

**MiSci + The Wright Museum Green Stormwater Infrastructure Project
Key messages + Fact sheet (Marketing Departments)**

Key messages:

The project in one sentence:

MiSci and The Wright Museum's green stormwater infrastructure project tells the story of water through the lens of science and culture.

The project incorporates art, culture and education into the sustainable & green infrastructure design, to make sustainability/green infrastructure both a beautiful focal point as well as provide visitors sustainability/green infrastructure experiences.

Goal:

(Longterm) To engage visitors in the science, environmental justice, and culture of sustainability through the arts, gardens, and education.

(Short-term) To give community a voice to help inform the full garden rendition of this sustainability project in Phase 2. This is a progressive experience/exhibit, and after the grand opening in October 2018, it will advance/take shape in individual communities.

Impact:

Museum visitors will experience green stormwater infrastructure and leave understanding and and pollution out of surface runoff water.

- Detroit Independent Freedom School Youth Garden - a garden started in

enacting water justice in their behaviors, communities, and region.

Phase 1 of the project:

- Bioswale - landscape elements designed to concentrate or remove debris

Phase 2 of the project:

- Construction of 2 more GSI projects between the Wright Museum and the Michigan Science Center

Audiences:

1. Lifelong learners
2. Family visitors with children ages three and up (represents approximately 60% percent of the visitors of both museums, or 150,000 of 250,000 visitors per year)
3. Students and youth
4. Special populations (sustainability professionals, museum professionals)

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Unique value proposition:

1. We are respected amongst our cultural/institutional peers for leading community collaborators.
2. The outdoor learning spaces and beautiful gardens create 'the place' where all can experience the museums (e.g. placemaking)
3. Connect visitors to issues that impact their lives and provide knowledge to positively affect their world. #GreenCultureDet

The story of water:

We can all be water stewards. Anyone can make an impact through observation and action.

- Water brings us together to create ripples of impact.
- You need water to thrive: healthy communities and healthy homes
- Every drop of water counts
- What we do impacts our neighbors and our city
- We want kids to feel hopeful, powerful, inspired; parents to feel informed and heard; elders to feel valued.

Fact sheet

About the Michigan Science Center and The Wright Museum's collaboration:

As neighbors in the cultural center, the Michigan Science Center and The Wright Museum are working together to promote environmental sustainability and demonstrate green infrastructure inside and outside of our respective buildings.

We want our institutions to publicly demonstrate artful green stormwater management practices to our guests, provide an educational platform for environmental stakeholders across the region, and create a model for collaboration which other cultural districts could look in the future.

The collaboration includes two infrastructure pilot projects: the Detroit Independent Freedom Schools garden at The Wright Museum and a bioswale at the Michigan Science Center; as well as future exhibits and educational programming at both institutions telling the story of water.

In short, we believe that our #SustainabilityNeighbors partnership can:

- make the invisible visible
- reach and teach
- bring sustainability to life

[The Wright Museum and Michigan Science Center have been working on sustainability issues together from completing the first USGBC ADVANCE Program in the state of Michigan.]

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How will we know that are successful:

Through a multi-year partnership and vision, we are collaborating to implement green stormwater infrastructure to display, educate, and raise awareness of our relationship to water while reducing our impact on the drainage system.

We will be successful by:

- Reducing utility bills for museums (and continuously track through Portfolio Manager)
- Working together to create a sustainable campus
- Leaving a legacy
- Creating smart museums (data-driven, sensors, Internet of Things)

About the importance of green stormwater infrastructure:

Stormwater management, green infrastructure, and sustainability are complicated but urgent issues for the community. GSI is becoming an essential component of municipal infrastructure as cities like Detroit are simultaneously managing increased flood risk and drainage fees associated with impervious surfaces. The collaboration offers a unique occasion to present not only technical solutions to environmental issues but also address the social implications of water access and climate change.

Why Detroit?

“Our mission is to become the most sustainable city in North America,” said Joel Howrani Herres, Detroit's director of sustainability.

Throughout Detroit's history, innovation has been the engine at the core of our identity, whether it was industry, the arts, social progress or technology. Despite a legacy of long-term challenges, Detroit succeeds when we create new ways to make our ideas real. Stormwater management, green infrastructure and sustainability are complicated but urgent issues for our community. This collaboration will demonstrate viable solutions for sustainability. Bringing together scientists, activists and educators, this experience provides a variety of exciting learning opportunities that highlight our water heritage, teach the science of water, promote sustainability and foster interdependency.

Why Museums?

Educational institutions shift people's behavior through experiences and culture.

Michigan's citizens will face a number of sustainability challenges in the years ahead related to climate change, loss of biodiversity, and natural resources. The aim of this project is to create a demonstration, sustainability messaging and welcome center, and conversation space to connect metro Detroiters working on these issues with our museum visitors.

