

Building Resilience: A Resource Guide for
Community-Owned Vacant Lot Activations in Good Stock Detroit

by

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Executive Summary

The purpose of the *Building Resilience* study is to identify opportunities for reclaiming vacant properties and transitioning the land to productive uses in the Good Stock neighborhood in Detroit, Michigan. Through rigorous analysis and deep community engagement, the project's goal is to further current public health and climate resilience goals and prepare for future climate change impacts by providing vacant lot design plans, resources and funding opportunities for Good Stock residents and community-based organizations.

Detroit's extensive open land is the result of several compounding factors including deindustrialization, depopulation, disinvestment, municipal fiscal mismanagement, and racist lending practices. The majority of investments that have been made in post-bankruptcy Detroit have focused on downtown rather than the neighborhoods and many of these efforts have not been community-led. This study has sought to investigate what community resilience could look like leveraging vacant lots as a valuable resource once activated.

An area selection process spatially evaluated key health and environmental indicators including proportion of vacant land, heat vulnerability, flood risk, asthma rate, number of violent crimes, and housing stability and social advantage indices leading to the study scope focusing on the Kettering neighborhood and later expanding to Good Stock. The intention of the study process undertaken however was for it to be replicable in other Detroit neighborhoods.

Prior to beginning community engagement, the study sought to understand how City policy supports vacant lot activations. Support was understood as encouraging land uses or offering financial resources. Review of the Climate Action Plan and Sustainability Action Agenda showed clear support for the activation of vacant lots for agricultural and recreational uses and green spaces. The Detroit Land Bank Authority's Vacant Land Policy includes programs offering the sale of vacant lots to directly adjacent or neighboring residents for affordable prices. The City has also allocated a portion of its unprecedented federal infusion of capital through the American Rescue Plan Act (ARPA) to vacant lot activations.

Armed with an understanding of the City's priorities and available support, community engagement ensued to identify key priorities among Good Stock residents and community-based organizations that could be addressed through the activation of vacant lots. Three surveys were conducted in addition to regular meetings with community-based organizations. The key desired features community members wanted incorporated into vacant lot activations were green stormwater infrastructure, public safety including dumping prevention, recreation, community gardens and urban agriculture, and public arts and culture. Nine design templates, five being amendments to designs originally developed by Detroit Future City, were created to incorporate these key features.

While public safety was identified as a key concern, the City's ARPA plan takes a limited view of public safety interventions that does not include environmental design techniques. Crime prevention through environmental design was a strategy that community-based organizations expressed interest in employing. Vacant lot activations utilizing distinct design techniques have an important role to play as a crime prevention strategy that also offers physical and mental health co-benefits. The nine designs prepared include a variety of these design techniques.

Implementation and maintenance were key concerns identified through the community engagement process. Therefore, the vacant lot designs have also been paired with suggested planting materials and funding and other implementation resources. A case study analysis was also conducted to identify project maintenance and workforce development programs operating across the city which may be able to offer support or serve as a model for future program development. The programs identified range by employment type and duration. For the youth focused programs, there appeared to be an operational reliance on the Grow Detroit Young Talent Program. Adult programs had a subject matter focus on landscaping, construction and tree care.

Recommendations were developed with the aim to provide a suggested framework for Good Stock pertaining to lot revitalization and overall community sustainability. As the neighborhood pushes forward to adapt and be more climate resilient, it is key for residents to be at the forefront of decision making regarding Good Stock and its future.

Acknowledgements

The production of this report was an incredibly collaborative process which would not have been possible without the expertise and guidance shared by Detroiters and Detroit community-based organizations and support provided to us by our University of Michigan colleagues and advisor.

To the Eastside Community Network, Good Stock Detroit Steering Committee, MACC Development, and Detroit Future City – we learned so much from you. Thank you for inviting us to share space with you and sharing opportunities for us to meet with and hear from your constituents. We are grateful for the opportunity to absorb some of your passion and knowledge and hope this report supports your work going forward. We would like to especially thank Savana Brewer, Nicole Brown, Erva Bryant, Edythe Ford, and Antoine Jackson in addition to all the Detroiters who participated in our surveys and community engagement efforts.

We would like to extend deep gratitude to Audeline Kurniawan and Maggie Lobbig, Master of Landscape Architecture students, who offered immense design software support to this project and the production of the vacant lot designs. They both showed endless patience and flexibility collaborating on multiple rounds of design edits. We would like to especially acknowledge Audeline Kurniawan for their aid in the final production of our designs. We would not have reached this end product without early collaboration and workshopping with our colleagues Jingzhi Fan, Sharni Smith, Yiyuan Wang, and Yizhu Lu. We would like to especially acknowledge Yizhu Lu for the production of the climate maps included in this report.

Lastly, we would like to thank our advisor, Lisa DuRussel, not only for her consistent support and guidance, but for pushing us to think more creatively throughout this process and maintaining an invigorating sense of humor in our countless meetings and brainstorming sessions.

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Background

City of Detroit

Presently, Detroit has approximately 24 square miles of structure free vacant lots, accounting for 17% of the city's footprint. Including vacant parcels with abandoned structures brings this number to 40 square miles or 29% of the city's footprint¹. Planners, architects, and academics have envisioned a future, transformed Detroit since the City filed for bankruptcy in 2013. Many of their ideas have revolved around turning vacant lots into green spaces, recreational amenities, and/or urban agriculture². In regards to what a post-bankruptcy Detroit will look like though, this study argues that residents and community-based organizations should take the lead in shaping that vision. This guide seeks to serve as a resource leveraging new opportunities present including the American Rescue Plan Act (ARPA) dollars.

Vacant lots are land assets that present a unique opportunity and can be leveraged to create healthier, more resilient and thriving neighborhoods addressing both current needs and planning for future climate change impacts. However, to move forward we must understand Detroit's complex history. Detroit's bankruptcy and vast swaths of open land are the end product of several compounding factors, namely deindustrialization, depopulation, disinvestment, municipal fiscal mismanagement, and racist lending practices as detailed in order below.

Automation reduced the demand for workers and post-WWII highway construction allowed goods to travel further. Some manufacturing plants moved to suburbs and others to southern states where they could exploit cheaper, non-unionized labor. Depopulation and job loss in Detroit also came from white flight supported by racist federal housing policies and practices including Home Owners' Loan Corporation (HOLC) maps and the GI Bill granting housing

¹ John Gallagher, "Social Media Is Arguing about How Much Vacant Land is in Detroit — and the Number Matters," *Detroit Free Press*, October 26, 2019. <https://www.freep.com/story/money/business/john-gallagher/2019/10/26/detroit-vacant-land/4056467002/>.

² Thomas Sugrue, *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit* (Princeton, NJ: Princeton University Press, 2005), xxii.

subsidies to whites only and encouraging the creation of whites only subdivisions³. Over a million white residents ended up fleeing the city and jobs followed⁴.

Federal urban spending began steadily declining in the 1970s, reducing support to a city simultaneously experiencing a shrinking tax base. Detroit's state shared revenue also fell. In 2005, then mayor, Kwame Kilpatrick approved a risky pension restructuring deal that would prove devastating only two years later when the economy collapsed. On the heels of the 2007 economic collapse, the mortgage market collapsed in 2008 disproportionately impacting Detroit residents. In 2007, 62% of all subprime loans in metro Detroit had gone to African Americans, mostly concentrated in the center city. Property values plunged to 77% lower in 2010 than they were a half century prior⁵. A foreclosure crisis ensued as not only did mortgage payments surpass property values, but the City neglected to reassess property values after the recession and overtaxed homeowners by \$600 million⁶. "By 2011, there were more than ninety foreclosed properties per square mile in Detroit" according to historian Thomas Sugrue⁷. The Detroit Land Bank Authority (DLBA) was incorporated in December 2013, the year Detroit filed for bankruptcy, and these foreclosed homes transferred to their possession. DLBA's mission is "to return the city's blighted and vacant properties to productive use⁸."

Since Detroit's 2013 bankruptcy, sizable investments have been made to revitalize downtown and attract new residents. Neighborhoods initially did not see the same level of investment. New programs, policies and funding opportunities however may enable a more equitable and just revitalization of Detroit.

Area Selection Process

In recent decades, there has been a growing prevalence in topics related to climate change and climate equity. Research shows that, "by the end of the century, Detroit, Michigan's average summer temperature will rise by 7-13°F. Increased heat and heavy precipitation events will

³ Ibid, 60-63

⁴ Allen Penniman, "Redressing Racist Policies to Implement Equity-Driven Revitalization" (presentation, National Planning Conference, virtual, May 5-7, 2021).

⁵ Sugrue, *Origins of the Urban Crisis*, xv-xx

⁶ Penniman, "Redressing Racist Policies"

⁷ Sugrue, *Origins of the Urban Crisis*, xv

⁸ "Who We Are," Detroit Land Bank Authority (DLBA), accessed June 1, 2021, <https://buildingdetroit.org/overview>.

burden the city's infrastructure and population health, and likely lead to a disproportionate distribution of related morbidity and mortality among the elderly, the chronically ill, and those who live in poverty—who comprise nearly 40% of the city's population.⁹ As more and more evidence enters the public horizon, there is an urgent need for a systematic approach to assist the public in understanding natural drivers of climate change by developing a holistic perspective on climate equity in urban communities as well as a vision for a creative, engaging, transformational future with positive intervention. Detroit's history and the aforementioned factors have led our team in developing an equitable search process in order to select our study area.

This process was initiated by incorporating environmental, social, and health conditions that inform and impact climate resilience to create criteria for our study location to meet. These factors included:

- Proportion of vacant land
- Heat vulnerability
- Flood risk
- Asthma rate in children under 18
- Number of violent crimes
- Housing stability index
- Social advantage index

Data including these factors were gathered from Data Driven Detroit and Detroit Future City and then layered to identify a number of key locations with potential for intervention including potential locations on Detroit's, East, West, and Southwest sides. After careful consideration the neighborhood of Kettering, located within District 5 on the Eastside of Detroit, was selected. While the study initially planned to focus solely on adaptation and redevelopment in Kettering, the project boundaries shifted post community engagement. Residents and community-based organizations (CBOs) requested that the initial boundary points be expanded to include what is known as Good Stock. The figures below highlight our layering process to better understand the scale of the aforementioned factors in relation to Detroit neighborhoods.

⁹ Sampson, N., Hill Knott, K., Smith, D., Mekias, L., Howrani Heeres, J., & Sagovac, S., *Planning for climate change in legacy cities: The case of Detroit, Michigan*, pg.1, (2014)

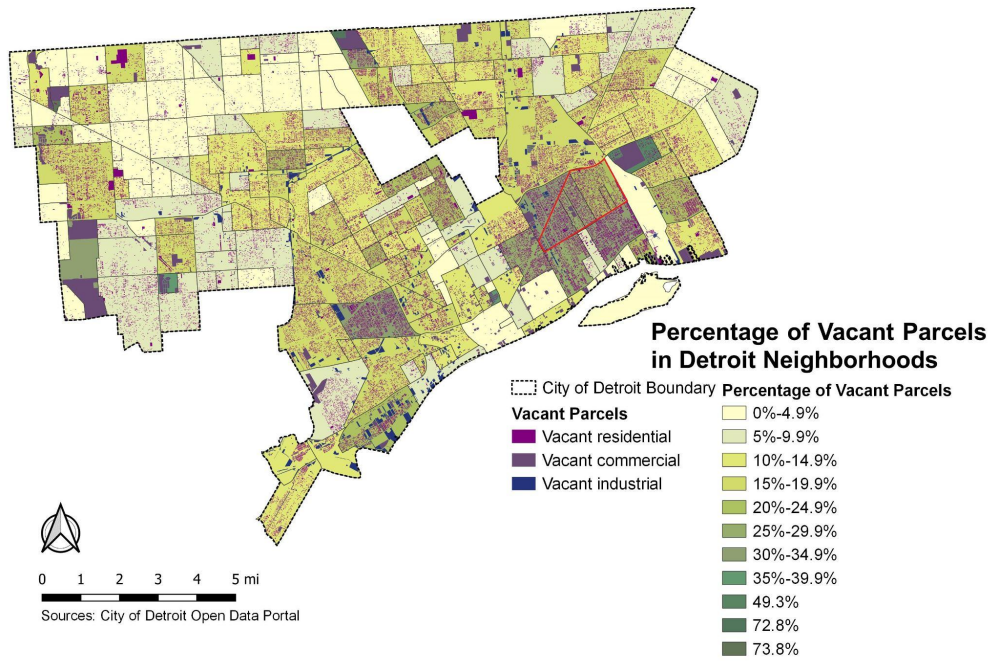


Figure 1. Percentage of Vacant Parcels in Detroit Neighborhoods. Good Stock is outlined. GIS map created by Yizhu Lu.

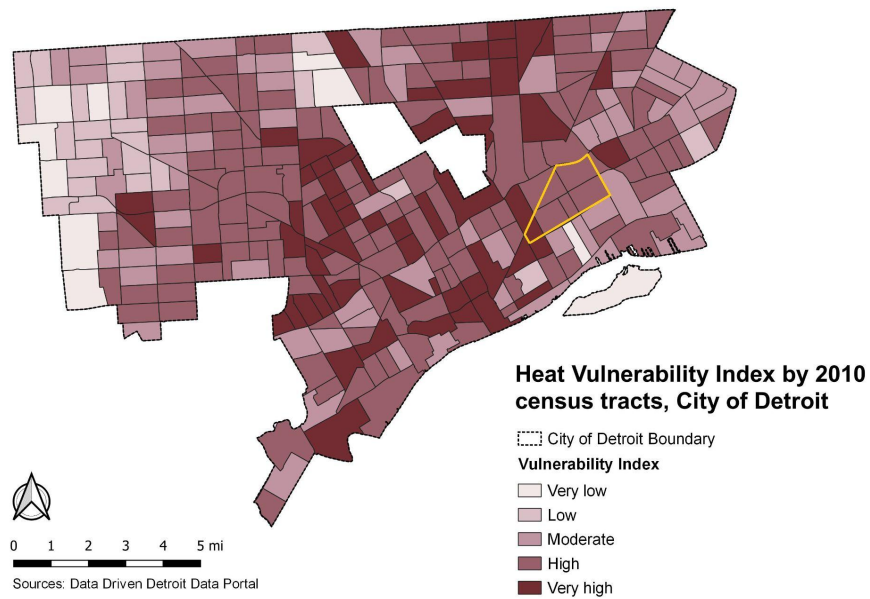


Figure 2. Heat Vulnerability Index by 2010 Census Tracts. Good Stock is outlined. GIS map created by Yizhu Lu.

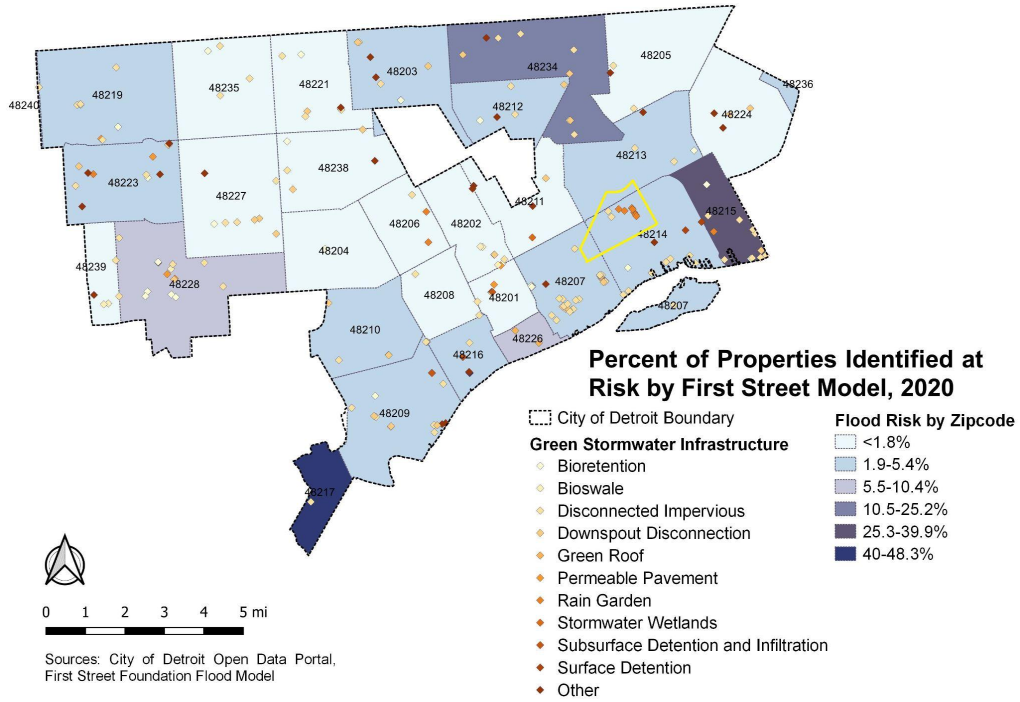


Figure 3. Percent of Properties Identified at Risk by First Street Flood Model. Good Stock is outlined.

GIS map created by Yizhu Lu.

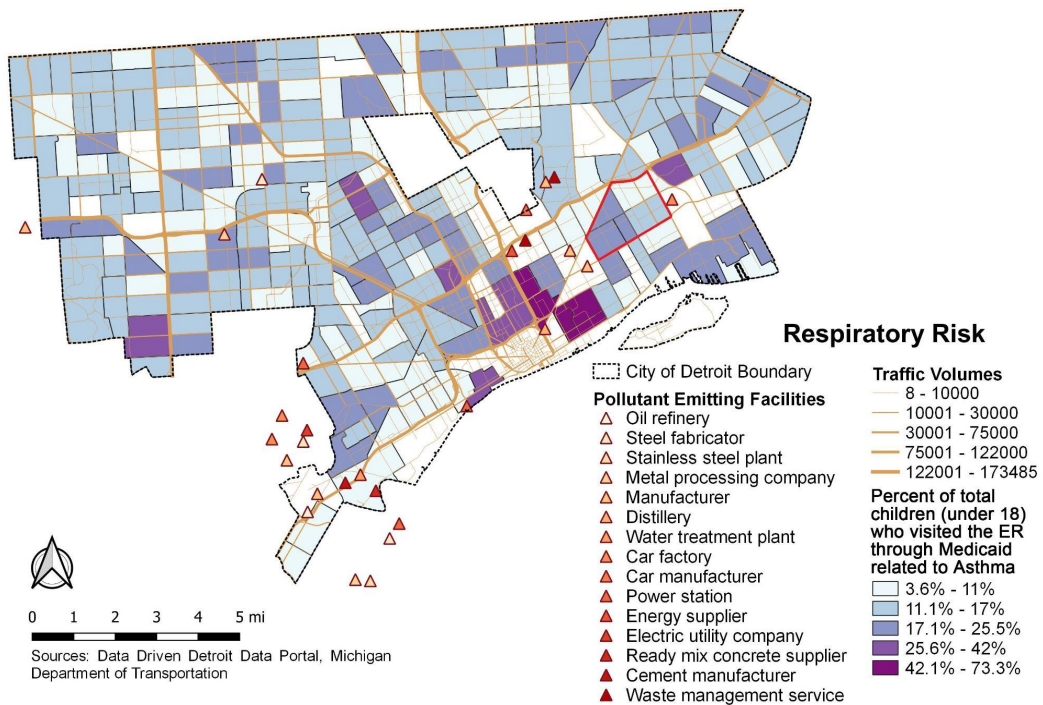


Figure 4. Respiratory Risk. Good Stock is outlined. GIS map created by Yizhu Lu.

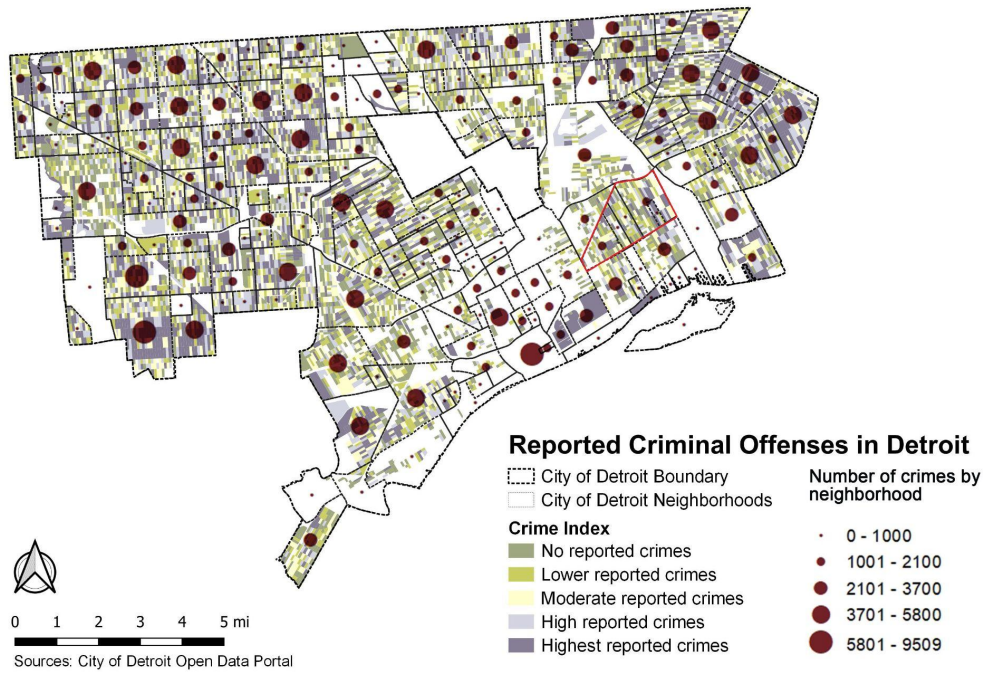


Figure 5. Reported Criminal Offenses in Detroit. Good Stock is outlined. GIS map created by Yizhu Lu.

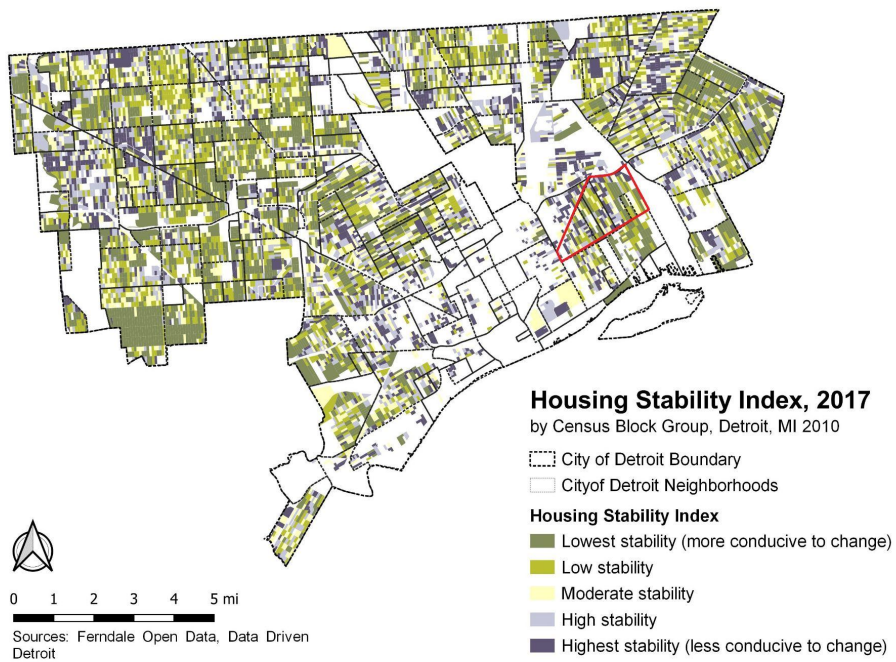


Figure 6. Housing Stability Index, 2017. Good Stock is outlined. GIS map created by Yizhu Lu.

