



# CITY OF NEW ORLEANS

*Incorporating Green Infrastructure  
into the New Orleans Landscape  
with a focus on St. Roch*

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*April 27, 2017*

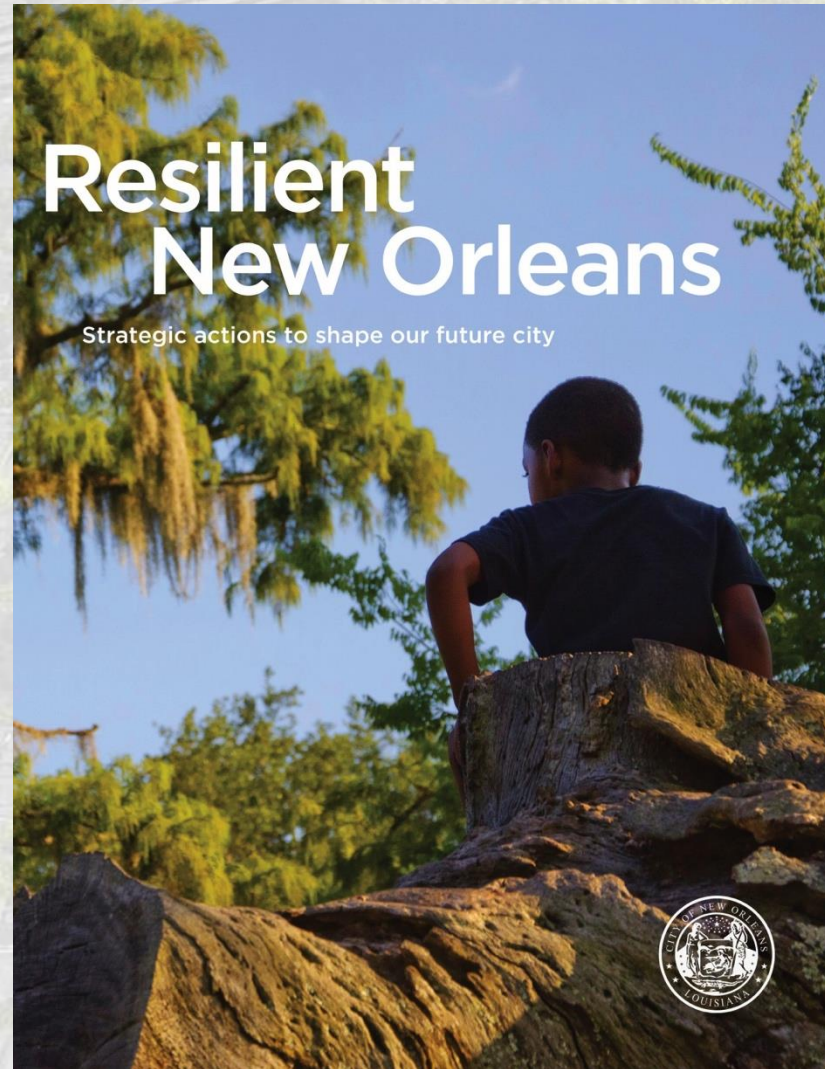
A satellite-style map of the Gulf of Mexico coastline. A white rectangular box highlights the area around New Orleans, Louisiana, where the Mississippi River Delta meets the Gulf. The land is shown in shades of green and brown, while the water is dark blue. A solid teal vertical bar is on the left side of the image.

# New Orleans is a coastal city.

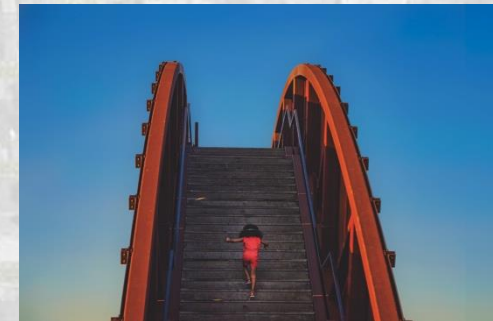
New Orleans' location, where the Mississippi River Delta becomes the Gulf of Mexico, is strategic for commerce, but also defines our most existential threat.

# New Orleans City Resilience Strategy Released August, 2015

[resilientnola.org](http://resilientnola.org)



Adapt to  
Thrive



Connect to  
Opportunity



Transform City  
Systems

Projects proposed in City's application to National Disaster Resilience Competition

