

PROPOSED IMPROVEMENTS PUBLIC MEETING



Edgewater-Rosecrest Storm Drainage Improvement Project

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WELCOME AND INTRODUCTIONS

Charlotte-Mecklenburg Storm Water Services (CMSWS)

Greg Cole – Project Manager

Phone - 704-336-4824

Email - gcole@charlottenc.gov

Amy Bice – Watershed Area Manager

USInfrastructure of Carolina, Inc. (USI)

Sandra Hayes – Project Manager



HOUSEKEEPING

- **Sign-In Sheet**
- **Customer Service Comment Cards**
- **Time is available for Question and Answer period after Presentation**

MEETING PURPOSE

Purpose

- Provide a summary of the history and proposed improvements
- Present and explain phasing of the project
- Present and explain the remaining project milestones
- Request input from property owners/residents on proposed improvements

AGENDA

Agenda

- **Charlotte-Mecklenburg Storm Water Services (CMSWS)**
- **Project History**
- **City's Proposed Improvements**
- **Project Phasing and Future Project Milestones**
- **General Questions and Answers**
- **Break-Out Groups**

CHARLOTTE-MECKLENBURG STORM WATER SERVICES (CMSWS)

- **Public Utility started in 1993**
- **Funded by Storm Water Fee**
- **Goals Related to this Project**
 - **Address storm drainage issues such as road and structure flooding**
 - **Improve storm drainage infrastructure**
- **Maintenance Projects (Design Management Team)**
 - **Work on repairs and other minor, qualifying storm drainage issues**
 - **Issues reported through 311 Citizen Service Requests**
- **Capital Improvement Projects (Engineering Team)**
 - **Work on larger, qualifying project areas**
 - **Multiple or large storm drainage issues exist**
 - **Issues can not be addressed with minor repairs/replacements**



STORM DRAINAGE IMPROVEMENT PROJECT PHASES

PLANNING (Done)

- Existing Conditions Analysis – *Finding the Problems*
- Alternatives Analysis – *Developing Alternative Improvements*
- Proposed Improvements – *Test Selected Improvements*

DESIGN (Typically 21 to 34 months)

- *Designing the Improvements*

PERMITTING (Typically 3 to 9 months, but overlaps the Design Phase)

- *Federal, State, and Local Approvals*

EASEMENT ACQUISITION (Typically 12 months)

BID & AWARD (Typically 5 to 6 months)

CONSTRUCTION (From 1 to 2 years)

PROJECT HISTORY

Why was the Edgewater-Rosecrest area chosen?

- South Corridor Storm Water Program (SCSWP)
- Requests for Service from Property Owners
 - *Inadequate and undersized infrastructure*
 - *Deteriorating/old culverts, pipes, inlets*
 - *Road and Structure Flooding*
 - *Erosion, blockages in channels*
 - *Sink holes*
- Larger watershed-wide issues that cannot be managed by spot repairs or without potentially impacting downstream properties
- CMSWS Watershed Ranking

PROJECT AREA

- 472 acres
- Bounded by:
 - Emerywood Drive (north)
 - Lower Little Sugar Creek and Starbrook Drive (south)
 - Park South Station development (east), and
 - Old Pineville Road (west)
- System Length
 - 40,000+ linear feet of drainage system



