

# FAYETTE COUNTY CORE INFRASTRUCTURE IMPROVEMENTS

## DRAFT FOR PUBLIC REVIEW AND COMMENT

Fayette County owns or maintains miles of storm drainage pipe and associated drainage infrastructure for managing stormwater runoff. This is comprehensively referred to as the Municipal Separate Storm Sewer System (MS4) and includes items such as: storm drainage pipes; box culverts; gutters; ditches, swales, catch basins and inlets.

A portion of the county’s MS4 is in need repairs or replacement due to deterioration of corrugated metal pipe that is approaching or exceeding its expected useful life. Deteriorated, damaged, poorly maintained, and/or undersized pipes and structures can result in potentially serious safety, infrastructure, flooding and environmental problems.

The drainage system improvements identified provides repair and replacement of drainage systems under and adjacent to roadways that have deteriorated to the point where they no longer function as intended.

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| <b>Category I</b> | <b>TOTAL</b> | <b>\$2,908,888.55</b> |
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**Flooding and Safety:** Replacement or rehabilitation of Stormwater Drainage Systems where failure or improper operation may result in loss of property or probable loss of human life. This includes Category I dams as classified by the state within Fayette County right-of-way. All projects listed in this category are in need of immediate attention.

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| <b>Category II</b> | <b>TOTAL</b> | <b>\$11,598,503.97</b> |
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**Stormwater Infrastructure Preservation Projects Greater than \$20,000:** Deformation or damage of system may affect the drainage capacity or overall function of the structure. These projects have been subcategorized into Tier 1 and Tier 2.

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| Tier 1 projects are in need of immediate attention.      |  | <b>\$3,643,359.79</b> |
| Tier 2 projects are projects that need replacement soon. |  | <b>\$7,955,144.18</b> |

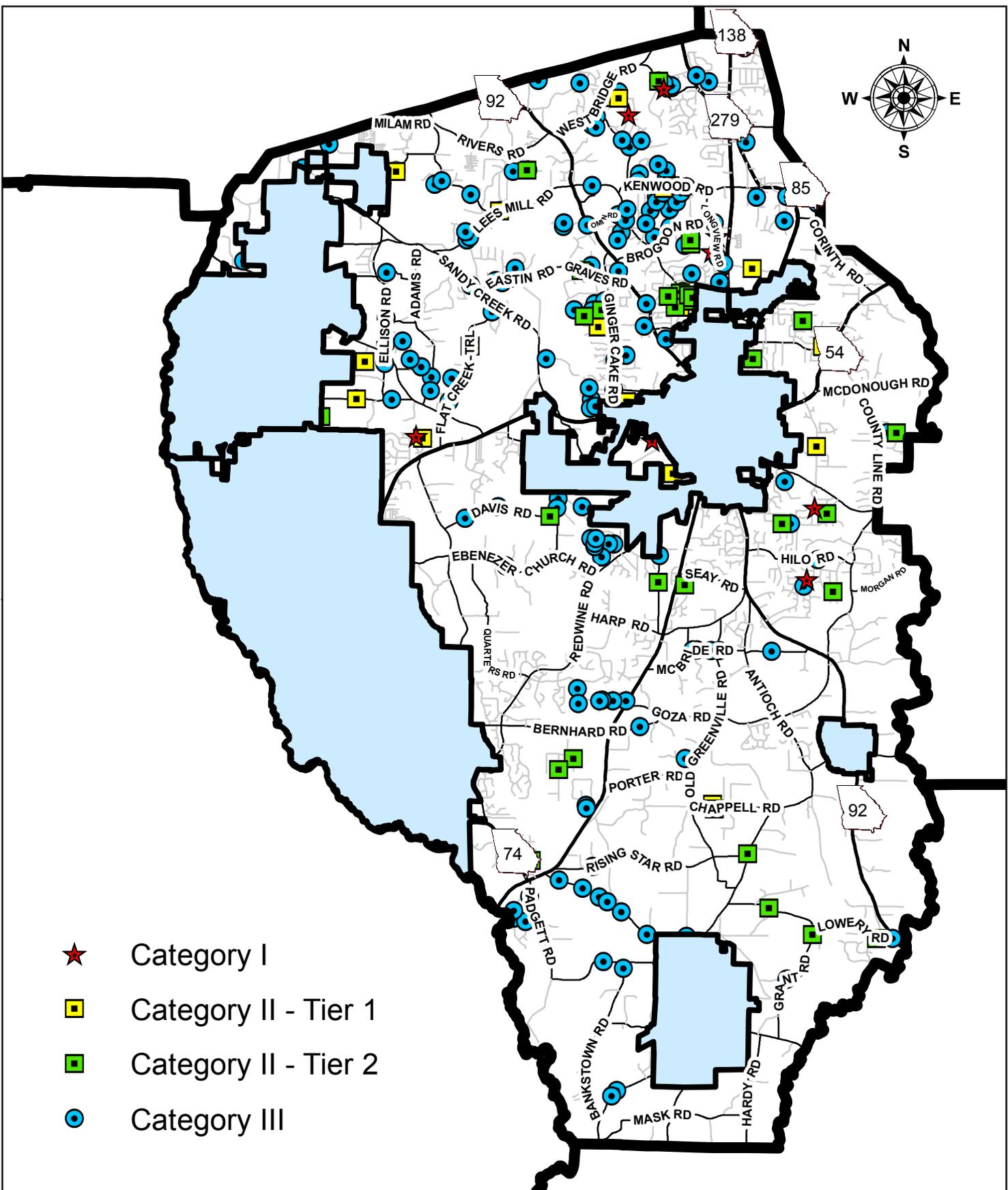
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| <b>Category III</b> | <b>TOTAL</b> | <b>\$912,199.62</b> |
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**Stormwater Infrastructure Preservation Projects Less than \$20,000:** Deformation or damage of system may affect the drainage capacity or overall function of the structure.