# Gentilly Resilience District



Parks & Playgrounds



Vacant Lots



Streets & Corridors

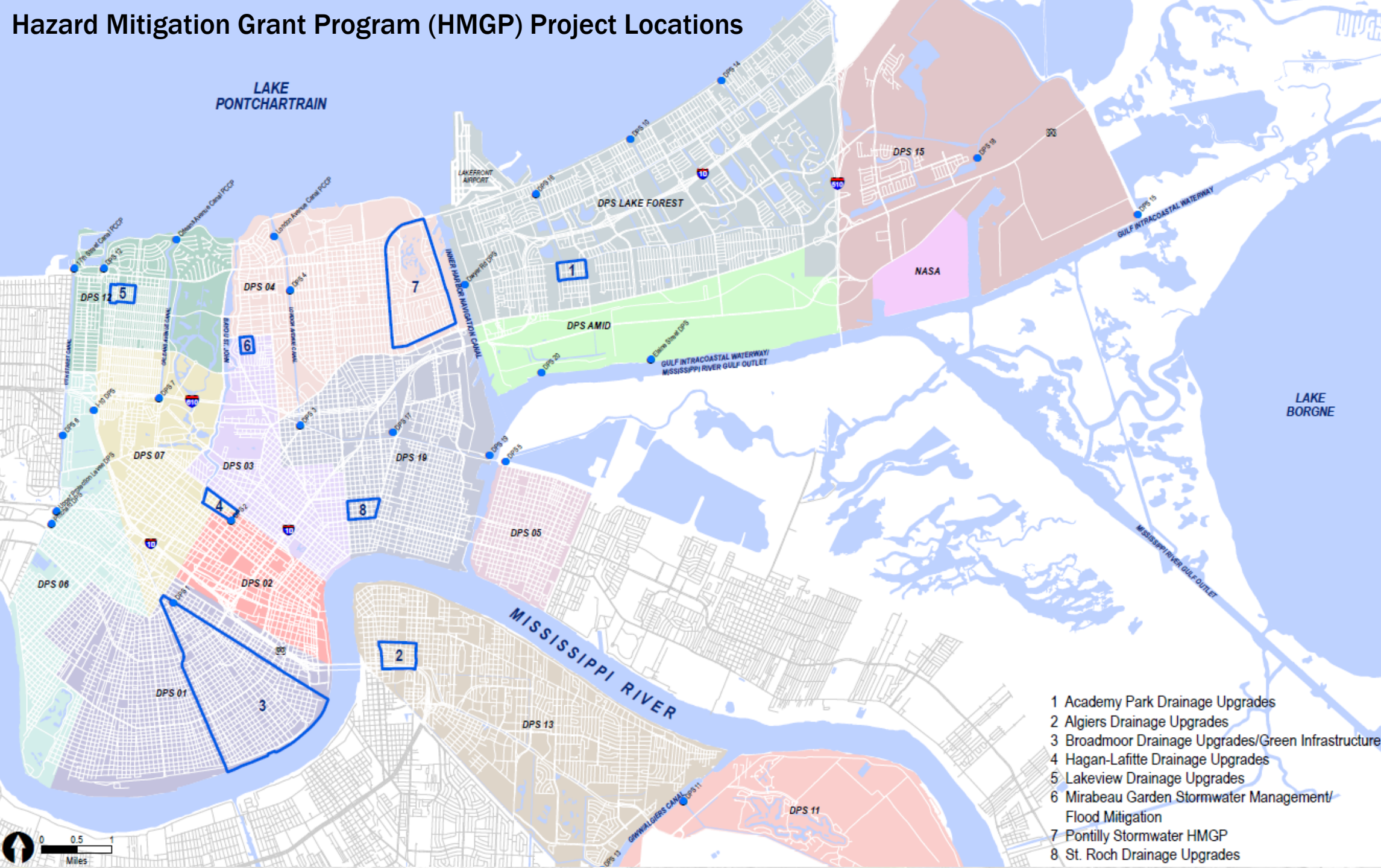


Open Spaces



Home & Property Improvements

# Hazard Mitigation Grant Program (HMGP) Project Locations



# Benefits of the Projects



Reduced risk of flooding and subsidence



Neighborhood beautification & economic  
development



Recreation & health



Environmental awareness

# ST. ROCH

Drainage Upgrades and Green  
Infrastructure

FEMA Hazard Mitigation Grant Program

Faubourg St. Roch Improvement Association Meeting

April 27, 2017



CITY OF NEW ORLEANS



moffatt & nichol

An aerial photograph of a city street grid, overlaid with a semi-transparent teal color. The image shows a dense network of streets and buildings. A prominent teal-colored area on the left side of the image contains the title text. The background image also features faint green lines and shapes, likely representing planned green infrastructure or drainage paths.

# St. Roch Presentation Agenda

- Project Background & Status
- The Problems – Existing Drainage & Street Conditions
- The Solution – Improved Subsurface Drainage
- The Solution – Green Infrastructure
- Project Benefits – Reduced Flooding & Functional Streets
- Project Opportunities – Traffic Patterns
- Next Steps



# St. Roch Character





## St. Roch Project Background

- FEMA Hazard Mitigation Grant Program (HMGP) funding to address chronic flooding and drainage issues in the St. Roch neighborhood.
- Project area is 26 city blocks bounded by N. Robertson St., St. Claude Ave., Elysian Fields Ave. and Franklin Ave.
- \$5,737,000 Anticipated Construction Budget

## St. Roch Project Status

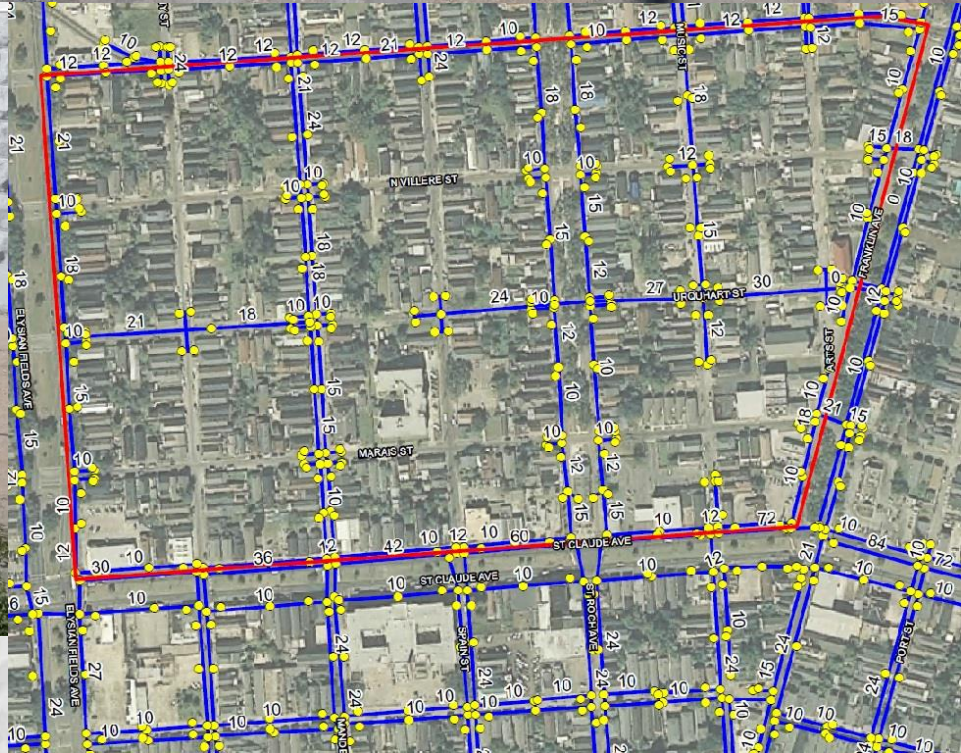
- 10% Concept Design and Probable Cost Estimate Approved
- 30% Project Scope Report supporting a Benefit-Cost Ratio (BCR)  $>1.0$  Approved by DPW & FEMA
- Survey and Geotechnical investigations completed
- 60% Design Phase ongoing