ANALYSIS

- **Hydrologic Analysis**

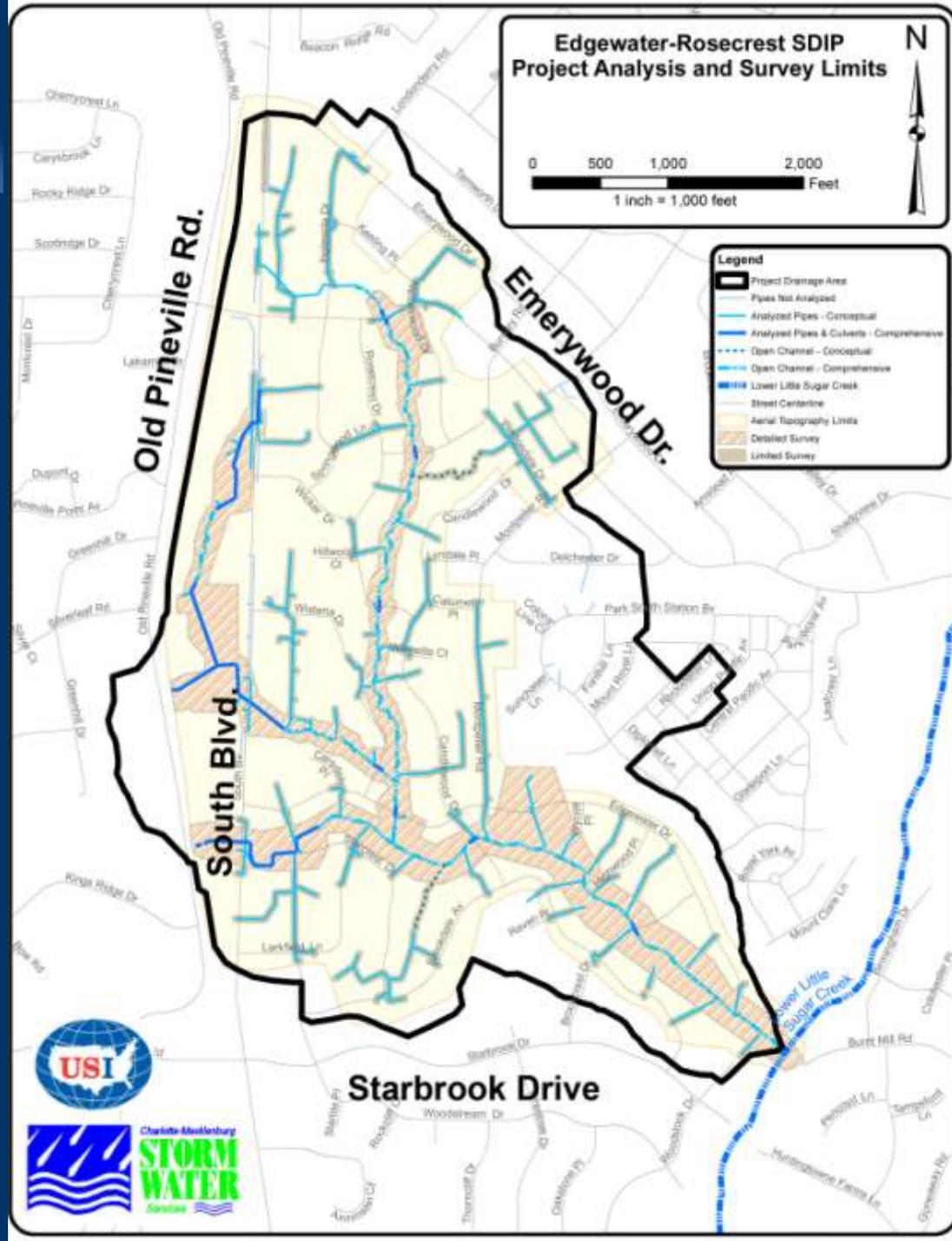
How much storm water runoff?

- Existing Conditions
- Future Conditions

- **Hydraulic Analysis**

How is the existing system performing under current City Design Standards (CDS)?

- Existing Infrastructure Condition (Age and Condition)
- Potential for Road & Structure Flooding (Level of Service)
- Channel Erosion & Instability
- Downstream Impacts



