WATERWISE
GULF SOUTH

7TH WARD

GREEN INFRASTRUCTURE

LOOKBOOK

LOOKBOOK PREPARED BY WATER WISE 7TH WARD
VISION PLANS CREATED BY 7TH WARD RESIDENTS

CONTENTS


DANA BROWN&
Associates


GLOBAL
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RECHARGE
NOLA


HEALTHY
Community
SERVICES
Building Healthier Communities by Going Green

WATER WISE MISSION

Water Wise Gulf South—Dana Brown & Associates Landscape Architects, Global Green, and Recharge NOLA—is an environmental outreach collaborative devoted to advancing and promoting green infrastructure and its associated benefits through education, events, tours, do-it-yourself workshops, demonstration projects, and leadership training.

The mission of Water Wise Gulf South is to empower individuals, neighborhoods, and marginalized communities to manage stormwater, thereby reducing localized flooding and providing many other benefits. We promote community-driven, ecologically-based solutions, known as green infrastructure, to infiltrate, filter, and detain stormwater runoff and improve water quality.

Our approach is to build community leadership and demonstrate green infrastructure systems. We accomplish this by providing technical assistance, educational programming, green infrastructure leadership training, and green infrastructure implementation.

WATERWISE GULF SOUTH

FUNDED BY

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THE KRESGE FOUNDATION


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WATER WISE GOALS

Water Wise Gulf South seeks to advance the neighborhood model of community-driven green infrastructure projects, as a way to address flooding, increase water absorption into the soil, and contribute to the successful and equitable implementation of the Greater New Orleans Urban Water Plan. The Water Wise model includes building a constituency of local residents, developing leadership, planning green infrastructure projects, implementing green infrastructure plans, and providing ongoing technical assistance and community organizing support to maintain and increase capacity. The engine of the model is trust-building and collaboration among community-based organizations, the Neighborhood Champions, and the Water Wise team. This model was formed out of the success of the 2016 Citywide Neighborhood Champions Training. With seed funding from the Greater New Orleans Foundation, Water Wise has been able to implement this model in the Tremé, 7th Ward, and Upper 9th Ward.


WATER CYCLE


BLEU DEVILS
2019
Day of SERVICE

WATER WISE 7TH WARD

Many parts of the 7th Ward face chronic flooding and waves of disinvestment have been troublesome for the neighborhood. Despite these persisting challenges, the 7th Ward is a neighborhood rich in family, tradition, worship, and culture. Anchors in the community include St. Augustine High School, McDonough 35, the Autocrat Club, Nora Navra Library, and several neighborhood churches.

Water Wise Gulf South is partnering with Healthy Community Services to help combat flooding issues in the 7th Ward. Healthy Community Services is a newly-formed community-based nonprofit that is dedicated to serving 7th Ward residents on a variety of topics to support a healthier way of living and enhance the resiliency of the 7th Ward. Advancing green infrastructure is a vital part of the organization's vision for a healthier neighborhood.

Ms. Angela Chalk is the Executive Director of Healthy Community Services and is a lifelong resident of the 7th Ward, the former Vice President of the 7th Ward Neighborhood Association, and the former President of the Louisiana Public Health Association. Ms. Chalk has a BA of Communications with an emphasis in Public Health from Dillard University and a MS in Health Care Management from the University of New Orleans. Ms. Chalk has been an active member with Water Wise since 2014. In 2016 she completed the Citywide Water Wise Neighborhood Champions Training and she has helped organized Water Wise Workshops and green infrastructure demonstration activities in the 7th Ward.

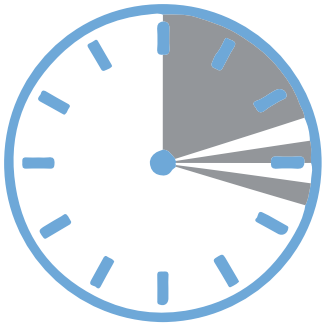
The partnership between Water Wise Gulf South and Healthy Community Services is known as Water Wise 7th Ward.

LOOKBOOK PURPOSE

The purpose of this Lookbook is to document the methodology that was used by Water Wise 7th Ward. In this Lookbook you will learn about the Neighborhood Champions, community events organized and attended by Water Wise 7th Ward, green infrastructure demonstration projects implemented by Water Wise 7th Ward and a list of priority green infrastructure projects identified by the residents of the 7th Ward.

TYPES OF GREEN INFRASTRUCTURE

Green infrastructure is a term that includes different features and facilities that manage stormwater by mimicking natural processes, whether they involve plants or not. Typical green infrastructure that utilizes plants and soil to slow, detain, and filter stormwater are rain gardens, bioswales, stormwater planters, and trees. French drains, infiltration columns, and infiltration pits are filled with coarse gravel and, although not planted, can be covered with lawn grass and still function. Pervious or permeable paving includes several different types of surfacing for patios, driveways, and sidewalks that allows water to enter the subsurface soil through the paving. Rain barrels are also a type of green infrastructure, one which collects stormwater runoff from roofs for reuse in irrigating vegetable and flower gardens, trees, and shrubs.

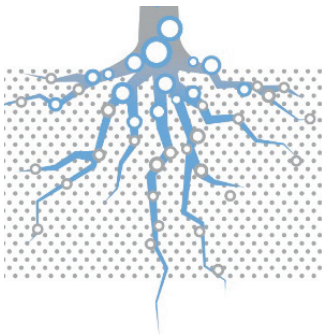


DETENTION

Detaining stormwater allows water to be absorbed by plants and soils rather than run directly into the storm drains. This decreases flooding by preventing the drainage system from being overloaded with rainwater.

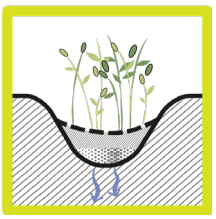
INFILTRATION

Allowing water to infiltrate into the soil helps to balance the groundwater, which reduces the constant expanding and shrinking of our clay and rich organic soils and reduces subsidence.



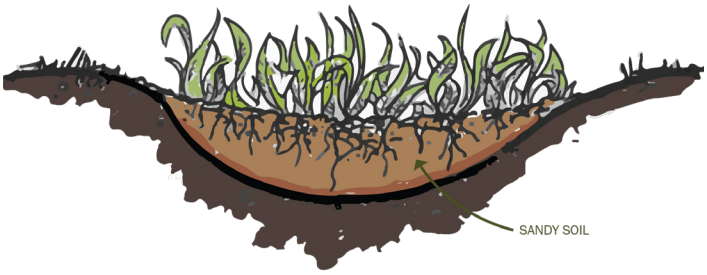
FILTRATION

Plants roots absorb polluted water amd filter out pollutants before they reach pipes. This means our lakes, bayous, and streams would receive cleaner water, benefiting public health, recreation, wildlife, and more.

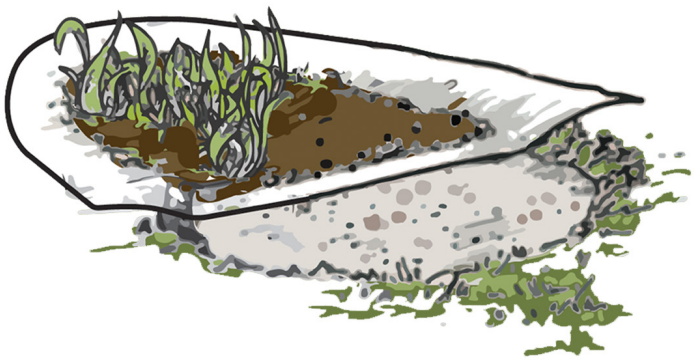


BIOSWALES

Bioswales are shallow, linear channels with side slopes used to convey water from one place to another, often toward a larger green infrastructure type. They use suitable native plants to slow stormwater moving through the bioswale and filter out pollutants.

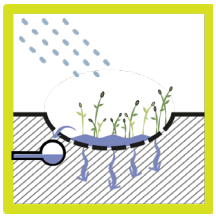


WATERWISE GULF SOUTH



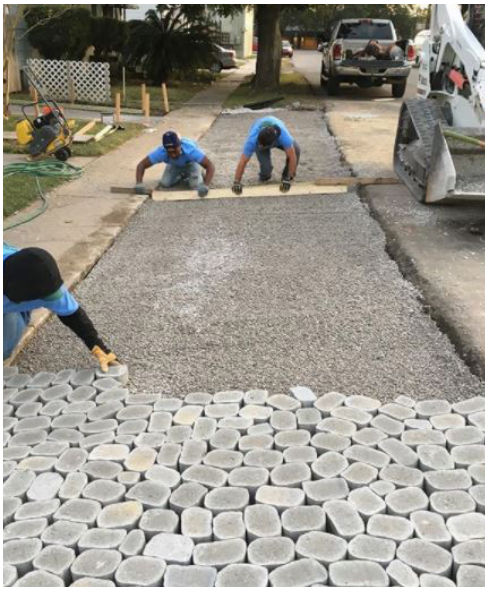
RAIN GARDENS

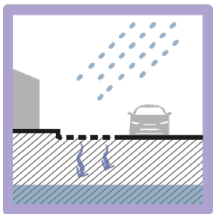
Rain gardens reduce runoff by capturing stormwater runoff from non-permeable surfaces and allowing stormwater to soak directly into the ground rather than flowing into storm drains. This decreases the amount of drainage-related issues such as subsidence, pollution, and flooding. Typical planting includes Louisiana Irises and other native plants.



DETENTION BASINS

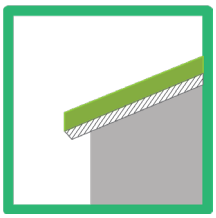
A detention basin or dry pond is used to capture large amounts of stormwater and release it slowly into the ground as well as the drainage system. This slow release mitigates the intensity of storm-induced flooding on neighboring properties and roadways. Detention basins also help clean and filter the stormwater prior to entering the drainage system.





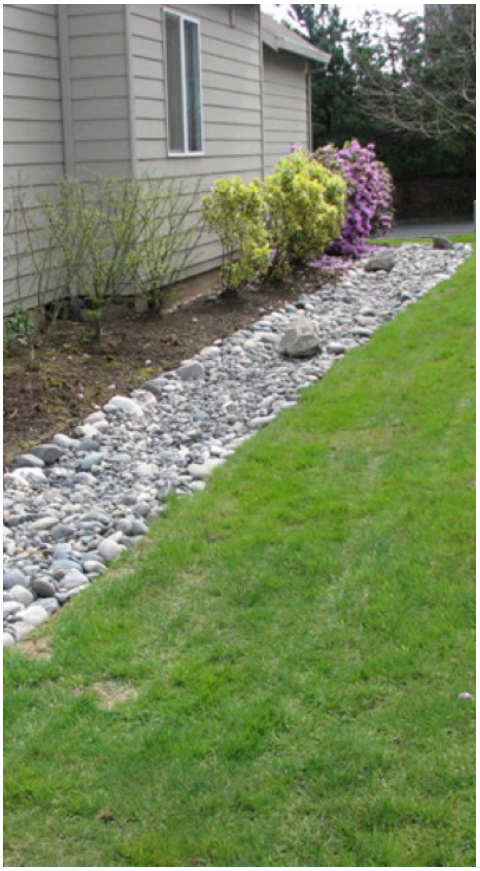
PERVIOUS PAVEMENT

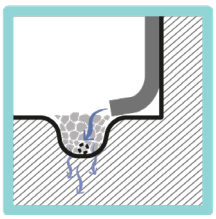
Pervious pavement is any surface that allows stormwater to infiltrate through the paving into the subsurface. Pervious concrete is a type of pavement that has between 15-25% of void space to allow water and air to infiltrate. Pervious pavers are solid interlocking pavers that allow water to flow through joints between them.



EXTENSIVE GREEN ROOF

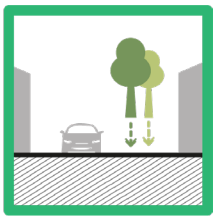
A green roof is a multi-layered roof system that is partially or entirely covered with vegetation. Extensive green roofs have a maximum depth of 6 inches containing growing media (bioretention soil), drainage, irrigation, and a waterproofing membrane. The systems can support groundcovers and shallow plant roots, so they require less structural support and maintenance.





FRENCH DRAIN

French drains are long excavated channels filled with coarse rock or stone that is 1-1/2” to 2” in size. The purpose is to direct stormwater along a path typically away from your home and into a rain garden. In addition, infiltration trenches clean and filter the water while allowing it to soak into the soil and replenish the groundwater.

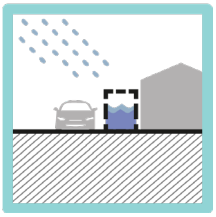


STREET TREES

Adding street trees to a corridor not only boosts aesthetic and property values, but provides air and water quality benefits, reduces stormwater runoff, sequesters carbon, and reduces urban heat island effect, and provide wildlife habitat. For proper tree health, tree species should be chosen based on site specific conditions including root zone space and potential for stormwater to infiltrate into the root zone space.

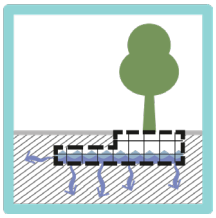
GREEN OPEN SPACE

Green open spaces slow down and treat stormwater runoff, allow for infiltration, provide wildlife habitat, reduce heat island effects, and sequester carbon. Green spaces are vital to urban environments maintaining some ecological functionality.