# Project Agency Coordination

- **Coordination Between Multiple Agencies / Owners**
  - DPW (Maintenance, Traffic, Engineering, Construction, Stormwater, Green Infrastructure)
  - S&WB (Water, Sanitary Sewer, Stormwater Utilities)
  - LA DOTD Orleans District
  - Entergy (Electric, Gas)
  - AT&T (Telecommunications)
  - Cox Cable (Telecommunications)
  - Planning Department
  - Department of Parks and Parkways
  - FEMA
  - Recovery Roads (N-Y Associates)

# St. Roch Drainage Problems



St. Roch  
Street  
Conditions



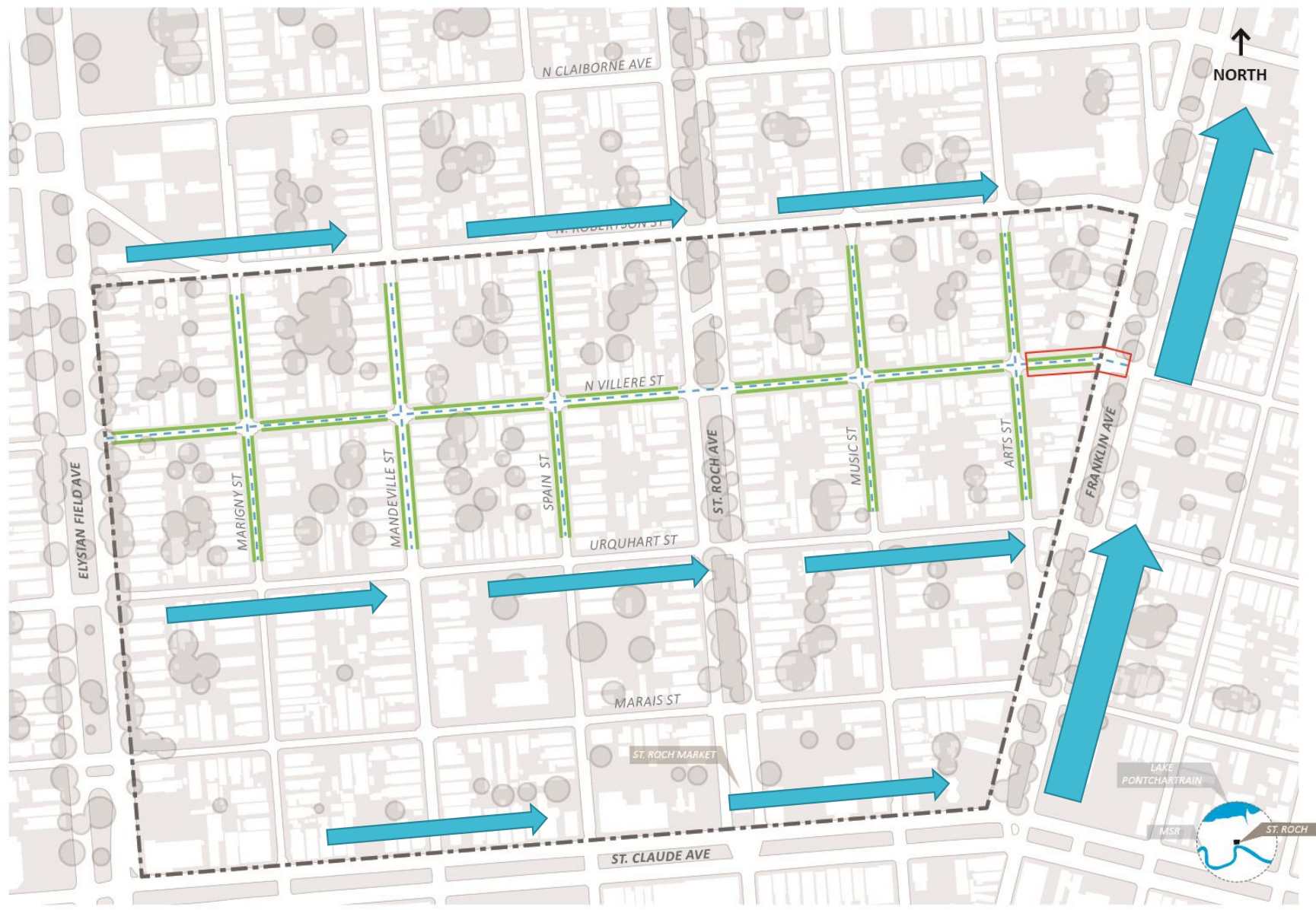
