



# Drainage Pump Station (DPS) 01 Watershed Drainage Upgrades & Green Infrastructure Project

Allie Mae Center – Van McMurray Park

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**City of New Orleans**

June 6th, 2023

Erika Boerr – Senior Project Manager – Stormwater and Green Infrastructure

# Agenda

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- I. Project Team
- II. Introduction to the project
- III. Project overview
- IV. Existing problems
- V. Proposed solutions
- VI. Next steps

# Drainage Pump Station (DPS) 01 Watershed Project (aka: Broadmoor HMGP)

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## **Project Team:**

### **- Owner:**

- \* City of New Orleans – Stormwater and Green Infrastructure
- \* Mary Kincaid, Director
- \* Erika Boerr, Project Manager
- \* Catherine Comb, Resilience Outreach Specialist

### **- Design Team:**

- \* CDM Smith
- \* Dana Brown & Associates
- \* Digital Engineering

# Agenda

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- I. Project Team
- II. Introduction to the project

# DPS 01 Watershed Project (aka: Broadmoor HMGP)

## Introduction to project

Nine New Orleans neighborhoods will benefit from reduced flood risk: Broadmoor, Central City, Garden District, Lower Garden District, Irish Channel, St. Thomas Development, Touro, East Riverside, and Milan.

These neighborhoods are located between the Central Business District and Uptown and within the Drainage Pump Station 1 (DPS 01) drainage district.

Properties in these neighborhoods experience frequent localized flooding and repetitive losses due to regular weather events.

The project area is bound by Broad Street to the north, Martin Luther King Boulevard and Melpomene Street to the east, Tchoupitoulas Street to the south, and Louisiana Avenue and Toledano Street to the west.



**DPS 01 WATERSHED: PROJECT STUDY AREA**



**CDM Smith**

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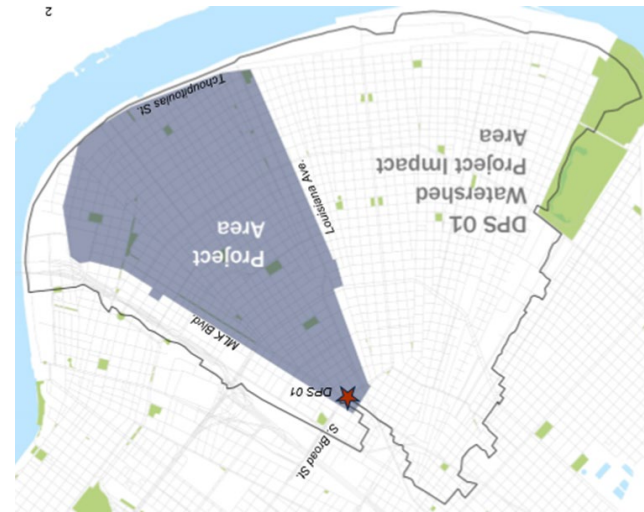
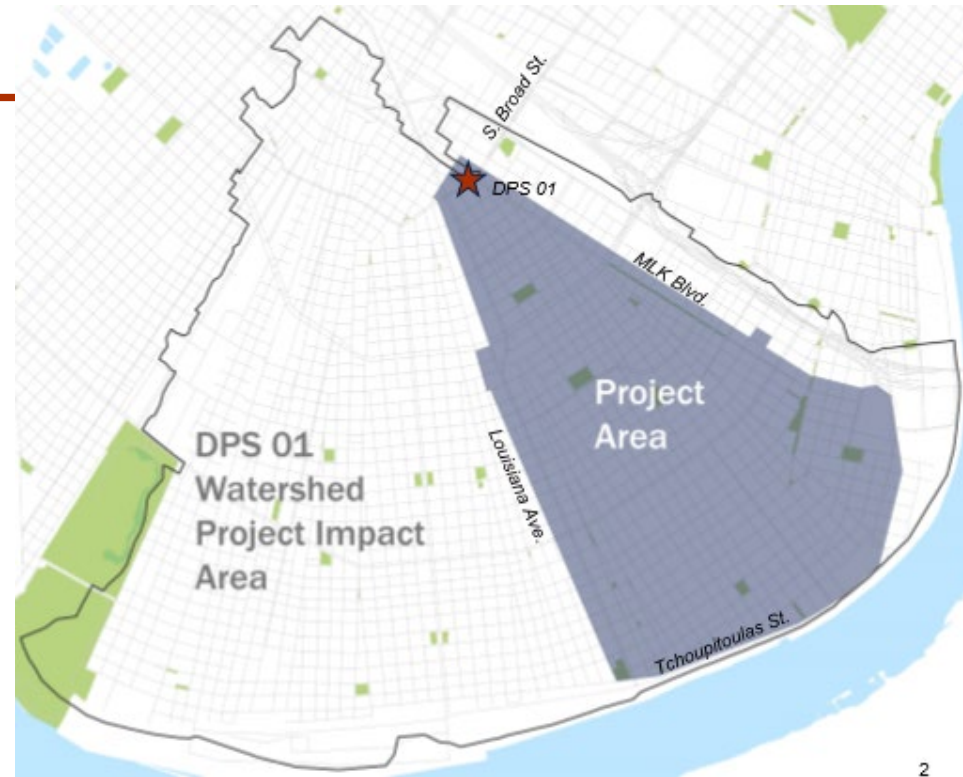