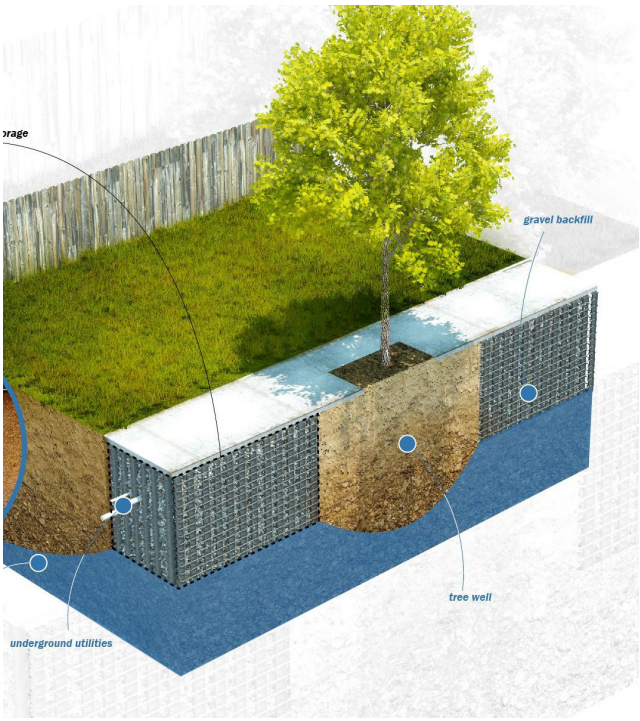
CISTERNS AND RAIN BARRELS

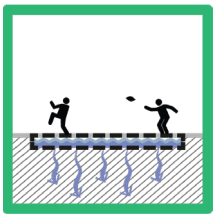
Rain barrels collect stormwater runoff from the roof of a structure, which can be stored for later use or held and released slowly back into the ground. Common uses for stormwater stored in rain barrels include watering gardens, irrigating agriculture, and washing cars.



TREE CELLS

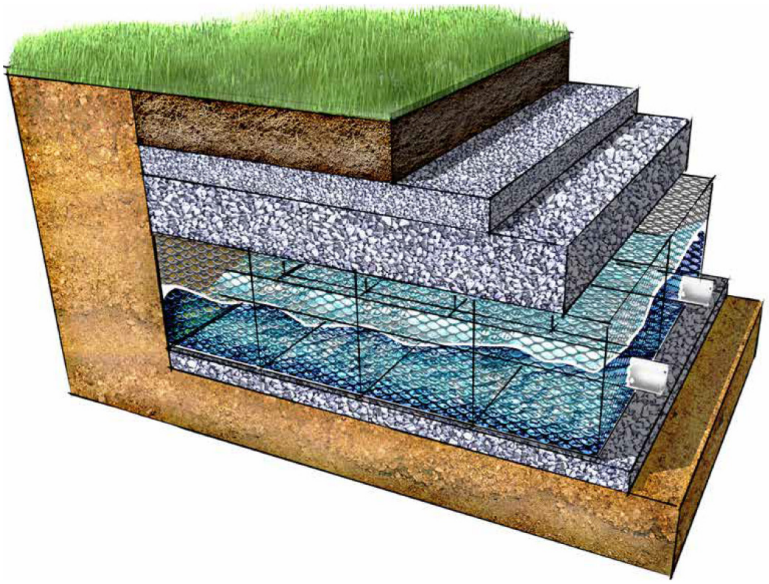
Tree cells are modular suspended pavement systems that provide substantial subsurface space for loose soil, water, and air, which provide an ideal growing medium for tree roots, while also structurally supporting paving above. Tree cells are a perfect type of green infrastructure for a highly urban environment.

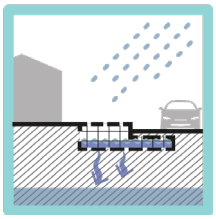


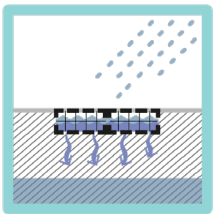


INFILTRATION RECREATION FIELDS

These are multi-purpose fields designed for athletic activities and stormwater management. The fields can have modular subsurface storage systems similar to the ones used for tree cells below an aggregate sub-base and a sandy bioretention soil. This should be topped with a hardy grass species instead of sod to avoid clay soils that do not facilitate infiltration.







BIORETENTION CELLS AND CURB EXTENSIONS

“Bioretention” refers to the biological processes plants use to uptake and retain pollutants. Bioretention cells are defined land areas, usually surrounded by pavement, planted with water tolerant plants. They are designed to detain stormwater to allow both infiltration and filtration.

COMMUNITY OUTREACH EVENTS

An important piece of the Water Wise 7th Ward model is to inform residents about green infrastructure. Below is a list of Community Outreach Events hosted or attended by Water Wise 7th Ward:

Tabling at Circle Foods Store
Date: 01/16/2015
Location: 1522 Saint Bernard Ave
People Engaged: 30

7th Ward Neighborhood Association Meeting
Date: 01/17/2015
Location: St. Augustine High School
People Engaged: 15

Bioswale Demonstration Project
Date: 03/07/2015
Location: 1855 Duels Street
People Engaged: 35

Night Out Against Crime
Date: 10/13/2015; 10/15/2015
Location: AP Tureaud Avenue
People Engaged: 20; 25

7th Ward Meet and Greet
Date: 02/17/2018
Location: NORA Stormwater Lot
People Engaged: 18

Lusher Rain Garden Build
Date: 02/26/2018
Location: Three locations
People Engaged: 30

Xaiver Student Canvassing for Water Wise 7th Ward
Date: 03/03/2018
Location: Neighborhood wide
People Engaged: 102

7th Ward Cultural Festival
Date: Memorial Day Weekend, 2016-2018
Location: 1-10 Underpass
People Engaged: 90

Rain Barrel Build
Date: 06/16/2018
Location: Dillard Community Resource Center
People Engaged: 12

Work n Learn
Date: 06/30/2018
Location: Walker's Avenue Barbershop
People Engaged: 11

NORA Navra Library Grand Opening
Date: 08/25/2018
Location: NORA Navra Library
People Engaged: 25

Water Fall Festival 2018
Date: 11/17/2018
Location: GNOF Center for Philanthropy
People Engaged: 117

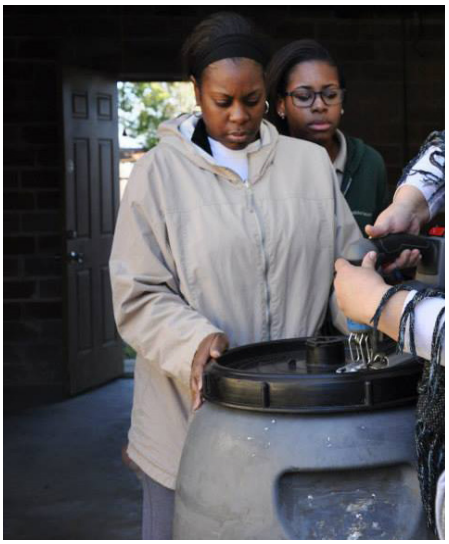
Institute for Sustainable Communities Kick-Off Event
Date: 12/11/2018
Location: Nora Navra Library; Treme/7th Ward Tour; and St Paul's Lutheran Church
People Engaged: 35; 24; 73

Plant 4 Peace
Date: 2016-2018
Location: Neighborhood wide
People Engaged: 55

Dillard Day of Service
Date: 01/11/2019
Location: 1855 Duels Street
People Engaged: 10

Rain Garden Build, Work n Learn
Date: 05/16/2019
Location: 1519 N Derbigny Street
People Engaged: 17


WHAT DO POTHOLES HAVE TO DO WITH WATER?
WHAT IS SUBSIDENCE?
WHAT DOES GREEN INFRASTRUCTURE MEAN?

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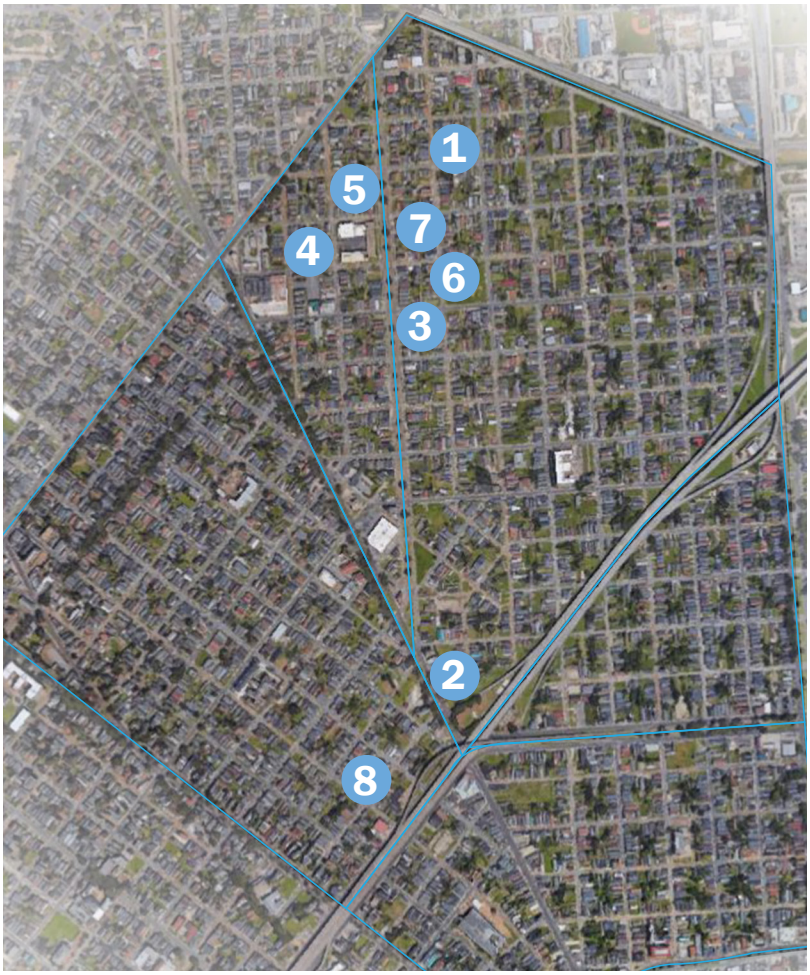
GREEN INFRASTRUCTURE INTERVENTIONS COMPLETED IN THE 7TH WARD

Demonstrating how green infrastructure works is another piece of the Water Wise 7th Ward model. Throughout the 7th Ward, we have implemented many examples of green infrastructure including: rain gardens, bioswales, tree plantings, stormwater planter boxes, concrete removal, French drains, and rain barrels.



1. Bioswale at 1855 Duels Street
2. Concrete removal and tree planting at 1725 St. Bernard Avenue
3. Stormwater Planter Box at 2441 AP Tureaud Avenue
4. French drain at 1843 Law Street
5. French drain and rain garden at 2643 George Nick Connor Drive
6. French Drain and Rain Garden at 2536 New Orleans Street
7. French drain and rain garden at 1956 Hope Street
8. Concrete removal and rain garden at 1519 N Derbigny Street

NEIGHBORHOOD CHAMPIONS

The Water Wise 7th Ward Neighborhood Champions are an integral piece of the Water Wise 7th Ward model. Through a series of training, the Neighborhood Champions become citizen experts on green infrastructure. By living, working, worshiping, and playing in the 7th Ward, they already know the flooding issues that 7th Ward experiences. With their earned title as Neighborhood Champions, they are tasked with educating their neighbors about green infrastructure, installing small scale projects on their property (or another property of their choice), and creating a vision for green infrastructure in the 7th Ward.

Mandatory Trainings to become a Water Wise 7th Ward Neighborhood Champion include:

- **A Water Wise 101 Workshop**: This is an introductory classroom-style presentation and discussion that provides an overview of stormwater management during which participants learn about the municipal drainage system, types and benefits of green infrastructure, and implementing do-it-yourself green infrastructure interventions on their own property.
- **A Citywide Green Infrastructure Tour:** Participants travel via charter bus to tour a variety of different green infrastructure sites on private and public property across the city. Experts on various topics also meet participants at each site to provide information about the project.
- **Visioning Session:** In these workshops participants gather to discuss and decide their preferences for green infrastructure interventions on public property in their neighborhood.

101 WORKSHOP

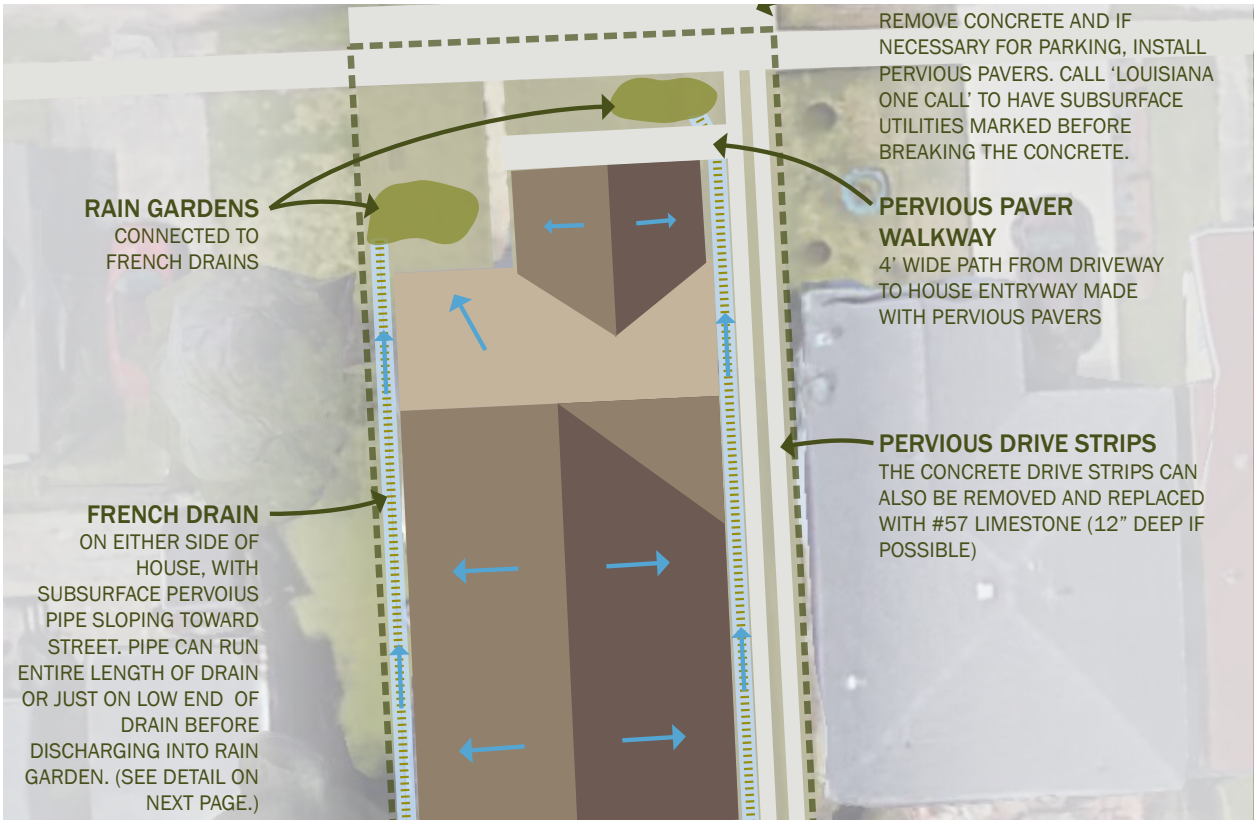
Water Wise 7th Ward held three Water Wise 101 Workshops in the 7th Ward Neighborhood. These workshops are open to the public. At recent Water Wise workshops attendees received a Water Wise Workbook. This workbook provides information about green infrastructure and how to install do-it-yourself green infrastructure interventions on your property. At a Water Wise Workshop, attendees can also win a raffle prize of either a free home assessment led by Dana Brown & Associates or a rain barrel.