# Pavement from stoop to stoop



# St. Roch Drainage Pattern & Area of Intervention

ST. ROCH

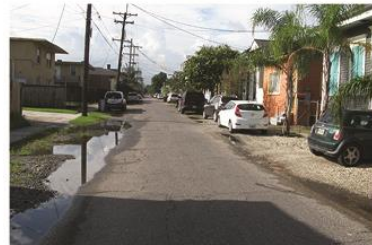
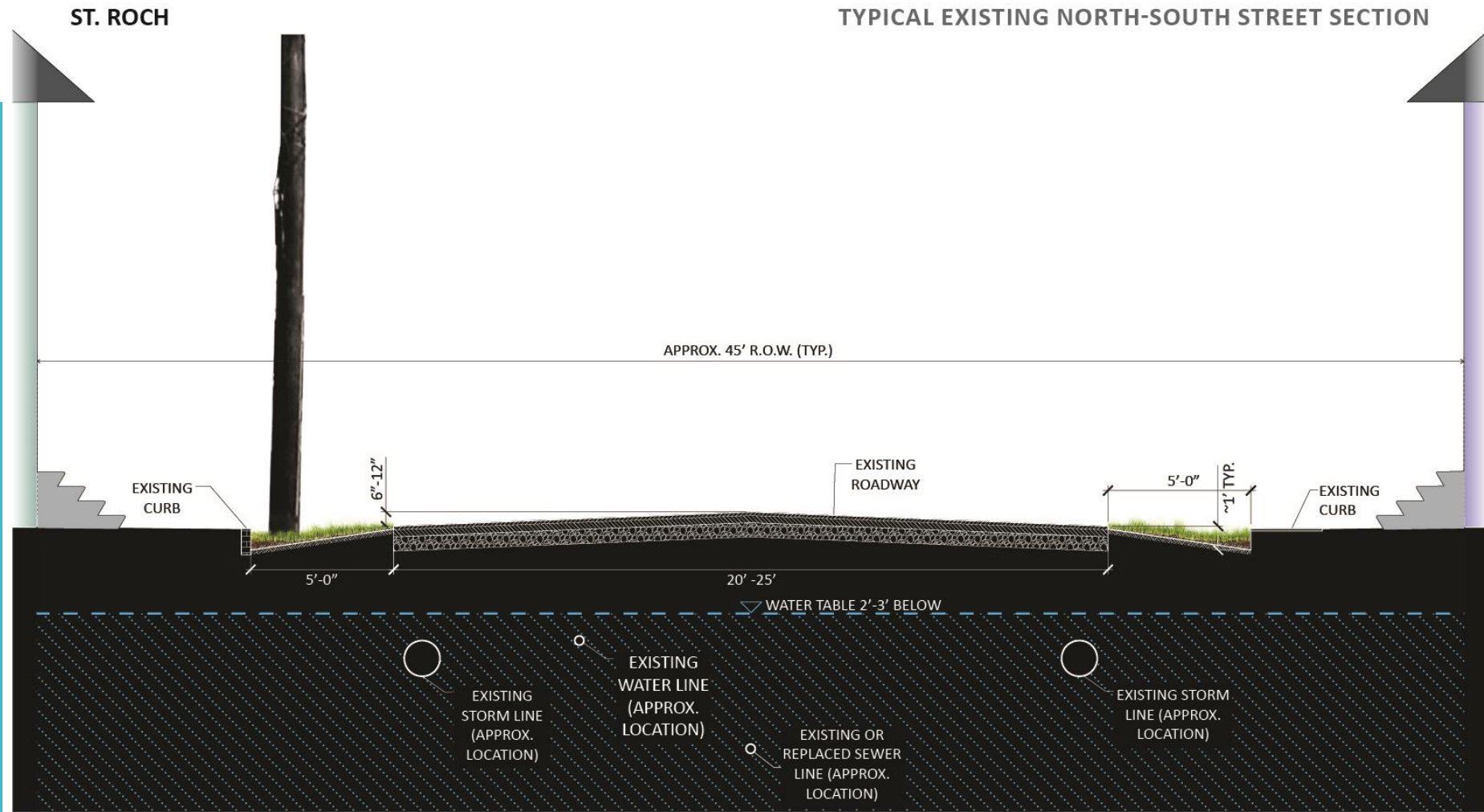
SCHEMATIC CONCEPT PLAN



--- 8' WIDE GREEN CORRIDOR  
 BIORETENTION/ PERMEABLE PARKING
 --- PROPOSED 60" SRPE PIPE
  PROJECT AREA
  DOWNSTREAM HYDRAULIC  
 DESIGN ALTERNATIVES
 SCALE 1" = 300'



# St. Roch Existing Conditions



Marigny St. between N. Villere St. and Urquhart St.



Marigny St. between Urquhart St. and Marais St.



Arts St. between N. Villere St. and Urquhart St.



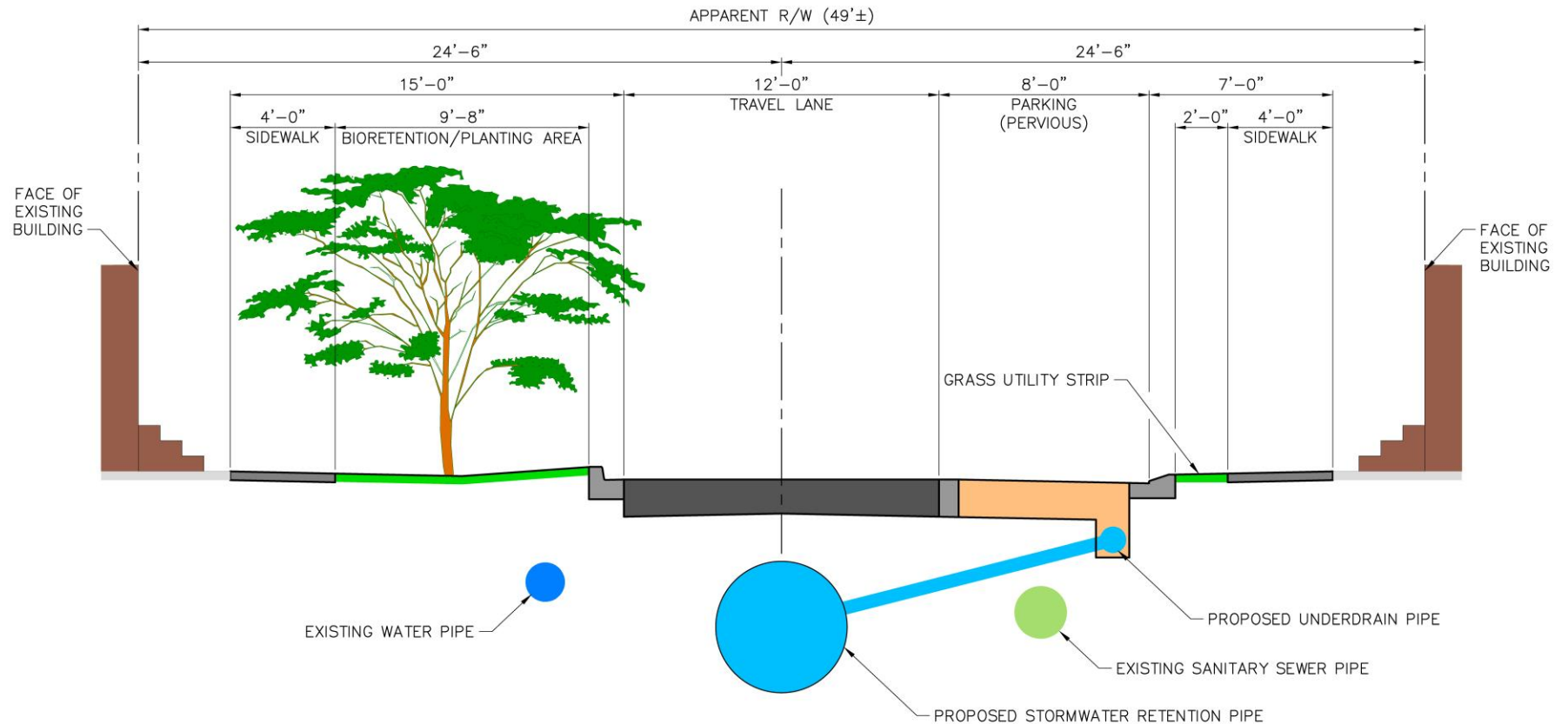
Spain St. between Urquhart St. and Marais St.



