

GREEN INFRASTRUCTURE IMPLEMENTATION

STRATEGIES FOR A SUSTAINABLE FUTURE

CITY OF ROYAL OAK, MI - November 28, 2018



PROJECT OVERVIEW

PRIMARY QUESTION

“What are the long-term, sustainable strategies that will enable the City of Royal Oak, MI to begin the wide-spread implementation of green infrastructure and reap the economic, social, and environmental benefits within the community?”

BACKGROUND

Using integrative assessment techniques, the project team identified and addressed challenges that block the large-scale implementation of green infrastructure projects in the City of Royal Oak. On November 28, 2018, residents of Royal Oak were invited to participate in a public input charette. During the charette, participants were asked to complete a value sort activity, vote on the proposed green infrastructure designs in their community, and provide their aesthetic preferences for residential green infrastructure applications. The following presents the summary of the public responses to these three different public input activities in the City of Royal Oak.

FUNDING

Funding for the Green Infrastructure Integrated Assessment Project in the City of Royal Oak was provided through Michigan Sea Grant. Michigan Sea Grant helps to foster economic growth and protect Michigan’s coastal, Great Lakes resources through education, research and outreach. A collaborative effort of the University of Michigan and Michigan State University, Michigan Sea Grant is part of the NOAA-National Sea Grant network of 33 university-based programs



PUBLIC INVITATION TO COMMUNITY ENGAGEMENT MEETING

City of Royal Oak, MI

Green Infrastructure Implementation

PLANNING FOR A SUSTAINABLE FUTURE



CORE QUESTION: What are the strategies that will enable Royal Oak to begin the wide-spread implementation of green infrastructure?

Royal Oak Green Infrastructure

Lawrence Technological University (Southfield MI), Environmental Consulting & Technology, Inc. (Ann Arbor MI) and the University of Michigan-Ann Arbor are collaborating on a project to investigate barriers to green infrastructure implementation in Michigan. The project includes multiple approaches to stakeholder engagement including an online survey, focus groups, and community green infrastructure visioning meetings.

Royal Oak was selected by the project team to host a community visioning meeting based on its location, demographics, and potential for success. The vision meeting provides an opportunity for an open community discussion and participation in exercises that focus on the core project question.

Community participation exercises include establishing community values, identifying opportunities for green infrastructure implementation and sharing opinions on value of natural systems in residential and park areas.

Please join us in Room 106 of the Royal Oak Senior/Community Center on 3500 Marais Avenue from 6pm to 8pm. No RSVP necessary.

Any questions related to this project or this process may be directed to Donald Carpenter (248-763-4099 or dcarpente@ltu.edu).

For more information about Royal Oak's stormwater management and green infrastructure efforts, visit <https://www.romi.gov/1361/Green-Infrastructure>.

Community Engagement Meeting

Wednesday, November 28, 6pm - 8pm

Royal Oak Senior/Community Center 3500
Marais Avenue
Room 106



michiganseagrant.org/research



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VALUE SORT ACTIVITY

City of Royal Oak, MI

Members of the Royal Oak community were asked to participate in a personal value sort activity. Participants were given a template (figure 1) and a series of cards with a different value on each card. The values provided for ranking were the following: Beauty, Economics, Ecosystem Services, Education, Mental Health, Physical Health, Recreation, Sense of Place, Social, Tourism, and Wildlife Habitat.

Participants were then asked to sort the value cards on the template in order of most important to least important within the context of their community (i.e. Royal Oak). The final result was 16 different sorted arrangements of values.

The following table summarizes the responses received from this activity into the top three most commonly ranked values in “Most Important” category and the bottom three most commonly ranked values in the “Least Important” category. The number next to the value corresponds to the number of times it was ranked within the top two or bottom two rows in the pyramid. Overwhelmingly, participants were interested in the economics or ecosystem services that green infrastructure can provide.