Funders:

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The Erb Family Foundation

Per the Erb Family Foundation grant, this will be a multi-sited project where the various museum campuses can share the benefits of green stormwater infrastructure. The cohesion from this project will bring together other cultural entities so as to encourage the public to experience these different museums together.

- July 2017 - Received a \$54,000 Erb Family Foundation Grant to develop and plan a museum GSI project.
- Jan 2018 - Received a \$157,000 Erb Family Foundation Grant to build 3 GSI pilot projects and design a larger comprehensive plan

City of Detroit's Department of Water and Sewerage Department

The new Capital Partnership Program allocates \$5 million per year to fund installation of approved Green Stormwater Infrastructure (GSI) projects for nonresidential property owners. Up to 50 percent of design, installation and capital costs will be reimbursed, up to a maximum \$50,000 (subject to DWSD discretion).

- DWSD will prioritize projects that increase GSI in our service area.

Testimonials:

- "We will do our best to represent a community voice" Dr. Gloria House, principal of Freedom School
- "We want to support you because you're doing work for the public good" -- Syed Ali, DWSD
- "You have the opportunity to be the nexus!" Khalil Ligon, [Alliance for the Great Lakes](#)
- "You're miles ahead of any other museums working together" Shedd Aquarium
- "If you build beautiful gardens the stewards will come. Ignore the boundaries and focus on experiences" -- Piet Oudolf

Q&A:

What can I do?

1. Save, not waste
2. Teach others and share my knowledge
3. Celebrate water reduction victories

Concerns about affordability (you can make the change at low costs. It is an investment.)

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What do we want to call this garden?

- Stormwater Gardens? or something broader to promote community ownership and reapplication of the principles and tools for creating their own space within individual communities? (words like place and gather/gathering evoke shared experience)
- Name should reflect experiential nature of sustainability project, not an exhibit.

Freedom School Garden

PROGRAM

Detroit Independent Freedom School (DIFs) vision words we wrote as we initiated DIFS ([info packet](#)):

- *"We are resolved to create an independent Freedom Schools movement in Detroit. This effort is essential to our community at this time in order to:*
- *Affirm our children and engage them in meaningful learning activities to repair the destructiveness of a dismantled public school system; and to*
- *Affirm and energize ourselves as a community -- remembering, recognizing and using our tremendous capacities of self-determination, intelligence, creativity and spirit to respond to our children's needs, and to build the unity we need to resist the current government lawlessness in education and other essential arenas of our lives."*

DIFS Garden Intention (email from Dr. House, December 4, 2017):

"the garden was intended to teach our children some profound lessons:

- heightening awareness of their interrelation with and dependence upon the natural environment,
- concretizing/demonstrating for them the principles of self-determination
- discipline in the growing, harvesting, preservation, and preparation of food. " (via Mama Aneb)

Design Paramaters (Freedom School)

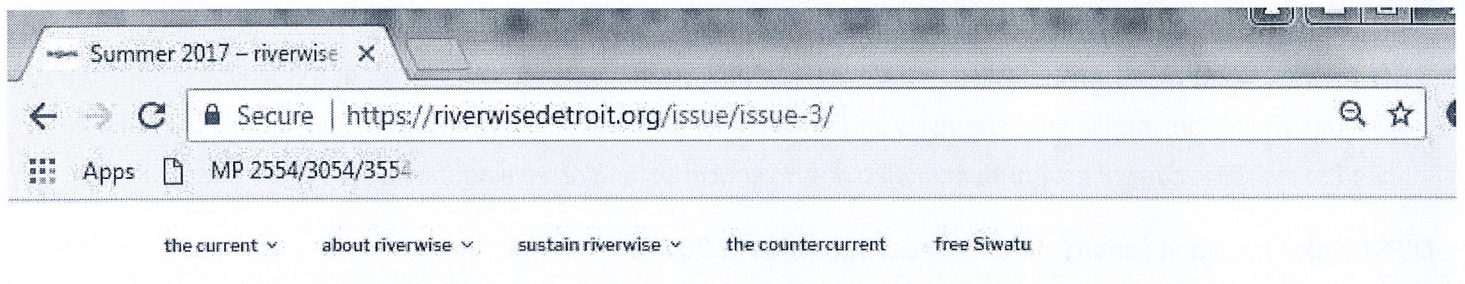
- Respect the architecture of the previous architects
- Include the children
- Scope out funding for the Volunteers
- Include collective voice of Garden Crew

Program (@ Freedom School Youth Garden)

- Current Needs (DIFS)
 - Accessible Garden space for kids
 - Freedom School Sign with Logo (Designed and Paid by Charles)