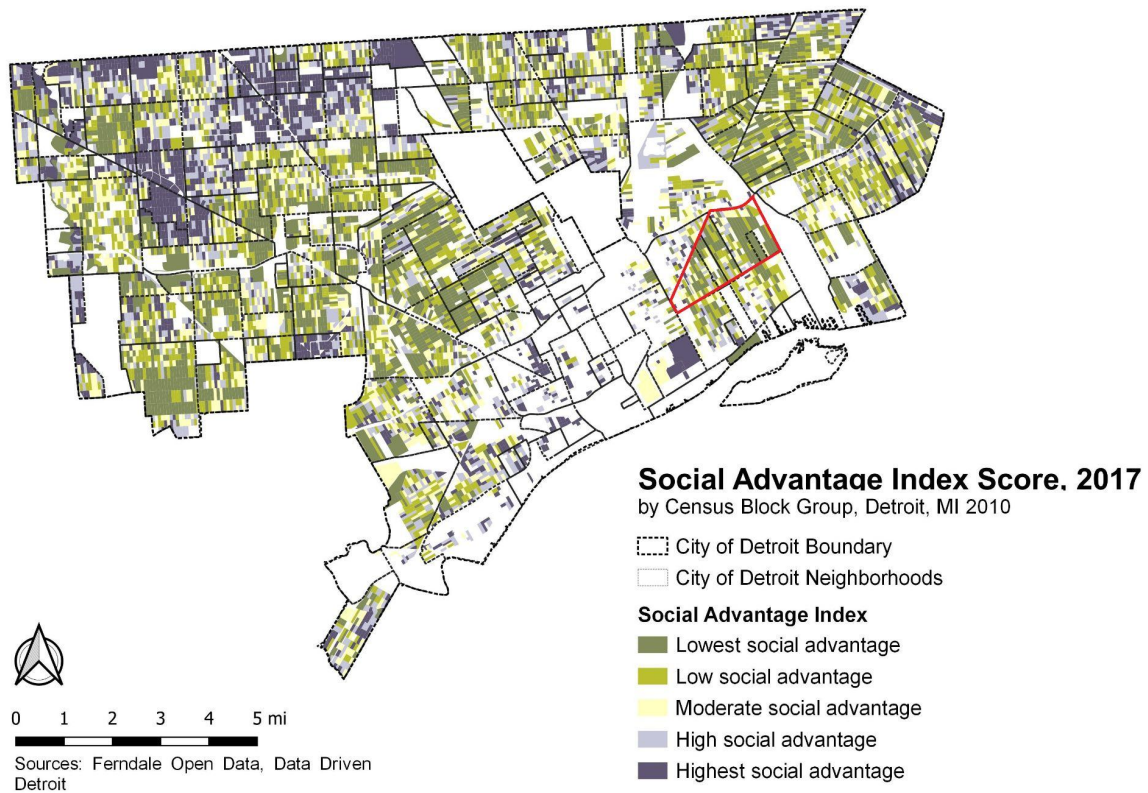


Figure 7. Social Advantage Index Score, 2017. Good Stock is outlined. GIS map created by Yizhu Lu.

Good Stock Detroit

Good Stock is a lively Eastside Detroit community with a steering committee spearheaded by the Eastside Community Network. The Good Stock Steering Committee aims to uplift resident voices, revitalize housing and commercial development, and increase other economic investments within this coalition of neighborhoods bounded by Gratiot/I-94 to the North, Mack Ave. to the South, St. Jean to the East, and Van Dyke to the West.

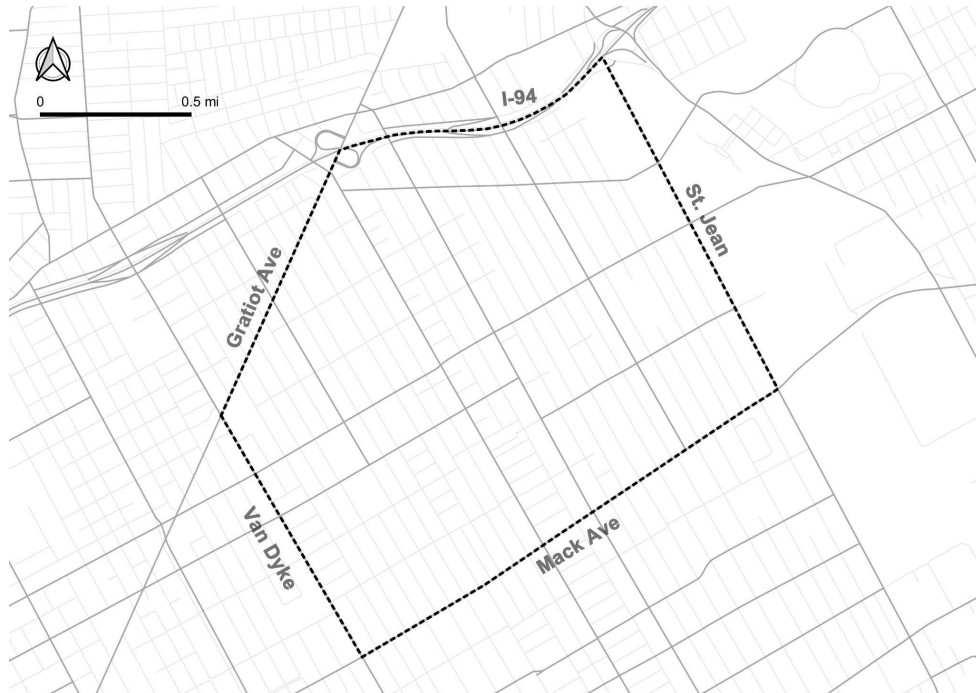


Figure 8. Good Stock Detroit neighborhood boundaries. Map created by Yizhu Lu.

The Good Stock Detroit Steering Committee works to improve and influence direct neighborhood-level planning with and for the community they serve. Steering Committee members include and represent several Eastside neighborhoods and organizations within the boundaries listed above that all work to improve the environment and strengthen community revitalization based on priorities determined by the communities they serve.

Good Stock has a high lot vacancy rate with 8,777 vacant parcels as of 2020, about 18% of which belong to the Detroit Land Bank Authority (DLBA). Given the active community presence in Good Stock there is strong potential for redevelopment. Additionally, soil type and texture within Good Stock are generally conducive to stormwater infiltration and drainage and when not, stormwater retention and detention. Stormwater management is a topic at the forefront of many Good Stock residents and Steering Committee members due to the vast and unprecedented flooding that occurred across the city in the summer of 2021, severely flooding communities and causing thousands of dollars in damages. The effects of the flooding are still being felt nearly a year later by residents. Figure 9 shows some of the damages flooding has caused across the City of Detroit.



Figure 9. Flooding in the 48210 zip code within the Southwest side of Detroit. Photograph by Dolores Perales taken on June 27th, 2021.

Two Decades of Policy

Prior to carrying out deep community engagement in Good Stock to understand what issues should be addressed and what types of assets should be further developed through the transformation of vacant lots, we sought to understand if and how City policy encouraged and supported the activation of vacant lots.

Detroit's Master Plan of Policies, Climate Action Plan, and Sustainability Action Agenda all encourage the activation of vacant lots especially for agricultural or recreational uses or green spaces. DLBA's Vacant Land Policy strives to make the acquisition of vacant lots easier for neighboring residents and the American Rescue Plan Act (ARPA) Detroit disbursement provides an unprecedented infusion of federal dollars, some of which has been allocated to cleaning and activating vacant lots.

Master Plan of Policies

In 2004, a revised Master Plan of Policies (Plan) was submitted to Detroit's City Planning Commission (CPC) and City Council. The CPC held community meetings in 2005 to gather feedback that informed additional revisions. In 2008, the CPC held a public hearing and after further revisions approved the Plan and forwarded it to the City Council. Council then held their public hearing in 2009, made their respective revisions, and adopted the Master Plan of Policies later that year.

The Plan included both citywide policies and neighborhood area policies. Vacant land was identified as a citywide issue. In the absence of plans to substantially redevelop this land for housing, commercial or industrial purposes, community gardens and urban agriculture were elevated as "productive, health-promoting, and community-building" transitional and permanent land uses¹⁰. Citywide policies encouraged designing parks and recreational facilities to incorporate arts and culture and promote safety.

¹⁰ City of Detroit, *Master Plan of Policies* (2009), 48.
<https://detroitmi.gov/sites/detroitmi.localhost/files/2018-05/Master%20Plan%20Text.pdf>.

The Plan also included policies specific to Detroit neighborhoods. Good Stock comprises the neighborhood areas the Plan identified as St. Jean and Kettering. At the time the Plan was developed, one third of St. Jean's total acreage was vacant. Both St. Jean and Kettering experienced high population loss between 1990 and 2000. St. Jean lost one fifth of its population (more than the city's average) and Kettering lost 3,800 residents. The two neighborhood plans included a goal and policies to increase access to open space and recreational areas. Particularly in Kettering, the redevelopment of vacant lots to neighborhood parks or play lots was referenced as a strategy to achieve this goal¹¹.

Climate Policy

Detroit's first grassroots climate plan, the 2018 Climate Action Plan, was produced by Detroiters Working for Environmental Justice (DWEJ) on behalf of the City. This plan elevated several concerns and priorities that can be addressed through the transformation of vacant land. Key themes were parks, public spaces and water infrastructure with goals of making ecosystem services more resilient and prioritizing green infrastructure¹².

A year after the Climate Action Plan was released, the City produced a follow-up report, the Sustainability Action Agenda¹³. The Agenda lays out action steps for four outcomes:

1. Healthy, thriving people
2. Affordable, quality homes
3. Clean, connected neighborhoods, and an
4. Equitable green city

To have healthy, thriving residents, it is noted that there needs to be increased access to healthy food, green spaces, and recreation opportunities in addition to equitable economic opportunities. A specific identified action related to economic opportunity is scaling green jobs training and workforce development programs. A later section will review green jobs and workforce development case studies and their key takeaways.

¹¹ City of Detroit, *Master Plan of Policies*, 114-118.

¹² Detroiters Working for Environmental Justice, *Detroit Climate Action Plan* (2017), https://detroitenvironmentaljustice.org/wp-content/uploads/2017/11/CAP_WEB.pdf.

¹³ City of Detroit, *Detroit Sustainability Action Agenda* (2019), <https://detroitmi.gov/sites/detroitmi.localhost/files/2019-06/Detroit-Sustainability-Action-Agenda-Web.pdf>.

While vacant lots can be transformed into affordable housing and DLBA's Infill Lots land reuse program supports this activation, this study will not be addressing this land use.

The Agenda asserts that creating clean, connected neighborhoods will rely on transforming vacant lots into safe spaces containing productive and sustainable land uses. This would be accomplished by making the process to purchase City owned land more accessible and supporting neighborhood efforts to steward vacant land. The Detroit Land Bank Authority's 2020 Vacant Land Policy discussed in the following section strives to make land more accessible and the American Rescue Plan Act (ARPA) dollars specifically allocated for block clubs and neighborhood groups to transform vacant lots will provide much needed financial support.

The last outcome, an equitable green city, has ten associated identified actions with two focusing on increasing green infrastructure throughout the city which can be accomplished by repurposing vacant lots as productive green spaces.

Vacant Land Policy

When the city faced a foreclosure crisis resulting from the 2008 mortgage market collapse, foreclosed properties were land banked. In 2014, the Detroit Land Bank Authority (DLBA) was consolidated with a mission to “return the city’s blighted and vacant properties to productive use¹⁴.” Productive uses are those that encourage homeownership, revitalize neighborhoods, support urban agriculture, and/or stimulate economic growth¹⁵. Initially, DLBA prioritized structures – if salvageable their sale, if not their demolition. Of an original over 30,000 structures, there are now fewer than 15,000 left to be addressed, most slated for demolition. With a firm handle on this work, DLBA has shifted its focus to structure-free vacant lots, many of which are the result of these demolitions. Currently DLBA holds over 100,000 properties, approximately 20% of all property in the city. Since 2014, DLBA has sold 15,000 lots¹⁶ through a number of programs that make these lots available to residents at low prices. However, there was a need to make it easier to acquire land that is not directly adjacent to an interested resident’s property to ultimately more easily diminish the number of vacant lots held by DLBA. In the fall

¹⁴ DLBA, “Who We Are,” <https://buildingdetroit.org/overview>

¹⁵ DLBA, *Amended and Restated Vacant Land Policy* (2021), <https://dlba-production-bucket.s3.us-east-2.amazonaws.com/Land-reuse/POLICIES+-+Amended++Restated+Vacant+Land+Policy+Clean+20211108.pdf>

¹⁶ Penniman, “Redressing Racist Policies”

of 2020, DLBA released an updated vacant land policy that includes new programs through which lots can be sold¹⁷. Another significant policy improvement making lots more accessible is the removal of the requirement to receive approval from the DLBA Board of Directors in the purchase of oversize lots, neighborhood lots, infill housing lots and homestead lots.

In total, DLBA has six land reuse programs through which lots can be purchased and redeveloped or repurposed with three being very conducive to community ownership and community-based designs¹⁸.

- *Side lots*
- *Neighborhood lots*
- *Oversize lots*
- Accessory structure lots
- Infill housing lots
- Homestead lots

Side lots, neighborhood lots, and oversize lots are all structure free vacant lots made available to owners of nearby residential property for the intended purpose of residential, recreational or agricultural uses. The designs that follow in a later section have all been proposed for implementation on these three types of lots.

Side Lots

Dimensions: no larger than 7,500 square feet and no more than 300 feet on any side

Lot Proximity: must be adjacent to the property containing an occupied residential structure (Applicant's Occupied Property). Adjacent means immediately to the left side, right side, or directly or diagonally behind (rear side lots can be across an alley but they cannot be located across a street and still be considered adjacent). All of the green lots in Figure 10 would be eligible.

At DLBA's discretion, an applicant may be able to purchase a vacant lot adjacent to a side lot if the lot immediately adjacent to the applicant's residential property is also or has already been

¹⁷ DLBA, meeting notes, August 18, 2021.

¹⁸ DLBA, "Land Reuse," accessed March 1, 2022, <https://buildingdetroit.org/land-reuse-programs>.

purchased. The yellow lots in Figure 10 are these lots that may be eligible. The red lots depicted are not eligible.

Purchaser Eligibility: must hold title to the Applicant's Occupied Property and be current on property taxes

Pricing: \$100 per lot

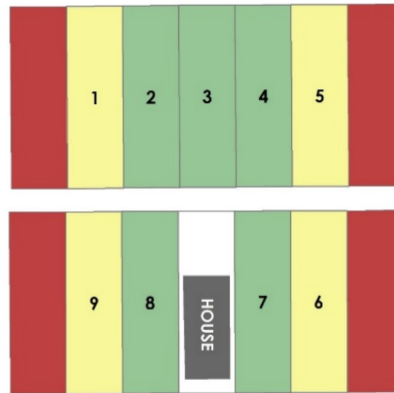


Figure 10. Side Lot Eligibility. Reproduced from DLBA's *Amended and Restated Vacant Land Policy*.¹⁹

Oversize Lots

Dimensions: between 7,500 and 15,000 square feet, no more than 400 linear feet on any side

Lot Proximity: must be a street adjacent to the property containing an occupied residential structure (Applicant's Occupied Property). Unlike a side lot, the lot cannot be located across an alley or street. The green lots in Figure 11 would be eligible.

At DLBA's discretion, an applicant may be able to purchase a vacant lot street adjacent to a side lot, accessory structure lot, or oversize lot if the lot immediately adjacent to the applicant's residential property is also or has already been purchased. The yellow lots in Figure 11 are these lots that may be eligible. The red lots depicted are not eligible.

Purchaser Eligibility: must hold title to the Applicant's Occupied Property, possess a current Principal Residence Exemption or a state-issued id with an address matching the Applicant's Occupied Property and a deed showing ownership, and be current on property taxes

Pricing: \$200 per lot (unless the land value exceeds \$2,500)

¹⁹ DLBA, *Amended and Restated Vacant Land Policy* (2021), 1.

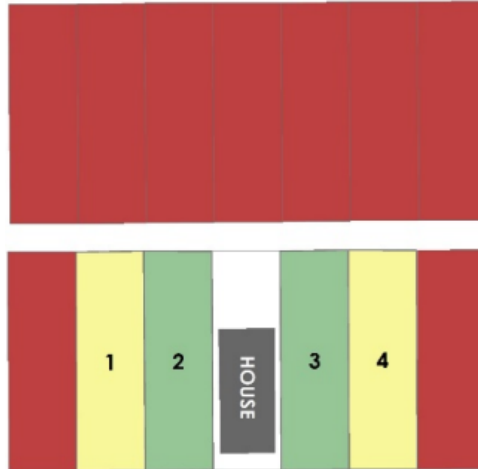


Figure 11. Side Lot Eligibility. Reproduced from DLBA's *Amended and Restated Vacant Land Policy*.²⁰

Neighborhood Lots

Dimensions: no larger than 7,500 square feet and no more than 300 feet on any side

Lot Proximity: must be located within 500 feet of applicant's property containing an occupied residential structure (Applicant's Nearby Property)

Purchaser Eligibility: must hold title to the Applicant's Occupied Property, possess a current Principal Residence Exemption or a state-issued id with an address matching the Applicant's Occupied Property and a deed showing ownership, and be current on property taxes

Special requirements: applicant must provide a brief plan of how the lot will be used which must be consistent with City ordinances and policies (greenspace, recreation, urban agriculture, stormwater management, and wildlife habitat are all examples of acceptable uses). Applicants must also have the endorsement of a block club or neighborhood association registered with the City's Department of Neighborhoods, a DLBA approved Community Partner, the local District or an At-Large City Council member, or the local City District Manager or Deputy District Manager.

Pricing: \$250 per lot (unless the land value exceeds \$2,500)

Purchasing Restriction: a maximum of two neighborhood lots can be purchased annually

²⁰ DLBA, *Amended and Restated Vacant Land Policy*

Funding Transformation: American Rescue Plan Act

The American Rescue Plan Act (ARPA) is a \$1.9 trillion stimulus package aimed at facilitating the recovery from the devastating COVID-19 pandemic. ARPA established the State and Local Fiscal Recovery Funds (SLFRF) program through which the City of Detroit received an allocation of \$826 million. While other overlapping government units including the state, county, and Detroit School District also received ARPA funding²¹, we will focus on the City's allocation. Detroit is receiving this funding in two disbursements: \$413 million was disbursed in May 2021 and another \$413 million will be disbursed in May 2022. The City has three years from the initial disbursement to spend all ARPA dollars; none may rollover past 2024²².

As the COVID-19 pandemic hit just five years after Detroit filed for Chapter 9 bankruptcy, the City decided to put \$400 million of the ARPA funding towards budget reconciliation. The funds cannot be used for pension fund payments, debt service, or past legal obligations²³, but they can address the City's budget shortfall and inability to meet obligations laid out in the bankruptcy Plan of Adjustment. The agreed upon post-bankruptcy restructuring and reinvestment initiatives include maintaining City services, bringing back City employees²⁴, strengthening IT infrastructure, and decreasing blight²⁵.

As discussed in the Background, the federal government began steadily decreasing its financial support of cities in the 1970s. This has been particularly challenging for shrinking formerly industrial cities like Detroit that have had to try to maintain city services and aging infrastructure with a reduced tax base that has been historically marginalized racially and economically²⁶. Given this, while ARPA dollars do present an opportunity to recover from the impacts of the

²¹ Note. Michigan received \$5.7 billion, Wayne County \$340 million, and Detroit School District \$800 million.

²² Mayor Mike Duggan, "ARPA Community Presentation" (May 25, 2021).

<https://detroitmi.gov/sites/detroitmi.localhost/files/2021-05/Final%20ARPA%205.25.pdf>

²³ Ibid

²⁴ Note. Austerity politics led to a reduction of municipal employees. Thomas Sugrue had characterized municipal employment in the city as "a lifeline for Black professionals, clerical workers (especially women), and also blue-collar workers." The loss of these jobs threatened the Black middle class. (Sugrue, *Origins of the Urban Crisis*).

²⁵ City of Detroit, *Recovery Plan Performance Report* (2021).

<https://detroitmi.gov/sites/detroitmi.localhost/files/2021-08/FINAL%20CoD%20Recovery%20Plan%2008%2031%202021.pdf>

²⁶ Sugrue, *Origins of the Urban Crisis*

COVID-19 pandemic, they also represent a historic opportunity to address systemic inequalities “caused by decades of structural racism”²⁷ and to bounce forward, rather than backwards.

The remaining \$426 million of ARPA funding that is not being used for budget reconciliation has created the Detroit Future Fund²⁸. The City carried out one of its largest ever community engagement efforts to inform what initiatives this money would be invested in. Mayor Duggan presented a virtual presentation open to the public in May 2021. The City planned to hold 25 public meetings to discuss priorities, but ended up holding 65 due to overwhelming interest. Engagement in these meetings generated 411 community responses. Digital engagement through surveys provided 739 responses. This resident input informed a resulting resolution that divided the funds into 15 appropriations (see Appendix A). One of which, the Neighborhood Beautification appropriation, sets aside \$23 million for vacant property cleanouts and alley activations²⁹. The City intends to issue grants to block clubs and neighborhood associations to improve vacant land owned by the Detroit Land Bank Authority³⁰

²⁷ City of Detroit, *Recovery Plan Performance Report* (2021)

²⁸ Mayor Mike Duggan, “ARPA Community Presentation” (May 25, 2021).

²⁹ City of Detroit, *Recovery Plan Performance Report* (2021)

³⁰ Mayor Mike Duggan, “ARPA Community Presentation” (May 25, 2021).

Community Engagement

Community engagement should be at the forefront of any assessment and design process. By working in partnership with Good Stock residents, Detroiters and City officials will be able to gain the knowledge necessary to develop effective policies, practices, and projects focused on lot redevelopment. Our engagement and project deliverables aim to follow the American Planning Association's framework regarding community engagement which includes:

- Inform – providing data/information
- Consult – obtaining public feedback
- Involve – working with the public
- Collaborate – partnering with the public
- Empower – decision-making by the public

Purpose and Desire of Engagement Efforts:

The study's engagement efforts sought to understand resident's perceptions of their community and how lots can support community development. Good Stock residents via community engagement processes can provide valuable insight into community needs providing residents, community organizations and Detroit officials the opportunity to:

- Increase community education about DLBA programming
- Regularly collaborate with neighborhood and community groups to assess incompatible land use at the neighborhood level and develop solutions together via in-person and digital engagement mechanisms
- Develop targeted neighborhood action plans created in partnership with residents
- Work with community organizations to better engage populations that are hard to reach such as non-English speakers, immigrants, people with disabilities, those with limited technological abilities, and the elderly
- Leverage and expand current community led steering committees such as Eastside Community Networks's Good Stock Steering Committee to disseminate key information

to residents and hold Detroit officials accountable regarding ARPA dissemination and implementation across Good Stock

- Have open access to design templates to leverage ARPA funding opportunities
- Learn community engagement best practices and their potential impacts and limitations
- Further the connection between crime prevention through environmental design (CPTED) and community health, development, and revitalization

Engagement Techniques and Recruitment

Initial community engagement began April 2021 via direct outreach to our partner organizations. Below highlights the strategies taken to engage community partners and residents.