# DPS 01 Watershed Project (aka: Broadmoor HMGP)

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## Project Overview

- Green infrastructure will temporarily capture stormwater runoff at higher ground near the River
- Pipe upgrades will increase the amount of stormwater that can get to the pump station & outfall canals
- Phase I:
  - 4 Stormwater Parks
  - 2 Stormwater Lots
  - 3 Green Intersections
  - Associated Pipe Upgrades
- Phase II:
  - 2 Stormwater Parks
  - 2 Green Intersections
  - 4 Complete Streets Improvements with Associated Pipe Upgrades



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# DPS 01 Watershed Project (aka: Broadmoor HMGP)

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## EXISTING PROBLEMS

- ***Localized flooding***
- ***Repetitive losses***
- ***Damage to homes, businesses, and vehicles***
- ***Burden on the City's drainage system***



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# DPS 01 Watershed Project Phase I (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: *STORMWATER PARKS*

- ***The four parks will incorporate stormwater management***
- ***Existing park recreation will not be changed***
- ***Stormwater from neighborhoods will be stored under parks in tanks***
- ***Some existing pipes will be upgraded***
- ***Where pipe upgrades occur, street segments will be repaved from curb to curb***



AL DAVIS PLAYGROUND



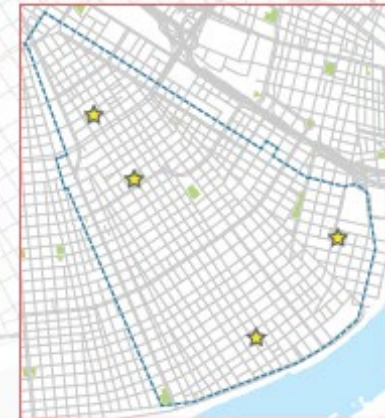
ANNUNCIATION SQUARE



TAYLOR PLAYGROUND



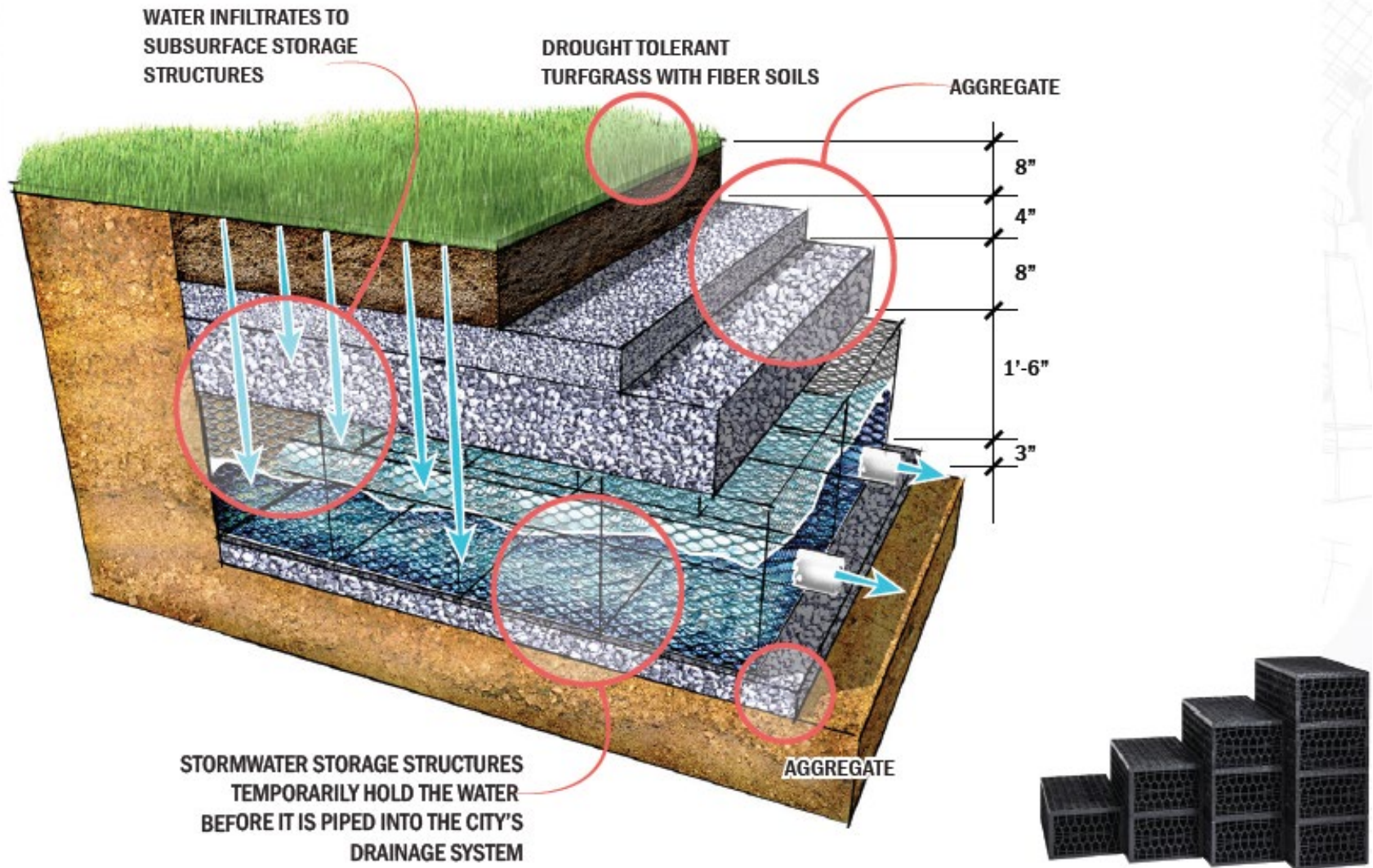
BURKE PLAYGROUND (CLAY SQUARE)