EXISTING CONDITIONS RESULTS

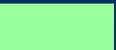
 Reported Citizen Concerns

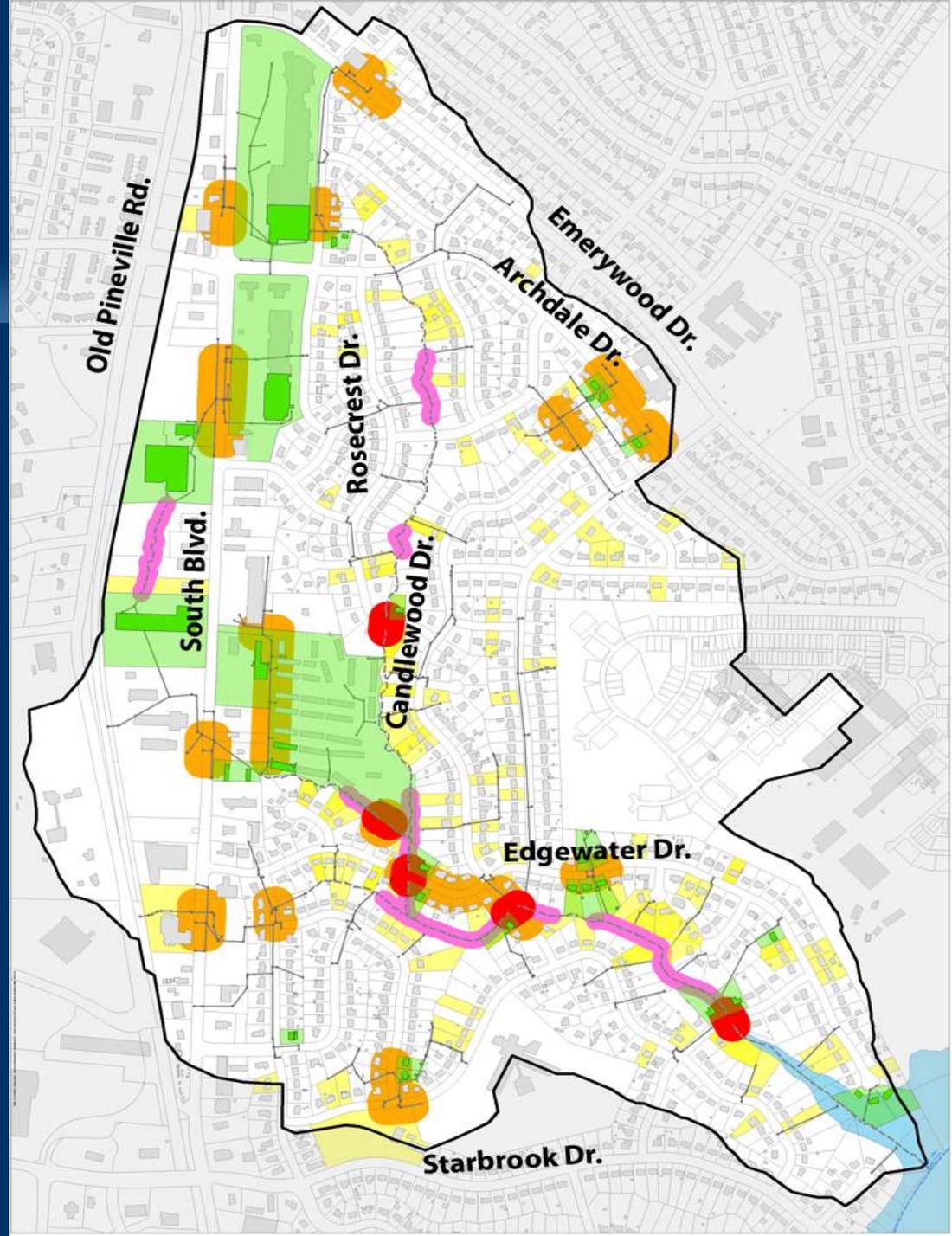
Potential Road Flooding

• Culverts

• Roadway Systems
South Boulevard
Residential Roads

 Channel Capacity &
Instability Concerns

 Potential Structure
Flooding



IMPROVEMENT ALTERNATIVES

Coming up with the “BEST” solutions



1. PUBLIC SAFETY

**2. PRIVATE
PROPERTY IMPACT**

3. PUBLIC COST



PROPOSED IMPROVEMENTS



**Improvements
Include:**

Phasing

Culverts

Pipe Systems

Channels



PROPOSED IMPROVEMENTS

CONSTRUCTION PHASING

Not to Scale

PHASE 2



Total Construction Cost

- \approx \$9 Million

Phase Limits

Phase I

- Residential
- \approx \$5 Million

Phase 2

- Commercial
- \approx \$4 Million

PROPOSED IMPROVEMENTS

Culvert Improvements – Minimizes Road & Structure Flooding

Brookcrest Drive

Candlewood Drive

Edgewater Drive

Rosecrest Drive

Burnley Road



PROPOSED IMPROVEMENTS

Pipe System Improvements – Addresses 80 Service Requests

Archdale Drive

Brookcrest Drive

Brookdale Avenue

Candlewood Drive

Carsdale Place

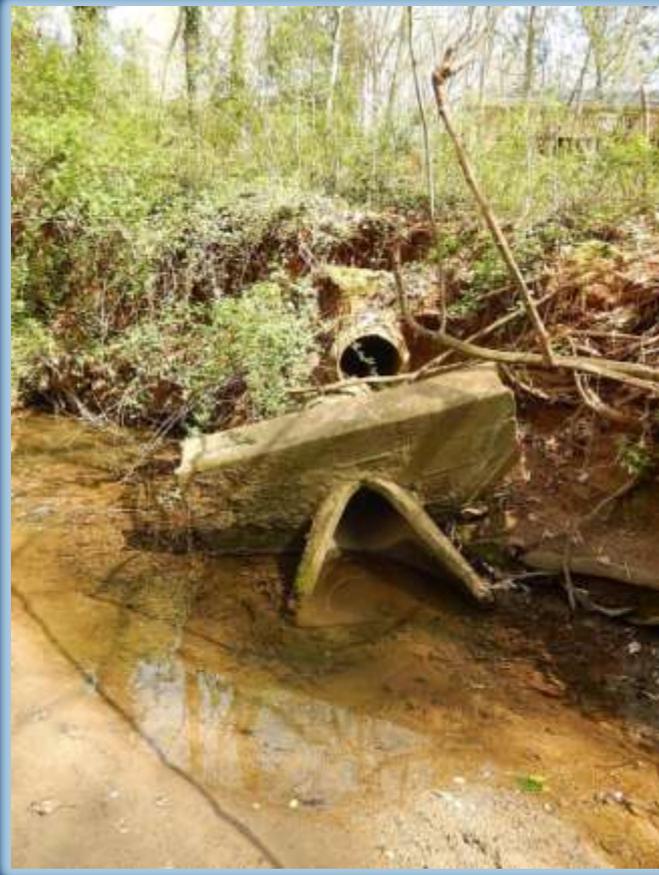
Edgewater Drive

Emerywood Drive

Highwood Place

Hillwood Court

Ingleside Drive



Keeling Place

Londonderry Road

South Boulevard

Springwood Lane

Starcrest Drive

Willmette Court

Wedgedale Drive

Woodstream Drive

Wycliff Place

PROPOSED IMPROVEMENTS

Channel Improvements – Minimizes erosion and instability

- **Adjust alignment, dimensions, and profile**
- **Construct stable banks**
- **Stabilization with vegetation and natural rock**



PROPOSED IMPROVEMENTS