1. Survey collection
2. In person engagement
3. Community partnerships and networking

1.) Survey Collection

- a.) A total of 3 surveys were administered to the Good Stock community via a variety of mechanisms. Between the months of June and September two surveys were published and promoted: an initial neighborhood planning survey and a more design oriented visual preference survey. In late January, a third survey focusing on Good Stock resident's perception of their neighborhood and desired changes was released to remedy the results found in the initial neighborhood planning survey. A discussion of these results can be found in the results and limitations section of *community engagement* .
- b.) As compensation for their time and expertise, respondents were given \$5-25 gift cards as well as seed packets.

2.) In Person Engagement

- a.) In person engagement is a unique, yet key way to understand community wants, needs, and concerns regarding development. Without community involvement, designs and their implementation cannot succeed. In order to better understand resident perception of our project as well as gauge desired wants and needs of the Good Stock community, in person engagement was conducted. In total, two engagement sessions were completed via in person tabling events.

- b.) Events held by both Eastside Community Network and MACC Development served as key ways for our project to gain pertinent community feedback and knowledge on needs, desires, and concerns the community may have in regards to land reuse and community development.

3.) Community Partnership and Networking

- a.) Collaboration is a key step in successful community engagement and project building. In order to ensure our project remained a collaborative and empowered community led space our team partnered with a variety of CBOs and coalitions.
- b.) Engagement between our team and community partners began in April of 2021 where initial contact was made with organizations we felt could best aid our team in understanding community needs and ensure our end product was helpful to the population we aimed to serve.
- c.) Monthly and bi-monthly meetings were held with each partner to update them on our progress, answer any questions, and ensure full transparency regarding project development and deliverables.

Results and Limitations

Like any community engaged process there are many successes and limitations to strategies taken and the results that follow. The following outlines the results and limitations of each of our surveys, tabling events, and partnerships.

Original Neighborhood Planning Survey

The original intent of our Neighborhood Planning Survey was to better understand how Good Stock residents and the surrounding community perceived their neighborhood. This was in hopes to help our team understand current neighborhood dynamics and items that were perceived to be the most important to Good Stock residents.

The Neighborhood Planning Survey contained a mix of multiple choice, ranking, and short answer questions and was shared solely on social media platforms through Instagram and Facebook advertisements (see Appendix B). With a total of 109 respondents, our survey results found that the largest age group of participants (44%) were between the ages of 18-29 with a

60-40 breakdown of male to female participants. Additionally the vast majority of participants (77%) lived in their selected neighborhood for more than 10 years.

From this survey, the team identified the top concerns, improvement desires, and general quality of life of participants. Tables 1, 2, and 3 highlight the data gathered from these categories.

Table 1

Top Concerns	
Lack of Commercial Opportunities	69%
Littering and Illegal Dumping	69%
Dilapidated Sidewalks and Streets	63%
Exposure to Outdoor Air Pollution	61%

Table 2

Top Improvements Desired	
Improved ways to get Around	82%
Demolishing or Improving Blighted Buildings	79%
More Places to Enjoy Nature	77%
Places to Play and Exercise	71%

Table 3

Quality of Life	
Experienced the Effects of Extreme Weather	59%
Felt Safe within their Neighborhood	55%
Had Access to Greenspace	60%

While information obtained from this survey was initially perceived to be valuable, further analysis found data not to be representative of residents within the Good Stock area. Of the 109 respondents, 77 (70%) of respondents self-identified as white, contrary to data indicating that over 83% of residents residing within these neighborhoods self-identified as Black.

Visual Preference Survey

The Visual Preference Survey served as a means of identifying top priorities and land use focuses of Good Stock residents. Both an electronic and print version were created to help increase access and remedy the potential issues experienced from the Neighborhood Planning Survey in hopes to gain more representative data through direct engagement via tabling events. Of the 24 virtual survey respondents, Table 4 depicts the top four most important features residents desired to see in their community.

Table 4

Top Four Most Important Features	
Recreation	57%
Public Art	52%
Urban Agriculture	48%
Planting Areas	35%

However, it is important to note that 54% of the 24 respondents self-identified as white vs. 25% as Black, a similar issue found with our Neighborhood Planning Survey.

To help increase the types of respondents surveyed, an in person survey was conducted with similar questions with the aim to retrieve more representative data directly from the community. A series of two in person tabling events were attended at Brewer Park and MACC Development located on Detroit's Eastside. Success and limitations of these events are further discussed below.

As a result of the two in person engagement sessions a total of 27 surveys were completed. Of the 27 in-person survey respondents, Table 5 depicts the top four most important features residents desired to see in their community.

Table 5

Top Four Most Important Features	
Stormwater Management Designs	74%
Community Gardens	66%
Community Gathering Spaces	59%
Trails and Greenways	48%

In person engagement additionally has served as a way to gain more representative data where it was found that 97% of respondents self-identified as Black vs. 4% as white making our in person survey results the most representative data collected.

Revamped Neighborhood Planning (Good Stock) Survey

In late January 2022 a revamped Neighborhood Planning Survey was released with a series of different questions with the aim to understand how residents of Good Stock perceive their neighborhood and what changes are desired. The goal of this revamped survey was to assist in informing design recommendations/strategies and implementation plans for vacant lots that exemplify how land uses can improve quality of life, health, and safety within communities. The survey also aimed to better understand residents' awareness of City policies and programs and the effectiveness of City engagement. In turn data collected was used for design and project scope. Data was also used to critique and analyze gaps in knowledge regarding the City of Detroit's own engagement strategies around ARPA and the lack or understanding of programs the City and DLBA have to offer to uplift and revitalize communities such as those found in Good Stock. Please see our *Future Thinking Regarding ARPA* section for more information.

In Person Engagement

In person engagement sessions were found to be a key and successful way for our team to gather both representative data in addition to understanding community perceptions of the University of Michigan within their community. Residents were overall receptive to the University of Michigan's presence within their community regarding this project with the stipulation that one of the team members on this project was a Detroit resident and native. Below highlights pertinent information gained from these in person engagements with Eastside residents.



Figure 12. Survey Materials for Brewer Park Block Party Event. Photograph by Dolores Perales taken on August 7th, 2021



Figure 13. Tabling for Brewer Park Block Party Event. Photograph by Dolores Perales taken on August 7th, 2021



Figure 14. Compiled Community Comments

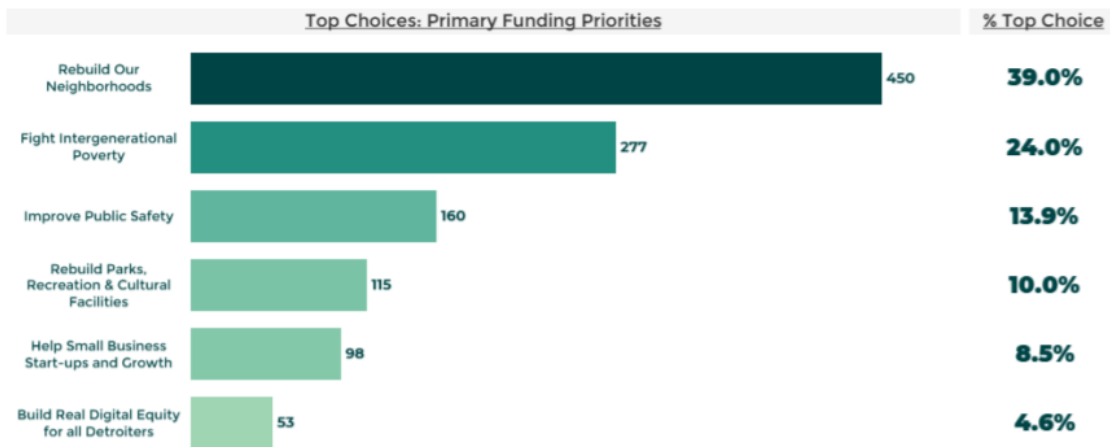
Future Thinking Regarding ARPA

Regarding the American Rescue Plan Act (ARPA) and its use throughout Detroit’s Recovery Plan it is pertinent that Detroit residents, leadership, and organizations understand the importance

of these funds and their impacts. While the City undertook one of its largest ever community engagement efforts in development of the Detroit Recovery Plan and planned allocation of ARPA funds, some key residents may not have been reached by the meetings and surveys.

According to the Detroit Recovery Plan a total of 65 public meetings were held to discuss the 411 community meeting responses and 739 online survey responses regarding how ARPA funds should be used. However, some Good Stock residents did not know what ARPA was or that the City received funding. Survey participants were also asked if they knew that the City held 65 public meetings to discuss funding priorities and conducted online surveys to gather feedback. Similarly, some residents indicated that they were “never made aware” of these meetings or surveys. Lastly, residents were asked where they get their news about public programs, policies, and/or public service announcements that may impact them³¹. Future community engagement carried out by the City should expand outreach through these channels to ensure that all residents are aware of opportunities to have their voices heard. Below is a graphic representation of priority areas based on gathered responses from City surveys³².

Table 6. Top Choices for ARPA Funding Priorities



Based on this data, 15 major appropriations will use ARPA funds, however at the time of writing the details of these projects are still being formed. The City has stated that it has created a

³¹ See Appendix for Good Stock survey and results

³² City of Detroit, *Recovery Plan Performance Report* (2021)

rigorous review process to ensure that the projects created under ARPA are created in a manner that selects the best-equipped community organizations to provide equitable outcomes for the groups in need via targeting economically-disadvantaged Detroit communities.

Through the designs and information provided under the *Designing Community Projects* section our goal is to ensure Good Stock organizations and residents are able to meet ARPA standards, hit City desired standards and goals as indicated in the policies listed in the policy section above, and meet resident wants, needs, and desires to truly rebuild Detroit neighborhoods in a sustainable and equitable manner.

Crime Prevention Through Environmental Design

Eastside residents participating in this study identified community safety as a “very important” factor for a neighborhood’s health and wellness. Community-based organizations also expressed the need to prevent dumping on vacant lots. Results from other studies corroborate these findings. As of 2013, 78% of Detroiters living in District 5 felt crime was a top 10 issue within their community in addition to 87% indicating they felt vacant land was not cared for³³. Crime prevention through environmental design (CPTED), while uncommon, can be a very effective intervention strategy. Vacant lot activations employing distinct design techniques have an important role to play as a crime prevention strategy that offers other physical and mental health co-benefits.

According to the International CPTED Association, CPTED can be defined as “ a multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments... to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime”³⁴. Within urban environments CPTED has been successful due to its “deliberate efforts to change the built environment to reduce crime and increase community safety”³⁵ (Everytown for Gun Safety Support Fund, 2020) where it incorporates aspects of natural surveillance, territorial reinforcement, and natural access control. Figure 15 depicts the key components of CPTED.

³³ Detroit Environmental Agenda, *Detroit Environmental Agenda* (2013),p.13
<https://detroitenv.org/wp-content/uploads/2016/07/DEA-Report.pdf>

³⁴The International Crime Prevention Through Environmental Design Association, “Primer in CPTED - What is CPTED?,” January 3, 2022.
<https://www.cpted.net/Primer-in-CPTED>

³⁵Everytown for Gun Safety Support Fund, *Crime Prevention Through Environmental Design* (2021),
<https://everytownsupportfund.org/report/crime-prevention-through-environmental-design/>

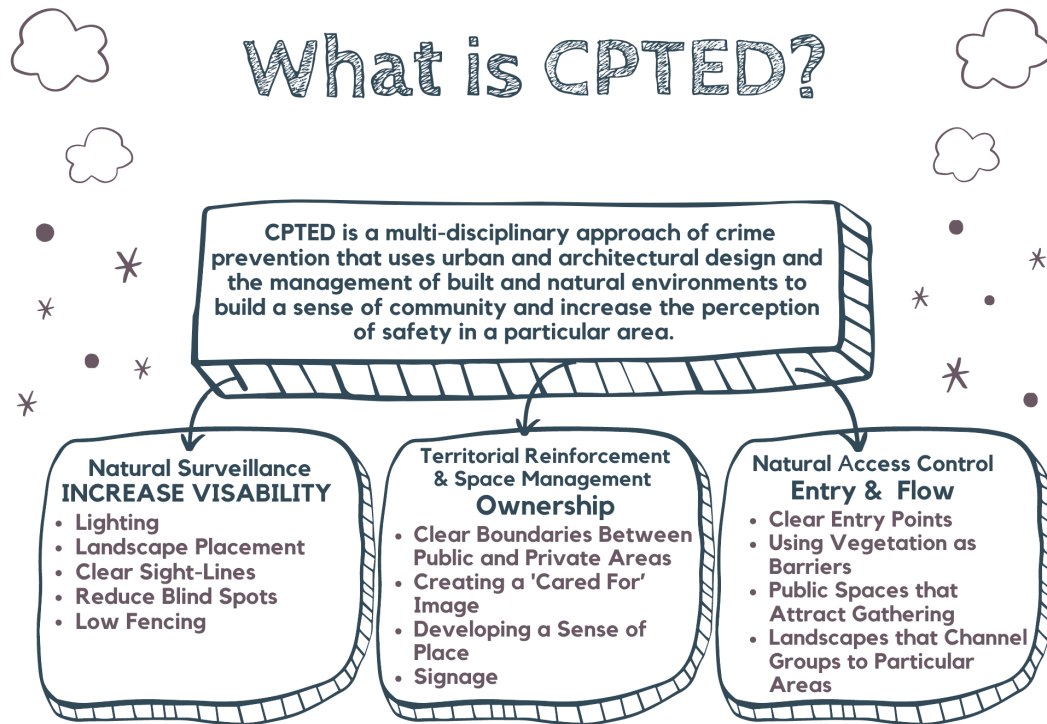


Figure 15. CPTED Break Down

Green infrastructure across Detroit serves as a unique opportunity that not only promotes CPTED in a way that heavily revolves around community engagement for its development and maintenance but serves as a means to promote both physical and mental health³⁶. While using green space as a means to promote CPTED as a tool for anti-violence is a newer phenomenon, its continued growth across the country could serve as a blueprint for Detroit and encourage the continued development and care of communal green spaces to promote community health and reduce overall violence.

CPTED and its Connections to Green Land Use

³⁶Plumer, B., "The real value of urban farming. (Hint: It's not always the food.)", *Vox*, October 12, 2016, <https://www.vox.com/2016/5/15/11660304/urban-farming-benefits>

A Harvard study using spatial data found that between the years 2009 and 2014 agricultural businesses grew by 165%, while lot vacancies decreased by 13.5% across Detroit³⁷. Interestingly, many of Detroit's urban gardens reside on above ground raised beds on the area's vacant lots. This in turn shows that the development of small-scale urban gardens and the increased accessibility to food allows communities to create large-scale change. Urban agriculture's spread is allowing Detroiters to benefit from not only the access to produce, but through the creation of community gathering spaces via these gardens. Community cohesion and youth development can be linked to these spaces as urban gardens and greenspace can create a perceived sense of safety as well as provide activities and developmental opportunities for youth in their neighborhoods.

The development of green space as a means of promoting CPTED has been used in various locations across the country with large-scale success. Researchers in Philadelphia found "that greening vacant lots made nearby residents feel significantly safer, and that the greened lots could be linked to reductions in certain gun crimes in the area...crime data showed that area assaults both with and without guns lessened after the greening...and that the greening may have fostered a greater sense of unity within the neighborhood"³⁸. Additional research also found in Philadelphia that "landscaping vacant lots reduced overall crime by more than 13% and dropped gun violence by nearly 30%, [where] burglary and nuisance reports also plummeted in these neighborhoods by nearly 22% and 30%, respectively"³⁹.

CPTED and its Co-Benefits Regarding Health and Wellness

Studies have shown that individuals who are experiencing social stress, personal stress, crisis, or loss are more likely than others to act or become violent⁴⁰. However, to help aid in the combat against violence, exposure to green infrastructure such as urban gardening can help reduce levels of anxiety or depression resulting in urban agriculture becoming a mental health tool for

³⁷Nolan, E. P., "Vacant Land Conversion in Detroit, Michigan: A Spatial Analysis of Neighborhood Stabilization and Communal Access"(Masters Thesis Harvard University, 2017), p. 43.

<https://dash.harvard.edu/handle/1/33826411>

³⁸Krauser, M., "The Urban Garden as Crime Fighter", *Next City*, August 22, 2012,

<https://nextcity.org/daily/entry/the-urban-garden-as-crime-fighter>

³⁹Dengler, R., "This city fights crime with gardening", *Science*, February 26, 2018,

<https://www.science.org/content/article/city-fights-crime-gardening>

⁴⁰Rueve, M. E., & Welton, R. S., "Violence and mental illness" *Psychiatry (Edgmont)*, 5(5), (May 2008): 34-48,

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2686644/>

anti-violence. The use of gardening as a means for therapy has been used for decades by researchers and doctors to lower levels of anxiety, depression, and other mental health ailments and their associated triggers. Exposure to gardening has also been found to lower BMI, create a sense of community, improve physical activity levels, and improve cognitive functions.

A meta-analysis conducted on the overall benefits of gardening showed “that even short-time (several hours) exercise in gardens can provide an instantaneous beneficial influence on health (e.g. reductions in depression and anxiety symptoms), although it is unknown how long the positive outcomes last after gardening”⁴¹. This same meta-analysis found that gardening increased overall satisfaction of one’s life, quality of life, and an improved sense of community.

Why Green Development is a Key Component of Anti-Violence

Surveys conducted by the Detroit Environmental Agenda⁴² found that urban gardens, rain gardens, and other modes of green space were highly praised and desired within their neighborhoods. This is in direct alignment with what our research team has found within the Good Stock community. It is through Detroit’s unique relationship with urban agriculture and its reclamation of land that it makes the most sense for Detroiters, specifically those in Good Stock to integrate urban agriculture and other means of community green space as a mode of CPTED in their community.

The development of green space as a means of promoting CPTED has been used in various locations across the country with large-scale success. Additionally green space across the City of Detroit has appeared in a variety of forms through spaces such as pocket parks, manicured lots, rain gardens, and urban gardens. Good Stock sits in a prime location for project green space implementation and development as the area’s high lot vacancy and community involvement through its active community organizations enable such spaces to be developed and maintained. Through Good Stock’s continued growth and maintained community engagement, the neighborhood can become a blueprint for Detroit communities and encourage the continued development and care of these urban spaces.

⁴¹Soga, M., Gaston, K. J., & Yamaura, Y., “Gardening is beneficial for health: A meta-analysis”, *Preventive Medicine Reports*, Volume 5, (2017): 92-99
<https://doi.org/10.1016/j.pmedr.2016.11.007>

⁴²Detroit Environmental Agenda

Developing Community Projects

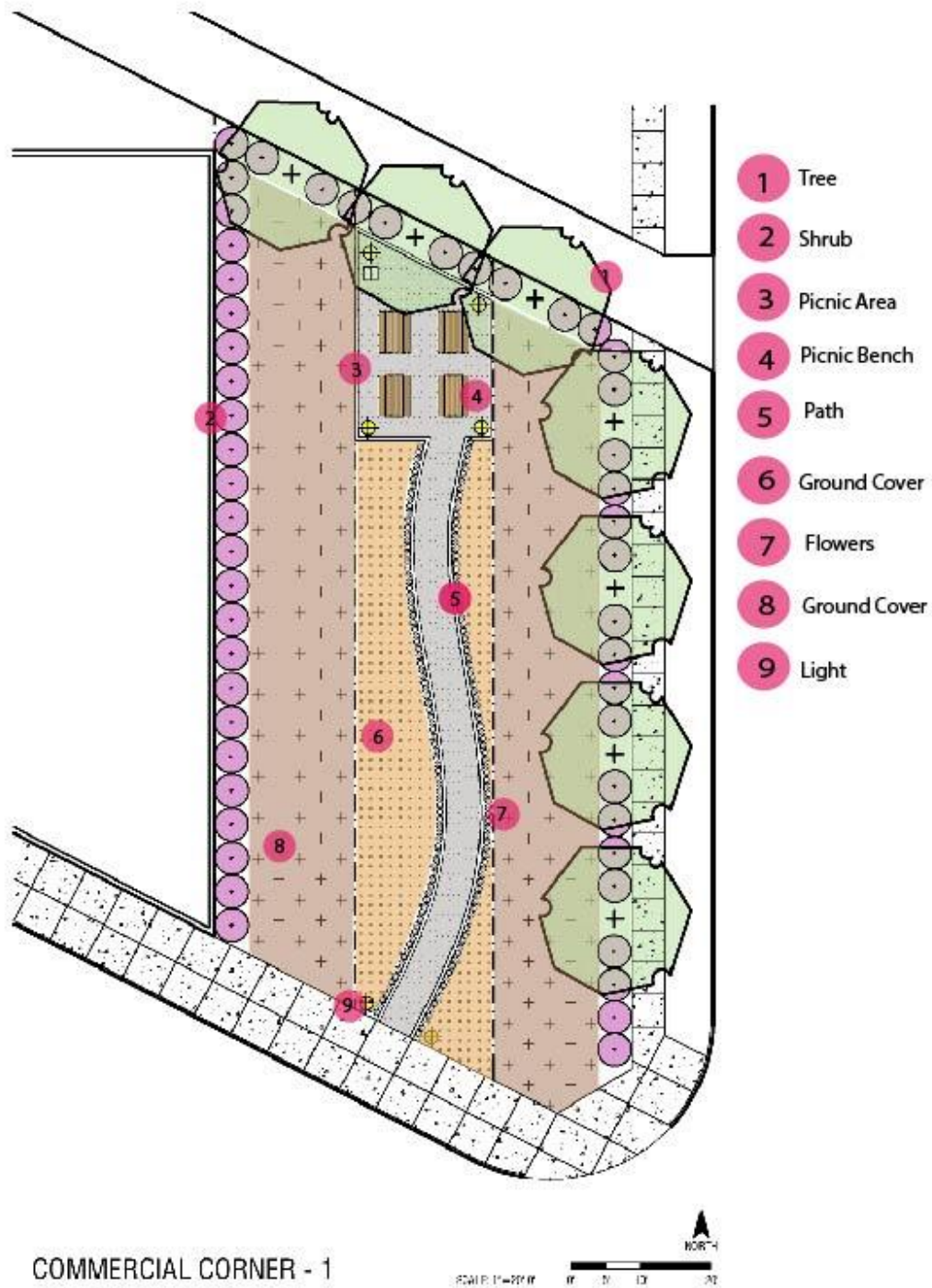
Vacant Lot Designs

The following designs aim to elevate CPTED, green infrastructure, and community activation spaces. Designs have been catered to Good Stock residents' wants and needs through green development and Detroit policy standards and recommendations. Through uplifting community voices and ensuring residential wants, needs, and concerns remain at the forefront, designs ensure that placement and suggestions of such lot activations are representative of the Good Stock community as a whole. Table 6 shows a summary of the key desired features for the lot designs with check marks indicating support for the features from surveys and/or engagement with residents and our partners. Five of the nine designs are Detroit Future City designs that were amended to ensure the incorporation of each of the key desired features. The remaining four designs were crafted on lot dimensions found for currently available DLBA lots in Good Stock.