Music St. between Urquhart St.

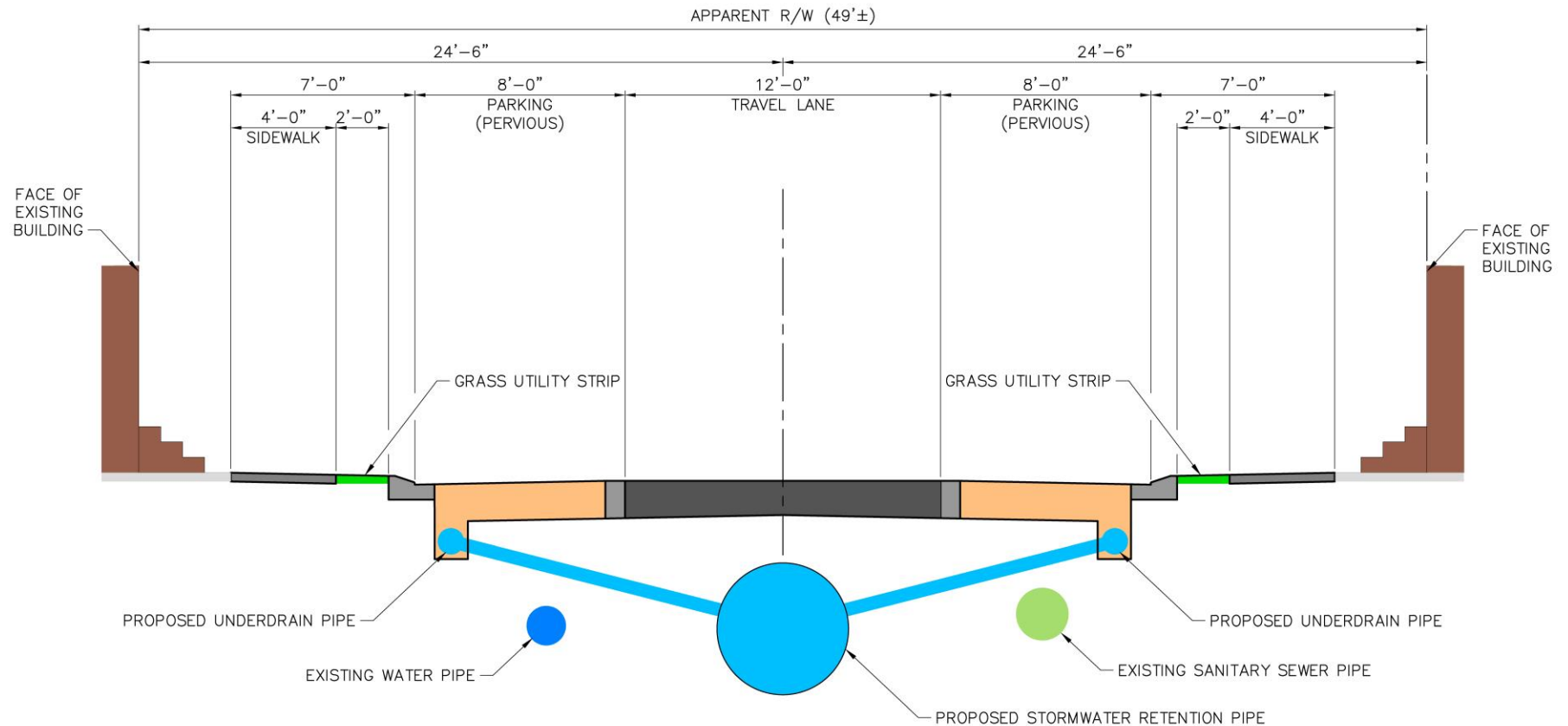
# St. Roch Proposed Design Elements – Street Cross Section

## ST ROCH - PROPOSED STREET DESIGN TYPICAL SECTION



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









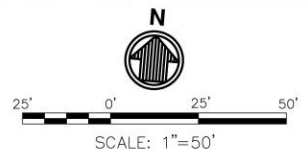
# St. Roch Proposed Design Elements – Green Infrastructure