Legend - Proposed Improvements

Proposed Channel Improvements

- No Channel Improvements
- Full Channel Improvements
- Bank Stabilization
- Open Channel Segment - Conceptual
- Proposed Conceptual Pipe
- Proposed Culvert
- Proposed Comprehensive Pipe
- Existing Pipe To Remain
- Existing Channel To Remain
- Existing Culvert to Remain

Parcel Boundary

Affected by Project

- No
- Yes
- Lower Little Sugar Creek
- FEMA Floodway
- Community Encroachment
- FEMA Flood Fringe
- Future Conditions Flood Fringe
- Building Footprint
- Proposed Phase Line
- Project Drainage Area

NEXT STEPS

- Design

Preparation of construction documents (plans, cost estimate, etc.)
Additional survey data collection

- Permitting

401/404 Permits, Erosion Control Permit, Floodway Encroachment

- Real Estate

City will ask property owners for easements to construct and maintain improvements

Approximately 210 parcels will be impacted by the proposed improvements

NEXT STEPS

- Bid

The City advertises the project for bid and the contract is awarded by City Council

- Construction

The contractor builds the improvements

- Phase 2

Will have it's own Design, Real Estate, Bid, and Construction timeline. That timeline will look the same as the Phase 1 timeline.

WHAT WE NEED FROM YOU

- **Feedback on the proposed improvements**
- **Support for the project's future phases**

CONCLUSION

Please Remember:

- **Sign-In Sheet**
- **Customer Service Comment Cards**

The Team will be available after the General Question & Answer period to discuss specific questions and receive input

**Thank You for Coming to the Meeting
Your Input is Appreciated!**