Table 7. Key Desired Features

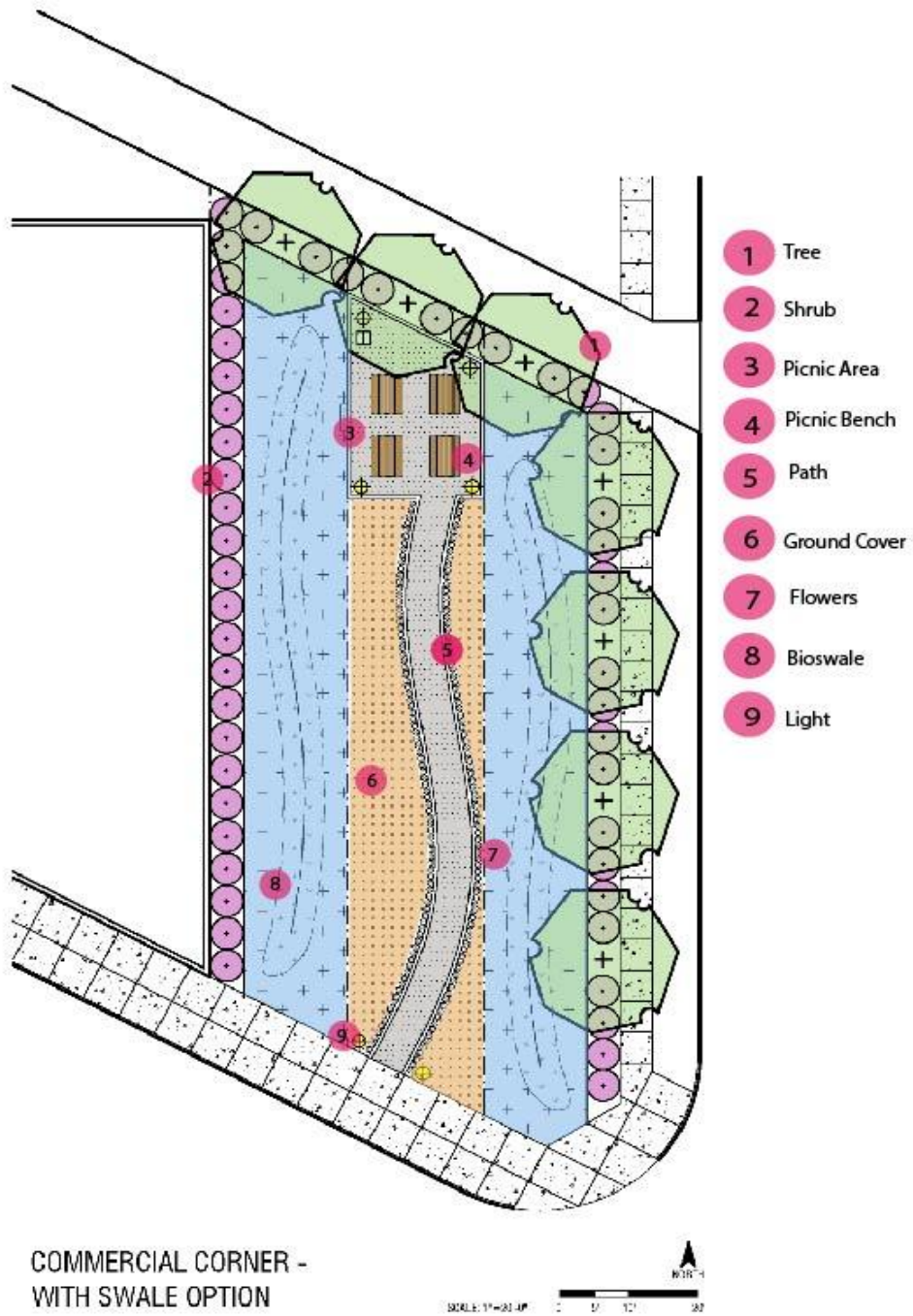
Feature	Surveys	Partner Engagement	Supporting Policies
Green stormwater infrastructure	✓	✓	<ul style="list-style-type: none"> • Climate Action Plan • Sustainability Action Agenda • Goodstock Neighborhoods Land Use Framework
Public safety (including dumping prevention)	✓	✓	<ul style="list-style-type: none"> • Master Plan • Sustainability Action Agenda • Goodstock Neighborhoods Land Use Framework
Recreation	✓	✓	<ul style="list-style-type: none"> • Master Plan • Sustainability Action Agenda • Goodstock Neighborhoods Land Use Framework
Community gardens / urban agriculture	✓	✓	<ul style="list-style-type: none"> • Master Plan • Climate Action Plan • Sustainability Action Agenda • Goodstock Neighborhoods Land Use Framework
Public art / culture	✓	✓	<ul style="list-style-type: none"> • Master Plan • Sustainability Action Agenda

Amended DFC Commercial Corner⁴³ Lot Design



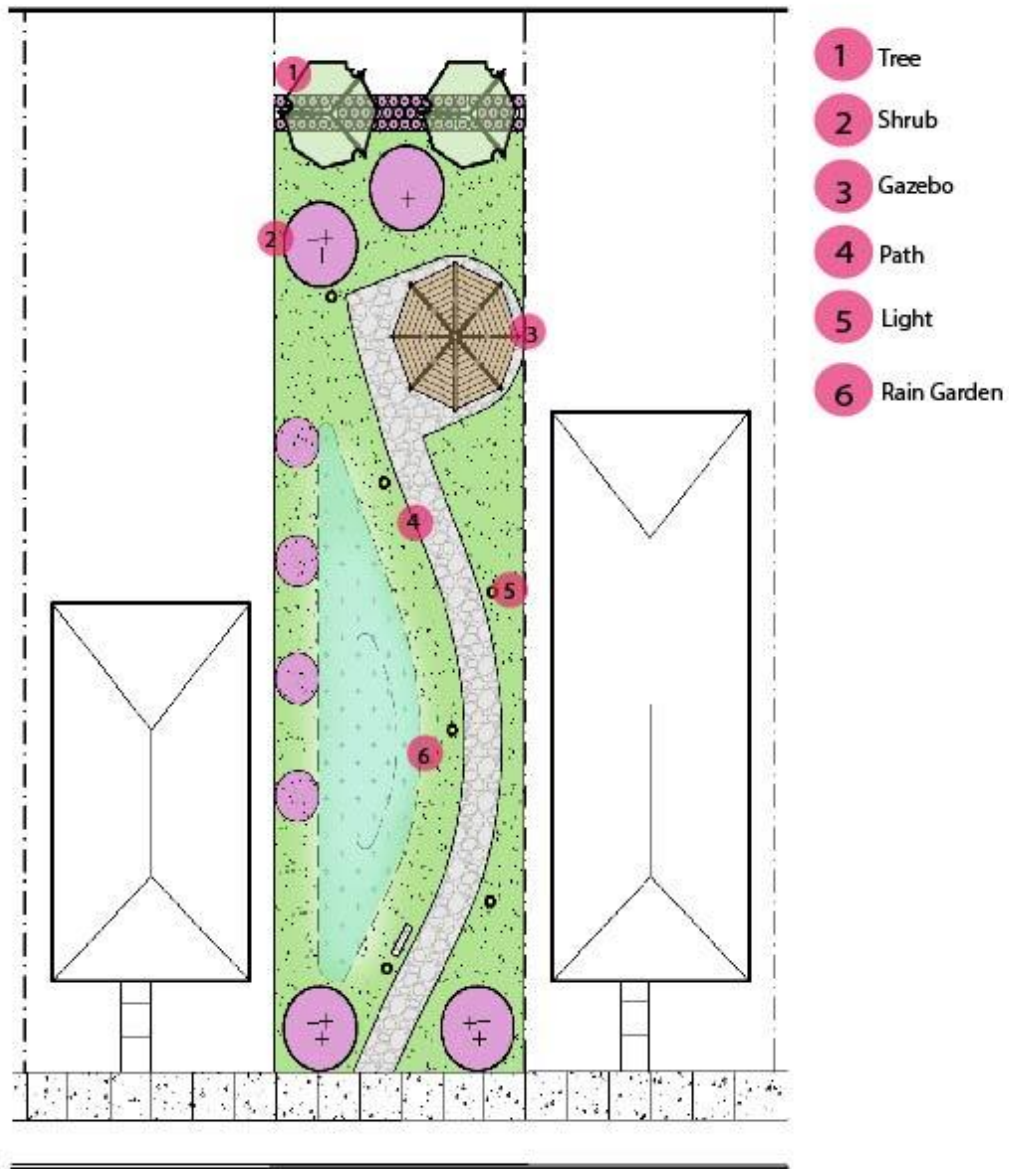
⁴³ Detroit Future City, *Working with Lots: A Field Guide* (2015), 67.
<https://detroitfuturecity.com/whatwedo/land-use/DFC-lots/assets/general/BINDER-DFC-Field-Guide-WWL-All-Designs-February-2020.pdf>

Amended DFC Commercial Corner⁴⁴ with Bioswale Lot Design



⁴⁴ Detroit Future City, *Working with Lots: A Field Guide* (2015), 67.
<https://detroitfuturecity.com/whatwedo/land-use/DFC-lots/assets/general/BINDER-DFC-Field-Guide-WWL-All-Designs-February-2020.pdf>

Amended DFC Dumping Preventer⁴⁵ Lot Design

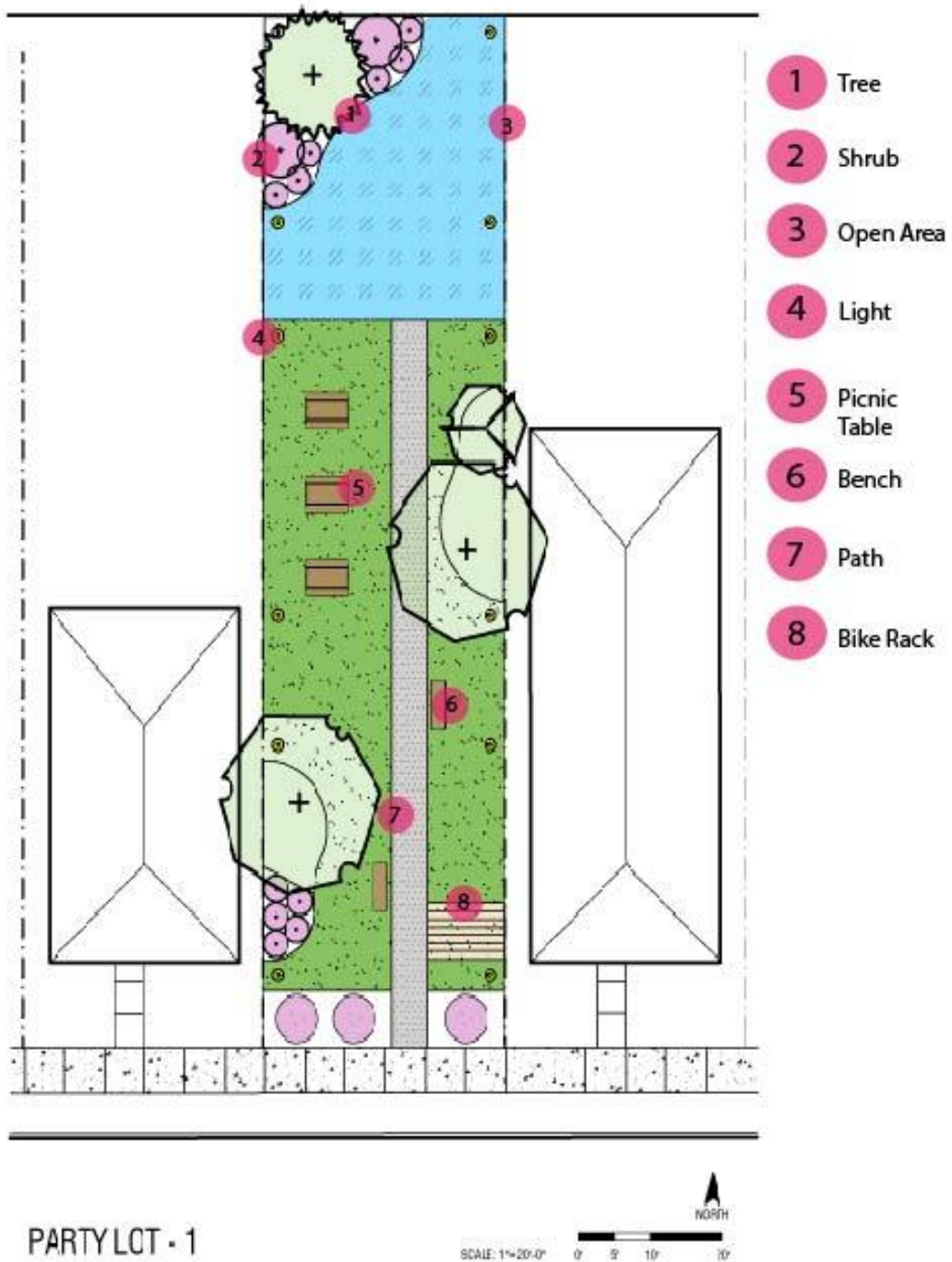


DUMPING PREVENTER - 1



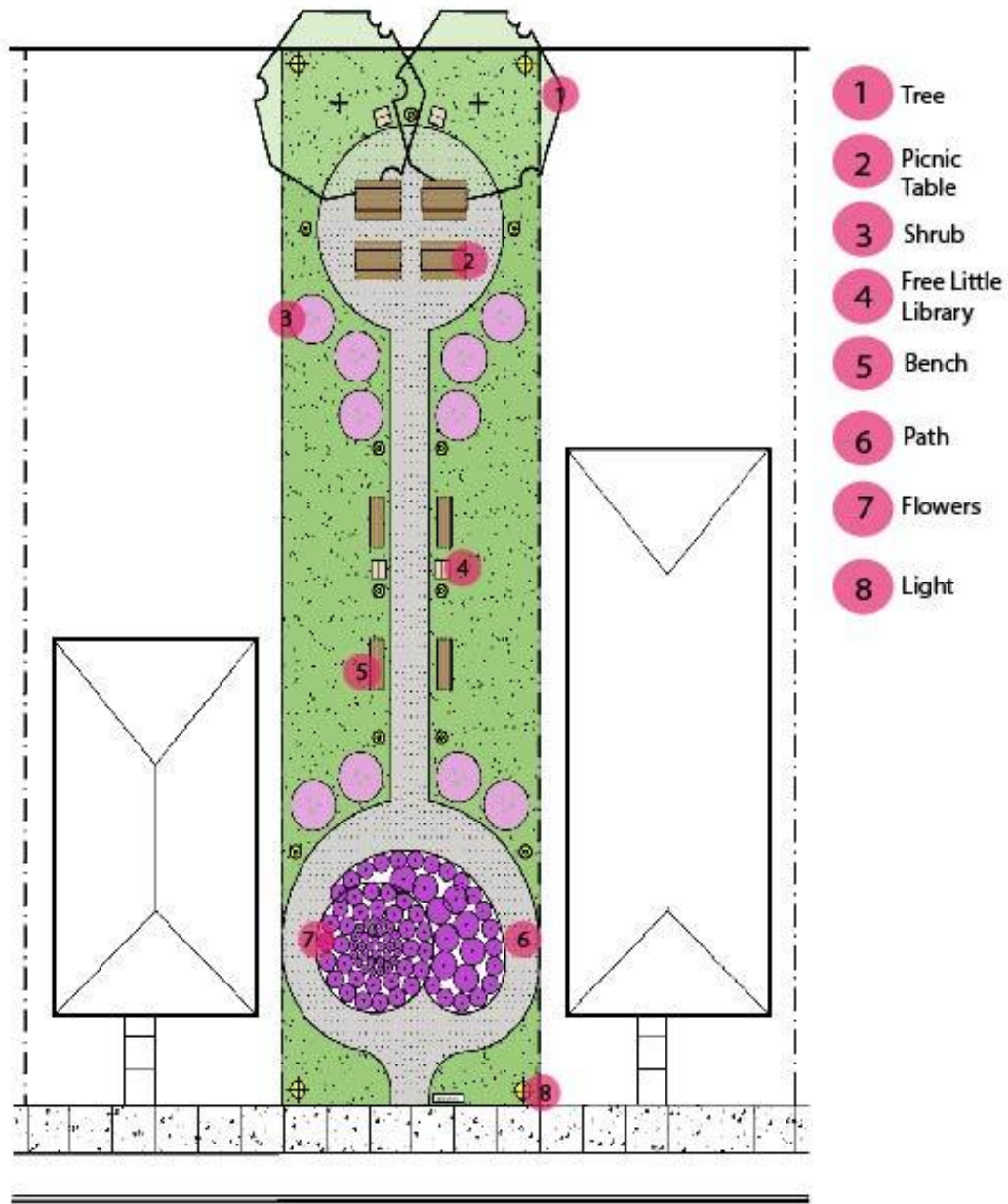
⁴⁵ Detroit Future City, *Working with Lots: A Field Guide* (2015), 79.
<https://detroitfuturecity.com/whatwedo/land-use/DFC-lots/assets/general/BINDER-DFC-Field-Guide-WWL-All-Designs-February-2020.pdf>

Amended DFC Party Lot⁴⁶ Design



⁴⁶ Detroit Future City, *Working with Lots: A Field Guide* (2015), 303.
<https://detroitfuturecity.com/whatwedo/land-use/DFC-lots/assets/general/BINDER-DFC-Field-Guide-WWL-All-Designs-February-2020.pdf>

Amended DFC 8 Mile Rain Garden⁴⁷ Lot Design



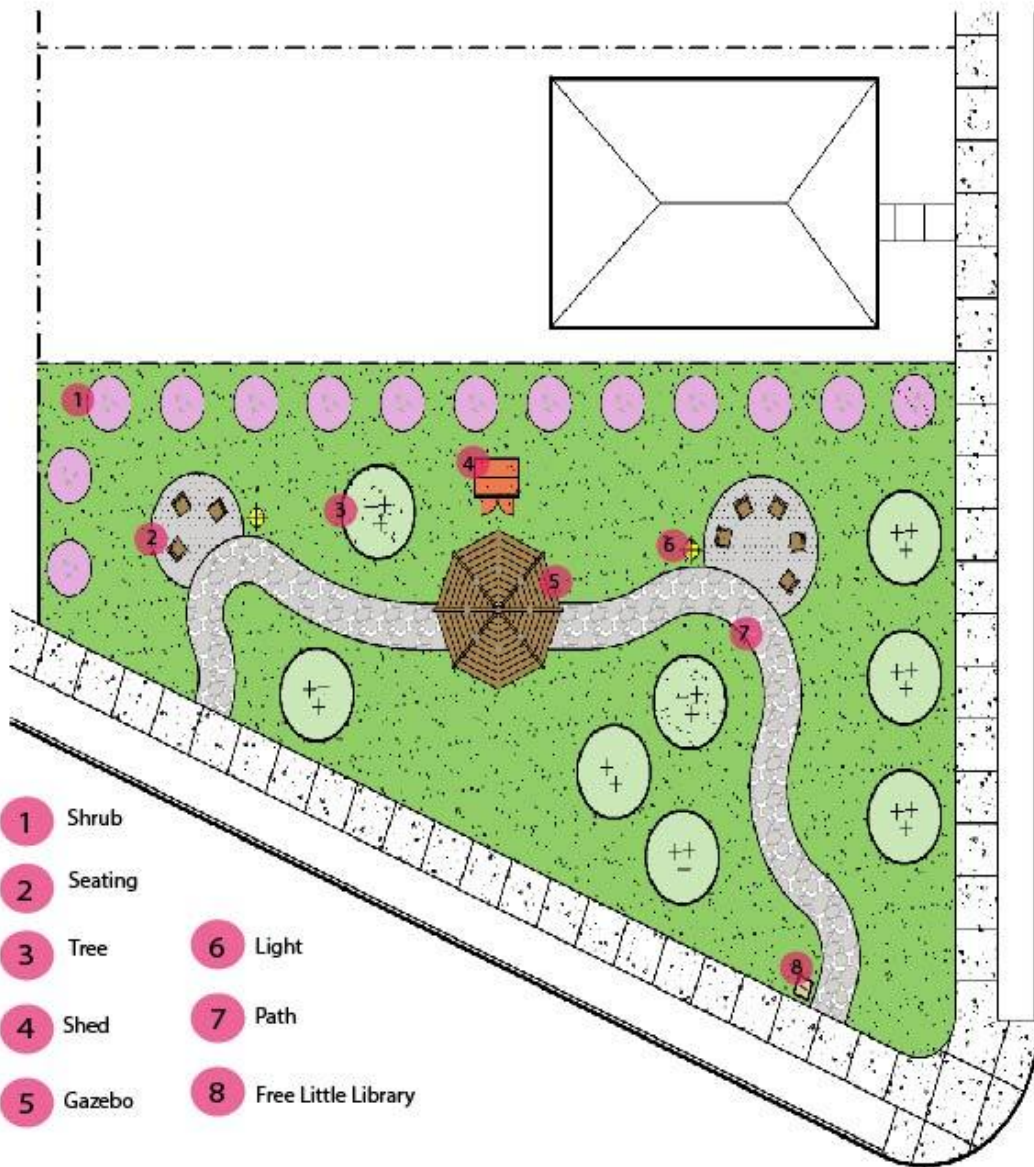
RAIN GARDEN - 1



⁴⁷ Detroit Future City, *Working with Lots: A Field Guide* (2015), 13.