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| <b>Category IV</b> | <b>TOTAL</b> | <b>\$1,382,500.00</b> |
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**Stormwater Improvement Projects:** Stormwater drainage systems functional improvements.

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| <b>CORE INFRASTRUCTURE SPLOST 2013</b> | <b>TOTAL</b> | <b><u>\$16,802,091.13</u></b> |
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**CORE INFRASTRUCTURE SPLOST 2013**  
**Draft for Public Comment**

## Jacobs General Assumptions

- 1 Utility locations are based on visual inspection of the above ground features. No research, SUE equipment or contact with utility owners was conducted. The utility relocation costs are based on common sizes for each type of utility.
- 2 ROW estimates are based on cursory search of residential properties in Fayette County. A conservative average value of \$4/sf was used, which accounts for potential market appreciation over the life of a SPLOST program and the conceptual/planning level of the estimates. Full property appraisal of specific locations will be required once detailed plans are available. The estimated right of way cost was established by estimating the additional right of way or easement area(s) needed to construct the drainage and roadway improvements.
- 3 The Fayette County Development Regulations, Article III, Street Design Standards and Specifications were utilized to determine the minimum pavement design, design speed, and other design criteria needed to prepare the subject cost estimate.
- 4 The Fayette County Thoroughfare Plan was utilized to determine the street classification for the subject project.
- 5 GDOT Item Mean Summary information (as of June 6, 2013) was used to estimate item unit cost values. The unit costs were increased by 20% to account for the small project size, shortened construction time related to detour limitations and general differences between State and City/County level projects .
- 6 Traffic Control and Staging Cost Percentage(s) are based on the street classification, roadway closure possibility, and the need for public information/involvement during construction.
- 7 Design cost was estimated based on construction cost for larger projects (assumed 10%). For projects with construction cost less than \$150,000, a minimum design cost of \$15,000 was used. The design cost includes engineering design and survey efforts.
- 8 Environmental efforts are anticipated to be minimal due to the nature of the projects (perpendicular crossing/maintenance project classification) and include wetland delineation, compliance with state stream buffers, and minimal permitting . Unless otherwise noted, projects are assumed to be exempt from Georgia EPD stream buffer variances on the basis of a drainage structure exemption. In addition, projects are assumed to fall under a Nationwide Permit 3A (Maintenance Activity). Ecological investigation was not completed for this effort and will be required at the time of project to assess actual environmental impacts and costs.

It is assumed that floodplain modeling will be required for all crossings in FEMA-designated Zone AE (floodway) and Zone A special flood hazard areas, but that the crossing will be designed to comply with FEMA requirements for no-rise. No map revision submittals to FEMA are included in the cost estimates. The FEMA studies are included in the environmental cost for each project to which this is anticipated to be required.

### Levels of Environmental Analysis/Permitting:

\$10,000: minimal environmental efforts described above

\$15,000: minimal environmental, FEMA Zone A study required, culvert

\$18,000: minimal environmental, FEMA Zone AE study required, culvert

\$20,000: minimal environmental, FEMA Zone A/AE study required, bridge

- 9 Pipe condition assessment categories:
  - 5: Severe structural damage; > 10% loss of flow area; function of structure compromised and failure imminent
  - 4: Significant signs of exterior and structural deterioration; some loss of flow area
  - 3: Signs of exterior deterioration but structurally functioning
  - 2: Minor signs of deterioration; primary flow area in tact and functioning
  - 1: System performing as designed and in good condition