Workshop 1: 01/31/2015
Location: St. Augustine High School
Attendees: 13

Workshop 2: 04/07/2018
Location: St. Augustine High School
Attendees: 16

Workshop 3: 04/12/2018
Location: St. Paul's Luthern Church
Attendees: 1

Workshop 4: 04/16/2018
Location: St. Luke's Episcopal Church
Attendees: 25



HOME ASSESSMENTS

Home assessments are led by a team member at Dana Brown and Associates. During a home assessment the homeowner invites their neighbors to attend a walk-around of their site. The homeowner provides information about where they are experiencing flooding and recommendations for green infrastructure implementation are provided by Dana Brown & Associates.

Rosemary Lewis

Location: 1906 Elysian Fields
Date: 06/01/2018
Additional Neighbors in Attendance: 3

Jasamine Pettie

Location: 2643 George Nick Connor Drive
Date: 06/12/2018
Additional Neighbors in Attendance: 6

Kate Iberg

Location: 1758 N Tonti Street
Date: 09/11/2018
Additional Neighbors in Attendance: 7

GREEN INFRASTRUCTURE TOUR

Since 2016, each spring Water Wise holds the Green Infrastructure Tour for residents to see green infrastructure projects that are already implemented across New Orleans. The tour serves as a learning opportunity in green infrastructure design, native plant selection, maintenance, community involvement, etc. It also prepares the Neighborhood Champions to visualize projects that they want to see implemented in their own neighborhoods.

The 2018 Green Infrastructure Tour was dedicated to the Water Wise 7th Ward Neighborhood Champions.

Date: 04/21/2018
Location: See Map on the Next Page
Participants: 19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VISIONING WORKSHOPS

The goal of the Visioning Workshops is to identify medium- to large-scale green infrastructure projects that can help reduce flooding in the 7th Ward. Most of the time, these projects fall on public property. To do this, residents divided into groups based on where in their neighborhood they live. The participants identify areas that frequently flood, referred to as “hotspots”, and then identify appropriate green infrastructure interventions to address these problem areas. From there, Dana Brown & Associates map these projects and calculate the amount of stormwater that would be managed and other benefits using the Climate Adaptation Planning Tool developed by Deltares and Dana Brown & Associates. The participants reconvene in workshops to reassess their suggestions and collectively prioritize the listed projects.

Visioning Workshop Session 1

Date: 07/14/2018

Location: Neo Jazz School of Music

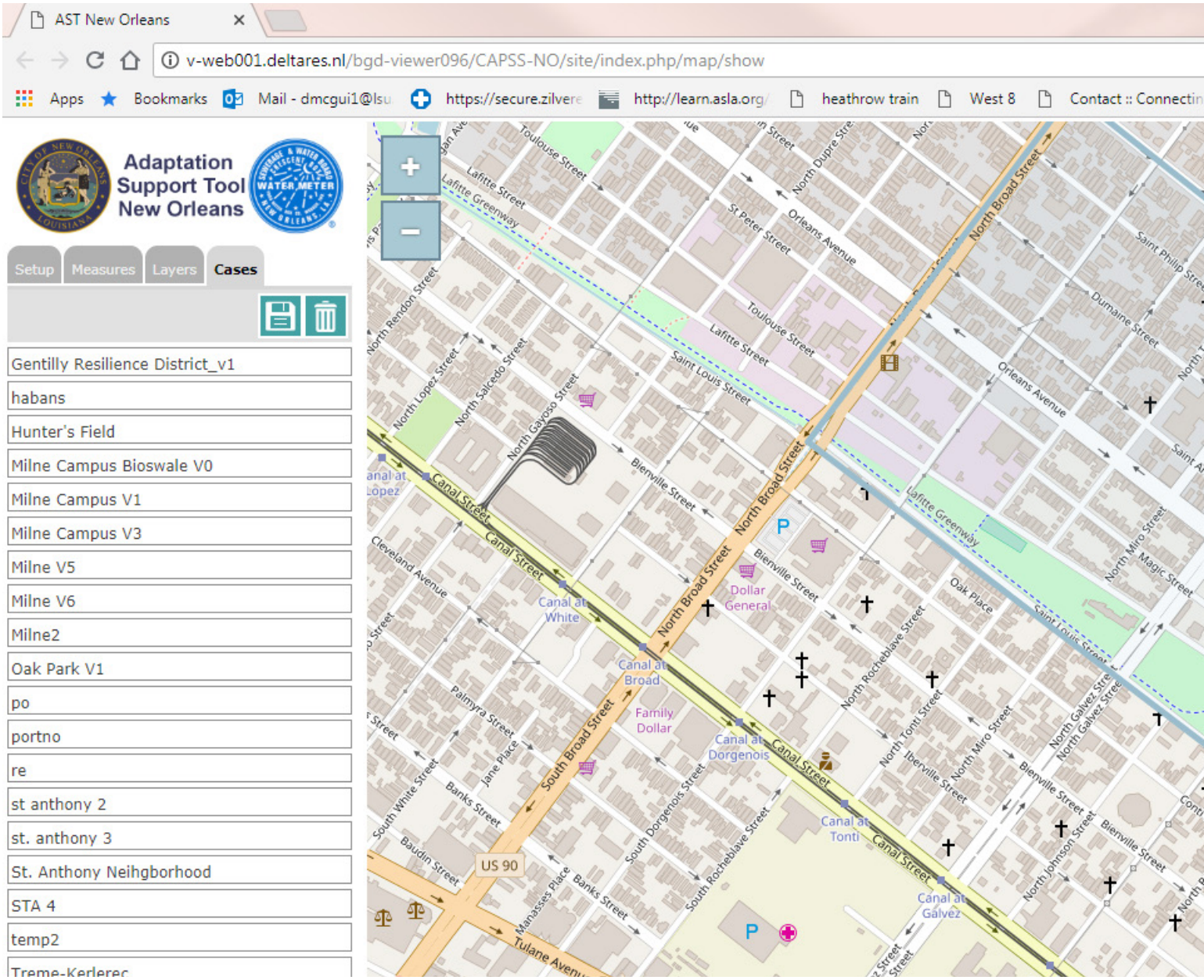
Attendees: 16

Visioning Workshop Session 2

Date: 09/08/2018

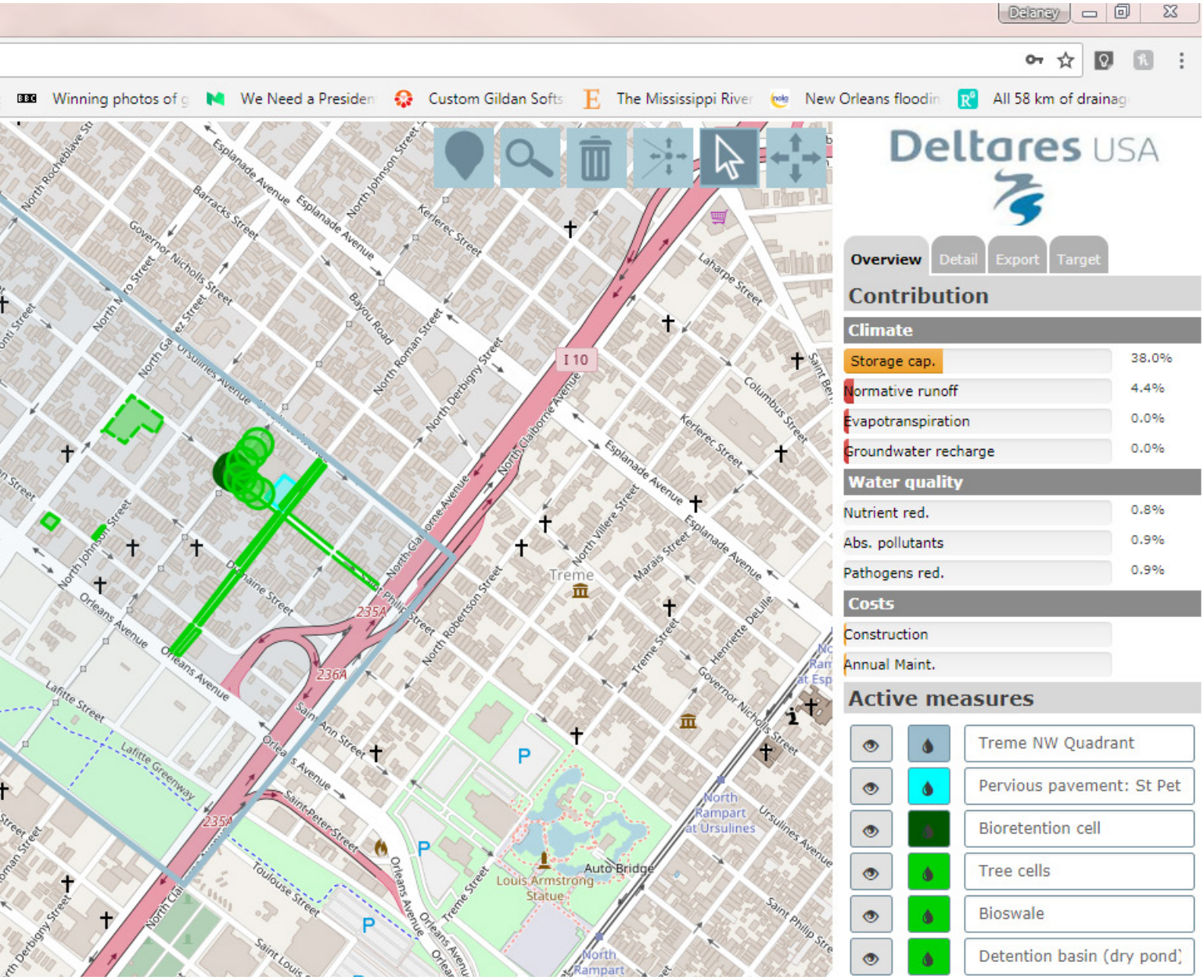
Location: NORA Navra Library

Attendees: 24



ADAPTATION SUPPORT TOOL

The Adaptation Support Tool (AST) was developed by the Dutch research institute Deltares, along with Dana Brown & Associates, to assist in collaborative planning of ecosystem-based adaptation. The AST allows for the input, design, and output of 71 blue-green infrastructure measures, including French drains, dry ponds, and bioretention cells. The tool provides a list of measures ranked by characteristics (adaptation targets, existing land use, surface, subsurface space); map layers and measuring tools; and estimations of performance metrics (storage capacity, runoff reduction, groundwater recharge, etc.). The AST evolved to include measures that particularly affect New Orleans: land subsidence and heat stress reduction.



The tool's dashboard, shown in the image above, displays several options for visualizing the data being analyzed. The left panel contains tabs for setup, measurements, layers, and cases. The right panel presents overview information on contributing factors such as climate, water quality, and costs in addition to active measures; details and target specifications; and a simple feature to export data from the tool.