<https://detroitfuturecity.com/whatwedo/land-use/DFC-lots/assets/general/BINDER-DFC-Field-Guide-WWL-All-Designs-February-2020.pdf>

Good Stock Pocket Park Lot Design

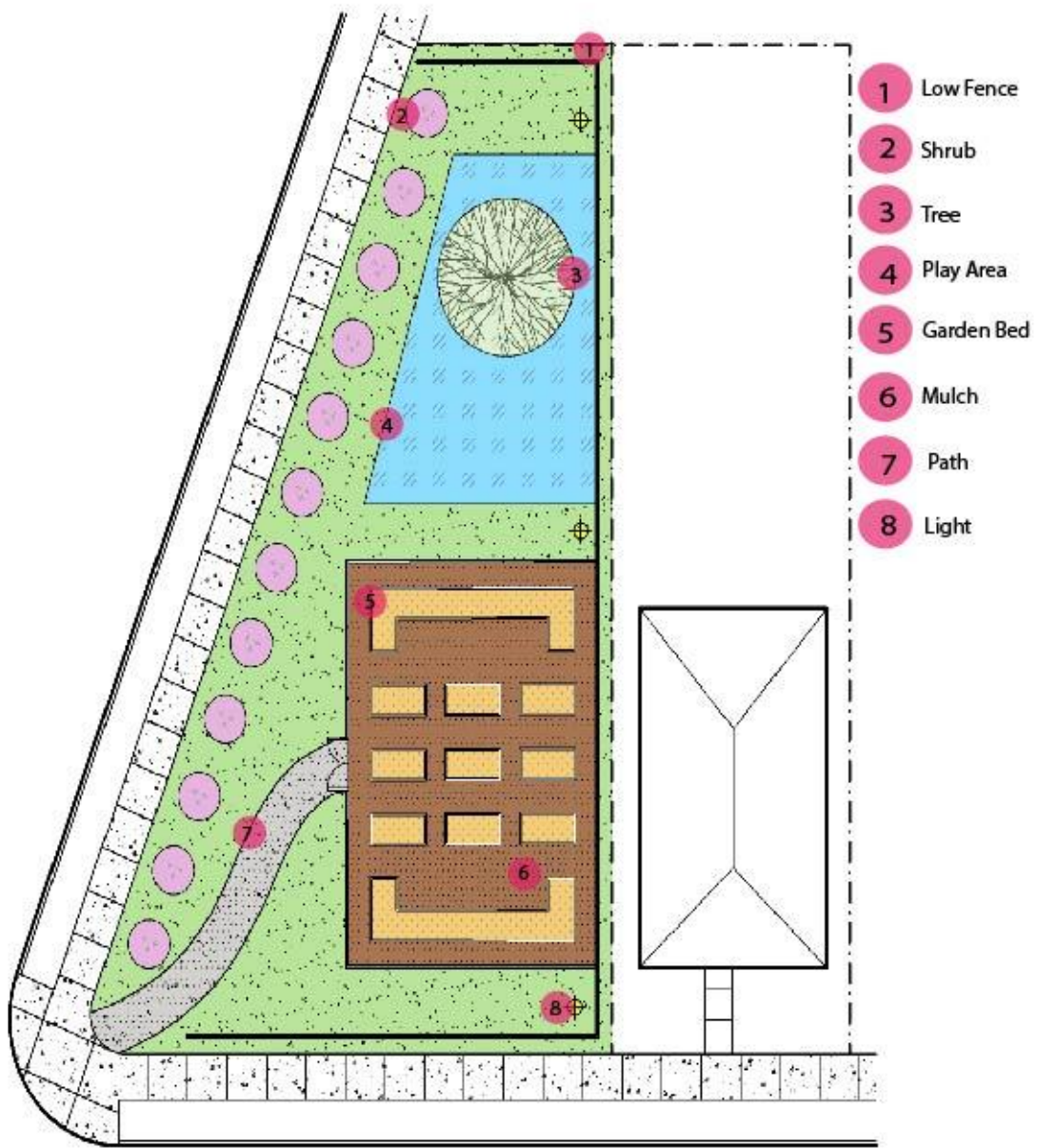


- 1 Shrub
- 2 Seating
- 3 Tree
- 4 Shed
- 5 Gazebo
- 6 Light
- 7 Path
- 8 Free Little Library

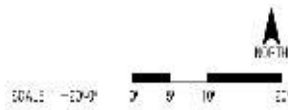
RHOMBUS - 3



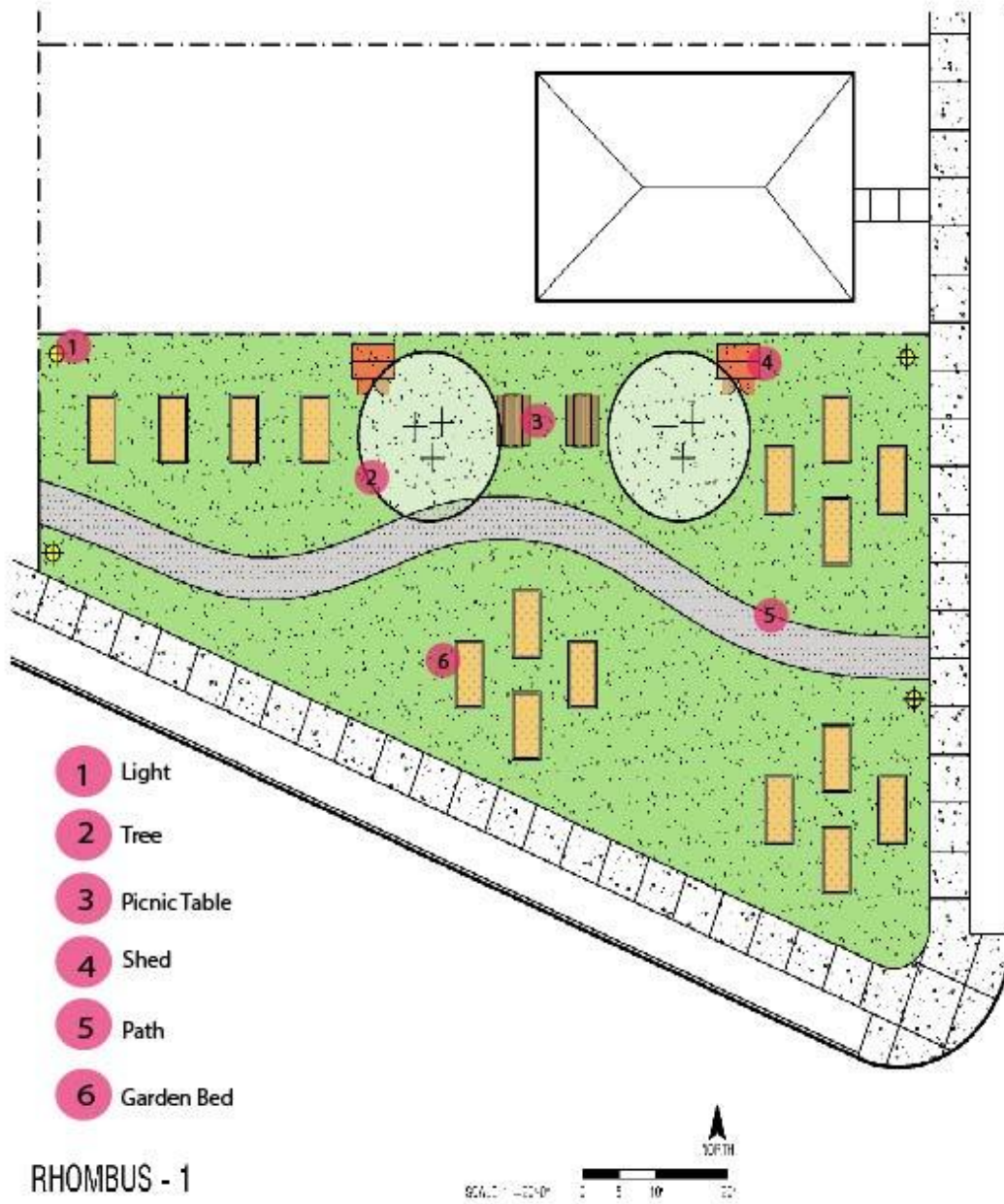
Good Stock Community Garden Lot Design



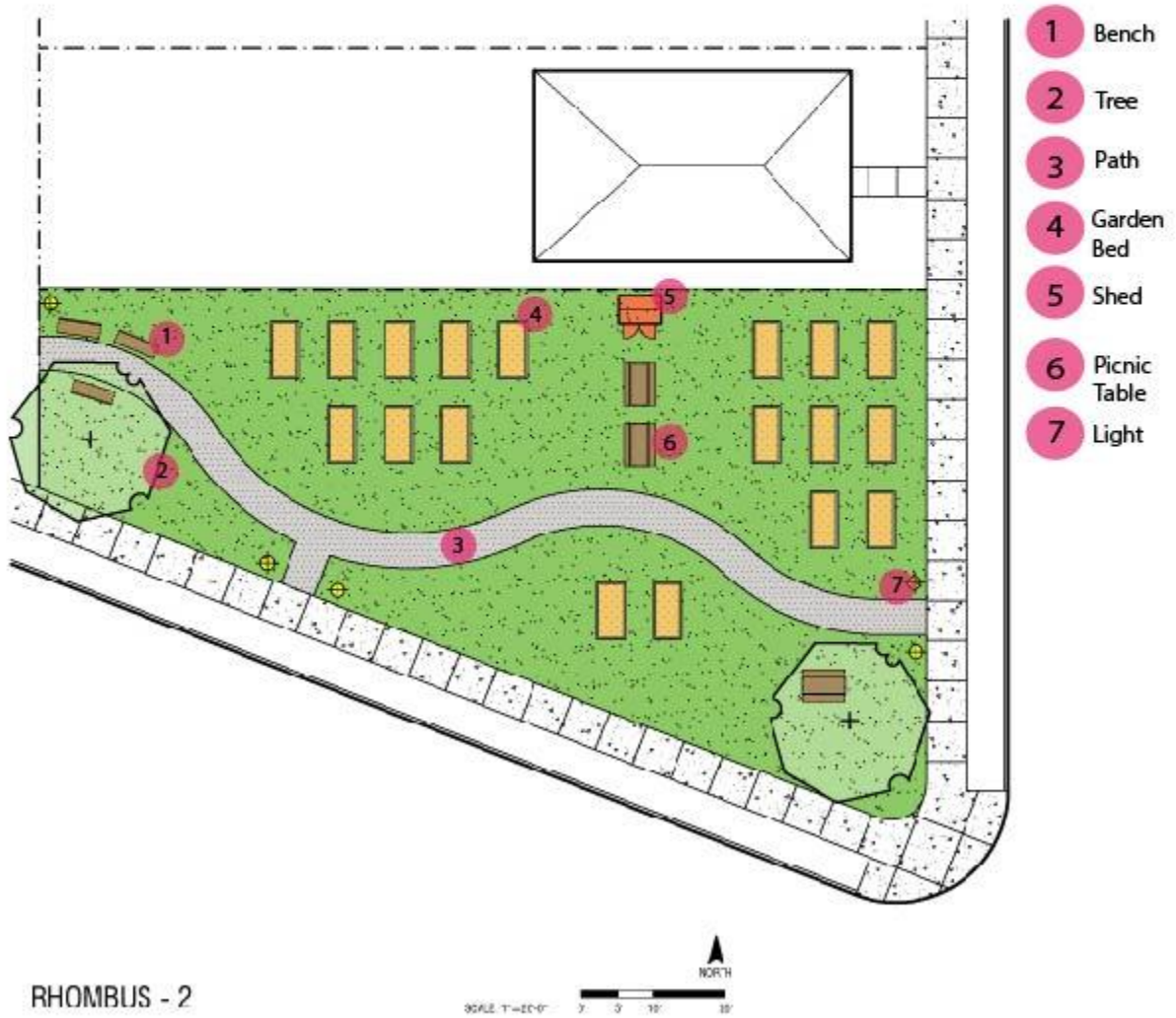
IRREGULAR LOT - 1
GARDEN + PLAY



Good Stock Urban Farm Lot Design #1



Good Stock Urban Farm Lot Design #2



Resources and Materials

Suggested Planting List

To aid further in the design process our team has developed a suggested planting list for residents and community based organizations to take planting suggestions pertaining to our designs above (see Appendix E). An additional planting list developed by the Washtenaw County Master Rain Gardener Program can be found in Appendix F for rain garden/bioswale planting suggestions for Southeast Michigan.

Non-ARPA Funding

Grants and other sources of funding are key to the development and sustainment of community based projects. To support such work, our team has gathered a variety of government and private foundation funding sources (see Appendix G).

Tips and Tricks

There are some key implementation resources available to support residents and community-based organizations interested in purchasing and activating vacant lots. Table 8 presents a curated list of resources particularly helpful for the nine lot designs provided by this study.

Table 8. Resource Tips and Tricks

Type	Supporting Organization	Notes	Link
Gardening Assistance	Keep Growing Detroit Garden Resource Program	Contact for seeds, transplants and gardening assistance	https://www.detroitagriculture.net/grp
Urban Gardening Fact Sheet	Environmental Protection Agency	Learn to identify potential contaminants, reduce exposure and improve soil conditions	https://www.epa.gov/sites/default/files/2014-03/documents/urban_gardening_fina_fact_sheet.pdf
Rain Barrels - 101	Detroit Future City		https://detroitfuturecity.com/wp-content/uploads/2018/03/Rainbarrels-101_PD_021918-1.pdf

Rain Barrels - Buy, Install & Use	Lowes	Follow tutorial instructions	https://www.lowes.com/n/how-to/buying-installing-and-using-a-rain-barrel
Raised Garden Bed Construction	The Home Depot	Follow tutorial instructions	https://www.homedepot.com/c/ah/how-to-build-raised-garden-beds/9ba683603be9fa5395fab90b41bb0da
Raised Garden Bed Kit Assembly	Lowes	Follow tutorial instructions	https://www.lowes.com/n/how-to/how-to-build-a-raised-garden-bed
Water Source	Local Fire Departments	Ask your local fire house if they're willing to open a hydrant as a water source for a community garden or new trees	

Project Maintenance & Workforce Development

Project maintenance and workforce development are key approaches in regard to lot development and sustainment within a community. A case study analysis was undertaken in order to better gain an understanding of the programs the City of Detroit has to offer regarding green workforce development for youth and adults. This analysis aims to help disseminate these opportunities in hopes to leverage these programs to maintain and sustain lot development within Good Stock.

Detroit Case Studies

The following case studies have been identified by our team that range in employment type and durations for Detroit residents. Each case study, while unique in its approach, aims to leverage and uplift current work happening within the city and enable organizations to partner or advance the work currently being done regarding workforce development and their links to site and project maintenance.

Greening of Detroit

Project: Detroit Conservation Corps

Age Range: 18+

Focus: Job training and certifications within the landscaping sector

Duration: 1 ½ months

Paid: \$600 stipend

Status: Active

Goals of Program: Detroit Conservation Corps Program provides unemployed Detroit, Hamtramck, and Highland Park residents with valuable hands-on job training opportunities and professional certifications in areas such as landscaping and tree and shrub care. The program aims to address the need for workforce development within the city to train Detroiters and provide environmental based opportunities for those who are facing unemployment or a felony.

Key takeaways: Detroit Conservation Corps provides needed job training opportunities to Detroit, Hamtramck, and Highland Park 18+ residents within the environmental fields through hands-on job training within landscaping and tree and shrub care. Through providing these opportunities to specifically unemployed residents and convicted felons, Detroit Conservation Corps takes a unique, but needed approach to job training via working with some of Detroit's most vulnerable communities.

Project: Green Corps Summer Youth Program

Age Range: 14-18

Focus: Summer employment program with a focus on environmental stewardship and forestry

Duration: 6-8 weeks

Paid: \$1000 stipend

Status: Active

Goals of Program: Green Corps Summer Youth Program provides Detroit youth with the opportunity to gain knowledge and work experience within the environmental sector through participating in activities such tree care and planting, green space maintenance, and crop harvesting via local Detroit school and community gardens. As a participating site for the Grow Detroit Young Talent Program (GDYT) hosted by the City of Detroit, Green Corps Summer Youth Program enables youth participating in GDYT to be placed at a work site that pertains to their environmental interests and further gain knowledge within this field through Green Corps hands on work environment.

Key takeaways: Green Corps Summer Youth Program allows Detroit youth between the ages of 14-18 grow their knowledge within the environmental sector through hands-on work experience within the environment and conservation fields. While the programming Green Corps provides is key in supporting Detroit youth interested within the environmental fields it is key to note that due to being a sponsored site for the GDYT program, without the financial support of GDYT youth would not have the opportunity to be paid for these summer employment opportunities.

Southwest Detroit Environmental Vision

Project: Cadillac Urban Gardens Youth Internship Program

Age Range: 14-21

Focus: Summer employment program with a focus in environmental stewardship and urban agriculture

Duration: 6-8 weeks

Paid: \$1000 stipend

Status: Active

Goals of Program: Cadillac Urban Gardens Youth Internship Program provides Detroit youth with the opportunity to gain knowledge and work experience within the environmental sector through participating in environmental-based projects such as urban agriculture, community development, stormwater management and mitigation, and research. As a GDYT partner site, Cadillac Urban Gardens Youth Internship Program enables youth participating in GDYT to be placed at a work site that pertains to the environmental field providing opportunities to underrepresented Detroit youth to have a safe and welcoming environment to learn and work within the environmental field.

Key takeaways: Cadillac Urban Gardens Youth Internship Program allows underrepresented Detroit youth between the ages of 14-21 grow their knowledge within the environmental field through hands-on work experience within the environment and urban agriculture fields. It is key to note that due to being a sponsored site for the GDYT program, without the financial support of GDYT youth would not have the opportunity to be paid for the program's environmental based internship.

Project: Cadillac Urban Gardens Garden Madrina and Garden Leader Program

Age Range: Not specified

Focus: Youth and adult environmental based education and community development

Duration: Year Round

Paid: Volunteer Based

Status: Active

Goals of Program: Umbrella of youth and adult programming. The Garden Madrinas Program is composed of women from SW Detroit from a variety of age ranges that act as “godmothers” of the Cadillac Urban Gardens where they help educate, inform, and develop best practices and methods to ensure healthy crop development while mentoring youth garden leaders. This is complementary to the Garden Leaders Program where youth and young adults between the ages of 10-22 participate in the development and implementation of agricultural-based activities promoting place-based learning.

Key takeaways: Cadillac Urban Gardens Garden Madrina and Garden Leader Program provide youth and adult environmental based programming to residents interested in becoming more involved in Cadillac Urban Gardens and taking on a leadership role within the space.

Detroiters Working for Environmental Justice**Project: Green Jobs Training Program**

Age Range: 18+

Focus: Green job training for 18+ Detroit residents

Duration: 12 weeks

Paid: Not stated

Status: Dissolved

Goals of the Program: The Green Jobs Training Program teaches and provides participants with basic job skills, technical and green job training, professional certifications, on-site job training, soft skills training, and job placement assistance. Participants have the opportunity to learn and

focus on topics such as energy audits/ retrofitting, computer aided design, deconstruction, geothermal systems, and green landscaping.

Key takeaways: Detroiters Working for Environmental Justice Green Jobs Training Program spearheaded green workforce development due to being the first of its kind within the city. While the Green Jobs Training Program no longer exists within the organization, the program in itself has evolved and grown to become Future Build, a social enterprise program, working solely on green construction training for Detroit residents.

Key Takeaways for Good Stock Detroit

While the organizations that have been analyzed reside within different sides of Detroit, we found value in understanding the commonalities and goals between these entities in order to develop our key takeaways from these cases.

1. Youth programing is heavily reliant on the City of Detroit's Grow Detroit Young Talent Program (GDYT)
 - a. Programing is often pertaining to urban agriculture and and environmental stewardship
 - b. It is not clear if these programs would exist outside of the funding provided via GDYT
 - c. Opportunities appear limited in this sector as many organizations in Detroit do not appear to have formalized intern or job training opportunities for Detroit youth interested in the environmental field
2. Job training for 18+ individuals appear to have a large focus on the landscaping field and often aid in the professional certification process for these individuals
3. There currently appears to be limited opportunity for growth or interest outside of landscaping, construction, or tree care if older than 18+ regarding these adult environmental based workforce opportunities

Recommendations

Based on the information gathered from our *Building Resilience* study, our research team recommends the following next steps pertaining to engagement strategies, CPTED integration, design implementation, and workforce development. While we recognize these recommendations are not all encompassing, our study aims to provide a guiding framework for communities to create a more resilient and equitable future for Detroiters within Good Stock and beyond.

Engagement Recommendations

For the duration of our engagement process our team was able to evaluate and identify components of a successful partnership and engagement strategy. The following recommendations are meant to assist community organizations, Detroit Officials, and other potential projects teams in developing and implementing successful forms of engagement and reducing limiting factors such as those our team has experienced.

1. Participants in engagement efforts should be representative of the community you are aiming to serve
2. Those most impacted should be centered in all decision making processes
3. Transparency is key to gaining and sustaining community trust
4. Organizations and entities already performing or aiming to do the work should be partnered with and uplifted
5. Residents should be respected as the experts and knowledge-holders
6. Information and outreach should be disbursed through accessible and established channels to ensure resident access
7. Programming and information sharing/gathering should be facilitated by a Detroit resident when possible to aid in relationship and trust building. Representation matters.
8. When data does not appear accurate nor representative, despite the challenge it is key to start over

CPTED Integration Recommendations

Within the Good Stock community the integration of CPTED strategies is an easy way to build community all while reducing crime and promoting public health and wellbeing. The following

recommendations include ways Good Stock can integrate CPTED strategies within the community.

1. Maintain direct communication with residents and non profit organizations to ensure developed lots have a sense of community and ownership
2. Utilize aspects of natural surveillance such as low fencing, clear sight lines, lighting, and landscape placements
3. Imagery and appearance matters - the use of signage and the leveraging of community based workforce development can aid in the maintenance and sustainment of green spaces
4. Lots within Good Stock vary between acres of space to side lots next to homes; the use of vegetation and other natural surveillance/natural access tools are recommended to distinguish public and private areas
5. When developing lots, direct and intentional use of spaces can aid in social gathering and community building
6. Green space is key as spaces such as pocket parks and community gardens are well researched tools that can aid in community development, stress reduction, and overall residential health within Good Stock

Design Recommendations

While designs were developed with Good Stock and their residents in mind, it is important to note that our designs serve as a guide to aid in lot redevelopment and should not limit ideas or creativity. To assist in development our research team recommends the following:

1. Do not reinvent the wheel, utilize open access resources and share the knowledge
2. Residents - partner with local non-profits to leverage reach and aid in maintenance
3. Nonprofits - develop direct and intentional outreach with community and adjust designs to cater to residential wants and needs

Workforce Development Recommendations

The study found a limited number of job opportunities and training pertaining to the environmental or landscaping fields in Detroit. While other cases were analyzed and researched to aid in the dissemination and understanding of environmental-based job training/community

development programs, we found value in isolating Detroit's case studies in order to understand the work that has been done or is currently being done in the city. For more information on Detroit case studies as well as other cases found across the country please refer to Appendix G. Below include our workforce development recommendations.

1. Leverage the City of Detroit's GDYT program via Good Stock's community based organizations to increase youth participation and workforce development with an environmental lens to manage and maintain potential project spaces developed within Good Stock to build project sustainability and increase pride and resilience within one's community
2. Utilize partnerships with current organizations within Detroit to increase workforce development reach within Good Stock via existing programs
3. Identify gaps in current programming within Good Stock for youth and adults in relation to green workforce development and exposure

Conclusion

While this study serves as a resource for residents and community-based organizations particularly in Good Stock to leverage current funding and programmatic resources, additional resources and opportunities will need to be developed to fully transition Detroit's vacant land to productive uses creating a healthy and just city resilient to current and future climate change impacts. When the City and other stakeholders develop these needed resources, they should be co-created with long-time Detroit residents and those most impacted and economically marginalized by past policies and practices.

