Hagan - Lafitte

Drainage Upgrades & Green Infrastructure Project

Factsheet 11/23/2016

CITY OF NEW ORLEANS

PROGRAM OVERVIEW

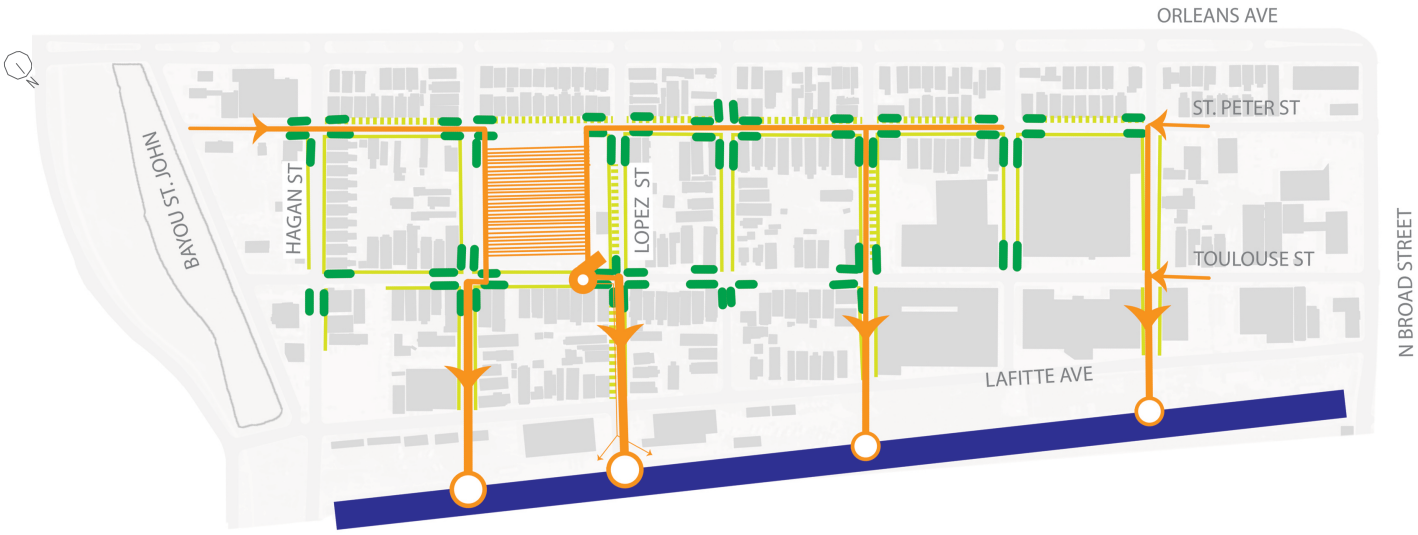
The City of New Orleans is protected by levees on all sides. To reduce flooding, rainfall runoff must be pumped out of the City using a flood protection system. Though the system is powerful, the pumps used limit the rate at which stormwater can be removed. During heavy rainfalls, stormwater has backed up out of the underground pipes and overflown into the streets.

To increase the metropolitan area's resiliency, the City of New Orleans secured funding from FEMA's Hazard Mitigation Grant Program (HMGP) to implement a series of drainage upgrade and green infrastructure projects across the city with a goal to reduce flooding. FEMA HMGP funds are to be used solely for hazard mitigation. Due to the nature of flooding in New Orleans and this particular project site, it has been deemed necessary to utilize a mix of "gray" and "green" drainage infrastructure.

PROJECT SITE

Located between the Lafitte Greenway and Orleans Avenue in the Mid-City neighborhood, the 33-acre Hagan-Lafitte site is comprised of one neighborhood park and 23-blocks of residential and commercial properties stretching from Bayou St. John to Broad Street.

During heavy rainfall events, stormwater backs up in the large pipes under Orleans Avenue and floods the streets of the surrounding neighborhoods. The Project area is at the end of the system and has some of the lowest elevations in the basin. This combination results in frequent flooding and subsidence of roads over time. This Project will reduce flooding and improve quality of life in the community. The project is currently scheduled for construction in October 2017.



Proposed rain gardens, collection system, underground storage, and pervious sidewalks.

PROJECT APPROACH

GRAY INFRASTRUCTURE

- Increase the capacity of the underground collection system
- Increase underground rainwater storage
- Redirect flow away from the Orleans Avenue box culvert and into the St. Louis Canal
- Increase the capacity of the neighborhood drainage system

GREEN INFRASTRUCTURE

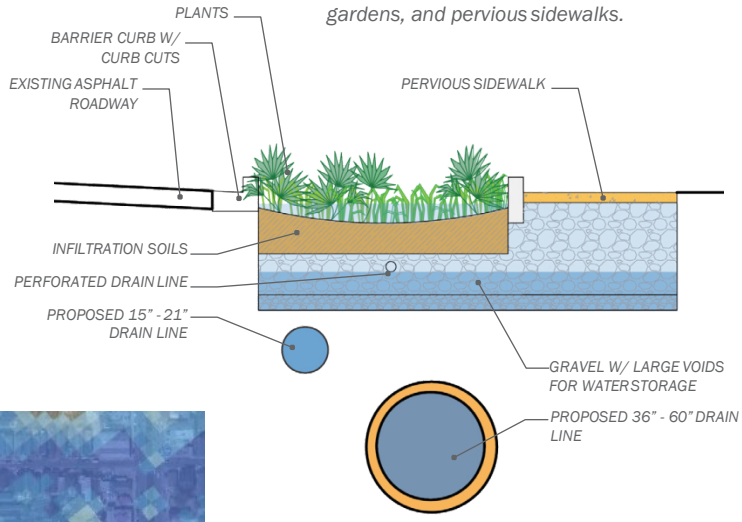
- Decrease area that does not allow water to go through
- Store, retain, and absorb stormwater in rain gardens and underground storage
- Create infiltration and groundwater recharge opportunities throughout the entire neighborhood with a grid system to reduce subsidence (pictured above)