7TH WARD SECTIONS

As a part of the Visioning Session, Water Wise 7th Ward decided to divide the 7th Ward into five sections. The purpose for this was to allow participants to focus on the areas where they live, work, worship, and play in the 7th Ward. Participants noted flooding hot spots inside of each section and from a list of green infrastructure interventions, they selected interventions to solve the flooding issue. The sections are as follows:

Section 1: Bounded by N Broad Street/Florida Avenue, St. Bernard Avenue, Elysian Fields Avenue, and 1-10

Section 2: Bounded by St. Bernard Avenue, N Broad Street, A.P. Tureaud Avenue, and N Roman Street

Section 3: Bounded by Esplanade Avenue, N Broad Street, I-10, and St. Bernard Avenue

Section 4: Bounded by N Claiborne Avenue/1-10, Esplanade Avenue, St. Claude Avenue, and Elysian Fields Avenue

Section 5: Bounded by 1-10, Elysian Fields Avenue, and N Claiborne Avenue

7TH WARD
SECTION 1

a A.P. Tureaud Avenue Curb Extentions

b A.P. Tureaud Avenue Street Trees

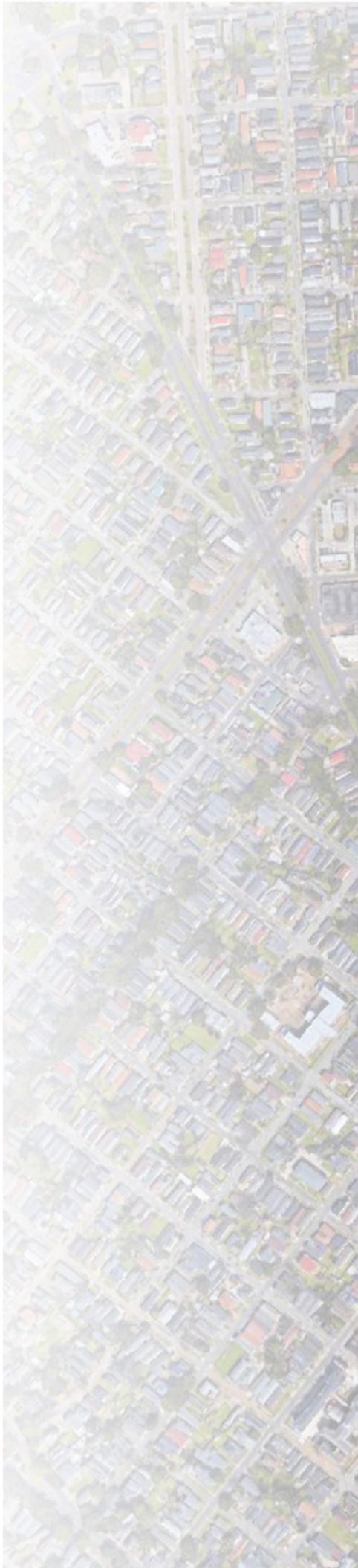
c Good Shepherd School Cistern

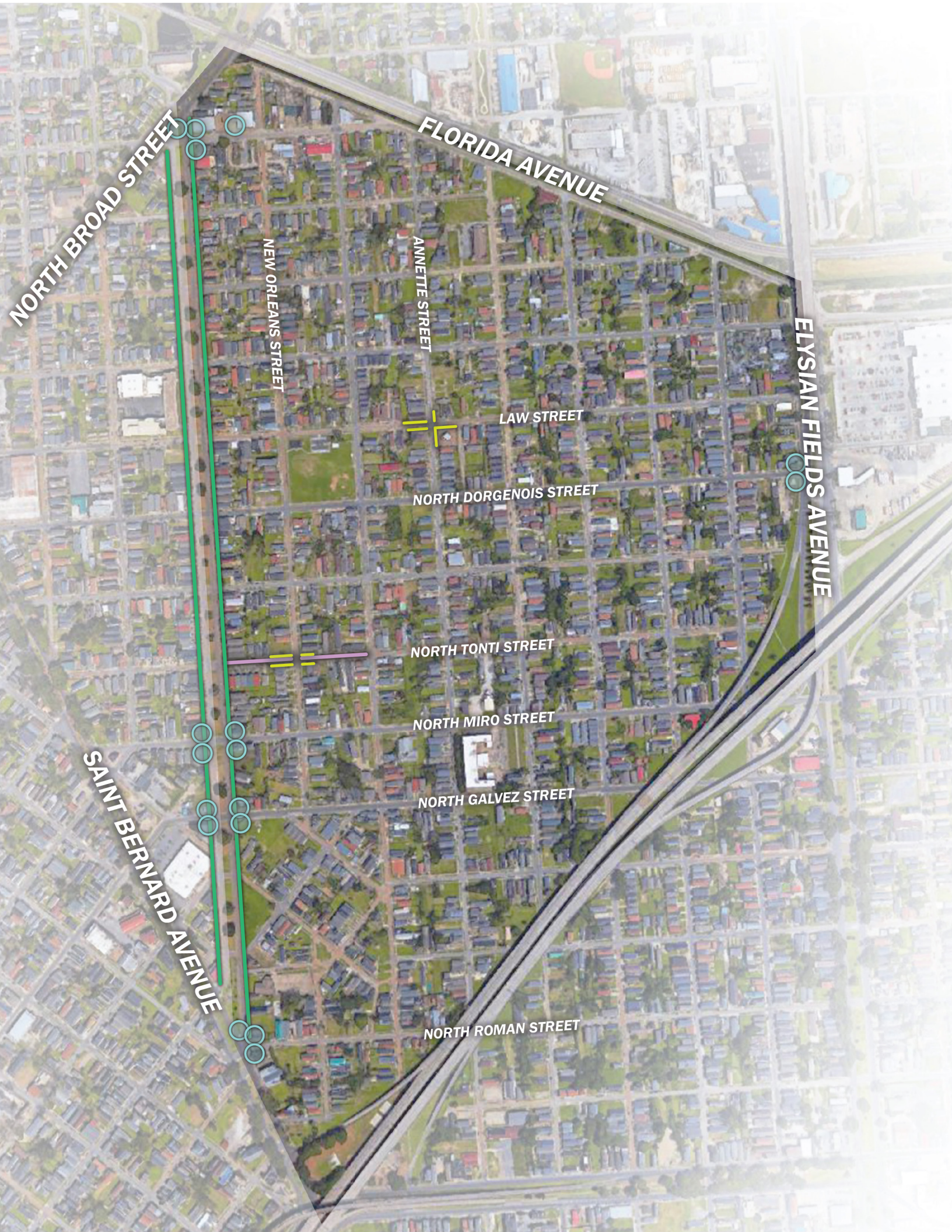
d North Tonti Street Pervious Pavement

e North Tonti Street Bioswales

f Law Street and Annette Street Biowales

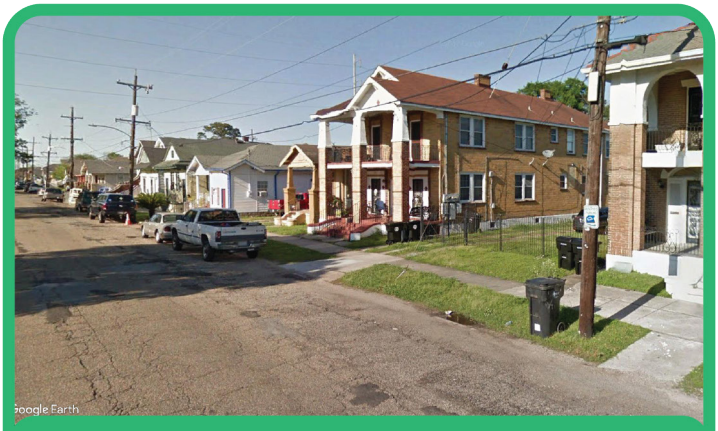
g North Dorgenois Street Curb Extensions




NORTH BROAD STREET
FLORIDA AVENUE
ELYSIAN FIELDS AVENUE
NEW ORLEANS STREET
ANNETTE STREET
LAW STREET
NORTH DORGENOIS STREET
NORTH TONTI STREET
NORTH MIRO STREET
NORTH GALVEZ STREET
SAINT BERNARD AVENUE
NORTH ROMAN STREET

a A.P. Tureaud Avenue Curb Extensions

Stormwater Storage Capacity	28,800 gal
Construction Cost	$630,000
Annual Maintenance Cost	$15,400



b A.P. Tureaud Avenue Street Trees

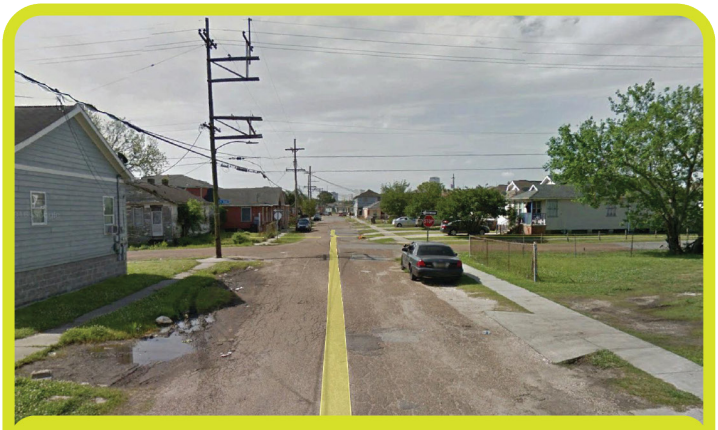
Stormwater Storage Capacity	780,000 gal
Construction Cost	$95,000
Annual Maintenance Cost	$85,500

c Good Shepard School Cistern

Stormwater Storage Capacity	2,990 gal
Construction Cost	$4,000
Annual Maintenance Cost	$500

d North Tonti Street Pervious Pavement

Stormwater Storage Capacity	21,700 gal
Construction Cost	$148,350
Annual Maintenance Cost	$1,615

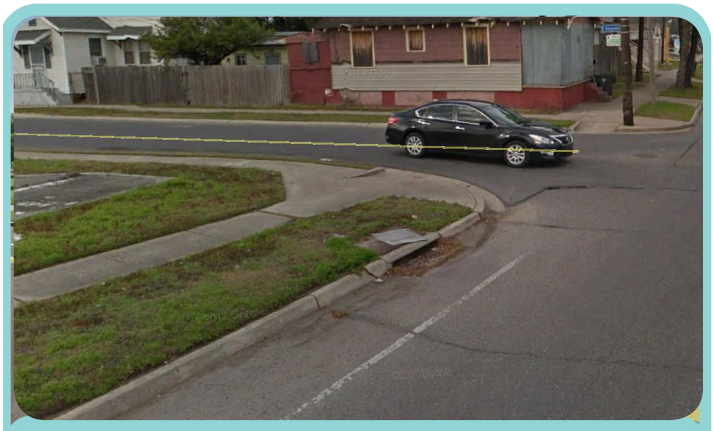


e North Tonti Street Bioswales

Stormwater Storage Capacity	5,720 gal
Construction Cost	$62,100
Annual Maintenance Cost	$5,940

f Law Street and Annette Street Bioswales

Stormwater Storage Capacity	8,300 gal
Construction Cost	$90,045
Annual Maintenance Cost	$8,615

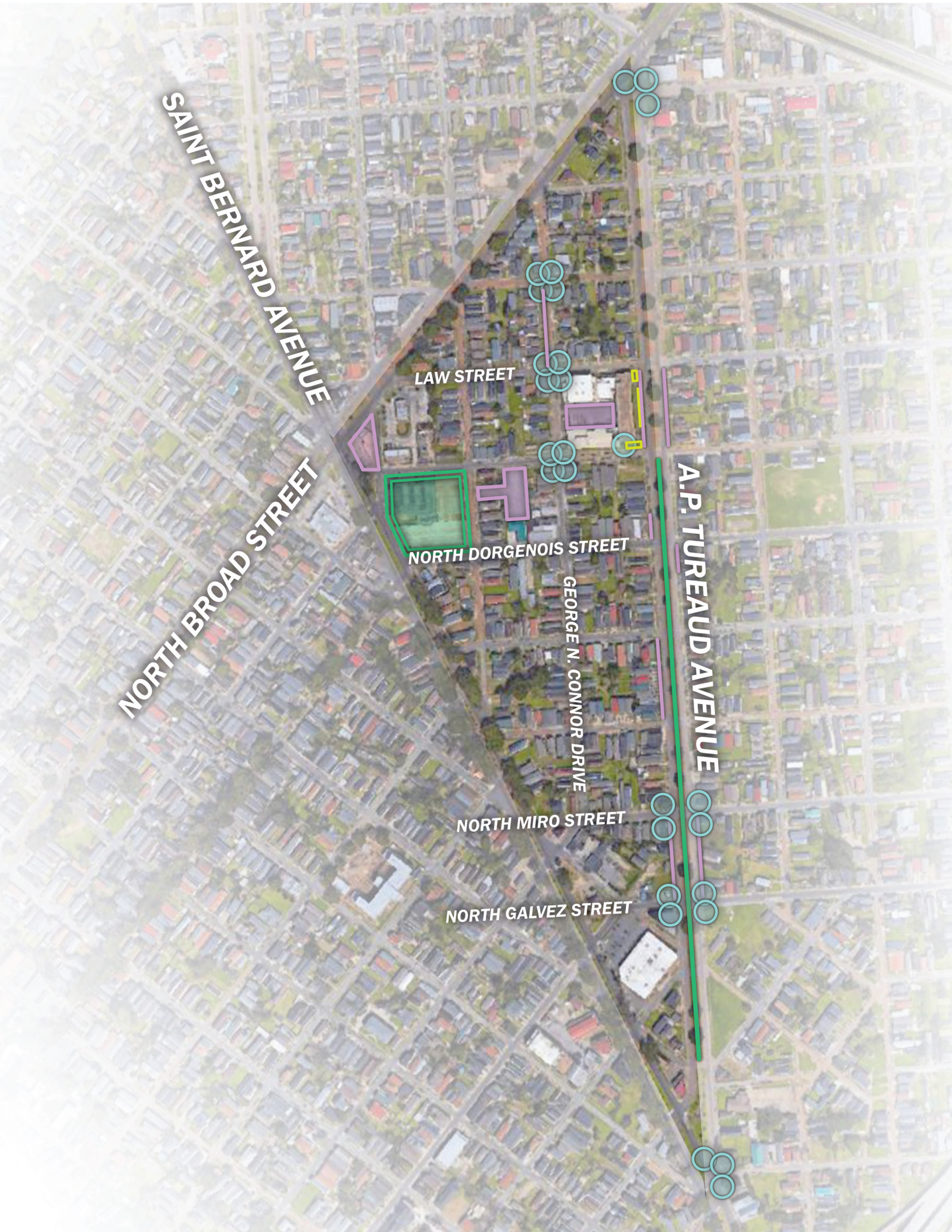


g North Dorgenois Street Curb Extensions

Stormwater Storage Capacity	4,100 gal
Construction Cost	$99,000
Annual Maintenance Cost	$2,200