Appendix

Appendix A: City of Detroit Appropriations

City of Detroit Appropriation and Description	Primary ARPA Expenditure Category	Amount
City Services and Infrastructure - to maintain City services; offset revenue shortfalls; and investments in IT and cybersecurity infrastructure	Revenue Replacement (EC 6)	\$250,175,290
Blight Remediation - for addressing the elimination of commercial and industrial blight through demolition, remediation, and land reuse	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$95,000,000
Match Funding - for qualifying ARPA projects for which public or private leverage dollars may be made available	Various, to be determined on a project-by-project basis	\$30,000,000
Neighborhood Investments 1 - for grants to block clubs and neighborhood associations; neighborhood signs; and community-driven expenditures divided equally into 9 tranches: 7 for projects located in each Council District and 2 for Citywide projects	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$15,500,000
Neighborhood Investments 2 - for Community Health Corps and targeted employment and wraparound services, including community-based gun violence intervention initiatives	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$35,000,000
Neighborhood Investments 3 - for new or expanded improvements for recreation centers	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$30,000,000
Parks, Recreation, and Culture - for green initiatives; parks; walking paths; streetscapes; and arts & cultural investments	Disproportionately Impacted Communities (EC 3)	\$41,000,000
Employment and Job Creation - for Skills for Life Employment (Work and Education); Intergenerational mentoring and senior employment; and IT jobs and careers access	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$105,000,000
Intergenerational Poverty 1 - for home repairs to seniors, low income, and disabled community	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$30,000,000
Intergenerational Poverty 2 - to create a city locator service to find affordable housing and provide for housing client management and financial and legal counseling services	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$7,000,000
Intergenerational Poverty 3 - for foreclosure and homelessness prevention outreach and housing initiatives; credit repair and restoration initiatives; down payment assistance; and Veterans' housing programs, including home repairs	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$30,000,000
Neighborhood Beautification - for vacant property cleanouts and alley activation	Negative Economic Impacts (EC 2) and Services to Disproportionately Impacted Communities (EC 3)	\$23,000,000
Public Safety - for traffic enforcement; gun violence initiatives; DPD training facility improvements; and EMS bays at firehouses	Public Health (EC 1) and Services to Disproportionately Impacted Communities (EC 3)	\$50,000,000

Digital Divide - for devices; internet access; and technology support initiatives	Water, sewer, and broadband infrastructure (EC 5)	\$45,000,000
Small Business - for landlord support; small business recovery programs, including interest reduction and credit support programs; small business capacity building; development stimulus programs; and corridor investments	Negative Economic Impacts (EC 2)	\$40,000,000
Total Appropriations		\$826,675,290

Appendix B. Neighborhood Planning Survey

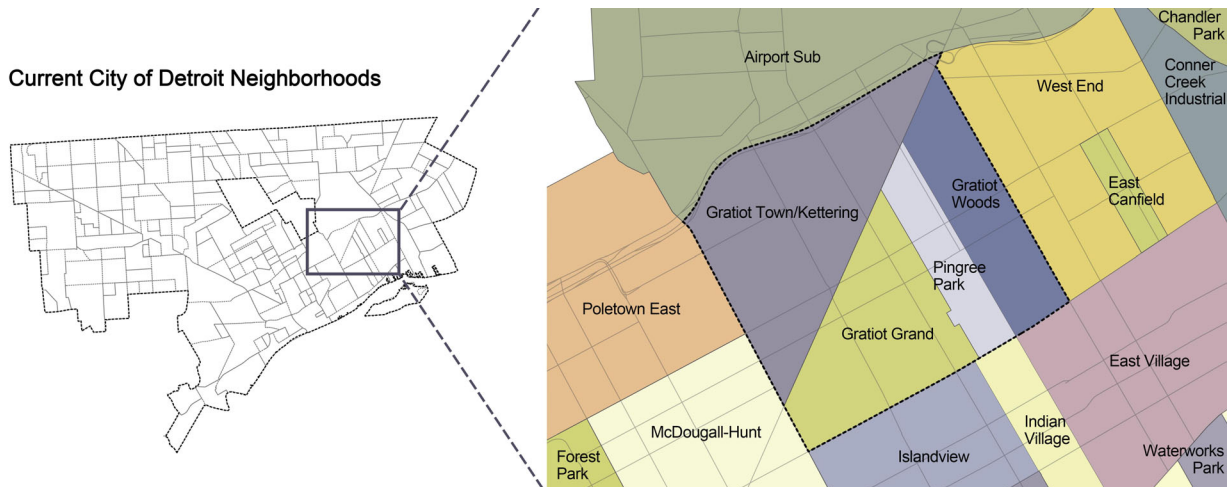
Neighborhood Planning Survey

The purpose of this survey is to understand how residents of Kettering and the surrounding area perceive their neighborhood and to allow us to better understand the positive changes that are most important to the community. The results will be used to create a design proposal made by University of Michigan graduate students.

This survey should take no longer than 10 minutes to complete and the results will remain completely anonymous. Upon completion of the survey, you will be asked to provide your email or home address so that we may send you a \$25 gift card to thank you for your participation.

*** Required**

Survey Area



1. What is your age? *

Mark only one oval.

- Under 12
- 13-17
- 18-29
- 30-39
- 40-49
- 50-74
- 75+
- Prefer not to answer

2. What is your gender? *

Mark only one oval.

- Female
- Male
- Non-binary
- Other: _____

3. What is your race? *

Check all that apply.

- Black
- White
- Asian
- Hispanic/Latinx
- Middle Eastern/ North African
- Indigenous
- Native Hawaiian or Pacific Islander
- Multiracial
- I prefer not to answer

Other: _____

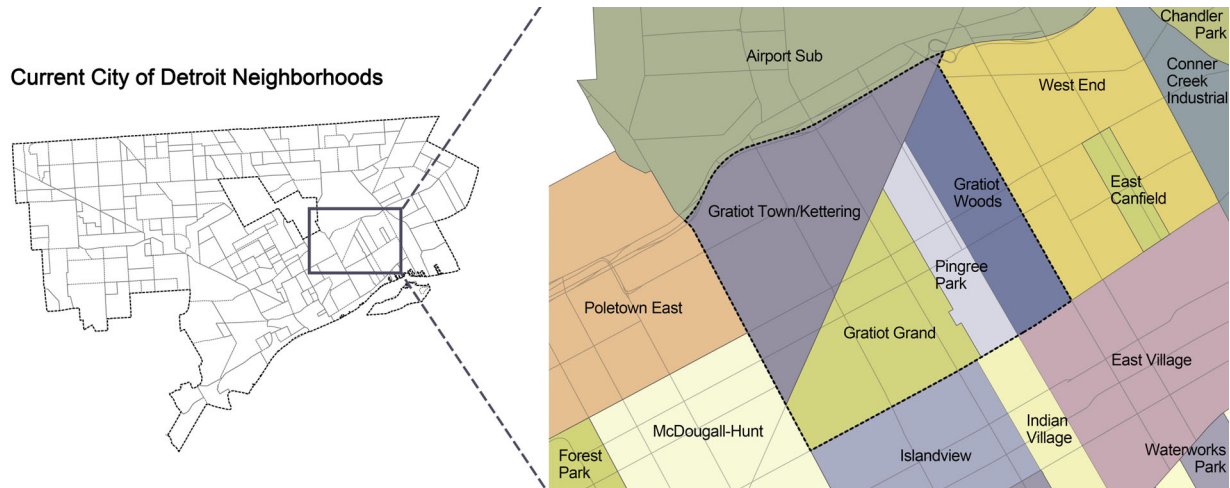
4. What is the primary language of your household? *

Mark only one oval.

- English
- Spanish
- Arabic
- Other

Section 2 of 5

Survey Area



5. What neighborhood do you live in? *

Mark only one oval.

- Gratiot Town/Kettering
- Gratiot Woods
- Gratiot-Grand
- Pingree Park
- Poletown East
- Indian Village
- Other: _____

6. How many years have you lived in your neighborhood? *

Mark only one oval.

- Less than 1 year
- 1-5 years
- 6-10 years
- More than 10 years

7. What do you like the most about your neighborhood? *

Check all that apply.

- Open green space (ie: parks, gardens, walking trails)
- Restaurants and entertainment
- Shopping and retail centers
- Walkable neighborhood
- Reliable public transit
- Bike lanes
- Access to public amenities (ie recreation centers)
- Ease of access to daily destinations
- Strong sense of community

Other: _____

8. What makes your neighborhood special?

9. What are the most critical issues you find in your community? [Select all that apply]

*

Check all that apply.

- Lack of commercial opportunities
- Dilapidated sidewalks and streets
- Insufficient affordable housing opportunities
- Exposure to outdoor air pollution
- Lack of youth & family-friendly spaces
- Extreme flooding after heavy rainfall
- Inadequate access to healthy food
- Littering and illegal dumping
- Unsafe homes (ie:lead in water or paint)
- Inadequate access to transportation

Other: _____

10. What are some of the things you would like to see improve in your neighborhood?
(Select all that apply) *

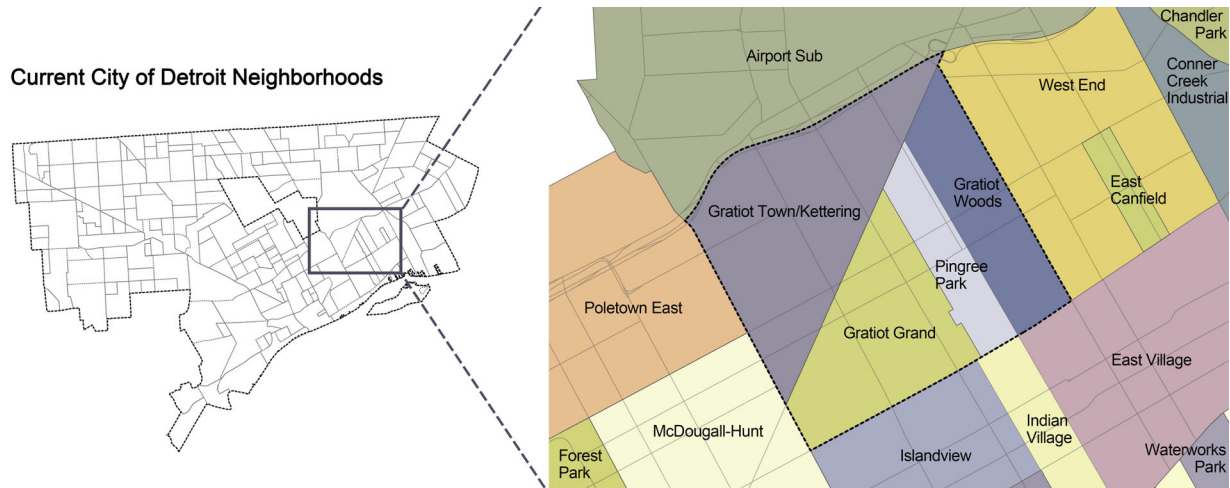
Check all that apply.

- Ways to get around better (e.g. biking, walking, bus)
- More retail, dining, and entertainment options
- Demolishing or repairing vacant buildings
- Places to play and exercise
- More places to enjoy nature (e.g. birds, trees, flowers, butterflies, etc.)

Other: _____

Section 3 of 5

Survey Area



11. How often do you walk to work, school, or other destinations? *

Mark only one oval.

- Always
- Sometimes
- Never
- Other: _____

12. Do you think your community has easy access to green space without traveling more than 10 minutes to reach this space? (ie:parks, gardens, natural spaces). On a scale of 1-5 with 1 being limited access and 5 being full access. *

Mark only one oval.

1 2 3 4 5

limited access full access

13. Does your neighborhood ever experience effects of extreme weather? This could include flooding, long-term temperatures over 95 degrees or poor air quality among other factors. *

Check all that apply.

Yes

No

Other: _____

14. If yes, please describe below the effects that your community experiences.

15. How safe do you feel in your neighborhood? With 1 being not safe and 5 being very safe. *

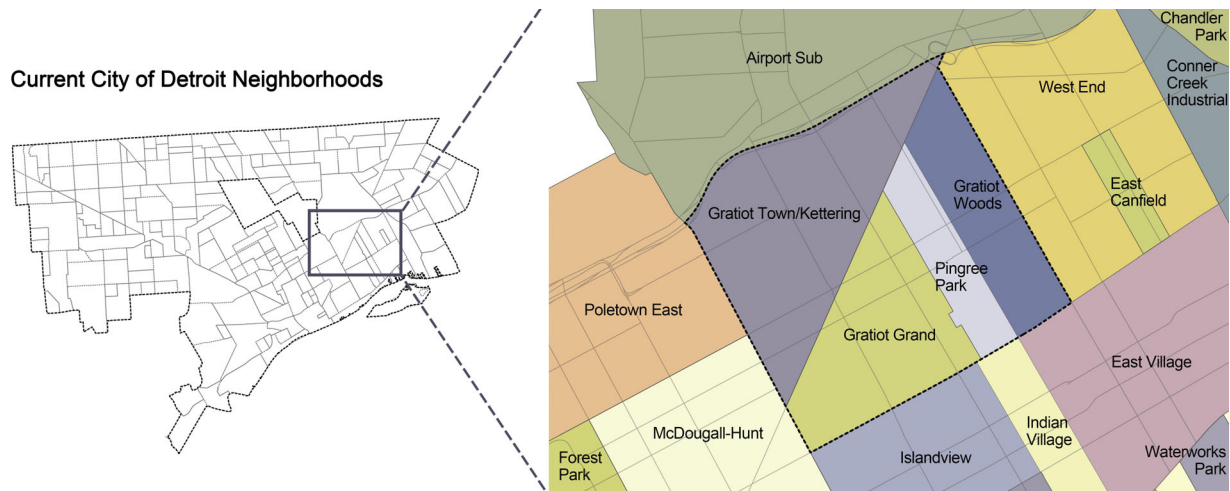
Mark only one oval.

	1	2	3	4	5	
not safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very safe

16. Based on how you answered your previous question why did you rate your neighborhood in this way?

Section 4 of 5

Survey Area



17. What would you like to see happen with the open space in your neighborhood?
 [Select all that apply] *

Check all that apply.

- Leave it as it is
- Restore it to a natural state
- Turn it into stormwater infrastructure
- Convert it into parks and recreation spaces

Other: _____

18. What do you think needs to happen to make Kettering and its surrounding neighborhoods proud in the future? *

19. Do you see any partnership opportunities that you would like us to consider?

20. Is there any other information you would like to share with us?

Thank you
for your
participation!

Please provide your email or home address so that we may send you a \$25 gift card to thank you for your participation. If you would not like a gift card, you may complete this survey without filling in the information.

21. Would you like to be contacted to participate in further paid surveys like this one? *

Mark only one oval.

Yes

No

22. If yes, please provide your email address below -

23. Thank you for your participation! Please provide your email if you would like to receive an e-gift card.

24. Please provide your home address if you would like to receive a physical gift card instead.

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Appendix C. Good Stock Survey

Goodstock Survey

The purpose of this survey is to understand how residents of Goodstock perceive their neighborhood and what changes are desired. Survey responses will inform design recommendations/strategies and implementation plans for vacant lots that exemplify how land uses can improve quality of life, health, and safety within communities. We would also like to better understand residents' awareness of City policies and programs and the effectiveness of City engagement.

The results will be used by University of Michigan graduate students to prepare a guide for Goodstock residents and community groups and recommendations for the City. This survey should take no longer than 10 minutes to complete and the results will remain completely anonymous. Thank you for your time!

For questions, concerns, or more information about the project please contact glamarr@umich.edu or peralesd@umich.edu.

* Required

Demographics

1. What is your age?

Mark only one oval.

- Under 18 (my parent or guardian is filling this out for me)
- 18-24
- 25-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70+

2. What is your gender identity?

Mark only one oval.

Female

Male

Non-binary

Other: _____

3. What is your racial/ethnic identity? (check all that apply)

Check all that apply.

Black or African American

Hispanic/Latinx

Asian

North African or Middle Eastern

Native American, American Indian or Alaska Native

Native Hawaiian or Other Pacific Islander

multi-racial

Other: _____

4. Do you or anyone in your household have a disability? (check all that apply)

Check all that apply.

- I do not have a disability
- Autistic
- Blind/Low vision
- Cerebral Palsy
- Chronic pain and/or illness
- Deaf/Hard of hearing
- Intellectual/Developmental
- Learning disability
- Mental health
- Physical
- Prefer not to say

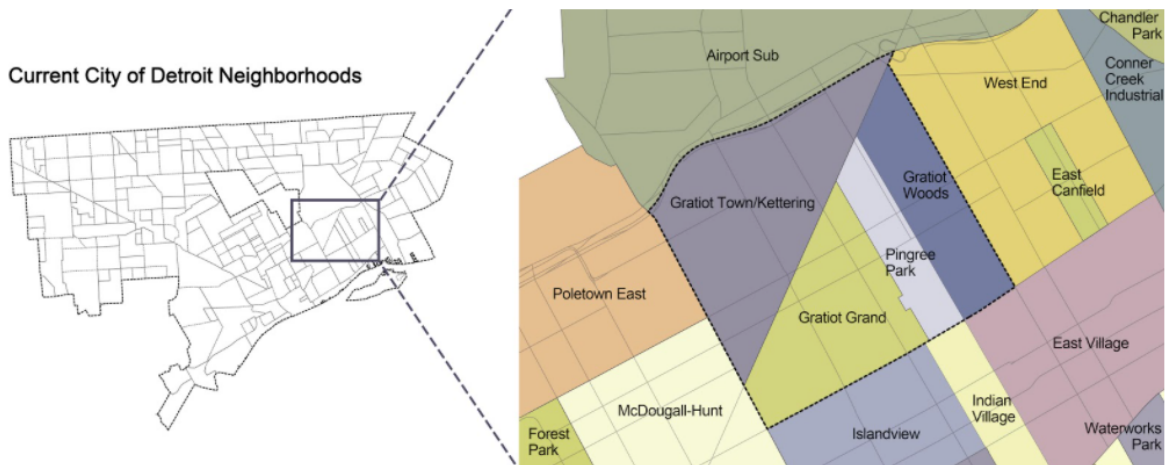
Other: _____

5. What is the primary language of your household?

Mark only one oval.

- English
- Spanish
- Arabic
- Other: _____

Survey Area



6. Which Goodstock neighborhood do you live in? (Goodstock's borders are Gratiot/I-94 to the North, Mack Ave to the South, St. Jean to the East and Van Dyke to the West).

7. How many years have you lived in your neighborhood?

Mark only one oval.

- Less than a year
- 1-5 years
- 6-10 years
- 10-19 years
- 20+ years

8. Do you own or rent your home?

Mark only one oval.

- I own a house
- I own an apartment
- I rent a house
- I rent an apartment
- Prefer not to answer
- Other: _____

9. What is your household income?

Mark only one oval.

- Less than \$20,000
- \$20,000-29,999
- \$30,000-39,999
- \$40,000-49,999
- \$50,000-59,999
- \$60,000-69,999
- \$70,000-79,999
- \$80,000-89,999
- \$90,000-99,999
- \$100,000-149,999
- \$150,000+

10. How many individuals are in your household?

Mark only one oval.

- 1
- 2
- 3
- 4
- 5+

11. Are there any children in your household? If so, how many?

Mark only one oval.

- No children live in my household
- 1
- 2
- 3
- 4+

Detroit Land Bank Authority (DLBA)

12. Which of the following DLBA programs that enable residents/organizations to acquire vacant lots are you familiar with? (check all that apply)

Check all that apply.

- Side lots
- Accessory structure lots
- Oversize lots
- Neighborhood lots
- Infill housing lots
- Homestead lots

13. Did you know that DLBA adopted a Vacant Land Policy in 2020?

Mark only one oval.

Yes

No

American Rescue Plan Act (ARPA)

14. Are you aware that the City received \$826 million in ARPA funding?

Mark only one oval.

Yes, I knew this

No, I don't know what ARPA is

I knew the City received funding, but don't know any other details

15. Did you know that the City held 65 public meetings to discuss funding priorities and conducted online surveys to gather feedback?

Mark only one oval.

No, I was never made aware of these meetings or surveys

I knew about the meetings, but not the surveys

I knew about the surveys, but not the meetings

Yes, I knew about both the meetings and surveys

16. Did you attend any of the meetings or complete the surveys? If not, why?

17. Where do you get your news about public programs, policies, and/or public service announcements which may impact residents? (check all that apply)

Check all that apply.

- Local television news
- Local newspaper
- School district
- Block clubs
- Community organizations
- Religious organizations
- Social media
- Word of mouth

Other: _____

18. How would you rank the City's following priorities for ARPA funding (with 1 being most important and 6 being least important)? *

Mark only one oval per row.

	1	2	3	4	5	6
Restoring neighborhoods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fighting intergenerational poverty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improving public safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parks, recreation and cultural facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small business assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reducing the digital divide	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. Are there any priorities missing?

Neighborhood Assessment

20. Are you or anyone in your household experiencing any of the following health issues? (check all that apply)

Check all that apply.

- Asthma
- Diabetes (type 1)
- Diabetes (type 2)
- Obesity
- Chronic obstructive pulmonary disease (COPD)
- Anxiety
- Depression

Other: _____

21. What do you like the most about your neighborhood? (check all that apply)

Check all that apply.

- Open green space (e.g. parks, gardens, walking trails)
- Restaurants and entertainment
- Shopping and retail centers
- Walkable neighborhoods
- Public transit
- Bike lanes
- Access to public amenities (e.g. recreation centers)
- Ease of access to daily destinations
- Strong sense of community

Other: _____

22. Please indicate how important the following are for your neighborhood's health and wellness.

Mark only one oval per row.

	Very Important	Important	Neutral	Unimportant	Very Unimportant
Access to healthy, affordable foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to community gardens or urban agriculture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public green spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public recreational spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness of streets and public areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to job opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to public art and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Please indicate the degree to which you agree or disagree with the following statements

Mark only one oval per row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I have access to healthy, affordable foods in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have access to community gardens or urban agriculture in my neighborhood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the number of public green spaces in my neighborhood located within a 15 min walk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the number of public recreation spaces in my neighborhood located within a 15 min walk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with the cleanliness of my neighborhood streets and public areas (e.g. limited blight and dumping)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am satisfied with my access to job opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that my neighborhood is safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have access to public art and culture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Would you like to elaborate on any of the above?

25. Is your neighborhood experiencing any of the following environmental issues?
(check all that apply)

Check all that apply.

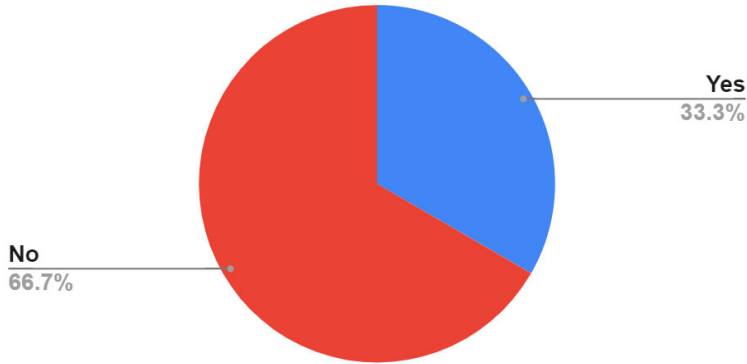
- Blight (e.g. illegal dumping of tires, trash and home waste or unkempt vacant homes/lots)
- Exposure to outdoor air pollution (e.g. truck idling, industry emissions)
- Incompatible land use (e.g brownfields, superfund sites)
- Extreme flooding after heavy rainfall (e.g on your street or neighborhood streets, in your home, sewage backup)
- Live within 10 minutes of a major freeway/highway

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Appendix D: Good Stock Survey - Select Results

Did you know that DLBA adopted a Vacant Land Policy in 2020?