# DPS 01 Watershed Project (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: *STORMWATER PARKS*





# DPS 01 Watershed Project (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: *STORMWATER PARKS*

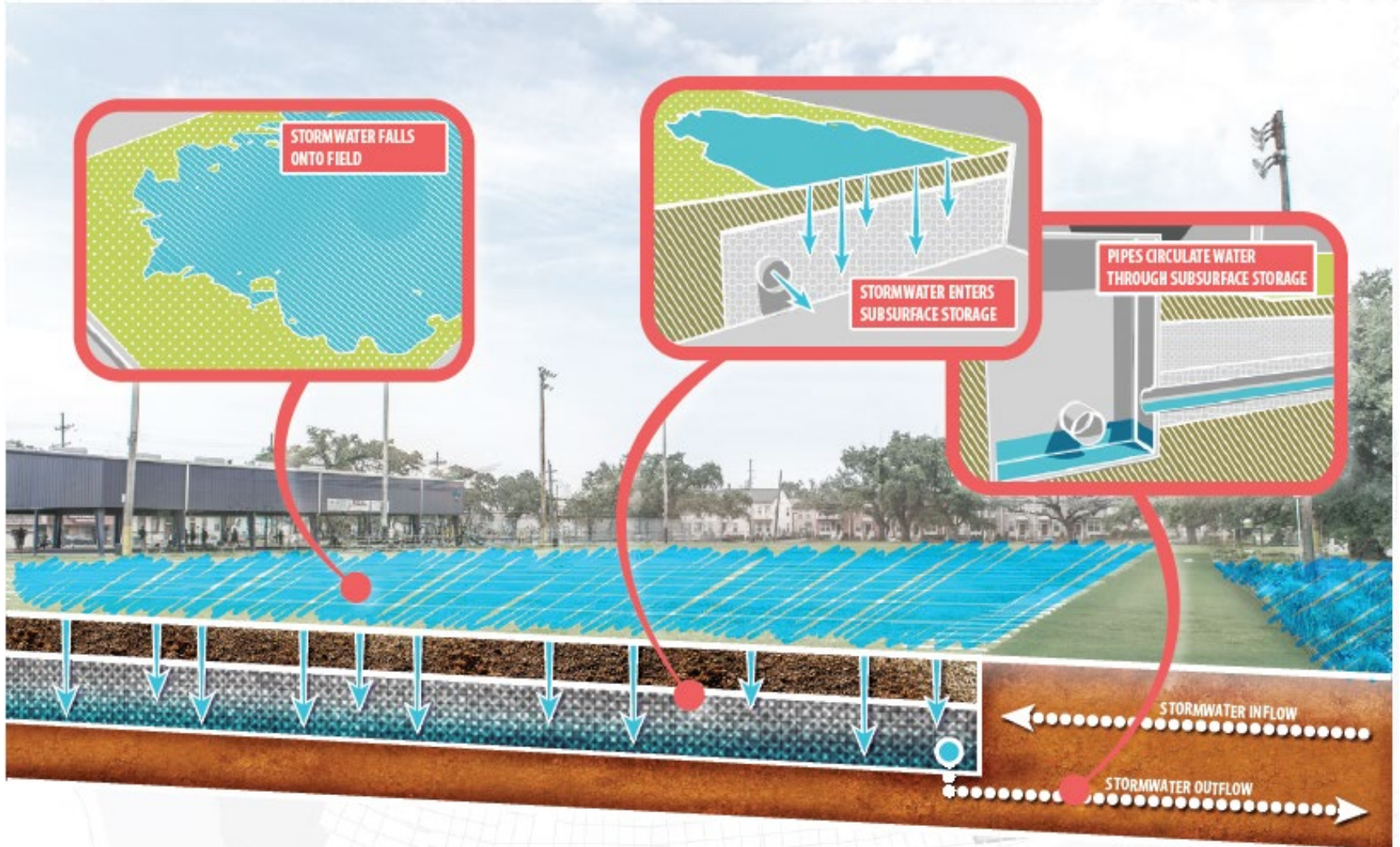


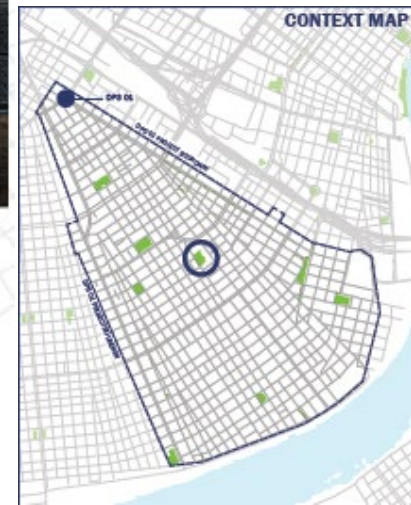
DIAGRAM ILLUSTRATING THE SUBSURFACE STORAGE

# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: STORMWATER PARKS



Improvements include repaving the street, a new sidewalk, pipe upgrades, and storage tanks under the play field





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: STORMWATER PARKS

### Saratoga Square:

- Site will receive runoff from surrounding streets and pipes
- 142,000 CF of storage, which equates to:
  - 2' 6" over a football field
  - **1,062,233 gallons**
  - 21,243 filled bathtubs
- No standing water after 48 hs



- 1 INLET
- 2 DETENTION
- 3 OUTLETS





# DPS 01 Watershed Project Phase I (aka: Broadmoor HMGP)

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## **PROPOSED SOLUTIONS: STORMWATER PARKS**

### **Benefits Recap:**

- **Reduces street flooding**
- **Fields recover quickly for usage after a major storm event**