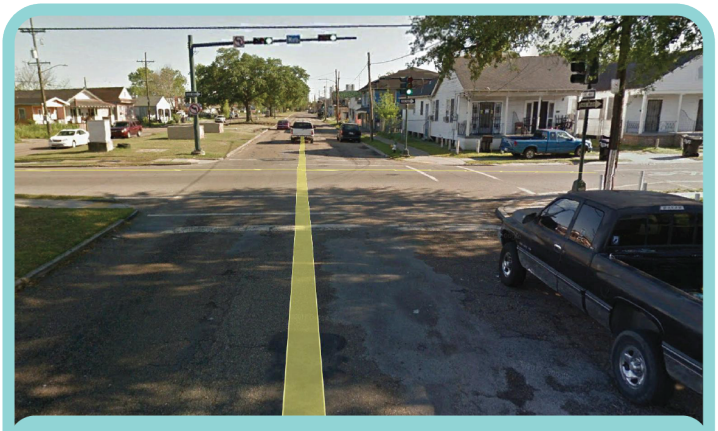
7TH WARD
SECTION 2

- **a** A.P. Turead Avenue Pervious Pavement
- **b** A.P. Tureaud Avenue Curb Extensions
- **c** Triangle Deli Pervious Pavement
- **d** A.P. Turead Avenue Street Trees
- **e** Saint Augustine School Bioswale
- **f** Saint Augustine School Rain Gardens
- **g** Saint Augustine School Cistern
- **h** Saint Augustine School Pervious Pavement
- **i** Saint Augustine School Infiltration Recreation Field
- **j** Saint Augustine School Rec Field Street Trees
- **k** George N Connor Drive and Law Street (SW) Pervious Pavement
- **l** George N Connor Drive Curb Extensions
- **m** Life of Christ School Pervious Pavement


SAINT BERNARD AVENUE
NORTH BROAD STREET
LAW STREET
NORTH DORGENOIS STREET
GEORGE N. CONNOR DRIVE
A.P. TUREAUD AVENUE
NORTH MIRO STREET
NORTH GALVEZ STREET

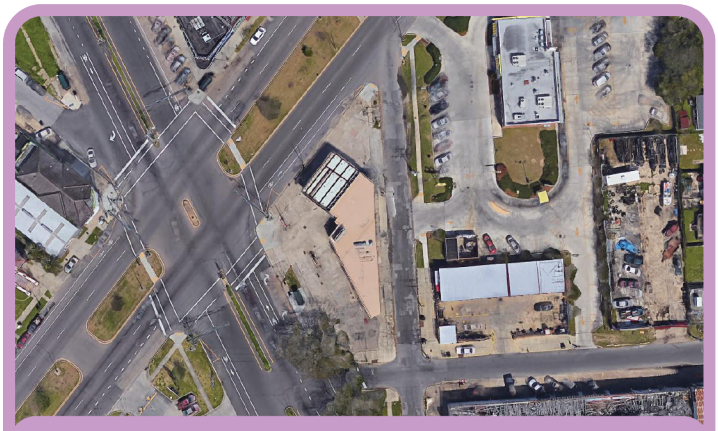
a A.P. Tureaud Avenue Pervious Pavement

Stormwater Storage Capacity	58,900 gal
Construction Cost	$402,500
Annual Maintenance Cost	$4,375



b A.P. Tureaud Avenue Curb Extensions

Stormwater Storage Capacity	28,800 gal
Construction Cost	$630,000
Annual Maintenance Cost	$15,400



c Triangle Deli Pervious Pavement

Stormwater Storage Capacity	21,200 gal
Construction Cost	$144,900
Annual Maintenance Cost	$1,575

d A.P. Tureaud Avenue Street Trees

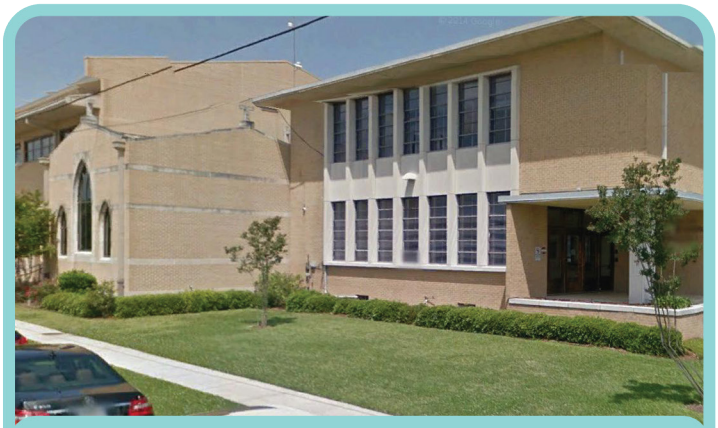
Stormwater Storage Capacity	29,360 gal
Construction Cost	$26,875
Annual Maintenance Cost	$24,190

e St. Augustine School Bioswale

Stormwater Storage Capacity	5,890 gal
Construction Cost	$40,250
Annual Maintenance Cost	$440

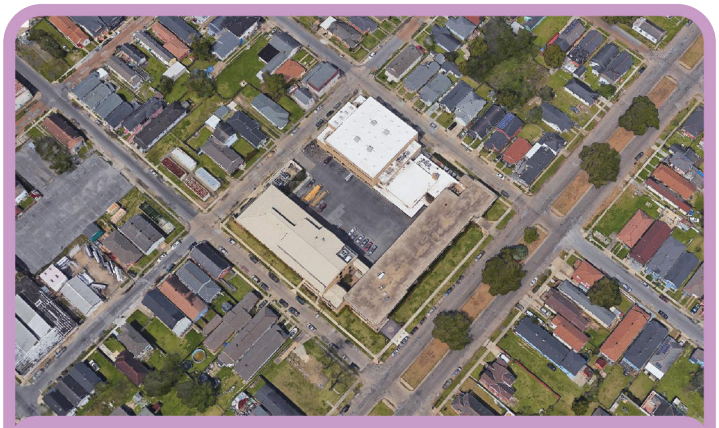
f St. Augustine School Rain Gardens

Stormwater Storage Capacity	7,950 gal
Construction Cost	$86,250
Annual Maintenance Cost	$8,250



g St. Augustine School Cistern

Stormwater Storage Capacity	2,990 gal
Construction Cost	$4,000
Annual Maintenance Cost	$500



h St. Augustine School Pervious Pavement

Stormwater Storage Capacity	72,710 gal
Construction Cost	$496,800
Annual Maintenance Cost	$5,400

i St. Augustine School Infiltration Recreation Field

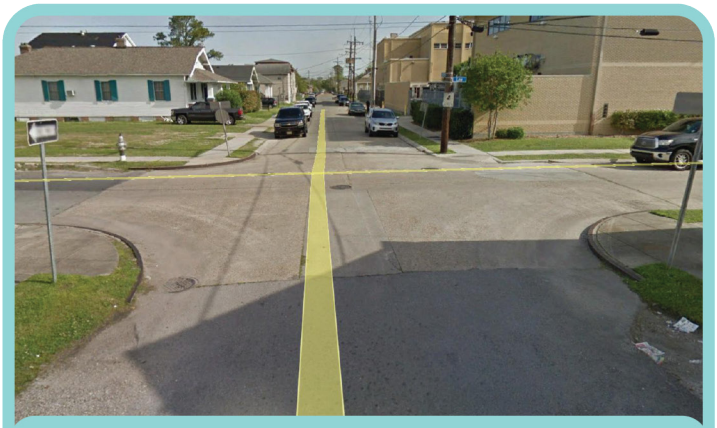
Stormwater Storage Capacity	60,590 gal
Construction Cost	$162,000
Annual Maintenance Cost	$7,000

j St. Augustine School Recreation Field Street Trees

Stormwater Storage Capacity	32,580 gal
Construction Cost	$29,750
Annual Maintenance Cost	$26,775

k George N Connor Drive and Law Street Pervious Pavement

Stormwater Storage Capacity	10,930 gal
Construction Cost	$197,250-867,850
Annual Maintenance Cost	$13,020



l George N Connor Drive Curb Extensions

Stormwater Storage Capacity	19,075 gal
Construction Cost	$207,000
Annual Maintenance Cost	$19,800

m Life of Christ School Pervious Pavement

Stormwater Storage Capacity	1,120 gal
Construction Cost	$12,420
Annual Maintenance Cost	$1,190

7TH WARD
SECTION 3

a North Claiborne Avenue Detention Basin

b North Broad Street Curb Extensions

c Street Tree Grid

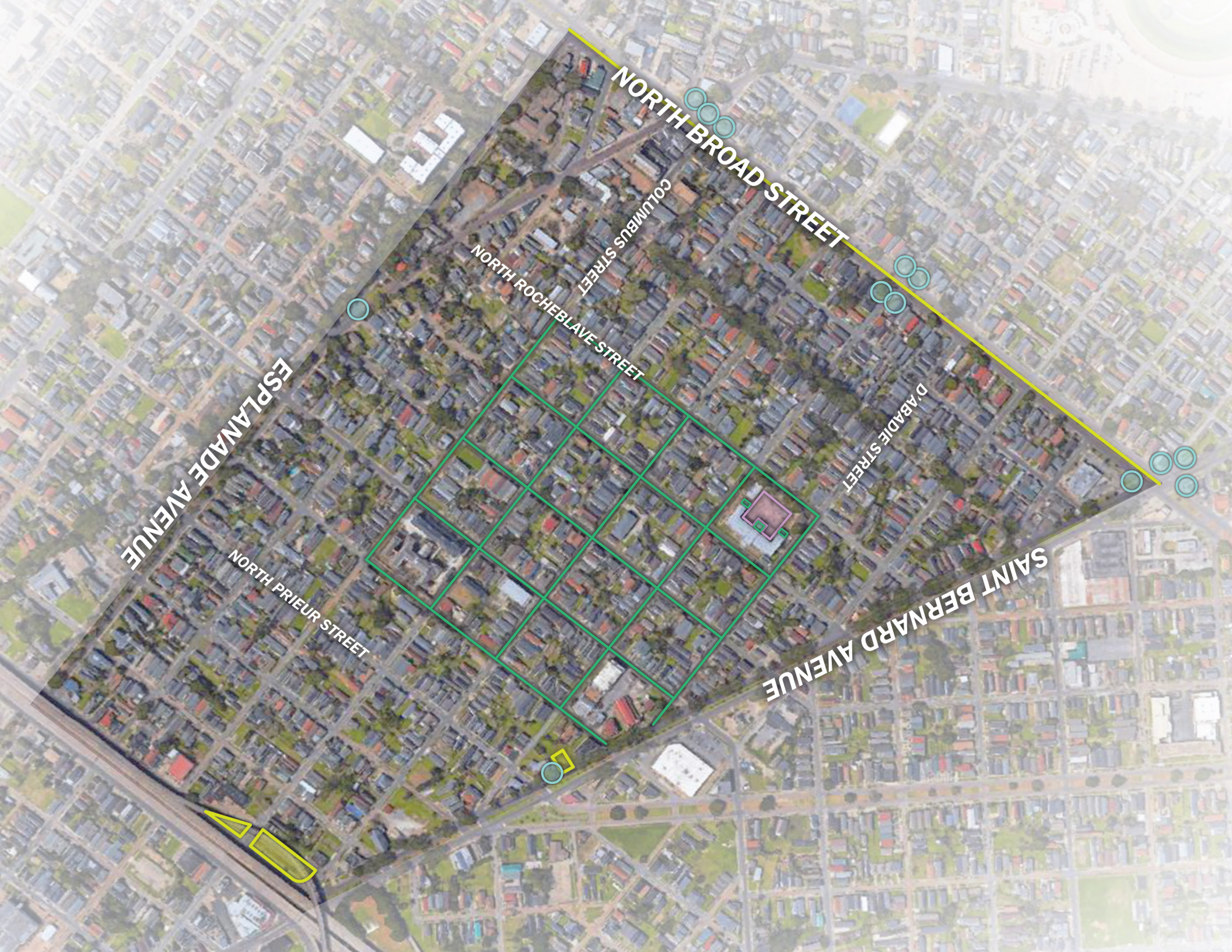
d Bayou Road Curb Extension

e St. Bernard Lot Detention Basin

f St. Bernard Lot Cistern

g McDonogh 42 Perious Pavement

h McDonogh 42 Green Roofs


NORTH BROAD STREET
COLUMBUS STREET
NORTH ROCHEBLAVE STREET
ESPLANADE AVENUE
D'ABADIE STREET
SAINT BERNARD AVENUE
NORTH PRIEUR STREET

a North Claiborne Avenue Detention Basin

Stormwater Storage Capacity	242,145 gal
Construction Cost	$124,500
Annual Maintenance Cost	$8,127

b North Broad Street Curb Extensions

Stormwater Storage Capacity	28,800 gal
Construction Cost	$630,000
Annual Maintenance Cost	$15,400

c Street Tree Grid

Stormwater Storage Capacity	21,200 gal
Construction Cost	$144,900
Annual Maintenance Cost	$1,575

d Bayou Road Curb Extension

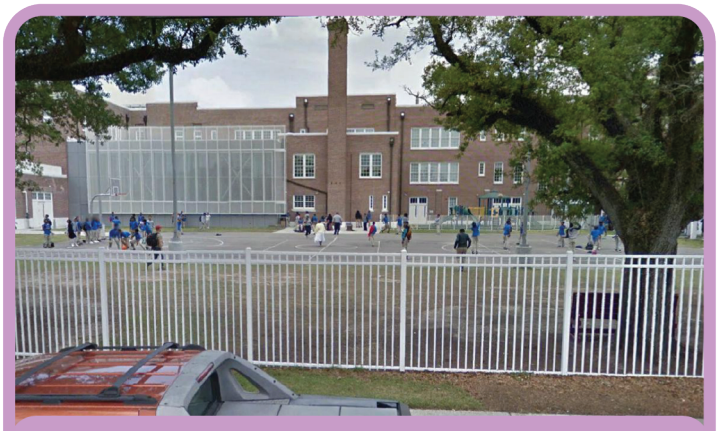
Stormwater Storage Capacity	29,360 gal
Construction Cost	$26,875
Annual Maintenance Cost	$24,190