Which of the following DLBA programs that enable residents/organizations to acquire vacant lots are you familiar with? (check all that apply)	Responses (9)
Side lots	7
Neighborhood lots	5
Accessory structure lots	1
Oversize lots	1
Infill housing lots	0
Homestead lots	0

Are you aware that the City received \$826 million in ARPA funding?	Responses (9)
Yes, I knew this	4
No, I don't know what ARPA is	3
I knew the City received funding, but don't know any other details	2

Did you know that the City held 65 public meetings to discuss funding priorities and conducted online surveys to gather feedback?	Responses (9)
No, I was never made aware of these meetings or surveys	6
I knew about the meetings, but not the surveys	2
Yes, I knew about both the meetings and surveys	1
I knew about the surveys, but not the meetings	0

Where do you get your news about public programs, policies, and/or public service announcements which may impact residents? (check all that apply)	Responses (9)
Local television news	5
Local newspaper	5
Community organizations	5
Word of mouth	5
Social media	4
Block clubs	3
Religious organizations	1
Other: flyers	1
Other: Radio WDET	1
School district	0

Appendix E. Suggested Planting List

Common Name	Size	Soil Moisture	Maintenance Level	Sun v Shade	Type
Black Walnut	Height of 50-75' and a Spread of 50-75'	Moist/Well Drained	Low	Full Sun – Full Shade	Tree
Serbian Spruce	Height of 50-60' and a Spread of 20-25'	Moist/Well Drained	Low	Full Sun- Partial Shade	Tree
Yellowwood	Height of 30-50' and a Spread of 40-55'	Moist/Well Drained	Low	Full Sun- Partial Shade	Tree
Black Gum	Height of 30-50' and a Spread of 20- 30'	Medium to Wet/Well Drained	Low	Full Sun- Partial Shade	Tree
Shadblow Serviceberry	Height of 15' and a Spread of 15'	Moist/Well Drained	Low	Full Sun- Light Shade	Tree
Golden Rain Tree	Height of 30-40'and a Spread of 35'	Wet/Well Drained	Low	Full Sun-Partial Sun	Tree
Autumn Brilliance Serviceberry	Height of 20-25'and a Spread of 20'	Moist/Well Drained	Low	Full Sun- Partial Shade	Tree
Medium Red Clover	Height of 24-36"	Well Drained/Poorly Drained	Low	Full Sun-Partial Shade	Ground Cover
Low-Maintenance Fescue	Height of 9-12" and a Spread of 6-9"	Dry/Well Draining	Low	Full	Ground Cover
Periwinkle	Mound of 2' and a Spread of 12-18"	Moist/Well Drained	Low	Shade-Full Sun	Ground Cover
Virginia Waterleaf	Height of 12 -30" and a Spread of 1-2'	Moist	Low	Shade	Ground Cover
Creeping Phlox	Height of 3-8" and a Spread of 9"-2'	Moist/Well Drained	Low	Full Sun	Ground Cover
Creeping Thyme	Height of 1-2" and a Spread of 12-18"	Well Drained	Low	Full Sun	Ground Cover
Yellow Alyssum	Height of 6-12" and a Spread of 12-18"	Sandy with Excellent Drainage	Low	Full Sun	Ground Cover
New Zealand White Clover	Height of 6-12" and a Spread of 5-8"	Well Drained	Low	Full Sun-Shade Tolerant	Ground Cover
Sunny Knockout Rose	Height of 3-4' and a Spread of 3-4'	Well Drained	Low-Medium	Full Sun-Partial Sun	Flowering Shrub
Fragrant Viburnum	Height of 8-12' and a Spread of 8-12'	Moist/Well Drained	Low	Full Sun-Partial Sun	Flowering Shrub
Common Lilac	Height of 8-20' and a Spread of 6-12'	Moist/Well Drained	Medium	Full Sun-Partial Sun	Flowering Shrub
Cranesbill Geranium	Height of 20' and a Spread of 24'	Slightly Moist/Well Drained	Low-Medium	Partial Shade-Full Morning Sun	Flowering Shrub
European Cranberry Viburnum	Height of 8-12' and a Spread of 10-15'	Moist/Well Drained	Low-Medium	Full Sun-Partial Sun	Flowering Shrub
New Jersey Tea	Height of 3' and a Spread of 3-5'	Dry/Medium	Low	Full Sun-Partial Sun	Flowering Shrub

Concorde Barberry	Height of 18" and a Spread of 24"	Dry/Well Draining	Medium	Full Sun-Partial Sun	Shrub
Bush Honeysuckle	Height of 3' and a Spread of 4'	Dry/Medium	Low-Medium	Full Sun	Shrub
Rosy Rocket Barberry	Height of 4' and a Spread of 16"	Dry/Medium	Low	Full Sun	Shrub
Bagatelle Barberry	Height of 15" and a Spread of 15"	Dry/Medium	Medium until well Established then Low	Full Sun-Partial Shade	Shrub
Variegated Sweet Flag	Height of 10" and a Spread of 4-6"	Moist/Wet	Medium-High	Full Sun-Partial Shade	Grass
Switch Grass	Height of 3-8' and a Spread of 2-3'	Moist	Low	Full Sun	Grass
Black-Eyed Susan	Height of 1-3' and a Spread of 12-18"	Moist	Medium	Full Sun-Light Shade	Flower
Purple Coneflower	Height of 3-4'	Well Drained	Medium	Full Sun-Shade Tolerant	Flower
Blue Flag Iris	Height of 2-3' and a Spread of 2-3'	Moist	Medium	Full Sun	Flower
Bee Balm	Height of 4' and a Spread of 3-4'	Moist/Well Drained	Medium	Full Sun-Partial Sun	Flower
May Night Salvia	Height of 15-18" and a Spread of 18"	Mosit	Low-Medium	Full Sun	Flower
Mixed Tulips	Height of 18-24"	Dry/Well Drained	Low	Full Sun	Flower
Daffodils	Height of 5"	Moist	Medium	Full Sun-Partial Sun	Flower
Blue Cardinal Flower	Height of 24-36" and a Spread of 10-18"	Mosit	Medium	Shade	Flower
Variegated Bugloss	Height of 12-16" and a Spread of 18"	Moist/Well Drained	Low	Partial Shade-Full Shade	Clump Forming Perennial
Jack Frost Bugloss	Height of 12-18" and a Spread of 12-18"	Moist/Well Drained	Low	Partial Shade-Full Shade	Clump Forming Perennial
Magic Island Hosta	Height of 10-14" and a Spread of 16-22"	Moist	Low	Light-Full Sun	Herbaceous Perennial
Patriot Hosta	Height of 12-18" and a Spread of 20-32"	Moist/Well Drained	Low	Partial Shade-Full Shade	Herbaceous Perennial

This list is not meant to be exhaustive, but rather a record of the plants that have worked in the Washtenaw County Rain Garden program. See list at end for discussion of plants that were not successful.

MNPPA = Native plants can be obtained from any members of the Michigan Native Plant Producers Association: www.mnppa.org. WA = Widely Available. Any nursery in your area would probably carry this plant

Native? N=Native, C=Cultivar of a Native ("Nativar"), NFH=Not from around Here | Sun/Shade: Sn=sun, P=part sun, Sh=Shade | Moisture: D=Dry, M=Medium, Ms=Moist, W=Wet

FULL SHADE														
Scientific Name	Common Name	Bloom Color	Bloom Height	Bloom Time	Plant Spacing	Deer Resistant?	Native?	Source	Size	Sun/Shade	Moisture	Habitat	Soil	Comments
<i>Actaea rubra</i>	Red Baneberry	White	12-36"	May	12" o.c.	Y	N	MNPPA	2" pot	Sh	M, Ms			good for woodland setting, not especially showy, best massed for a nice texture, poisonous
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Green	24"	April	12" o.c.	Y	N	MNPPA	quart	Sh	Ms			good for woodland setting, not terribly showy, but interesting foliage and berries for those who like diversity
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf	Lavender	1-1.5'	May-June	10" o.c.		N	MNPPA	quart	Sh	M, Ms, W			not especially showy, best massed for even texture, can take water
Part Shade to Shade														
<i>Adiantum pedatum</i>	Maidenhair Fern	n/a	12"		12" o.c.	Y	N	MNPPA	3" pot	P, Sh	M, Ms			short plant, beautiful lacey texture. Resents the dry.
<i>Aquilegia canadensis</i>	Columbine	Red/Yellow	12-36"	May	12" o.c.	Y	N	MNPPA	2" pot	P, Sh	D, M, Ms	Butterfly		delicate texture, great for woodland setting
<i>Asarum canadense</i>	Wild Ginger	Maroon	8"	May	12" o.c.	Y	N	MNPPA	quart	P, Sh	M, Ms			good low, facer plant with interesting heart-shaped leaves that form a contrast texture, straight native species, but WT not cultivating at this time
<i>Asclepias incarnata</i>	Swamp Milkweed	Pink/Purple	3-4'	July	12" o.c.	Y	N	MNPPA	2" pot	P, Sh	M, Ms, W	Butterfly	Clay	when full grown, a little leggy-looking and needs plants in front, good for clay
<i>Carex grayii</i>	Gray's Sedge	n/a	18"	May/June	18"	Y	N	MNPPA	2" pot	P, Sh	M, Ms	Butterfly		interesting seed heads if get close
<i>Carex sprengei</i>	Sprengel's Sedge	n/a	18"	May/June	18"	Y	N	MNPPA	2" pot	P, Sh	D, M, Ms	Butterfly		clumper, good for drier edges, seed heads shoot up 2-3'
<i>Lobelia cardinalis</i>	Cardinal Flower	red	3'	July-Aug	12" o.c.		N	MNPPA	2" pot	P, Sh	M, Ms			a little picky, likes moist best, narrow form, can be short lived but will re-seed if happy, aesthetically best used with shorter plants around
<i>Matteuccia struthiopteris</i>	Ostrich Fern	n/a	36"	n/a	18" o.c.	Y	N	WA	gallon	P, Sh	M, Ms			doesn't like to dry out, can be aggressive if happy, good for clay
<i>Osmunda claytoniana</i>	Interrupted Fern	n/a	12-24"	n/a	12" o.c.	Y	N	WA	gallon	P, Sh	M, Ms, W		Clay	tall, similar to Ostrich Fern, but holds up better in the late summer
<i>Phlox divaricata</i>	Woodland Phlox	Blue	.5-1'	April-June	8" o.c.		N	MNPPA	2" pot	P, Sh	M, Ms			use sparingly in woodland setting with great soils, foliage goes dormant in summer so plan for companions
<i>Solidago flexicaulis</i>	Zig Zag Goldenrod	Yellow	2-3'	Aug.-Oct.	12" o.c.	Y	N	MNPPA	2" pot	P, Sh	D, M, Ms			aggressive, but fills in large areas in the shade, delicate late season color for shade
<i>Solidago rigida</i>	Rigid Goldenrod	Yellow	3-4'	July	12-18" o.c.	Y	N	MNPPA	2" pot	P, Sh	D, M, Ms, W		Clay	subtle for a goldenrod, great for clay, leggy, so put a facer plant in front
<i>Stylophorum diphyllum</i>	Wood Poppy	Yellow	1-2'	April-June	10" o.c.		N	MNPPA	2" pot	P, Sh	M, Ms			good for spring in woodland setting, but can be aggressive
<i>Thalictrum dioicum</i>	Early Meadow Rue	Pale Green	1.5-2'	April-May	10" o.c.		N	MNPPA	2" pot	P, Sh	M, Ms			great plant for delicate texture in woodlands setting--beautiful with iris, but not a bottom of the rain garden plant

Sun to Part Sun														
<i>Allium cernuum</i>	Nodding Wild Onion	Lt. Lavender	12"	Sept-Oct	12" o.c.	Y	N	MNPPA	2" pot	Sn, P	D, M, Ms			good short, neat plant for front
<i>Anthyrium flex-femina</i>	Lady Fern	n/a	24"-36"	n/a	24" o.c.	Y	N	WA	gallon	Sn, P	M, Ms			beautiful fern
<i>Aster dumosus 'Woods Light Blue'</i>	Woods Blue Aster	Lavender	1-2'	Aug-Oct	18" o.c.		C	WA	gallon	Sn, P	D, M, Ms	Butterfly		very compact, florific aster with prolific lavender flowers
<i>Aster laevis</i>	Smooth Aster	Lt. Blue/Lavender	4-5'	Sept-Oct	12-18" o.c.		N	MNPPA	2" pot	Sn, P	D, M, Ms			when full grown, is leggy-looking--can be trimmed to 6" in June for bushier growth, plant something in front
<i>Aster novae-angliae</i>	New England Aster	Deep Purple	4-5'	Sept-Oct	12-18" o.c.		N	MNPPA	2" pot	Sn, P	D, M, Ms	Butterfly		is leggy-looking--can be trimmed to 6" in June for bushier growth (plant something in front) good for drawing beneficial (predatory) insects
<i>Aster novae-angliae 'Purple Dome'</i>	New England Aster Purple Dome	Deep Purple	1.5-2'	Sept-Oct	18" o.c.		C	WA	gallon	Sn, P	D, M, Ms			more compact, florific version of the species w/ deep purple flowers, can be prone to fungus
<i>Carex hystericina</i>	Porcupine Sedge	n/a	2-3'	June-Oct.	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P	Ms, W	Butterfly		good workhorse for all settings, provides nice texture if massed
<i>Chelone lyonii 'Hot Lips'</i>	Hot Lips Turtlehead	Pink	2-3'	Aug-Sept	18-24" o.c.		C	WA	gallon	Sn, P	D, M, Ms	Butterfly	Clay	good for clay, neat and long blooming, combines beautifully with joe pye weed
<i>Echinacea purpurea</i>	Purple Coneflower	Pink/Lavender	3'-3.5'	July-Aug	12-18" o.c.		N	MNPPA	2" pot	Sn, P	D, M, Ms		Clay	good for clay, good butterfly plant
<i>Echinacea purpurea 'Magnus'</i>	Magnus Purple Coneflower	Pink/Lavender	2.5'-3'	July-Aug	12-18" o.c.		C	WA	gallon	Sn, P	D, M, Ms		Clay	good for clay, more compact and full than straight species, good butterfly plant
<i>Echinacea purpurea 'Snowcone'</i>	Snowcone Cone Flower	White	2.5-3'	June-Aug.	12-18" o.c.		C	WA	gallon	Sn, P	D, M, Ms			good for clay, good butterfly plant
<i>Eupatorium 'Phantom'</i>	Joe Pye Weed--Phantom	Dusky Pink	4-5'	Aug.-Sept.	24" o.c.		C	WA	#2 pot	Sn, P	D, M, Ms			shorter version of following straight species
<i>Eupatorium maculatum</i>	Joe Pye Weed	Dusky Pink	5-6'	July-Aug	24" o.c.		N	MNPPA	2" pot	Sn, P	D, M, Ms			really tall and dramatic, draws beneficial insects
<i>Liatris spicata</i>	Blazing Star	Pink/Purple	3-5'	July	10" o.c.		N	MNPPA	2" pot	Sn, P	M, Ms		Clay	a clumper, flower spike can get quite tall, needs facer plant in front, nice color for that time of season, can take clay
<i>Liatris spicata 'Kobold'</i>	Kobold Blazing Star	Pink/Purple	2'	July	12-18" o.c.		C	WA	gallon	Sn, P	M, Ms		Clay	a clumper, a great cultivated version of the species, full form w/ multiple flower spikes, can take clay
<i>Monarda punctata</i>	Horsemint	White-Pink	18-30"	July-Aug	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P	D, M, Ms		Sand	has showy, dramatic bracts, can get a little spindly, prefers sandy soils, self sows, bee attractor, salt tolerant
<i>Penstemon digitalis</i>	White Beardtongue	White	3-4'	June	18" o.c.	Y	N	MNPPA	2" pot	Sn, P	D, M, Ms			fills the void of blooming native plants in June, good for clay, but can look a little leggy--needs a facer
<i>Physostegia virginiana</i>	Obedient Plant	Pink	2-3'	Sept-Oct	18" o.c.	Y	N	MNPPA	2" pot	Sn, P	D, M, Ms			good plant for late season color, can be aggressive (use with someone who is not much of a weeder and doesn't like space between plants)
<i>Potentilla simplex</i>	Common cinquefoil	Yellow	6-12"	May-June	18" o.c.	Y	N	MNPPA	2" pot	Sn, P	D, M	Butterfly		good native groundcover under drier parts of the garden, can spread into lawn (make sure OK with owner)
<i>Ranunculus hispidus</i>	Swamp Buttercup	Yellow	1'	May	18" o.c.	Y	N	MNPPA	quart	Sn, P	M, Ms, W			spreader, aggressive in the right soils. Only available in limited quantities in 2014.
<i>Rudbeckia hirta</i>	Black-eyed Susan	Yellow	1-3'	July-Oct	12" o.c.		N	MNPPA	2" pot	Sn, P	D, M, Ms	Butterfly		short-lived, but aggressively self sows, not especially neat, and can look tired when it is done--best used with native lover, good for clay
<i>Rudbeckia fulgida 'Goldsturm'</i>	Goldstrum Black-eyed Susan	Golden Yellow	2'	July-Sept.	18" o.c.		C	WA	gallon	Sn, P	D, M, Ms		Clay	long-blooming, but people either love it or hate it, can spread fast if it's happy, good for clay

SHRUBS														
<i>Cornus sericea</i>	Red-twig Dogwood	White	5-8'	May-June	6' o.c.		N	MNPPA	1 gallon	Sn, P	D, M, Ms, W	Butterfly		can get big, but has great red winter stem color (trim 1/3 each year to promote best red color), best with groundcover underneath
<i>Cornus sericea 'Flaviramea'</i>	Yellow-twig Dogwood	White	5-8'	May-June	4' o.c.		C	WA	3 gallon	Sn, P	D, M, Ms, W	Butterfly		can get big, but has great chartreuse winter stem color, best with groundcover underneath
<i>Nyssa sylvatica</i>	Blackgum	White	30'-60'	May-June	na		N	MNPPA	5 gallon	Sn, P	D, M, Ms, W			beautiful fall color
<i>Rhus aromatica 'Gro Low'</i>	Gro Low Fragrant Sumac	n/a	2-3'	n/a	3' o.c.	Y	C	WA	#3 pot	Sn, P	D, M		Clay	good woody edge plant--not especially showy, but a 'workhorse' with good fall color, good for clay, salt tolerant
<i>Sambucus canadensis</i>	Elderberry	White	5-10'	June-July	5' o.c.	Y	N	MNPPA	1 gallon	Sn, P	D, M, Ms, W			takes a wide variety of conditions, a little loose in character, there are several cultivars out now worth exploring
<i>Viburnum dentatum</i>	Arrowwood Viburnum	White	5'-12'	May-June	7' o.c.		N	MNPPA	1 gallon	Sn, P	M, Ms, W			native is a large shrub, with beautiful dark leaves.
<i>Viburnum dentatum 'Blue Muffin'</i>	Blue Muffin Arrowwood Viburnum	White	3-4'	May-June	3' o.c.	Y	C	WA	3 gallon	Sn, P	D, M, Ms, W			nice smaller alternative to straight native Viburnum dentatum, neat and round, beautiful blue berries
<i>Viburnum dentatum 'Chicago Lustre'</i>	Chicago Lustre Arrowwood Viburnum	White	5-7'	June	4' o.c.	Y	C	WA	3 gallon	Sn, P	D, M, Ms, W			a little larger than the previous, a very hardy plant
<i>Viburnum lentago</i>	Nannyberry	White	5-7'	June	7' o.c.	Y	N	MNPPA	1 gallon	Sn, P	M, Ms, W			straight native, so a large shrub

Full Sun													
<i>Aster oblongifolius</i> 'October Skies'	October Skies Aster	Lt. Blue/Lavender	4-5'	Sept-Oct	18" o.c.		C	WA	gallon	Sn	D, M	Butterfly	facier plant on drier edges
<i>Baptisia australis</i>	Baptisia or False Indigo	Blue	3-4'	June	3' o.c.		N	WA	#2 pot	Sn	D, M, Ms	Clay	good dramatic accent plant, really needs full sun, almost looks like a shrub, good for clay
<i>Eryngium yuccifolium</i>	Rattlesnake Master	White/Lt. Green	3'	July-Sept.	18"		N	MNPPA	2" pot	Sn	D, M, Ms		dramatic form, not for the faint of heart
<i>Hibiscus moscheutos</i>	Rose Mallow	Pink	4'-6'	Aug-Sept	32" o.c.		N	MNPPA	2" pot	Sn	M, Ms, W		Huge pink flowers, shrub-like
<i>Panicum virgatum</i>	Switch Grass	n/a	4-6'	Aug.-Sept.	3' o.c.	Y	N	MNPPA	2" pot	Sn	D, M, Ms, W	Butterfly	as long as it has sun, this plant really performs, but can be too floppy for some (use cultivars below if want neater appearance), can re-seed assertively
<i>Panicum virgatum</i> 'Cloud Nine'	Cloud Nine Switch Grass	n/a	5-7'	Aug.-Sept.	3' o.c.	Y	C	WA	2 gal. or #2	Sn	D, M, Ms, W		tall, neat and dramatic--this is a great plant, takes a while to look like something in the spring, best with low groundcover (fragaria virginiana, potentilla
<i>Panicum virgatum</i> 'Shenandoah'	Shenandoah Switch Grass	n/a	3'	Aug.-Sept.	2.5' o.c.	Y	C	WA	gallon	Sn	D, M, Ms, W		shorter switch grass, beautifully highlighted with wine tinged foliage, takes a while to look like something in the spring, best with low groundcover (fragaria
<i>Ratibida pinnata</i>	Yellow Coneflower	Yellow	4-6'	July-Oct.	15" o.c.		N	MNPPA	2" pot	Sn	D, M, Ms		tall, use with someone into the native look
<i>Silphium laciniatum</i>	Compass Plant	Yellow	4-7'	July-Aug.	24" o.c.		N	MNPPA	2" pot	Sn	D, M, Ms, W	Clay	tall, use with someone into the native look, can spread aggressively if happy, good for clay
<i>Silphium terebinthinaceum</i>	Prairie Dock	Yellow	8' (flower)	Aug.	18" o.c.		N	MNPPA	2" pot	Sn	D, M, Ms		short broad foliage is great contrast plant, flower stalk is airy and tall (sometimes needs staking), good for clay
<i>Solidago riddellii</i>	Riddell's Goldenrod							MNPPA	2" pot	Sn	Ms, W		nice good-looking foliage, looks like a garden plant. Pretty yellow flowers the same time as Asters and Boltonia.
<i>Sporobolus heterolepis</i>	Prairie Dropseed	n/a	2'	Aug.-Sept.	1.5' o.c.	Y	N	MNPPA	2" pot	Sn	D, M, Ms		a great performer, but takes a while to get going, beautiful fall texture, great for front edge of sunny garden, since it has neat winter presence, but can be
<i>Verbena hastata</i>	Blue Vervain	Purple	4-6'	June-August	12" o.c.		N	MNPPA	2" pot	Sn	D, M, Ms		tall, nice deep color, best for native setting
SHRUBS													
<i>Ilex verticillata</i>	Winterberry	White	4-6'	June-July	3.5' o.c.		N	MNPPA	1 gallon	Sn	M, Ms, W		Acidic needs acid soil (not clay!), makes it possible for companion female plant below to bloom and fruit
<i>Ilex verticillata</i> 'Jim Dandy'	Winterberry-Male	White	4-6'	June-July	3.5' o.c.		C	WA	5 gallon	Sn	M, Ms, W		Acidic needs acid soil (not clay!), makes it possible for companion female plant below to bloom and fruit
<i>Ilex verticillata</i> 'Nana Red Sprite'	Winterberry-Female	White	2-3'	June-July	2.5' o.c.		C	WA	5 gallon	Sn	M, Ms, W		Acidic needs acid soil (not clay!), amazing winter berries (needs male above--1 male for every 5 females)
<i>Potentilla fruticosa</i> 'Goldfinger'	Goldfinger Potentilla	Yellow	3-4'	June-July	36" o.c.	Y	C	WA	3 gallon	Sn	D, M, Ms	Clay	long blooming flowers, good neat plant, may need hard pruning in a couple of years, good for clay, good for drawing beneficial (predatory) insects