☰ Museum Stormwater Planning

- Access water hose from Bathroom not ideal.
- Funding Opportunities
 - Outdoor Shed / Classroom (paid for by grant) if painted as "signage"
 - Planting before "Ribbon Cutting" (paid for by grant as project management with contractor agreement)
- Future Opportunities
 - Mid-Harvest Festival (via Meeting Oct 27)
- Green Stormwater Infrastructure
 - Allow for water to shed on concrete with no blockages
 - Demonstrate water storage (rain barrel)
 - Informational Signage to describe sheetflow (via grant)



A Freedom School Project: The Wright Museum Goes Green



By Eric Thomas Campbell and Alyson Jones Turner

Museums are usually places that preserve the past. But the Charles H. Wright Museum of African American History is also shaping the future. Since the very beginning it has challenged people to





<https://sites.google.com/chwmuseum.org/museum-stormwater-planning>

Meetings:

- **May 23, 2018** - Garden Committee (provided Garden Schedule)
- **April 20, 2018** - (Mtg with Juanita to move forward with Ribbon Cutting)
- **April 5, 2018** - (Mtg with Juanita and Courtney to sign contract)
- **Mar 9, 2018** - (Mtg to get construction funding DWSD)
- **Feb 28, 2018** - Mtg with Aneb, Charles, Leslie
- **Feb 19, 2018** - (Mtg to get construction funding DWSD)
- **Jan 15, 2018** - Project Presentation at DIA and Mtg with Don Carpenter with DIFS
- **Dec 18, 2017** - Mtg at Cass Corridor
- **Dec 11, 2017** - Presentation to DIFS Board (Leslie)
- **December 9, 2017** - Kids Mtg
- **Dec 4, 2017** - Mtg at Cass Corridor
- **Nov 17, 2017** - Mtg at DIA
- **Oct 27, 2017** - Mtg with Freedom School / MiSci, Courtney (not correct DIFS members)
- **Oct 13, 2017** - Interview Courtney
- **(Sept 19, 2017** - Mtg with Fe)
- **Aug 10, 2017** - Kick Off Mtg at DIA

Freedom School Program:

- Practice 6 will be a Rain Garden. Per conversation between Courtney, Leslie and Sigal (3/8/18)

TITLE	LAST MODIFIED
Construction Bids	May 14 Leslie Tom
Shed Project	Apr 22 Leslie Tom
 20171201 Freedom School Garden 1.pdf	12/1/17 Leslie Tom
 20171201134453819.pdf	12/1/17 Leslie Tom
 IMG_20171213_080333.jpg	12/14/17 Leslie Tom
 Riverwise A Museum Goes Green.PNG	Jun 5 Leslie Tom

**Garden Committee:**

- Gloria House (Principal)
- Kwamena Mensah
- Charles Ferrell (Museum)
- Nikolette Barnes
- Pasha Ellis
- Bianca Danzy

Juanita Moore (CEO, Final Decision Maker)

Walter Bailey

Keith Young *

Courtney Piotowski

CONSTRUCTION**≡** Museum Stormwater Planning

The scope of work would include (email from Courtney May 11, 2018):

- Concrete removal and disposal of the areas in yellow. Removal is within existing expansion joints. Ensure clean, straight edges upon removal.
- Removal and disposal of materials within concrete removal area to 18" depth, inclusive of concrete, subbase and compacted subsoil surfaces.
- Installation of bioretention soils (an engineered soil mixture) to match existing grade within the excavated area.
- Protection and/or or restoration, of any disturbed areas during construction.

Images: <https://drive.google.com/drive/folders/11mVvqIjd0aUY53lbfRuR1xI34Y1jilqZ>

Museum Stormwater Planning

Conversation with Teachers & Freedom School Students

(teachers are in bold)

- **What exciting event happened this summer?** The garden!
- **What did you plant?** Watermelon, Kale, Greens -- we cooked and made salads.
- **We took food straight from the soil and all the nutrients went straight to our stomachs. It didn't travel.**
- **What was the importance?** The raw food is better than grocery food. Groceries don't have more vitamins. You know everything that is growing and where it has been. A grocery store may spray. Zain - you buy stuff from in the grocery stores you may have maggots.
- **Here's another tip - we try to buy fruits that are not in plastics -- we try and keep aware.**
- **Does anyone recycle?** 5 hands raise.
- We love Mama Earth - and we want to protect her.

Student Input

What Priorities for the Freedom School?

- Chicken wire - rodents
- Water Purifier - (Keyloni)
- Art Sculpture
- Detroit Youth Freedom School Sign
- Chairs
- Processing Station - wash / clean
- Water to collect
- Sticks with photos of students
- Hammocks - leisure seating
- Plants -- what type of plants? what are the flowers? (potatoes, carrots, hotas) -- do these need deeper planters (soil depth)?
- Seats with murals. (Can seats hold murals and planter boxes?)
- Signage -- what types of signs? (metal, wood, lumiseal?)