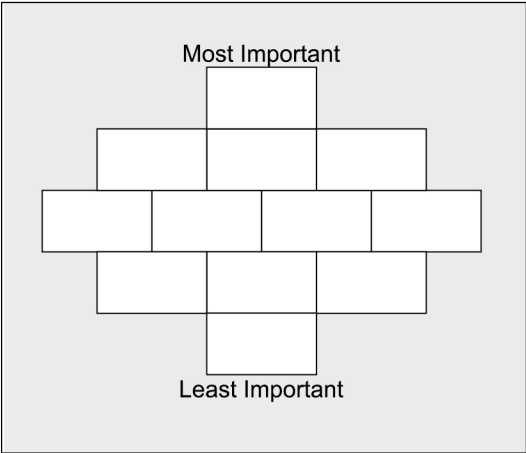


figure 1

MOST IMPORTANT (TOP THREE RESPONSES)	<u>Economics</u> – 14 <i>Financial benefits or cost savings from green infrastructure or natural systems.</i>
	<u>Ecosystem Services</u> – 11 <i>The land’s ability to support human wellbeing be regulating threats (e.g. pollution) and providing services (e.g. clean water).</i>
	<u>Sense of Place</u> – 8 <i>The special connection one feels to a place.</i>
LEAST IMPORTANT (BOTTOM THREE RESPONSES)	<u>Tourism</u> – 9 <i>Attraction of a place as a destination by non-residents.</i>
	<u>Mental Health</u> – 8 <i>Opportunities to cultivate stillness, connection, spirituality, and/or emotional wellbeing.</i>
	<u>Wildlife Habitat</u> – 7 <i>The landscape’s ability to support the wellbeing of animal lives.</i>