All Light Levels														
		<u>Bloom Color</u>	<u>Height</u>	<u>Bloom Time</u>	<u>Plant Spacing</u>	<u>Deer Resistant?</u>	<u>Native?</u>	<u>Source</u>	<u>Size</u>	<u>Sun/ Shade</u>	<u>Mois- ture</u>	<u>Habitat</u>	<u>Soil</u>	<u>Comments</u>
<i>Anemone canadensis</i>	Canada Anemone	White	12"-20"	May-July	18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	M, Ms			groundcover, spreads quickly & fills in (can be aggressive--good for someone who doesn't want to weed), resents long periods of drought
<i>Carex muskingumensis</i>	Palm Sedge	n/a	2-3'	June-Oct.	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	M, Ms, W	Butterfly		good workhorse for all settings, provides nice texture if massed
<i>Carex stipata</i>	Common Fox Sedge	Green	24"	May	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	D, M, Ms			provides nice texture if massed
<i>Carex vulpinoidea</i>	Brown Fox Sedge	n/a	2-3'	June-Oct.	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	D, M, Ms, W	Butterfly		good workhorse for all settings, provides nice texture if massed
<i>Fragaria virginiana</i>	Wild Strawberry	White	6-12"	May-June	18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	D, M, Ms			edible, great groundcover for spreading in between plants that are spaced far, can spread into adjoining lawn (check with owner), nice fall color
<i>Geranium maculatum</i>	Wild Geranium	Lavendar	12"-24"	May-June	12" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	D, M, Ms			neat native that clumps, stays small and keeps leaves throughout season, nice fall color
<i>Iris virginica</i>	Blue Flag Iris	Lt. Blue/Lavender	2-3'	May-June	12-18" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	M, Ms, W			great clean and neat foliage, nice flower, really tough--an excellent workhorse
<i>Lobelia siphilitica</i>	Blue Lobelia	blue purple	30"	July-Sept	12" o.c.	Y	N	MNPPA	2" pot	Sn, P, Sh	M, Ms			longer lived than sister cardinal flower, nice blue at end of the season, neat for native, good for drawing beneficial (predatory) insects
<i>Onoclea sensibilis</i>	Sensitive Fern	n/a	12-24"	n/a	12" o.c.	Y	N	WA	gallon	Sn, P, Sh	M, Ms, W			a short, neat fern for the sun, as long as not too dry, great combined with iris
<i>Veronicastrum virginicum</i>	Culver's Root	White	4-6'	July-August	12-18" o.c.		N	MNPPA	2" pot	Sn, P, Sh	D, M, Ms			nice bloom late in summer, can be aggressive if happy
SHRUBS														
<i>Cercis canadensis</i>	Red Bud	Pink	25'	May			N	MNPPA	1 gallon	Sn, P, Sh	D, M, Ms			great small native floodplaining tree, can be susceptible to wind damage
<i>Itea virginica</i> 'Henry's Garnet'	Sweetspire	White	4'	May-June	3' o.c.		C	WA	6 gallon	Sn, P, Sh	M, Ms			beautiful fall color, but susceptible to winter kill, need to prune off winter dead in spring

PLANTS TO TRY														
These plants are untested in rain gardens - but seem like they might work. Would you plant one or two of these species, and then report back to us on how they turned out? Thanks!														
<i>Actaea pachypoda</i>	White Baneberry "Doll's Eyes"	White	1'-2'	May	12" o.c.	?	N	MNPPA	2" pot	Sh	M			A delicate little plant with lacy leaves. The berries really do look like "doll's eyes". Beautiful garden plant - does it work in rain gardens?
<i>Agrimonia parviflora</i>	Swamp Agrimony			July	3-4'	?	N	MNPPA	plug	Sn, P	Ms, W			Recommended by Greg Vaclavek, so probably grows fine in a rain garden. Is it pretty?
<i>Osmunda cinnamomea</i>	Cinnamon Fern	na	2'-3'	na	24" o.c.	Y	N	WA	gallon	P, Sh	M, Ms, W			A bit smaller than Ostrich Fern, and doesn't spread as aggressively as Ostrich Fern does. Does it do well in a rain garden? Is it pretty?
<i>Eupatorium rugosum</i>	White Snakeroot	White	2'-4'	Jul-Sep	24" o.c.	?	N	MNPPA	2" pot	P, Sh	M			Nice white flowers in shade, I hear it is a spreader. There is a cultivar 'Chocolate'. How does it do in a rain garden?
<i>Senecio aureus</i>	Golden ragwort	Yellow	2'-3'	spring	12" o.c.	?	N	MNPPA	2" pot	P, Sh	M, Ms, W?			a beautiful, well-kept looking little plant with big dark leaves, similar to hostas
<i>Juncus tenuis</i>	Path Rush	Green	1'-2'	late spring	12" o.c.	?	N	MNPPA	2" pot	P, Sh	M, Ms			A little rush. Is it pretty enough to be a garden plant?
<i>Aralia racemosa</i>	Spikenard	White	2'-5'	Jun-Aug	5' o.c.	?	N	MNPPA	2" pot	P, Sh	M, Ms, W			Almost shrub-like in its size and shape. Beautiful, graceful limbs. Has purple clusters of berries in the late summer. How does it do in a RG?
<i>Arisaema dracontium</i>	Green dragon	Green	1'-3'	May-Jun	12" o.c.	?	N	MNPPA	2" pot	P, Sh	M, Ms, W			Small little woodland dragon, related to Jack-in-the-Pulpit.
<i>Caltha palustris</i>	Marsh Marigold	Yellow	1'-1.5'	Apr-Jun	12" o.c.	?	N	WA	gallon	Sn, P, Sh	M, Ms, W			Beautiful native, short with big yellow flowers in spring. Grows along pristine streams. How does it do in a rain garden?
<i>Heracleum maximum</i>	Cow Parsnip	White	4'-7'	Jun-Jul	6' o.c.	?	N	MNPPA	2" pot	Sn, P, Sh	M, Ms, W			Very big, tall plant. Dramatic! A good focal point. Resembles the toxic Giant Hogweed, but otherwise is very pretty. Pretty enough for gardens?
<i>Coreopsis tripteris</i>	Tall Coreopsis	Yellow	4'-7'	Jul-Sep	24" o.c.		N	MNPPA	2" pot	Sn, P	M			Tall, and stays upright. Good in dry sand, well-drained sand rain gardens, and possibly heavier soils - try it and see.
<i>Tradescantia</i> 'Sweet Kate'	Spiderwort - Sweet Kate	Purple	1'	June	12" o.c.	?	C	WA	gallon	Sn, P	M, Ms, W			Cultivar of spiderwort, very short, yellow chartreuse leaves in full sun. Cut back when the leaves go dormant.
<i>Lilium michiganense</i>	Michigan Lily	Orange	4'-5'	Jun-Aug	4' o.c.		N	MNPPA	2" pot	Sn, P	M			I have no idea if this would thrive in a rain garden, but wouldn't it be cool if it did?
<i>Senna hebecarpa</i>	Wild Senna	Yellow	3'-5'	Jul-Aug	18" o.c.	?	N	MNPPA	2" pot	Sn, P	M, Ms, W?	Butterfly		in the pea family, so yellow pea-like flowers
<i>Pycnanthemum virginianum</i>	Mountain-Mint	White	2'-4'	Jul-Sep	18" o.c.	?	N	MNPPA	2" pot	Sn, P	M, Ms, W?			We are pretty sure this works in rain gardens. Is it pretty enough to be a garden plant?
<i>Helenium autumnale</i>	Sneezeweed	Yellow	3'-6'	Aug-Sep	18" o.c.	?	N	MNPPA	2" pot	Sn, P	Ms, W	Butterfly		Nice flowers. Does it do ok in a rain garden?
<i>Ranunculus hispidus</i>	Swamp Buttercup	Yellow	1'	May	18" o.c.	Y	N	MNPPA	quart	Sn, P	M, Ms, W			Beautiful yellow flowers. Nice and short - a good ground-cover. Aggressive spreader in the right soils.
<i>Solidago riddellii</i>	Riddell's Goldenrod	Yellow	2'-4'	Aug-Sep	18" o.c.	?	N	MNPPA	2" pot	Sn	M, Ms, W?			This worked fine in a big bioretention area. Is it pretty enough to be a garden plant?
<i>Scirpus atrovirens</i>	Black Bullrush	Brown	3'-5'	Jun-Jul	18" o.c.	?	N	MNPPA	2" pot	Sn	Ms, W			Probably great for rain gardens - is it pretty enough to be a garden plant?
SHRUBS TO TRY														
<i>Cephalanthus occidentalis</i>	Buttonbush	White	6'-15'	Jun-Aug	na	?	N	MNPPA	5 gallon	Sn, P	Ms, W			Beautiful, glossy leaves. Often grows in the wild in a woody opening, on the edges of a vernal pond.
<i>Cornus amomum</i>	Silky Dogwood	White	3'-9'	Jun-Jul	na	?	N	MNPPA	gallon	Sn, P, Sh	Ms, W	Butterfly		A spreading shrub. Does it sucker and spread too much to be in a residential garden?
<i>Hypericum kalmianum</i>	Kalm's St. John's Wort	Yellow	1'-2'	Jun-Aug	2' o.c.	?	N	MNPPA	gallon	Sn, P	Ms, W			A nice little spreading shrub. We just have never tried it! Does it do ok in a rain garden situation?
<i>Lindera benzoin</i>	Spicebush	Yellow	5'-10'	Apr-May	8' o.c.	?	N	MNPPA	gallon	P, Sh	Ms, W	Butterfly		Beautiful shrub. How does it do in a rain garden?
<i>Myrica gale</i>	Sweet Gale	Green	3'-5'	June	5' o.c.	?	N	MNPPA	gallon	Sn, P	W			A small shrub, sweetly scented leaves, this plant is similar to the northeast's Bayberry
<i>Ribes americanum</i>	Wild Black Currant	White	2'-4'	Apr-May	5' o.c.	?	N	MNPPA	gallon	Sn, P	M, Ms, W			A small shrub; lacks prickles; edible berries can be used to make jelly, wine, or pie.
<i>Salix discolor</i>	Pussy Willow	Green	6'-20'	Mar-Apr	7' o.c.	?	N	MNPPA	gallon	Sn	W			The old-fashioned pussy willow with soft, furry flower buds. A big shrub/small tree.

TREES TO TRY												
<i>Asimina triloba</i>	Paw Paw	Purple	15'-30'	Apr-May	?	N	MNPPA	gallon	Sn, P, Sh	M, Ms, W	Huge leaves, produces yummy banana-flavored fruit after a decade or so. Beautiful tree - will it work in a rain garden?	
<i>Betula alleghaniensis</i>	Yellow Birch	Yellow	40'-70'	Apr-May	?	N	MNPPA	5 gallon	Sn, P	M, Ms, W	Beautiful tree, not often planted.	
<i>Betula pumila</i>	Bog Birch	Brown	5'-12'	May-Jun	?	N	MNPPA	5 gallon	Sn, P	Ms, W	Shrubby birch.	
<i>Carpinus caroliniana</i>	Musclewood	Green	15'-30'	Apr-May	?	N	MNPPA	5 gallon	Sn, P, Sh	M, Ms, W	Beautiful small tree, "muscle" bark. Lives in floodplains, how about a rain garden?	
<i>Carya cordiformis</i>	Bitternut Hickory	Yellow	50'-85'	May-Jun	?	N	MNPPA	5 gallon	Sn, P	M, Ms, W	Slow growing tree, yellow fall color.	
<i>Gymnocladus dioica</i>	Kentucky Coffee Tree	White	60'-85'	Jun	?	N	MNPPA	5 gallon	Sn, P	M, Ms, W	Pre-historic looking tree. Bulletproof in street-side locations. Seeds used by native americans as marbles.	
<i>Larix laricina</i>	Tamarack	na	40'-75'	na	?	N	MNPPA	5 gallon	Sn, P	Ms, W	Yellow fall color, deciduous conifer. How does it do in a rain garden?	
<i>Liriodendron tulipifera</i>	Tulip Poplar	White	60'-110'	Apr-May	?	N	MNPPA	5 gallon	Sn, P	Ms, W	Butterfly	Yellow fall color, beautiful tree, big orange/green flowers in spring. How does it do in a rain garden?
<i>Platanus occidentalis</i>	Sycamore	Green	65'-100'	May	?	N	MNPPA	gallon	Sn, P	D, M, Ms, W	Huge tree, bark comes off in strips, leaving a white trunk.	
<i>Quercus bicolor</i>	Swamp White Oak	Green	50'-80'	May-Jun	?	N	MNPPA	5 gallon	Sn	Ms, W	Butterfly	Big oak tree.
<i>Quercus macrocarpa</i>	Bur Oak	Green	40'-70'	May-Jun	?	N	MNPPA	5 gallon	Sn	D, M, Ms, W	Butterfly	Big oak tree; the oak that the "arbor" in Ann Arbor was named after.
<i>Quercus muehlenbergii</i>	Chinquapin Oak	Green	50'-80'	May-Jun	?	N	MNPPA	5 gallon	Sn	D, M, Ms, W	Butterfly	Big oak tree, cool shaped leaves.
<i>Staphylea trifolia</i>	American Bladdernut	White	8'-18'	Apr-May	?	N	MNPPA	gallon	P, Sh	M, Ms	Beautiful shrub/small tree with lantern seed pods in the fall. Grows on riverbanks, but how does it do in a rain garden?	
<i>Thuja occidentalis</i>	Northern White Cedar		30'-50'		?	N	MNPPA	gallon	Sn, P	Ms, W	Evergreen tree! How does it do in a rain garden?	

Plants that we have had issues with in the past

This list is here to discuss the problems and issues with plants that, on the whole, did not work very well within the context of Washtenaw County residential rain gardens

Scientific Name	Common Name	Comments
<i>Aesclepias syriaca</i>	Common Milkweed	Quite aggressive, but good for monarch habitat
<i>Andropogon gerardii</i>	Big Bluestem	Some people who are truly into natives like it, but generally it is too tall and to spindly for most, is use it--mass it in a big area
<i>Campanula americana</i>	Tall Bellflower	Too spindly for most
<i>Chelone glabra</i>	Turtlehead	Very sensitive to varying moisture levels, tends to flop, has conservative soil type range--not good for general rain garden use
<i>Eupatirum perfoliatum</i>	Boneset	Can be quite aggressive--use with caution, good for drawing beneficial (predatory) insects
<i>Heuchera americana</i>	Alum Root	Not showy at all, but if massed is OK for texture
<i>Monarda fistulosa</i>	Bee-balm	Gets an ugly fungus on it after it blooms
<i>Ratibida pinnata</i>	Yellow Coneflower	Very tall, if used needs to be in a big space, good for drawing beneficial (predat NPN
<i>Sisyrinchium angustifolium</i>	Blue-eyed grass	A little sensitive--can get 'mowed' down by other plants in its area
<i>Smilacena racemosa</i>	Solomon's Plume	Needs to be massed in a big area, and planted close together to work--otherwise looks spindly
<i>Smilacena stellata</i>	Starry-false Solomon's Seal	Would have like to have used it, but had lots of problems with propogation
<i>Solidago caesia</i>	Blue-stemmed goldenrod	Super aggressive--beware!
<i>Tradescantia ohioensis</i>	Spiderwort	Looks nice when it blooms (only in the daytime), but then totally flattens to the ground when it is done blooming in June
<i>Vernonia missurica</i>	Ironweed	Very tall and thin, if used needs to be in a big space
<i>Zizia aurea</i>	Golden Alexanders	Clients found it too floppy and messy, but good for drawing beneficial (predatory) insects
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	very tall, nice late season color, can be aggressive. Not available.

PLANTS I WILL TRY OUT IN MY GARDEN:

Washtenaw County Rain Garden Program

www.ewashtenaw.org/raingardens

Master Rain Gardener training

Master Rain Gardeners are volunteers who have earned their Master Rain Gardener certificate - trained in designing and installing rain gardens. They volunteer to help out friends and neighbors to learn about, design and plant rain gardens. Recognize them by their t-shirts and nametags! Classes held every Feb/March in person, every July online.

Rain Garden Design Assistance

The Office of the Washtenaw County Water Resources Commissioner and staff work with several homeowners each year to design and install rain gardens on their property. The result is residents all over the county are happy with their new gardens, while the Huron River receives less fertilizers, chemicals and other harmful runoff.

Rain Garden Coordinator Susan Bryan 734-222-3814



Appendix G. Summarized Funding Spreadsheet

Fund Name	Type	Funding Range	Category Funded	Description	Notes/Funding Type	Link
EPA Urban Waters Small Grants Program	Federal Grant	Up to \$60,000	Green Infrastructure	Provides funding to communities to improve the quality of urban waters while simultaneously stimulating neighborhood revitalization with a key a focus on underserved communities	Nonprofit	https://www.epa.gov/urbanwaters/urban-waters-small-grants
Community Development Block Grants (CDBGs)	Federal Grant	Varies	Property Acquisition, Green Infrastructure, Predevelopment and Development	Communities may be able to use CDBG Program funds to acquire property and build public facilities, including green infrastructure installations.	Nonprofit with the stipulation that organizations and individuals cannot receive funds directly from HUD, but can apply for funding through their local government agency	https://www.hudexchange.info/programs/cdbg/
Michigan Community Resilience Program	State of Michigan Grant	Up to \$25,000	Volunteer Engagement and Community Resilience	MCSC will select 8-16 organizations to serve as the backbone organization to support nonprofits and organizations to have access to resources and support and should focus on making an impact to support COVID-19 response and recovery	Nonprofit	https://www.michigan.gov/leo/0,5863,7-336-94421_95498_95502-547244--,00.html?utm_medium=email&utm_source=govdelivery
Five Star and Urban Waters Restoration Grant Program 2021	Private	\$20,000-\$50,000	Green Stormwater Infrastructure, Education, Outreach	Projects include a variety of ecological improvements along with targeted community outreach, education and stewardship. Ecological improvements may include one or more of the following: wetland, riparian, forest and coastal habitat restoration; wildlife conservation, community tree canopy enhancement, water quality monitoring and green infrastructure best management practices for managing run-off	Nonprofit	https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program/five-star-and-urban-waters-restoration-grant-program-2021-request-proposals
J.M Kaplan Innovation Prize	Private	\$150,000 over 3 years	Social Justice, Environment, and Heritage Conservation	Individuals or teams representing nonprofit or mission-driven, for-profit organizations are eligible to apply. Applicants must work within, or in a manner related to, one of the Fund's three program areas of social justice, the environment, and heritage conservation.	Nonprofit, Forprofit	https://www.jmkfund.org/apply-now/
Andrews Family Foundation	Private	Up to \$600,000 over 3 years	Community, Natural Environment, Social Justice	The Andrew Family Foundation seeks to partner with one or more organizations that offer creative solutions which address issues facing under-resourced communities and protect and preserve the natural environment in which they live. Preference will be given to programs where these two interests intersect. Aims to work toward resolving inequalities by alleviating disparities in food access, affordable housing, high quality education, physical and psychological healthcare, and/or criminal justice	Nonprofit	https://online.foundationsource.com/ws/index.jsp?site=andrewfamily

The Americana Foundation	Private	Up to \$30,000	Food, Food Sustainability, Community Based Agriculture	The Americana Foundation is interested in projects that promote one or more of the following: locally grown food, sustainable and fair food systems, and community-based agriculture, agricultural land and open spaces on rural and urban landscapes, advance integrated planning, zoning and best practices for creating and maintaining healthy, livable and sustainable communities, support community gardening, urban forestry, and nature-based and agricultural education, and protect, preserve, or restore natural resources, such as air, soil, water, and other environmental assets, including the Great Lakes	Nonprofit	http://www.americanafoundation.org/agri_grants.asp
Community Foundation of SE Michigan	Private	\$2,500 to \$20,000	Youth Development	Grants are made only to youth-led programs, meaning that youth are involved in the vision for the project, the development of the application, and will be involved in implementing the work if a grant is received; it's great if the youth have adult allies who are assisting or supporting them in their effort, but youth must be involved for a grant to be considered	Nonprofit, School Districts	https://cfsem.org/special-opportunities/youth-leadership/apply/
Erb Foundation	Private	Varies	Stewardship, Agricultural Runoff, Urban Runoff, Environmental Health and Justice, Sustainable Business	The Erb Foundation aims to fund proposals within their Environment category that mesh with the guiding principles and mission of the organization to advance an environmentally healthy and culturally vibrant metropolitan Detroit and a flourishing Great Lakes ecosystem	Nonprofit	https://www.erbff.org/programs/

Appendix H. Job Training Examples

Organization	Name of Program	Description	Status		Type of Employment			Paid			
			Active	Inactive	Adult	Youth	Volunteer	Yes	No	Not Stated	
Walnut Way Conservation Corp	Growing Youth Leadership Internship	Urban agriculture education, leadership development, and job training program where teens grow, harvest, and sell produce	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Walnut Way Conservation Corp	Blue Skies Landscaping Corp	Job training and employment program for individuals who have traditionally faced employment barriers and those seeking to build skills in a growing trade area while redeveloping their communities through the revitalization of vacant lots	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
Codman Square Neighborhood Development Corp	Green Infrastructure Certification Program	Job training and certification program that blends green infrastructure development and climate resilience through training and certifying residents through a 35-hour class and exam	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
City of Detroit	Grow Detroit Young Talent Program	City of Detroit summer jobs program that trains and employs young adults for up to 120 hours via the placement of students at various nonprofit and community organizations	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Greening of Detroit	Detroit Conservation Corps	Provides unemployed convicted Detroit, Hamtramck, and Highland Park residents with valuable hands on job training opportunities and certifications within the landscaping sector	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		
Greening of Detroit	Green Corps Summer Youth Program	Summer youth employment program for Detroit students ages 14-18 years old with a focus on environmental stewardship and forestry	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Texas Southern University	Environmental Career Work Training Program	Free job training for unemployed and/or underemployed individuals in the Houston area within the environmental services field	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
Southwest Detroit Environmental Vision	Cadillac Urban Gardens Garden Madrina and Garden Leader Program	Umbrella program consisting of youth and adult environmental and community education and development	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Southwest Detroit Environmental Vision	Cadillac Urban Gardens Youth Internship Program	Summer internship program for Detroit teens interested in the environmental and agricultural fields	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Greencorps Chicago	Greencorps Chicago Youth Program	Summer employment program that trains and provides teens with the opportunity to connect with careers, professionals, places, and events involved with the environment and sustainability fields	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Greencorps Chicago	Greencorps Chicago	Employment program that provides seven-nine months of employment and on-the-job training in ecological restoration, green infrastructure, tree care, and landscaping	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		
Detroiters Working for Environmental Justice	Green Jobs Training Program	Provides participants with basic job skills, technical and green job training, professional certifications, on-site job training, soft skills training, and job placement assistance		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
The Hope Program	Sustainable South Bronx (SSBx)	Classroom-based and hands-on green jobs training program with focuses in tree surveying, water quality testing and shoreline restoration	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		
PUSH Buffalo	PUSH Blue	Employment opportunity for residents of disadvantaged backgrounds that provides projects related to green infrastructure, stormwater mitigation, native plants, integrated pest management, and community gardening	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		
Verde Builds	Verde Landscape Training Program	Two year training program that supports long-term community development with the goal that each crew member is placed with a destination employer with greater opportunities for wage and career growth, transitions to owning a landscape business, or train and supervises future participants through classroom and on-the-job training	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>		

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