## ST ROCH - PROPOSED STREET DESIGN



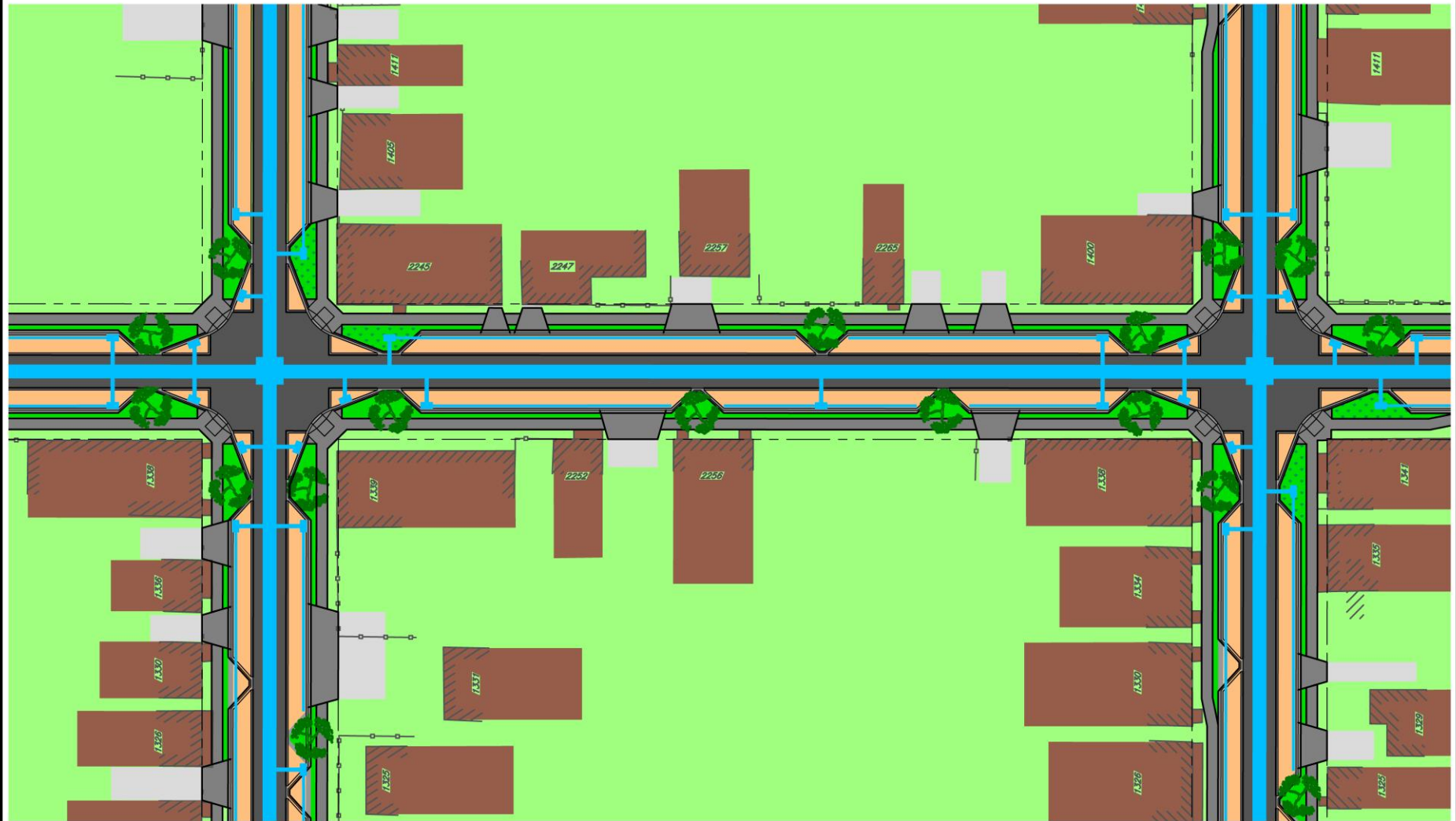
### LEGEND

	EXISTING DRIVEWAY		PROPOSED SIDEWALK / DRIVEWAY
	EXISTING BUILDING		PROPOSED LANDSCAPE / GRASS
	PROPOSED ASPHALT PAVEMENT		PROPOSED LANDSCAPE / BIORETENTION
	PROPOSED PERVIOUS PAVEMENT		PROPOSED LANDSCAPE / TREES












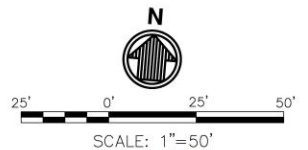
# St. Roch Proposed Design Elements – Subsurface Drainage

## ST ROCH - PROPOSED DRAINAGE DESIGN



### LEGEND

- |  |   |  |
|--|---|--|
|  EXISTING DRIVEWAY          |  PROPOSED SIDEWALK / DRIVEWAY      |  PROPOSED DRAINAGE SYSTEM |
|  EXISTING BUILDING          |  PROPOSED LANDSCAPE / GRASS        |  |
|  PROPOSED ASPHALT PAVEMENT  |  PROPOSED LANDSCAPE / BIORETENTION |  |
|  PROPOSED PERVIOUS PAVEMENT |  PROPOSED LANDSCAPE / TREES        |  |



# Compare to Existing Conditions – Effective Travel Lanes





## Benefits of New Streetscape

- Reduced Impervious Surfaces (less runoff)
  - Existing Condition = 90% Impervious
  - Proposed Condition = 64% Impervious
  - 30% Reduction
- On Street Parking More Organized
- Plants & Shade
- Improved Aesthetics
- Storage Spaced Eliminate Standing Water

