
\$88,500.00	<i>Total Funding needed through Grants, Sponsors, and Naming Opportunities</i>

Appendix C

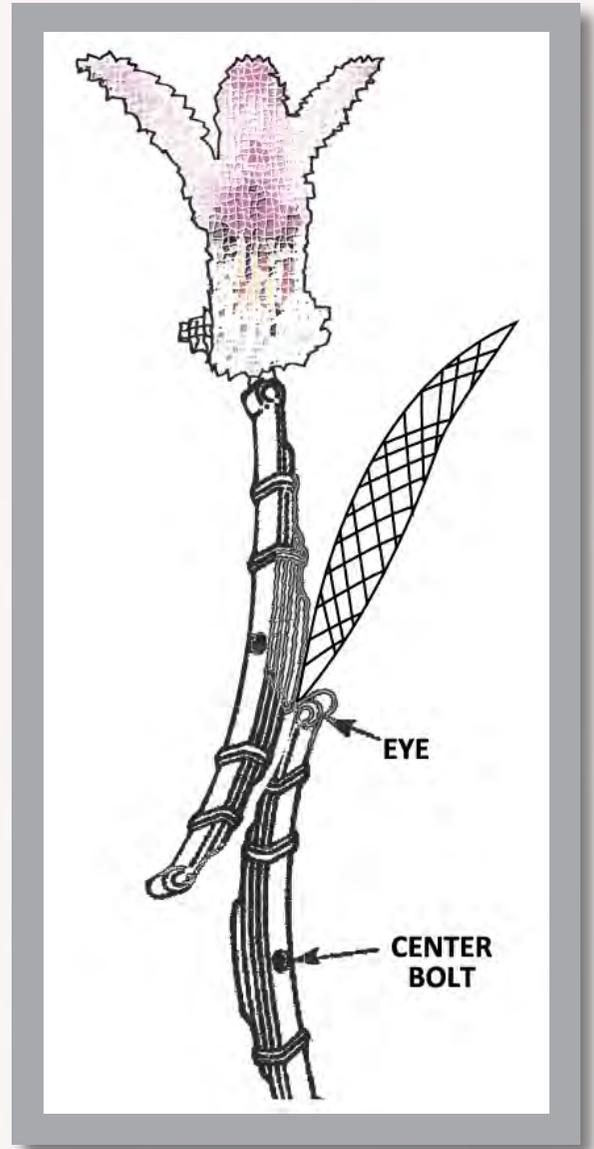
Glass and Steel Mosaic Sculptures

Flowers will depict native varieties mounted on six-foot heavy-duty leaf springs.

Two sets of springs and mosaic glass over steel flower heads will reach approximately 15 feet into the air and be embedded 4 feet underground for all-weather stability.

A faux 'spring' will rest on a concrete base, whimsically representing 'spring flowers', to playfully draw attention to the unusual and beautiful floral species native to Pittsfield Charter Township.

Local artistic talent will be engaged to construct these iconic and attention grabbing accoutrements.



Appendix D

Tree Options





Bur Oak
Quercus macrocarpa, QM



Musclewood
Carpinus caroliniana, CCar



Redbud
Cercis canadensis, CC



Serviceberry
Amelanchier canadensis, AC

Appendix E

Flower Options



Nodding Wild Onion
Allium cernuum



Canada aneome
Aneome canadensis



Swamp Milweed
Asclepias incarnata



False Indigo
Baptisia australis



'Snowbank' False Aster
Boltonia asteroides 'Snowbank'



'Hot Lips' Turtlehead
Chelone lyonii 'Hot Lips'



Purple Coneflower Magnus
Echinacea purpurea



Purple Coneflower White Swan
Echinacea purpurea



Joe Pye Weed
Eupatorium maculatum



Wild Strawberry
Fragaria virginiana



Wild Geranium
Geranium maculatum



Summer Sun False Sunflower
Heliopsis helianthoides



Wild Iris
Iris virginica



Kobold Gayfeather
Liatris spicata 'Kobold'



Sensitive Fern
Onoclea sensibilis



Cloud Nine Switch Grass
Panicum virgatum 'Cloud Nine'



False Dragonhead
Penstemon digitalis



Obedient Plant
Physostegia virginiana



Common cinquefoil
Potentilla simplex



Prairie Dock
Silphium terebinthinaceum



Prairie dropseed
Sporobolus heterolepis



New England Aster
Aster Novae-Angliae



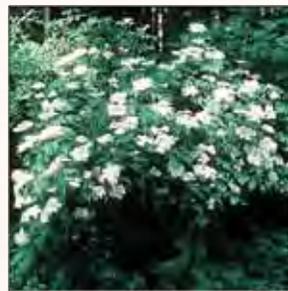
Smooth Aster
Aster laevis



Red-twig Dogwood
Cornus sericea



Blue Muffin Viburnum
Viburnum dentatum Blue Muffin



Elderberry
Sambucus canadensis



Bladdernut
Staphylea trifolia



Bog Birch
Betula pumila

INSITE

Appendix F

Timeline and Work Plan

September - December 2009 - Phase I: Preliminary Investigation

Obtain and review baseline information, building project information and Township Standards. Conduct on-site visual survey, assess natural features, and evaluate drainage patterns.

January - February 2010 - Phase II: Development of Concept Plan

Create concept design and preliminary plan, incorporating the needs, goals and program elements. Identify preferred tree, grass, ground cover, and flower species to compliment the site plan.

March - August 2011 - Secure funding

September 2011 - Phase III: Construction Drawings

Refine plan, produce final construction drawings and secure all necessary permits.

October 2011 - Phase IV: Solicit Bids and Award Contract(s)

Solicit bids and award contract(s) for plants and Rain Garden construction. Begin site preparation as soon as funds are secured.

October - November 2011 - Phase V: Landscape and Plant

Complete site preparation and install plantings.

Ongoing - Phase VI: Maintenance

- The First Season: Water, weed and mulch.
- The Second Season
 - Spring/weed and mulch
 - Summer/ water as needed
 - Autumn/ water, weed, mulch, divide and prune
- The Third Season: water, weed, mulch, divide and prune

Appendix G

Tax Deductibility of Donations

Donations to the Pittsfield Charter Township Rain Garden project may be deductible as charitable contributions under section 170 (c)(1) of the Internal Revenue Code.

Each donation will be acknowledged with a letter identifying the donor, the amount of the contribution, a description of the Pittsfield Charter Township Rain Garden and a copy of Pittsfield Charter Township's Government Affirmation Letter; describing the government entity exemption from federal income tax and citing applicable Internal Revenue Code sections pertaining to deductible contributions and income exclusion.

Donors should consult their tax advisor about the deductibility of contributions to the Pittsfield Rain Garden project prior to making a donation. Limits may apply.