### **WARNING!**

- ❖ **Once in construction, parks will be partially or fully closed for a period of 4 to 8 months.**

# DPS 01 Watershed Project Phase I (aka: Broadmoor HMGP)

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## PROPOSED SOLUTIONS: STORMWATER LOTS

- Two vacant lots will be designed as Stormwater Lots
- Lots take water off the streets & temporarily store on site
- Water drains within 48 hours, therefore preventing the breeding of mosquitos
- Provide usable green space when not holding water



3200 JACKSON AVENUE



3623 3RD STREET



# DPS 01 Watershed Project Phase I (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: *STORMWATER LOTS*

### BENEFIT RECAP:

- ***Reduces street flooding***
- ***Improves water and air quality***
- ***Enhances the visual character of the neighborhood***
- ***Increases property values***





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: GREEN INTERSECTIONS

- *2 intersections will be redesigned with Street Basins, Pervious Crosswalks, and Pervious Gutters*
- *Intersection improvements will temporarily store runoff*
- *Located where it is currently illegal to park*
- *Planted vegetation will not restrict the line-of-sight for drivers*



STREET BASIN EXAMPLES FROM OTHER CITIES





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: COMPLETE STREETS

### Baronne Street:

- 179,470 CF of storage, which equates to:
  - 3'-2" over a football field
  - **1,342,436 gallons**
  - 26,849 filled bathtubs
- Streets upgraded with stormwater storage, pervious pavement, pervious asphalt bike lane, bioswales, and upgraded drainage pipes



Proposed improvements to Baronne Street from MLK Jr. Boulevard to Philip Street





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 0.5" STORM SIMULATION





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 1" STORM SIMULATION





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 1.5" STORM SIMULATION





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 2" STORM SIMULATION





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 2.5" STORM SIMULATION





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 3" STORM SIMULATION





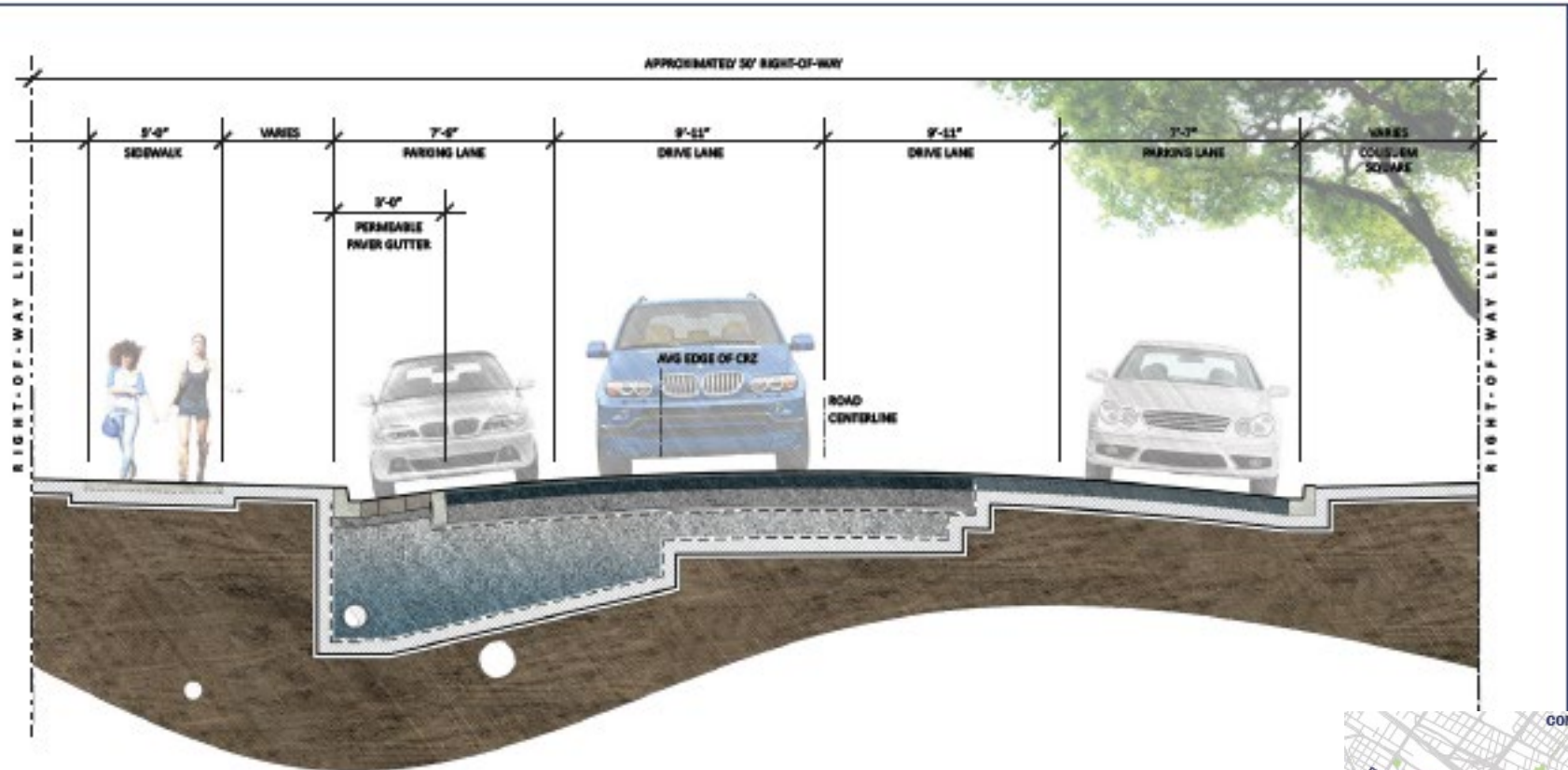
# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: BARONNE STREET 3.5" STORM SIMULATION



# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: COMPLETE STREETS



Stormwater detention under Coliseum Street will store a total of 27,100 cubic feet of runoff, which equates to:

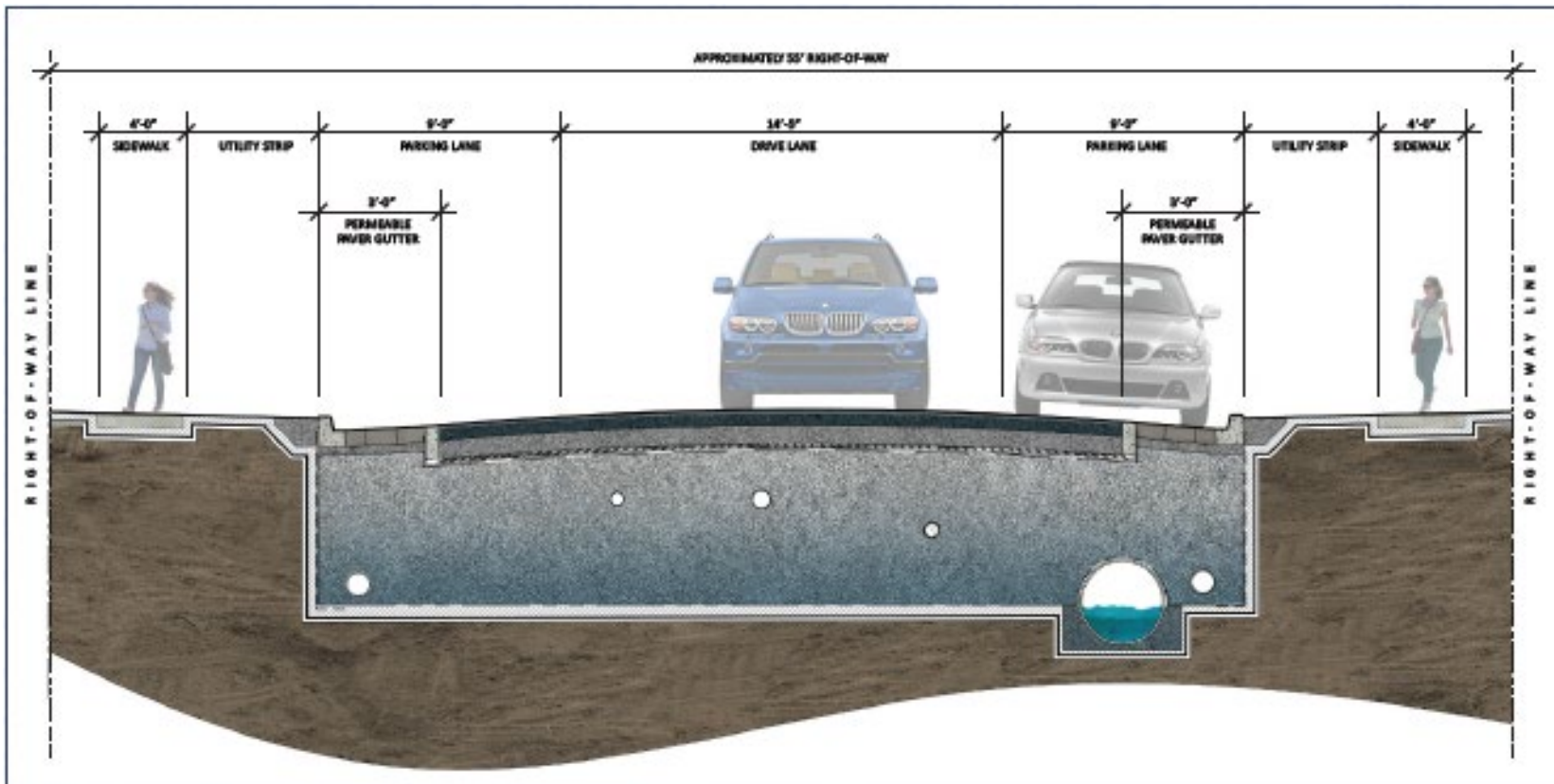
- 5" over a football field
- 202,722 gallons
- 4,055 filled bath tubs