St. Roch  
Proposed  
Design  
Elements –  
Green  
Infrastructure

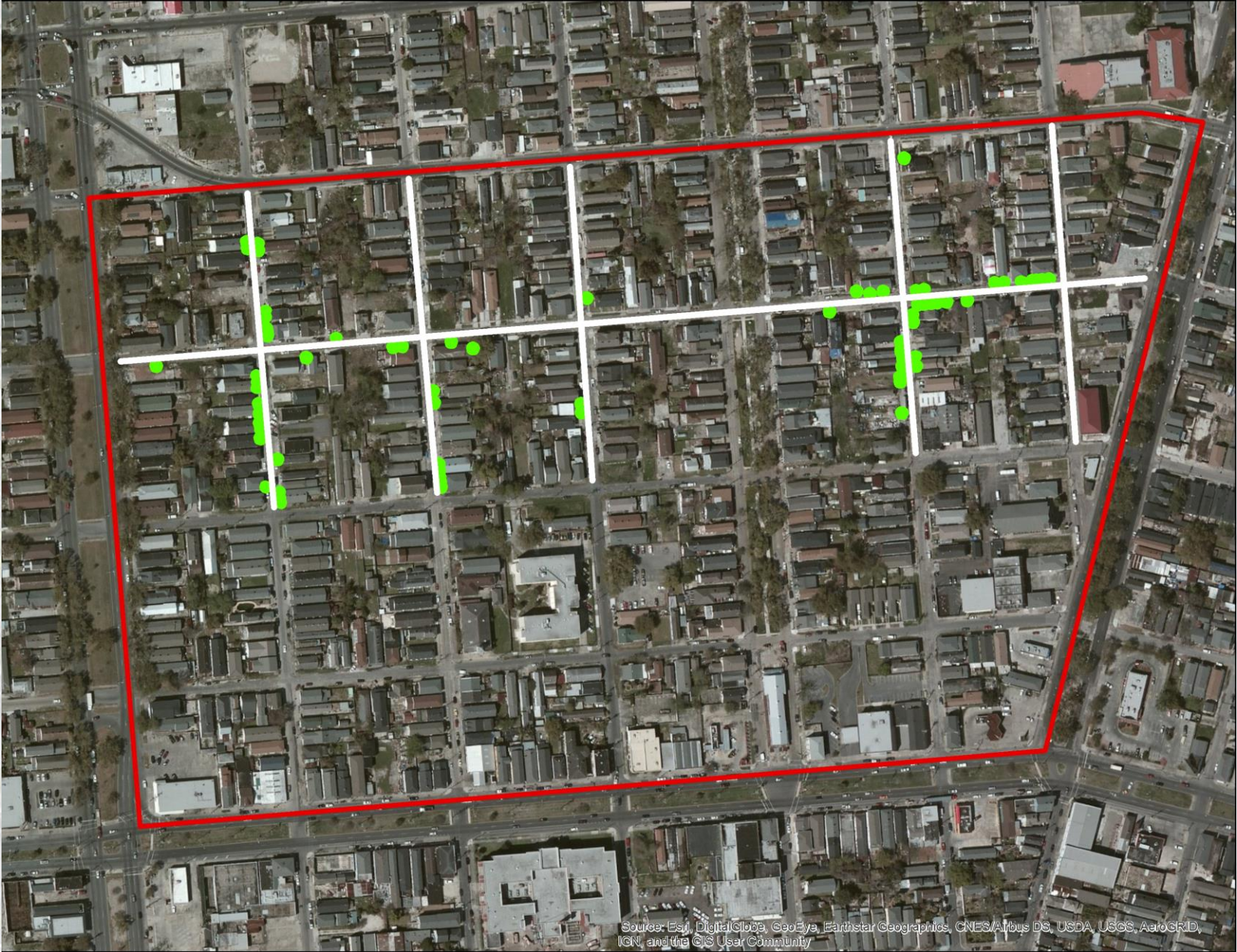






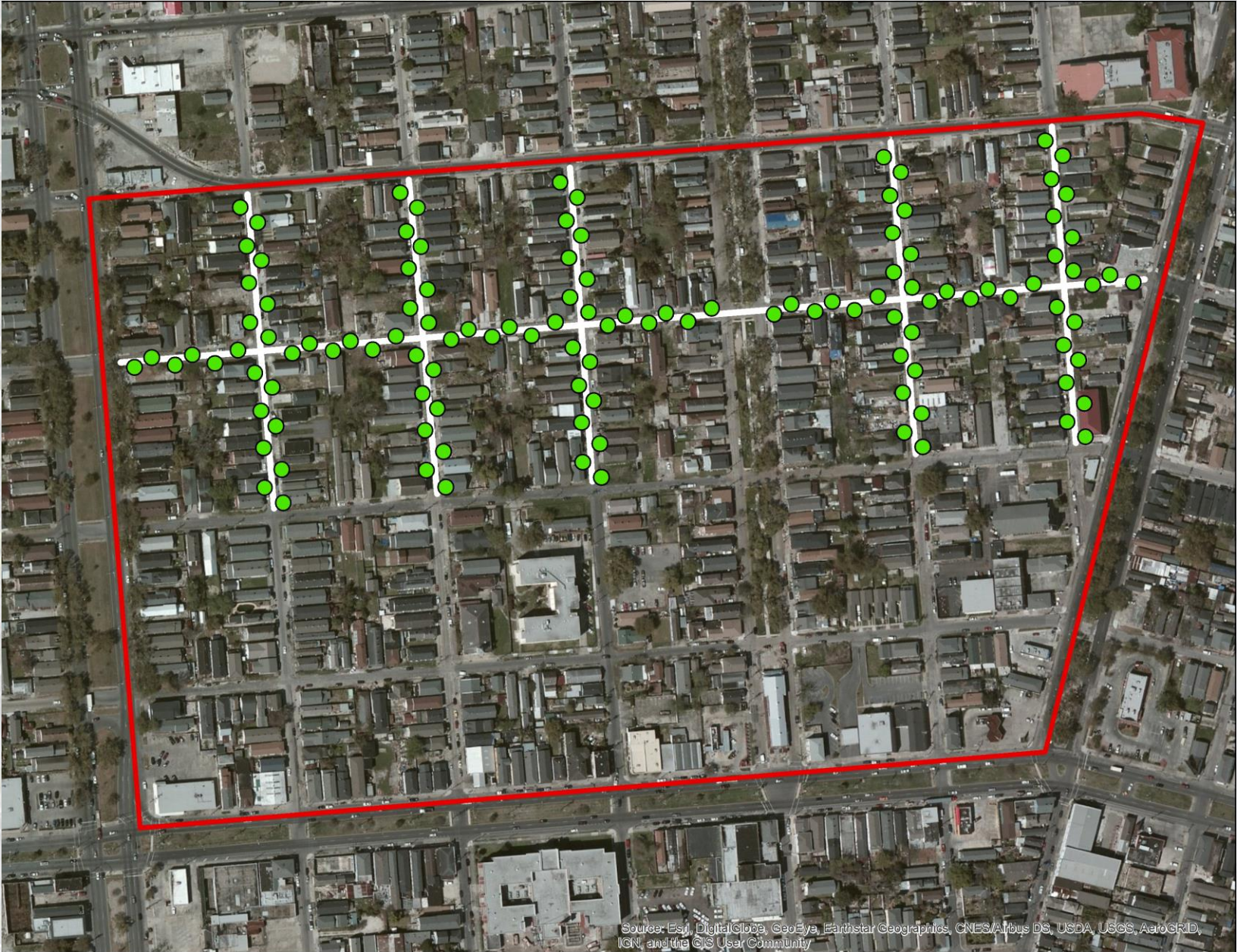
# Distribution of Street Trees - Existing