e St. Bernard Lot Detention Basin

Stormwater Storage Capacity	5,890 gal
Construction Cost	$40,250
Annual Maintenance Cost	$440

f St. Bernard Lot Cistern

Stormwater Storage Capacity	7,950 gal
Construction Cost	$86,250
Annual Maintenance Cost	$8,250



g McDonogh 42 Pervious Pavement

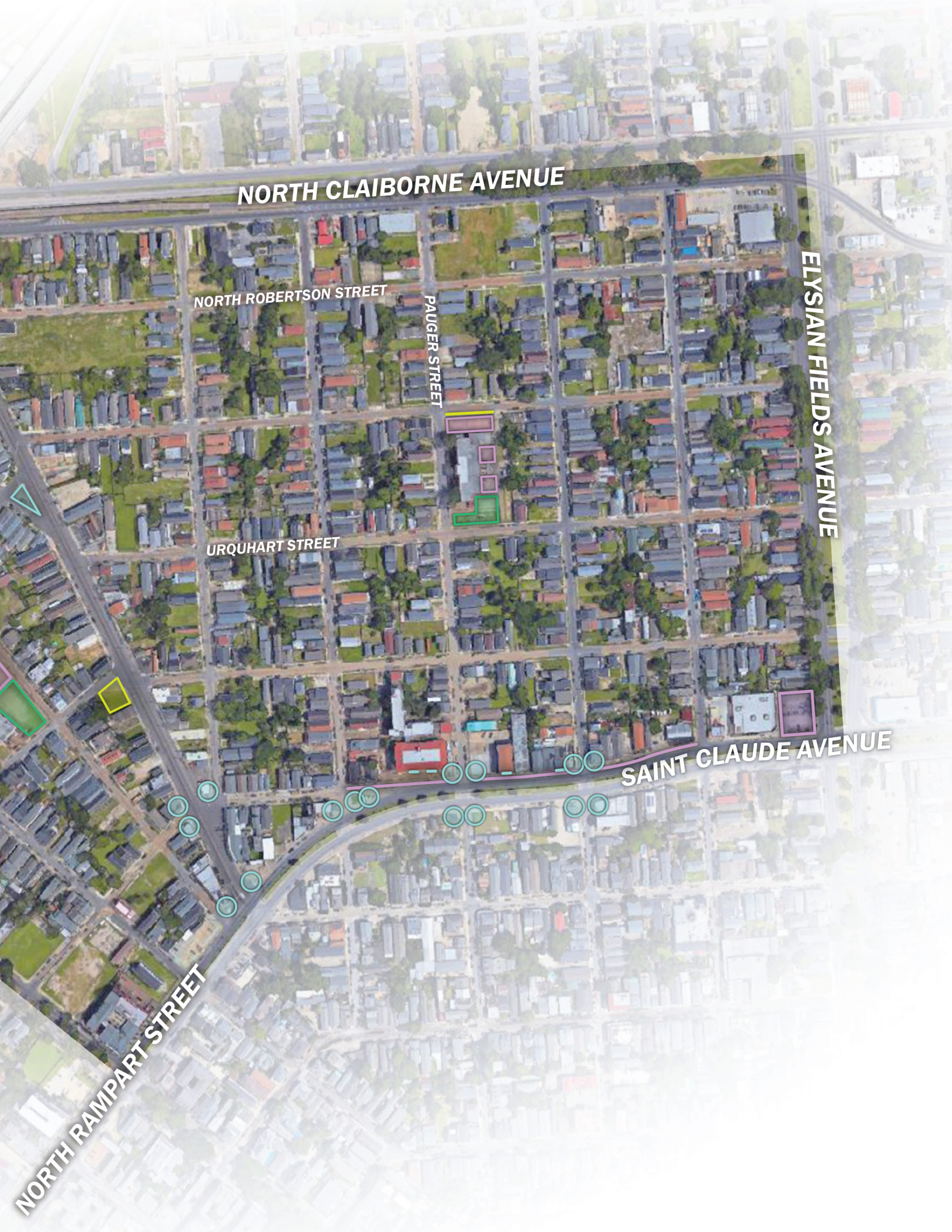
Stormwater Storage Capacity	2,990 gal
Construction Cost	$4,000
Annual Maintenance Cost	$500

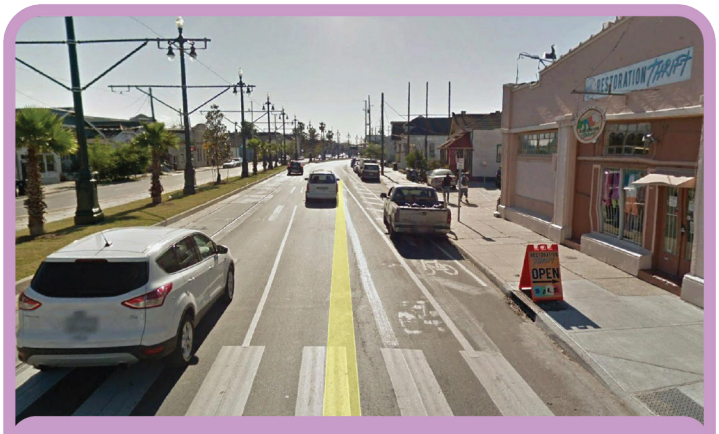
h McDonogh 42 Green Roofs

Stormwater Storage Capacity	72,710 gal
Construction Cost	$496,800
Annual Maintenance Cost	$5,400

7TH WARD
SECTION 4

- **a** St. Claude Avenue Pervious Pavement
- **b** St. Claude Avenue Curb Extensions
- **c** Saint Bernard Avenue Curb Extensions
- **d** Saint Bernard Avenue Bioretention Cells
- **e** A.P. Tureaud School Pervious Pavement
- **f** A.P. Tureaud School Green Open Space
- **g** A.P. Tureaud School Bioswale
- **h** McDonogh 35 Perviou Pavement
- **i** McDonogh 35 Bioswales
- **j** McDonogh 35 Rain Gardens
- **k** McDonogh 35 Green Open Space
- **l** Elysian Fields Pervious Pavement


NORTH CLAIBORNE AVENUE
NORTH ROBERTSON STREET
PAUGER STREET
ELYSIAN FIELDS AVENUE
URQUHART STREET
SAINT CLAUDE AVENUE
NORTH RAMPART STREET



a St. Claude Avenue Pervious Pavement

Stormwater Storage Capacity	70,700 gal
Construction Cost	$483,000
Annual Maintenance Cost	$5,250

b St. Claude Avenue Curb Extensions

Stormwater Storage Capacity	23,865 gal
Construction Cost	$522,000
Annual Maintenance Cost	$12,100

c St. Bernard Avenue Curb Extensions

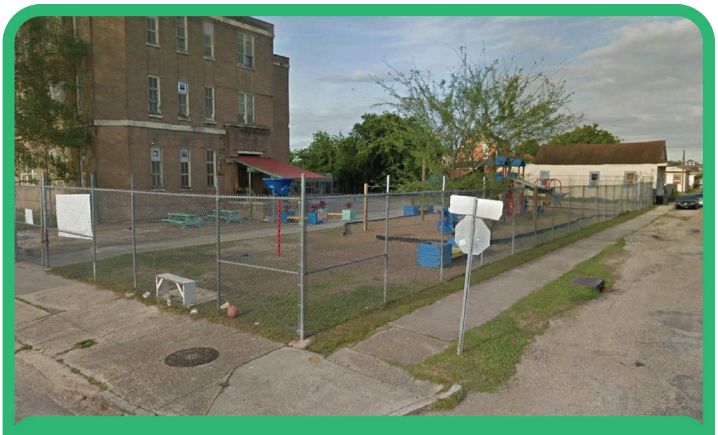
Stormwater Storage Capacity	30,035 gal
Construction Cost	$657,000
Annual Maintenance Cost	$9,900

d St. Bernard Avenue Bioretention Cells

Stormwater Storage Capacity	18,000 gal
Construction Cost	$396,000
Annual Maintenance Cost	$2,200

e A.P. Tureaud School Pervious Pavement

Stormwater Storage Capacity	32,800 gal
Construction Cost	$224,250
Annual Maintenance Cost	$2,440



f A.P. Tureaud School Open Green Space

Stormwater Storage Capacity	0.561 CFS
Construction Cost	$24,600
Annual Maintenance Cost	$1,395

g A.P. Tureaud School Bioswale

Stormwater Storage Capacity	2,380 gal
Construction Cost	$25,875
Annual Maintenance Cost	$2,475

h McDonogh 35 Pervious Pavement

Stormwater Storage Capacity	143,065 gal
Construction Cost	$977,500
Annual Maintenance Cost	$10,625

i McDonogh 35 Bioswales

Stormwater Storage Capacity	7,140 gal
Construction Cost	$77,625
Annual Maintenance Cost	$7,425

j McDonogh 35 Rain Gardens

Stormwater Storage Capacity	22,600 gal
Construction Cost	$11,625-51,150
Annual Maintenance Cost	$770

k McDonogh 35 Open Green Space

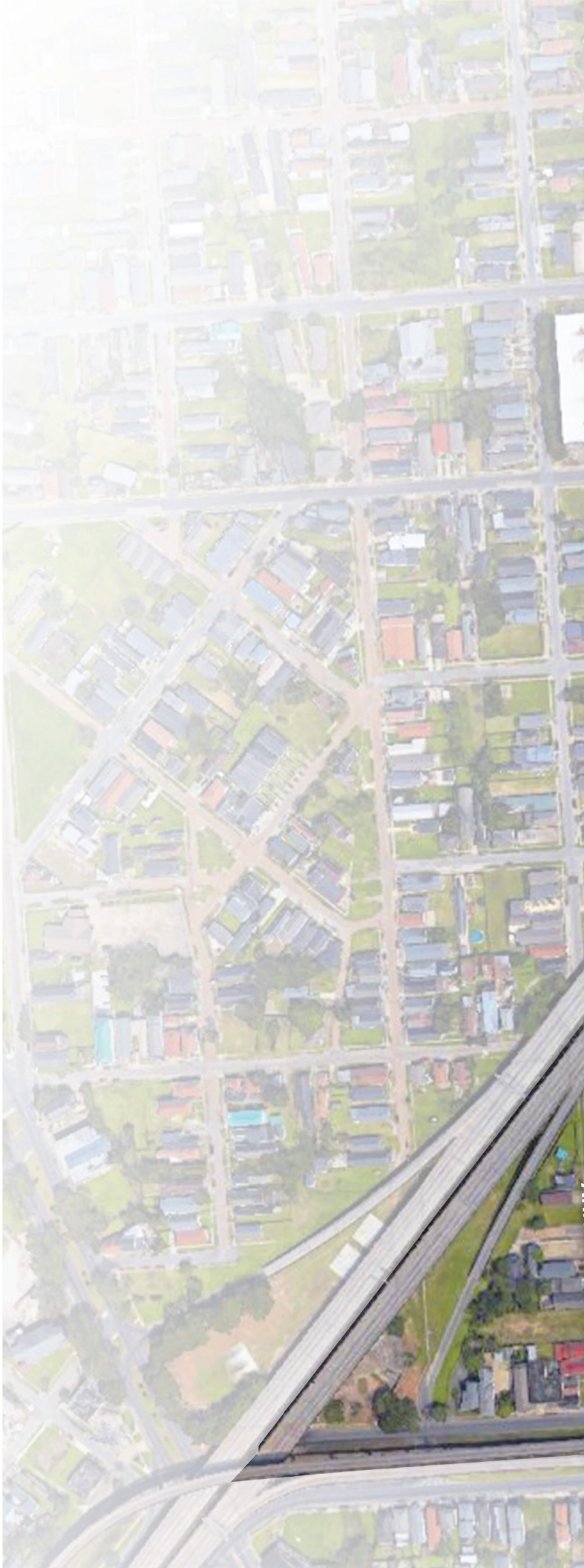
Stormwater Storage Capacity	0.797 CFS
Construction Cost	$34,950
Annual Maintenance Cost	$1,980