# DPS 01 Watershed Project Phase II (aka: Broadmoor HMGP)

## PROPOSED SOLUTIONS: COMPLETE STREETS



Philip Street will be redesigned to include permeable paver gutters, subsurface storage, and upgraded pipes.

Similar improvements will be implemented on St. Thomas Street, from Washington Avenue to Philip Street

Stormwater detention under Philip Street will store a total of 120,600 cubic feet of runoff, which equates to:

- 2'-1" over a football field
- 902,088 gallons
- 18,042 filled bath tubs



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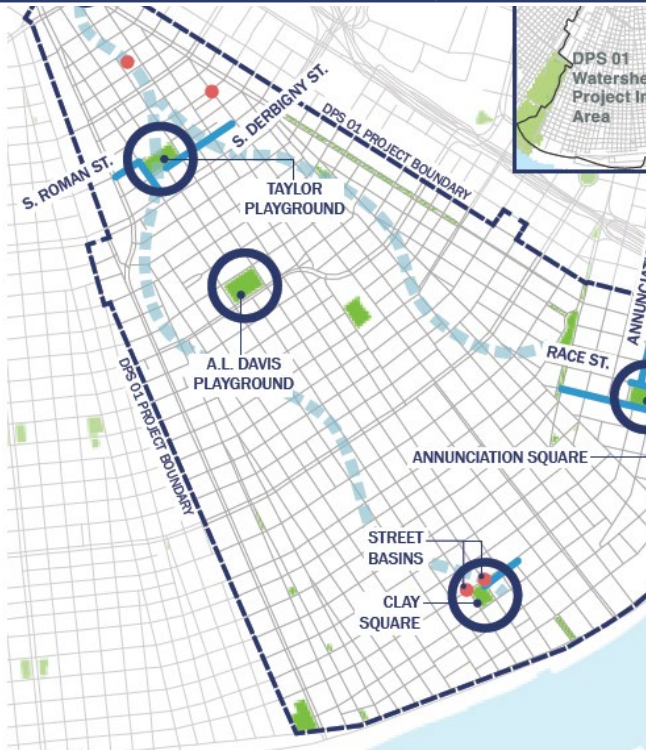
## Phase I

## Phase II

SUMMER 2019 | Design Completed

WINTER 2024

WINTER 2026 | Construction Completed



Project Area

- Stores 12.9M gallons of stormwater
- Project Status: 100% Design

The projects proposed within the Drainage Pump Station 01 Watershed will significantly reduce potential flooding within the project boundary and beyond.

The projects include a variety of green infrastructure typologies that will store stormwater closer to where it falls, reducing the load on the drainage system and allowing it to function in a storm that would currently overwhelm it.