St. Roch  
Project  
Benefits –  
Street Trees



# Distribution of Street Trees - Proposed

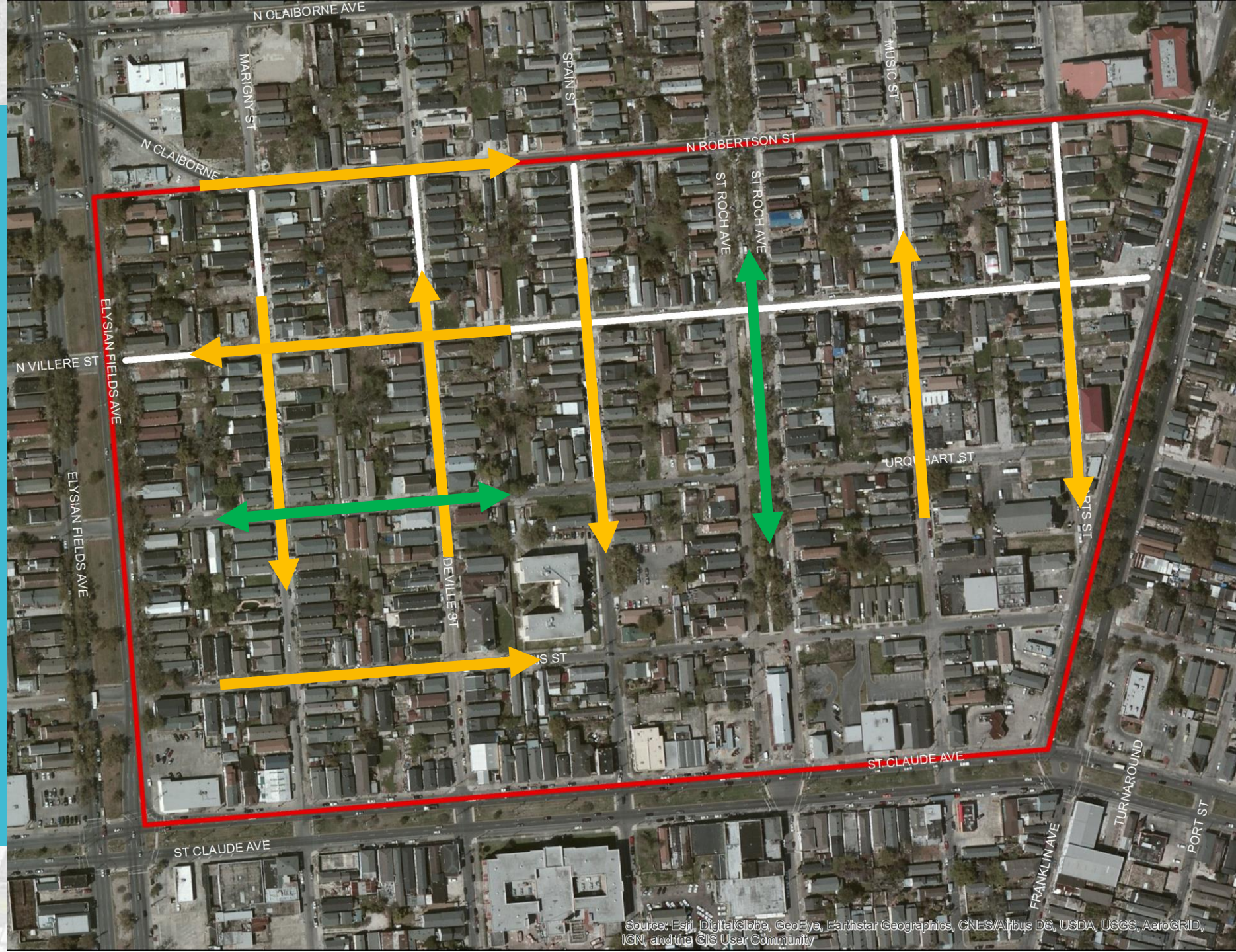
St. Roch  
Project  
Benefits –  
Street Trees





# St. Roch Project Opportunities

## Potential Traffic Pattern



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



## St. Roch Overall Project Benefits

- Reduce Flooding & Improve Water Quality
- Increase Public Safety
- Reduce Mosquitos and Associated Health Risks
- Improve Resident Quality of Life
- Enhance Community & Neighborhood Morale
- Reduce Resident Financial Burden
- Public Education & Community Outreach
- Increase Community Resilience



## St. Roch Project – Next Steps

- Design through September 2017
- Utility coordination with SWBNO and Entergy
- Modeling and design refinement
- Constructability reviews
- Coordination with Capital Improvements Program
- Construction: March 2018

# Conclusion

## City Contact:

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- 504-658-2215



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