PROPOSED GREEN INFRASTRUCTURE - DOT VOTING SUMMARY

City of Royal Oak, MI

The project team proposed green infrastructure improvements in four of Royal Oak’s public parks: Starr Jaycee Park, Red Run Park, VFW Park and Exchange Park. The green infrastructure improvements included rain gardens, native plants, porous pavers and bioretention.

Residents of the city of Royal Oak were presented with the proposed green infrastructure designs and were asked to provide their feedback. Using green and red dots (figure 1), residents voted on the proposed designs at a public input meeting (figure 2). The following pages are a summary of the proposed green infrastructure improvements at each park and the public response to them.

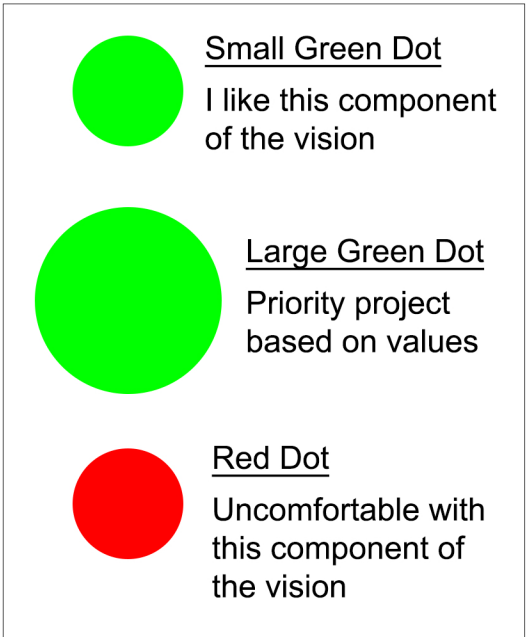
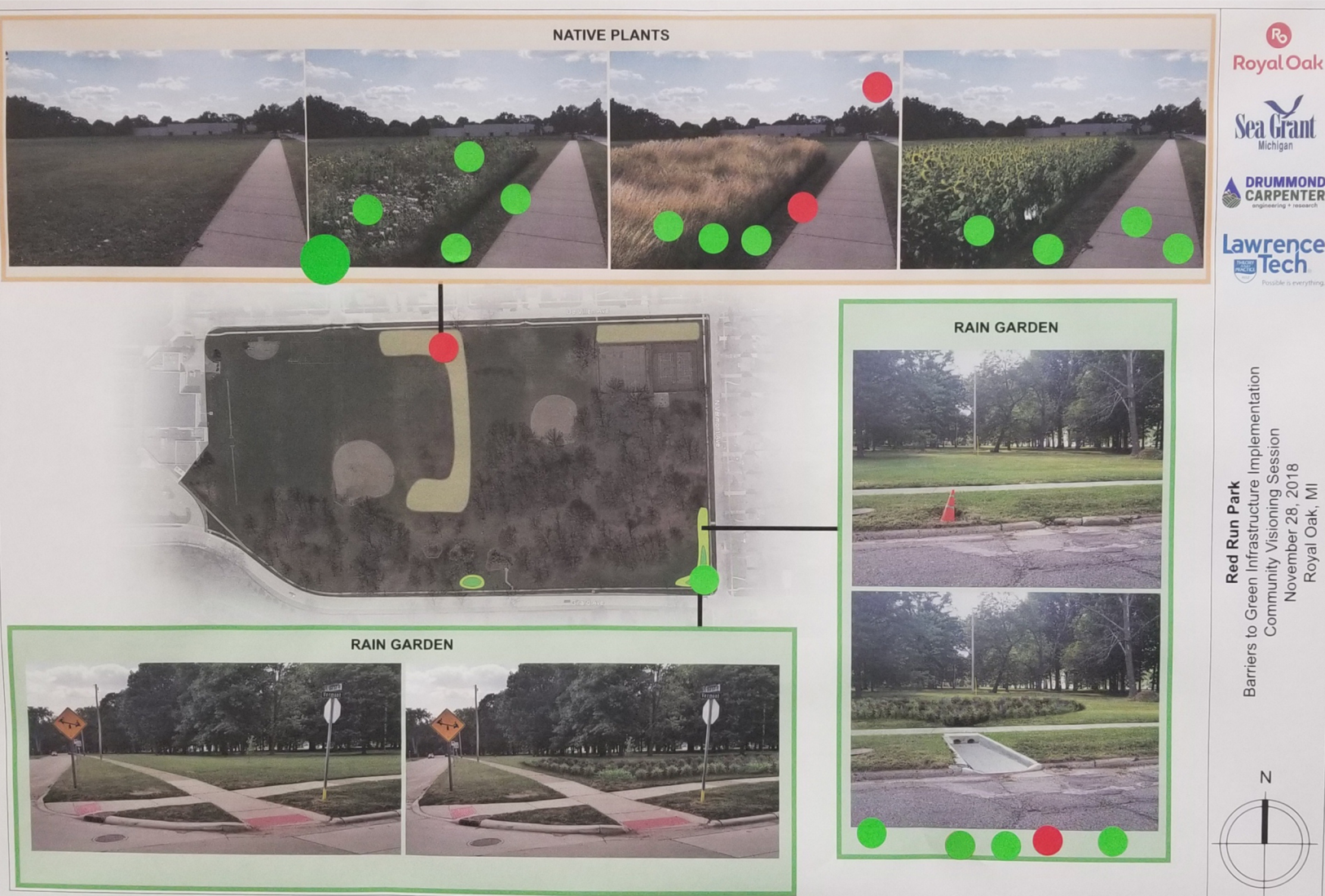