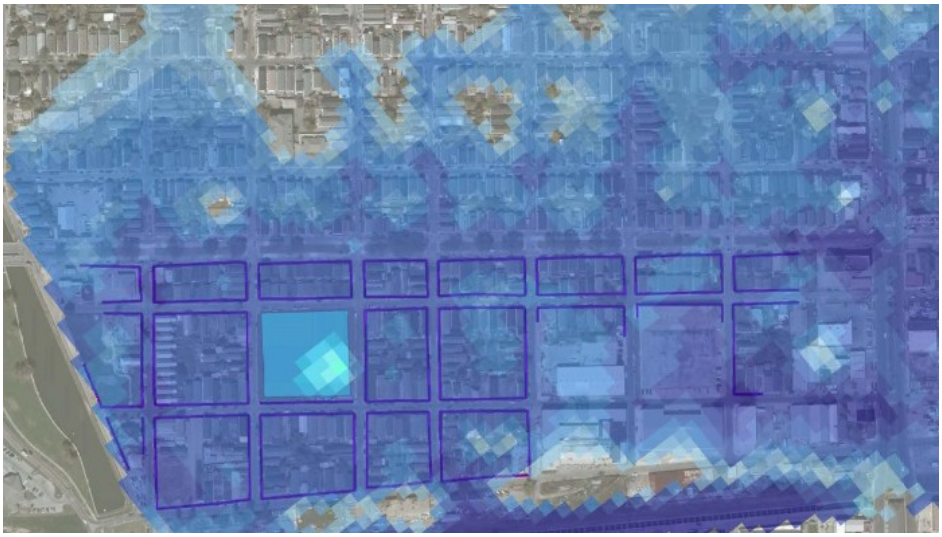
INFRASTRUCTURE OPTIONS

Most of New Orleans' current drainage system utilizes GRAY INFRASTRUCTURE, which is designed to remove stormwater as fast as possible and includes pipes, pumps, underground storage chambers and concrete lined channels.

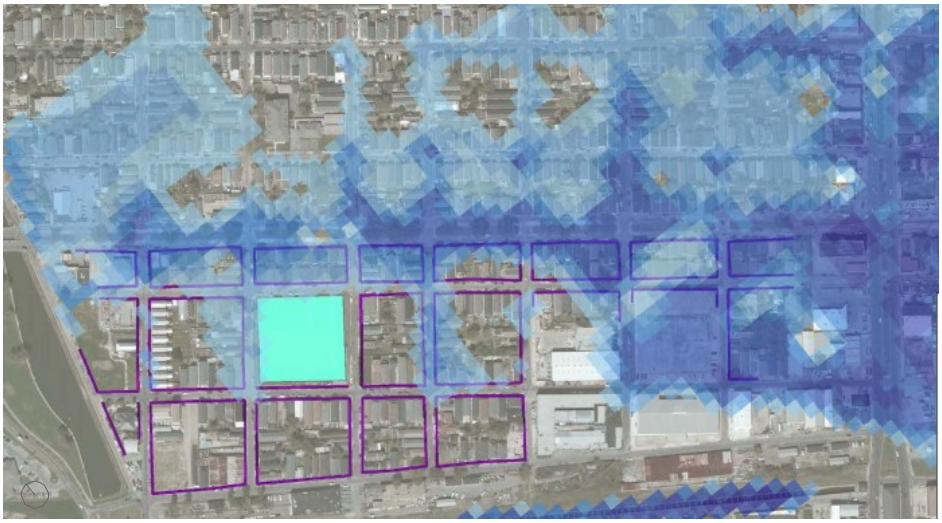
GREEN INFRASTRUCTURE is designed to reduce flooding by storing, retaining and absorbing stormwater close to where it lands. Its benefits include reduced runoff, pollutant removal, groundwater recharge, and subsidence reduction.

Section drawing illustrates new infrastructure improvements including large pipes, rain gardens, and pervious sidewalks.





Before



After

Hagan-Lafitte Project

2yr, 24hr Proposed Flood

Flood Depth (ft)

- 0
- 0.01 - 0.25
- 0.26 - 0.5
- 0.51 - 0.75
- 0.76 - 1
- 1.1 - 2
- 2.1 - 3
- 3.1 - 5
- Pervious Sidewalk
- Underground Storage

Shown above is flooding depths for a 2-year Design storm.

ANTICIPATED BENEFITS

- Reduced flooding from project limits to Ursulines Ave
- Improved water quality
- Reduction of subsidence
- No standing water or mosquitoes
- Improved environmental quality
- Park gets new grass
- Enhanced landscape character and curb appeal (more trees)

Design plans for this project are currently in progress. For more information, please contact Charles E. Allen III at **ceallen@nola.gov**
Website **http://www.nola.gov/resilience/** *Follow us: Twitte: @resilientNOLA or Facebook: facebook.com/resilientNOLA*

Capital Improvement Program The City and Sewerage and Water Board of New Orleans are working together to implement an unprecedented capital improvement program to restore the City's damaged infrastructure. Using a combination of local and Federal funds, the $2B program will be the most comprehensive that our region has seen in a generation. Work will include more than 200 individual projects and consist of repairing all or portions of about 400 miles of roadway. Some of these projects may feature Green Infrastructure including retrofitting and/or constructing the street with features such as underground storage, permeable/previous pavement, bioswales and/or rain gardens that combined with the existing drainage system reduces the risk of flooding in higher risk areas. For more information about the Capital Improvement Program, please visit roadowork.nola.gov.