The projects will reduce flow to the Louisiana, 3rd Street, and MLK canals, allowing other stormwater outside the project area to enter these canals and DPS01 to pump that water out sooner, and therefore creating a reduction of **29 MILLION GALLONS** in total flooding that is 2.5 times the storage provided by the projects.

The project removes **520,000 GALLONS** from ever getting to the pump station.



- Cost: \$61M HMGP
- Construction bid: 4 QTR 2023

Recently received FEMA approval to go to Bid and start Construction!!!



# Thank You

## Any Questions?

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**City of New Orleans**

Erika Boerr, MBA, PMP - Senior Project Manager

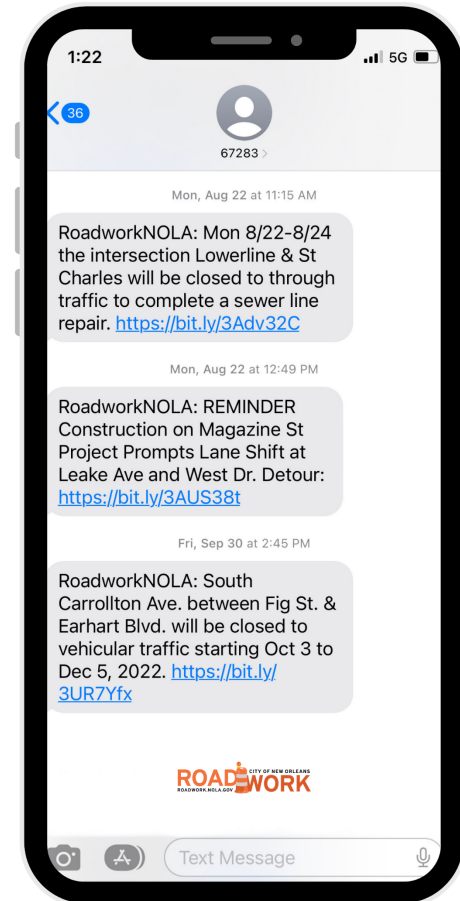
Stormwater and Green Infrastructure

[eboerr@nola.gov](mailto:eboerr@nola.gov)

# Text Alerts !!

Sign up to be notified when work will require major road closures, emergency water shutoffs, or other significant impacts via text or email.

To sign up for RoadworkNOLA text alerts, text **ROADWORK** to 77295 or go to [ready.nola.gov/alerts](https://ready.nola.gov/alerts) to create a whole profile and select the “roadwork” alert list.





# Stay Informed

*about work on your block*

The screenshot shows the ROADWORK CITY OF NEW ORLEANS website. At the top, there is a navigation menu with links for 'About', 'Latest News', 'Contractor Report Card', 'Fair Share', 'Industry Day', and 'Other'. Below the menu is a search bar with the text 'powered by Google'. A yellow arrow points to the 'Find Work on My Block' button in the navigation bar. Below this, another yellow arrow points to the search bar where the address '2900 Serentine Street' has been entered. The search results show the following information:

**2900 block of Serentine St**  
From N Gayoso St to Rosiere St in Fairgrounds, Council District D

**Pavement Condition in 2016**  
Very Poor

Work Status	Project Outlook	Water, Sewer, and Drainage Work
<b>Project</b> Bayou St John, Fairgrounds, Seventh Ward Group A (INC) @Bosco, Mead	<b>No Outlook Available</b> Contractor Fleming Construction Company, LLC	<b>Future Roadwork Pending</b>
<b>Repair Type</b> Incidental Road Repairs	<b>City Contact</b> Tiffany Williams	<b>Current Budget</b> \$15,295,704.00
<b>Status</b> Construction		
<b>Construction Schedule</b> Start: 03/15/2021		



Visit <https://roadwork.nola.gov/home> to find work on your block.



Click "Find Work on My Block".



Type in your address on the search bar and click the search icon.

- A drop-down box will list any City or FEMA-funded roadwork that is planned, in construction or completed on your block.

# Contact Us

The Community Outreach Specialist assigned to this project is Catherine Combs. Catherine will be your point of contact for questions and concerns throughout the duration of construction.




Catherine Combs


 504.658.ROAD (7623)


 roadwork@nola.gov

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 NextDoor