Figure 1

Figure 2



RED RUN PARK - DOT VOTING SUMMARY

City of Royal Oak, MI



1. Native Plants



2. Rain Garden



3. Rain Garden



STARR JAYCEE PARK - DOT VOTING SUMMARY

City of Royal Oak, MI



1. Porous Pavers



2. Rain Garden



VFW PARK - DOT VOTING SUMMARY

City of Royal Oak, MI



1. Bioretention



2. Porous Pavers



EXCHANGE PARK - DOT VOTING SUMMARY

City of Royal Oak, MI



1. Native Plants



2. Rain Garden



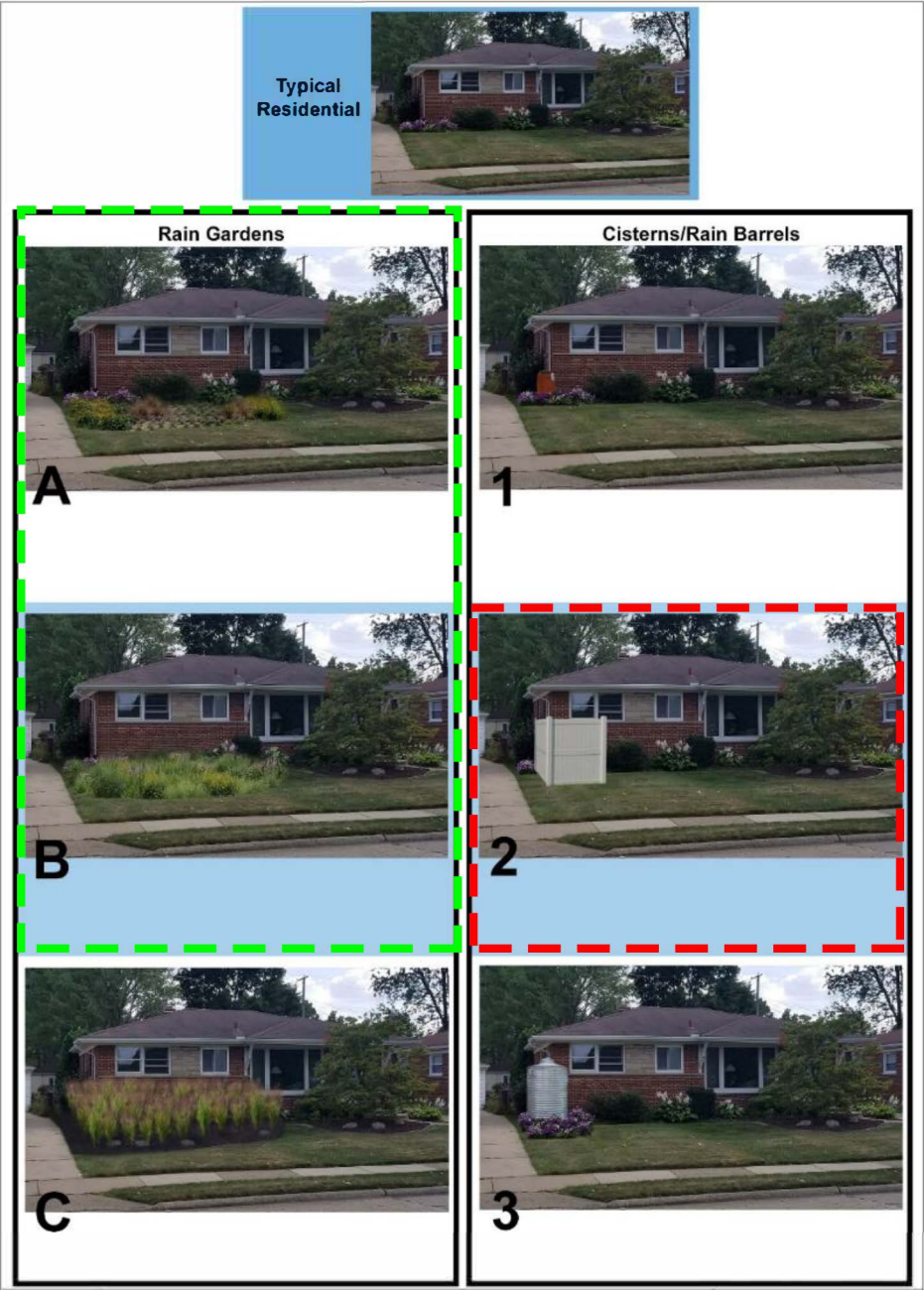
RESIDENTIAL GREEN INFRASTRUCTURE - INPUT SUMMARY

City of Royal Oak, MI

Participants were asked to provide their opinion on the aesthetics of different green infrastructure treatments in a residential application (figure 1). The specific question asked of each participant was “what would make you uncomfortable if it was in your neighbor’s front yard?”

Using a similar form of dot voting, participants were then instructed to place a red dot next to the green infrastructure treatment(s) they would not like to see in their neighbor's front yard. Below are the results of this voting exercise.

GI Residential Treatment		# of Red Dots
RAIN GARDENS	A	0
	B	0
	C	4
CISTERN/RAIN BARRELS	1	0
	2	10
	3	6



PUBLIC INPUT SUMMARY - DISCUSSION

City of Royal Oak, MI

The results of the value sort activity indicate that the top three most important values in the City of Royal Oak were economics, ecosystem services, and a sense of place. The three least important values expressed by the public during this exercise were tourism, mental health and wildlife habitat.

Overall, the public dot voting response to the proposed green infrastructure projects in the Royal Oak parks was positive with a total of 70 positive votes and only 6 negative votes. The most popular proposed designs were the following:

Bioretention at VFW Park garnered the most positive feedback with a total of 15 positive votes and no negative votes (4 said that it is a priority project based on values and 11 said that they liked this component of the vision). It was mentioned that more plant diversity would be needed.

Native plants at Exchange Park with a total of 9 positive responses and no negative (5 said that it is a priority project based on values and 4 said that the participants liked this component of the vision).

Porous pavers at Starr Jaycee Park with a total of 9 positive responses (1 said that it is a priority project based on values and 8 said that the participants liked this component of the vision).

Of the 6 total negative votes expressed during the dot voting, 4 were located at Red Run Park and 3 of the 4 were associated with the native plant design proposals at that location. Even though 12 positive votes were distributed across the three different aesthetic options for the native plant design, there seemed to be the least amount of consensus at this location.

The public response to the images of residential green infrastructure applications indicated that the cistern/rain barrel options tended to be the least popular with the large privacy fence being the most unfavorable. Generally participants were comfortable with the less wild and more manicured native plant options.