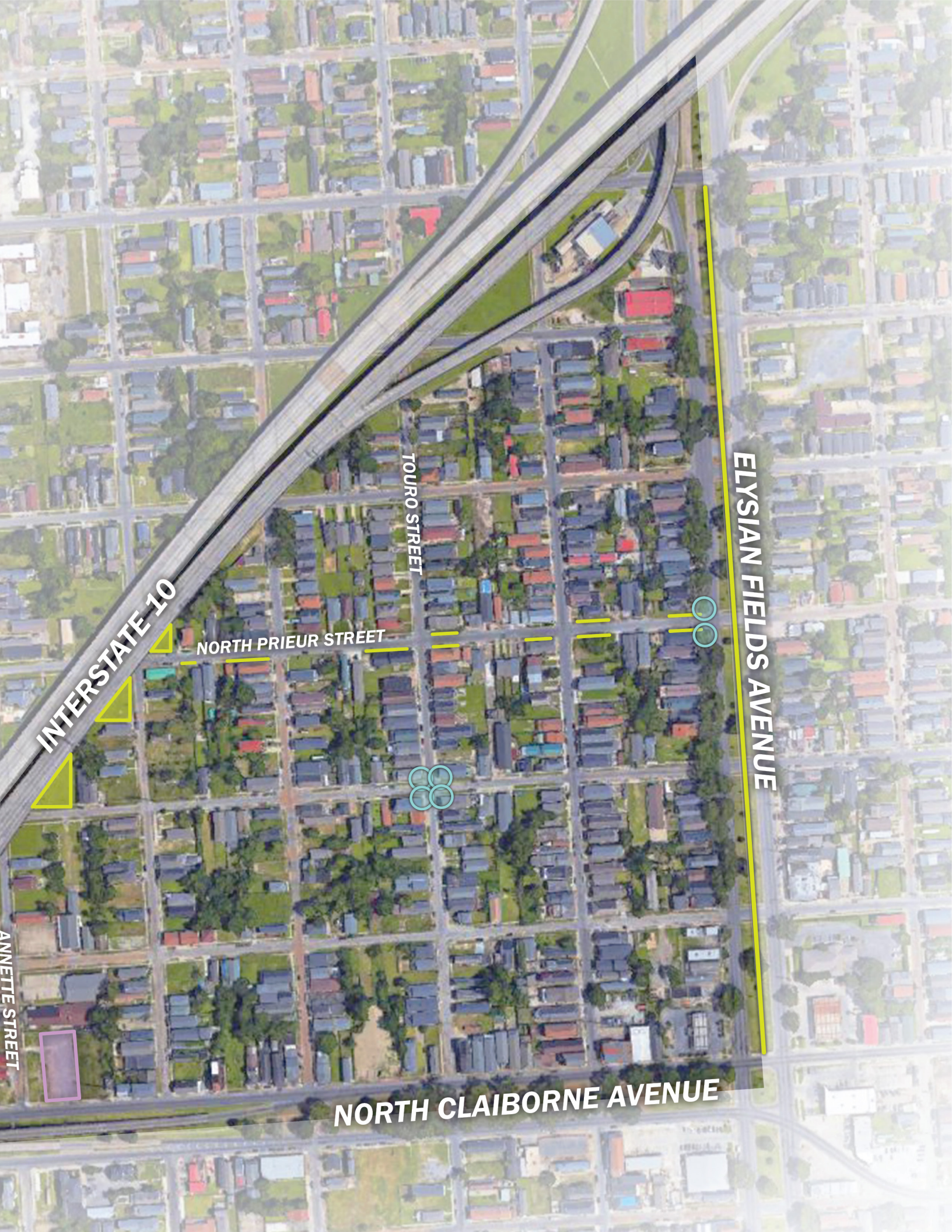
l Elysian Fields Pervious Pavement

Stormwater Storage Capacity	40,400 gal
Construction Cost	$276,000
Annual Maintenance Cost	$3,000

7TH WARD SECTION 5

- **a** Interstate-10 Detention Basins
- **b** North Prieur Street Curb Extensions
- **c** Saint Paul's Church Pervious Pavement
- **d** North Prieur Street Bioswales
- **e** North Roman and Touro Streets Curb Extensions
- **f** Elysian Fields Avenue Rain Gardens



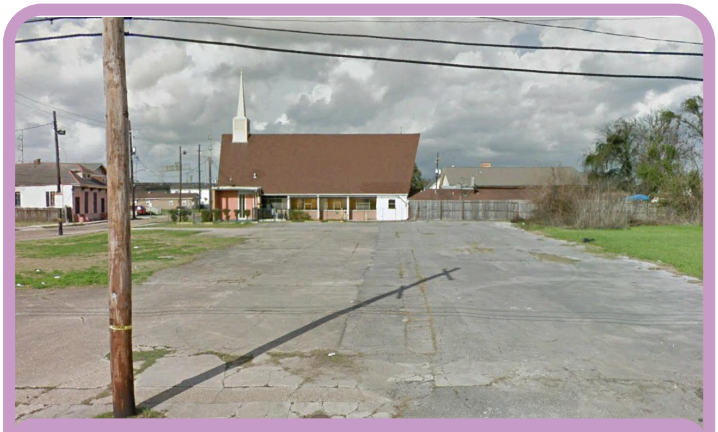

INTERSTATE 10
NORTH PRIEUR STREET
TOURO STREET
ELYSIAN FIELDS AVENUE
NORTH CLAIBORNE AVENUE
ANNETTE STREET

a Interstate-10 Detention Basins

Stormwater Storage Capacity	117,180 gal
Construction Cost	$60,250
Annual Maintenance Cost	$3,975

b North Prieur Street Curb Extensions

Stormwater Storage Capacity	4,115 gal
Construction Cost	$90,000
Annual Maintenance Cost	$2,200

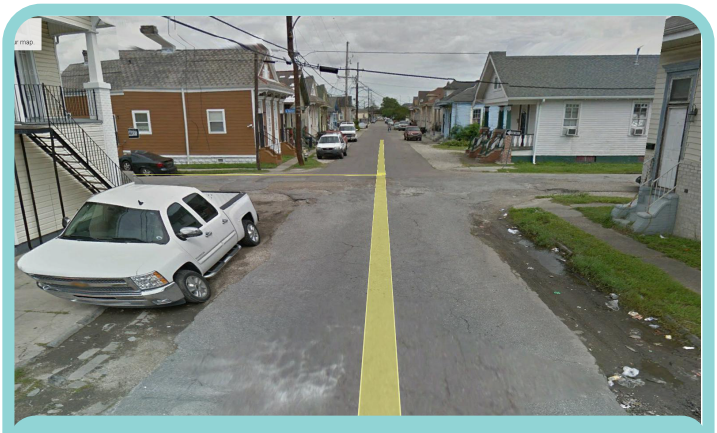


c St. Paul's Church Pervious Pavement

Stormwater Storage Capacity	104,520 gal
Construction Cost	$714,150
Annual Maintenance Cost	$7,760

d North Prieur Street Bioswales

Stormwater Storage Capacity	17,165 gal
Construction Cost	$186,300
Annual Maintenance Cost	$17,820



e North Roman and Touro Streets Curb Extensions

Stormwater Storage Capacity	6,360 gal
Construction Cost	$69,000
Annual Maintenance Cost	$4,400

f Elysian Fields Avenue Rain Gardens

Stormwater Storage Capacity	220,990 gal
Construction Cost	$113,625
Annual Maintenance Cost	$7,500

NEXT STEPS

Water Wise 7th Ward is dedicated to nurturing the Water Wise 7th Ward Neighborhood Champions in the following ways:

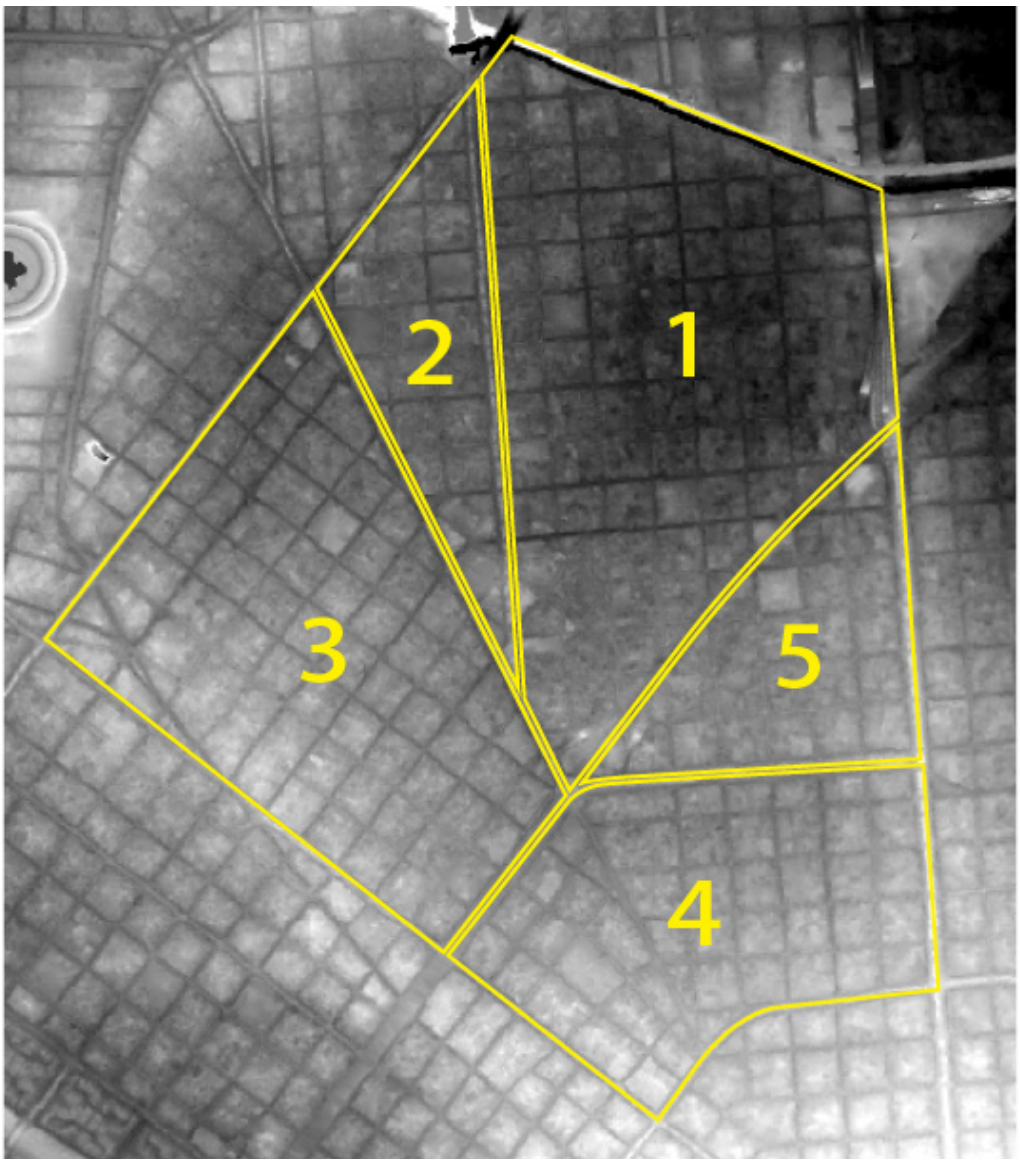
- Hosting continuing education courses around green infrastructure related topics;
- Providing technical assistance to the Neighborhood Champions to help implement green infrastructure projects in the 7th Ward;
- And supporting advocacy and fundraising efforts to implement the Water Wise 7th Ward Green Infrastructure Vision.

HOW TO GET INVOLVED

If you would like to become a Water Wise 7th Ward Neighborhood Champion, please contact info@waterwisegulfsouth.org.

To learn more about Water Wise Gulf South visit www.waterwisegulfsouth.org

APPENDIX



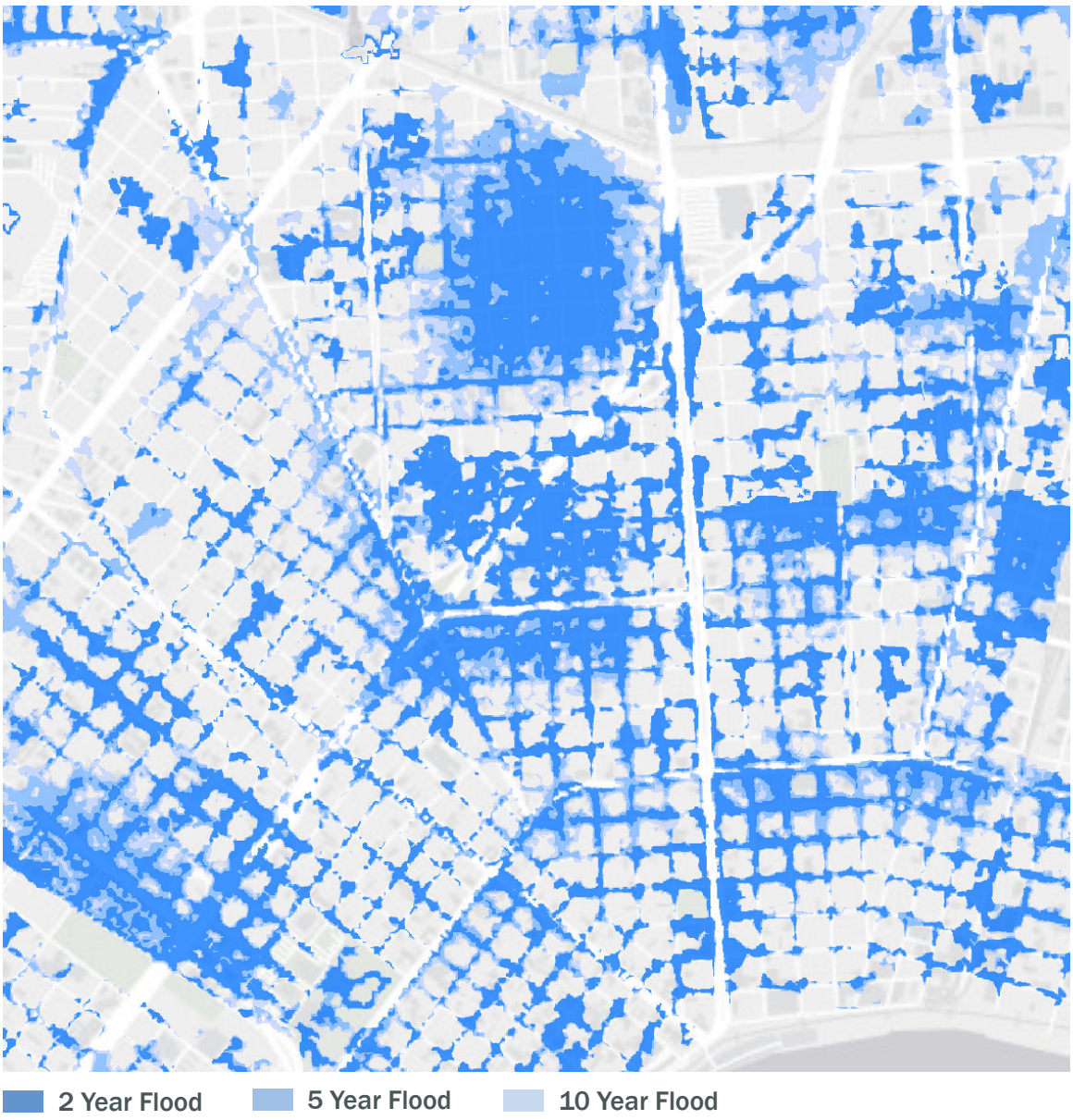
Below sea level

ELEVATION

These context maps of the 7th Ward study area show the need for green infrastructure. The maps were made using the Trust for Public Land's Climate Smart Cities Tool.

This map shows elevation patterns in the study area. The areas above sea level are shown in white while the land below sea level is shown in grey.

Image Source: The Trust for Public Land.



RECURRING FLOODING

This map shows the depths of flooding anticipated by 2-year, 5-year, and 10-year floods. The flood map closely correlates with the previous elevation map, showing that worse flooding will occur in areas with lower elevation.

Image Source: The Trust for Public Land.

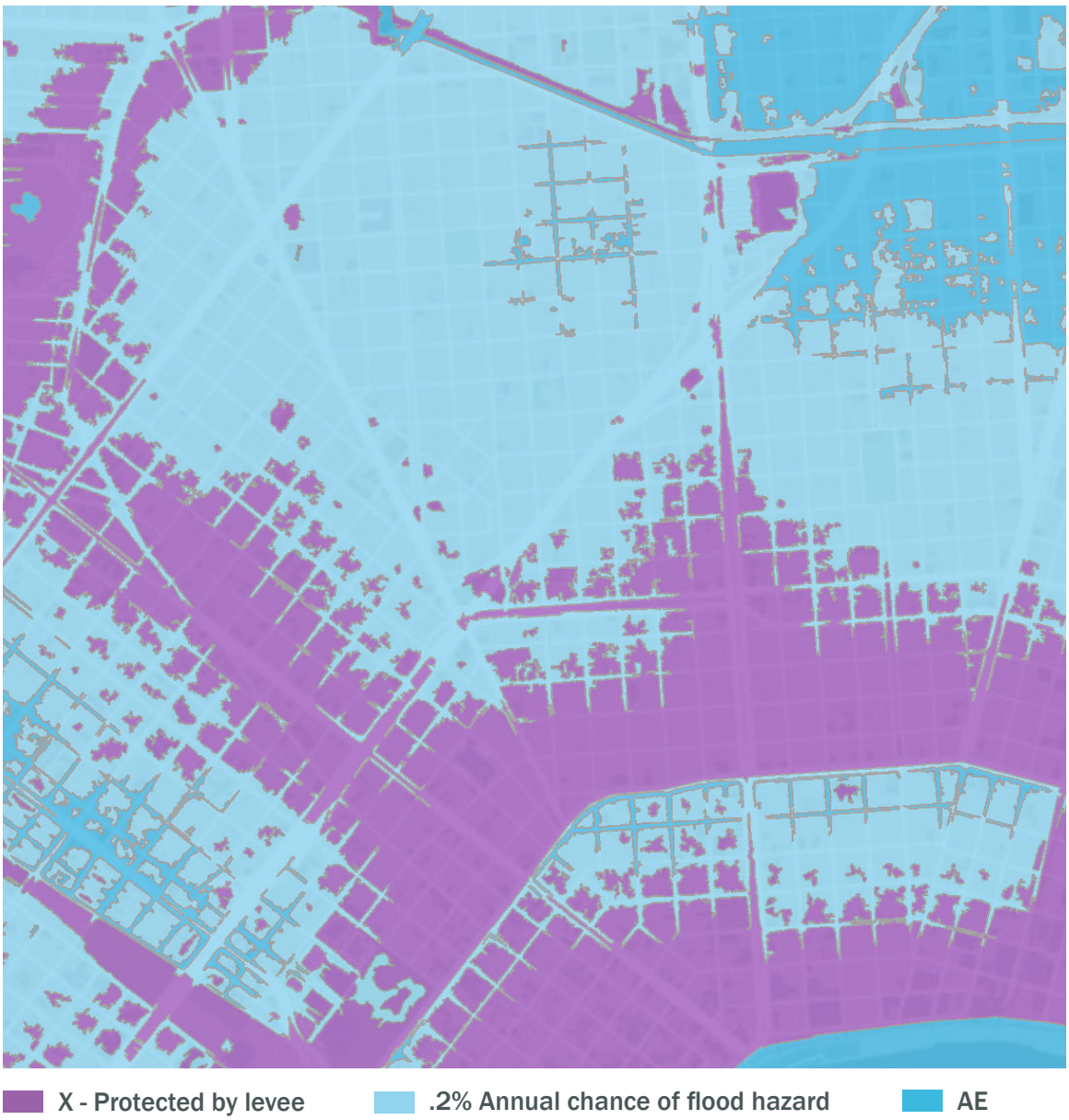


Image Source: The Trust for Public Land.

FEMA FLOOD ZONES

Flood zones are determined by the probability of flooding each year. Areas in purple are deemed by FEMA to have minimal risk. Whereas, areas in light blue have a 0.2% chance of a flood hazard and those in blue have a 1.0% chance of a flood hazard.

Image Source: The Trust for Public Land.

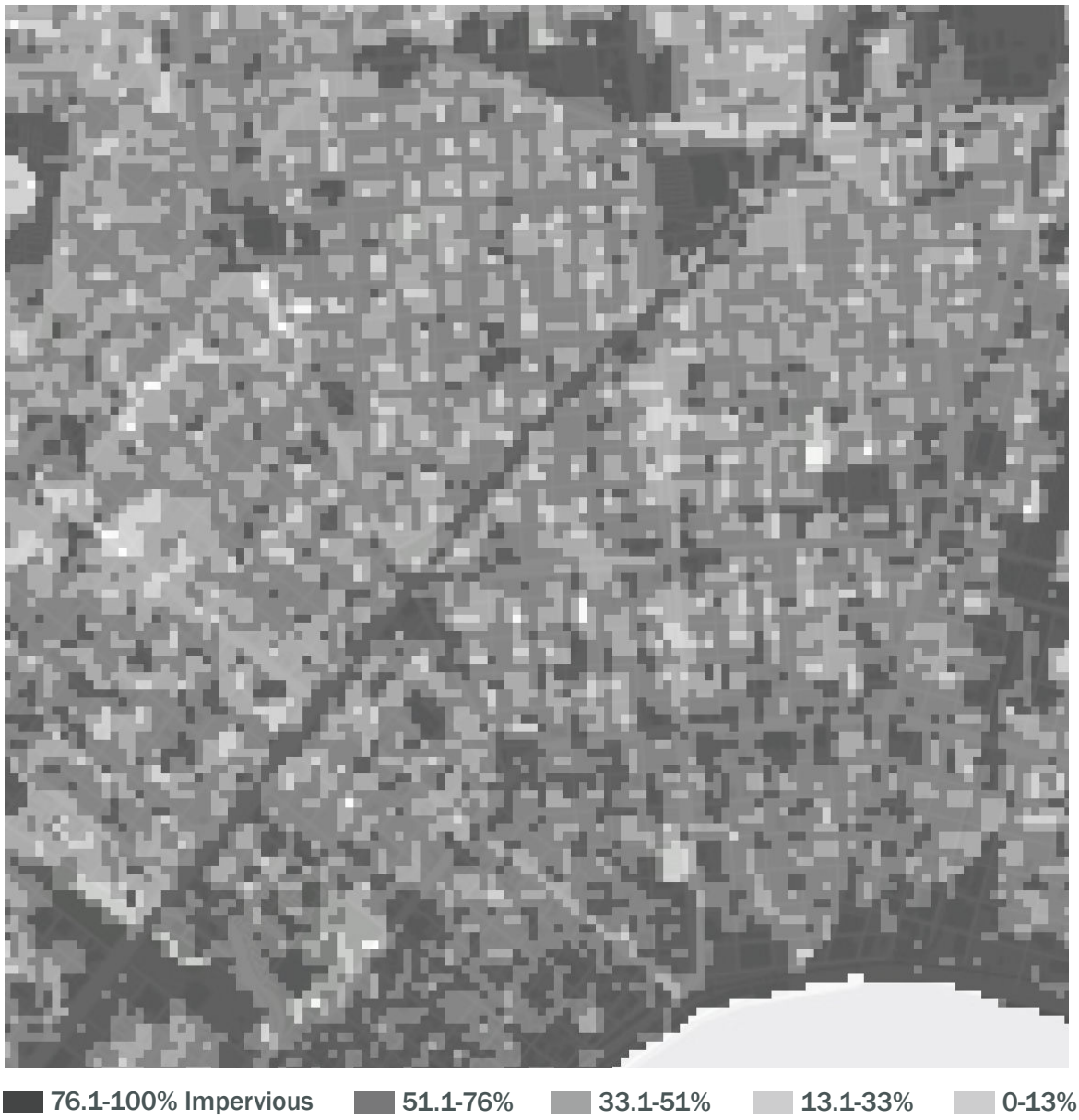
- **Catch Basin**

Image Source: The Trust for Public Land.

CATCH BASINS

Locations of catch basins are depicted by black dots on the map above. All the runoff that enters the catch basins is carried out to Lake Pontchartrain. A resident can “adopt” a catch basin through the City’s Adopt-a-Catch Basin program to become responsible for cleaning out debris before storms and notifying the City of any issues with its function.

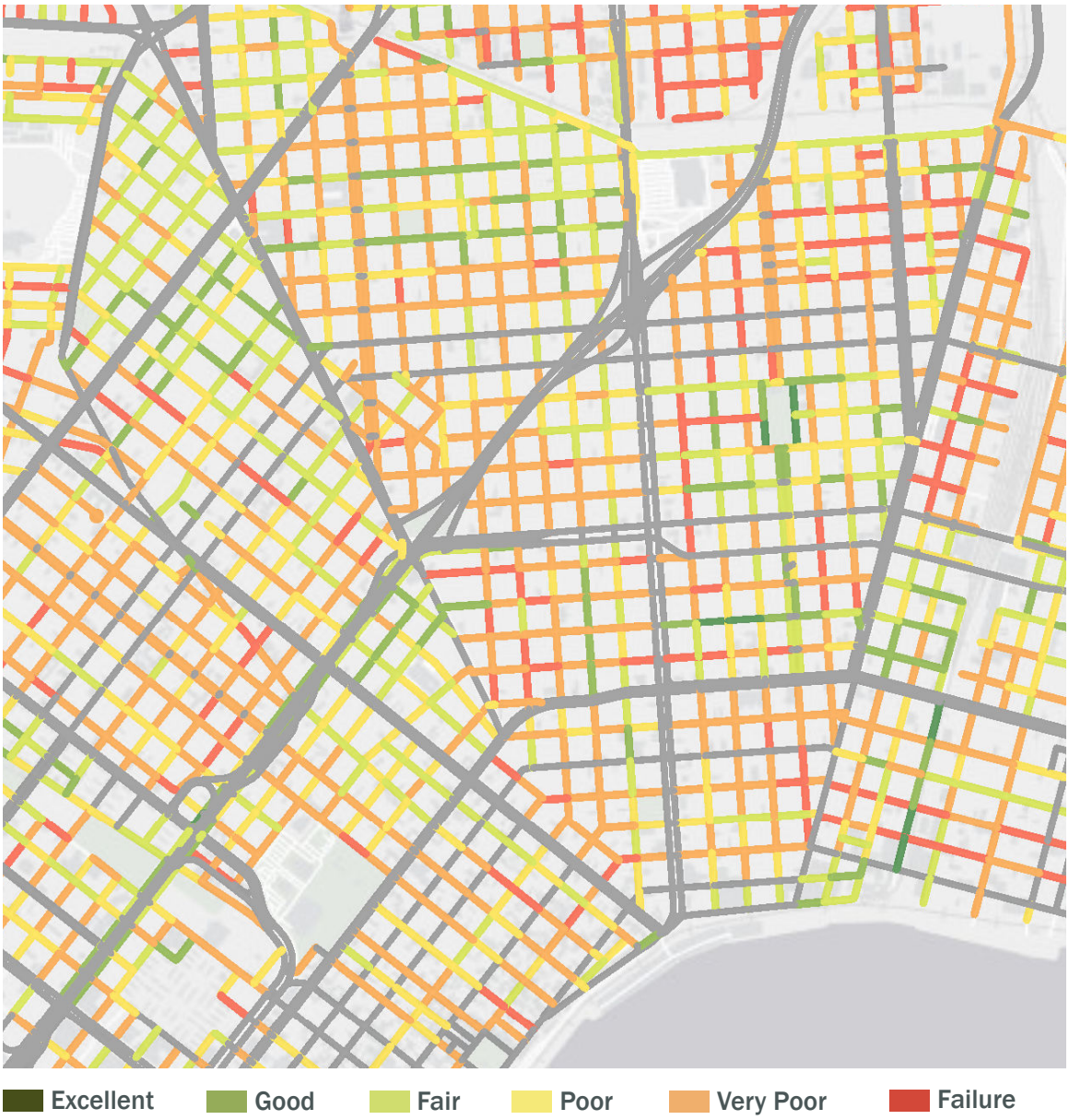
Image Source: The Trust for Public Land.



PERCENTAGE OF IMPERVIOUS SURFACE

Impervious surfaces are shown on the map as a range from dark to light grey. The darkest color represents surfaces that are more than 76% impervious, examples may include concrete sidewalks or parking lots. These surfaces prevent water from reaching the soils beneath where they could be absorbed and infiltrated into the earth. Most of the continuous impervious surfaces displayed are along Claiborne Avenue, Broad Avenue, and St. Louis Street.

Image Source: The Trust for Public Land.



PAVEMENT CONDITIONS

This map shows pavement conditions from excellent condition (dark green) to structural failure (red). Pavement conditions can cause water to collect in certain areas, while at the same time water can cause pavement conditions to worsen. The majority of the pavement conditions shown are very poor to fair.

Image Source: The Trust for Public Land.