

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**OFFICE OF DESIGN POLICY & SUPPORT  
INTERDEPARTMENTAL CORRESPONDENCE**

**FILE** P.I. #0007666 **OFFICE** Design Policy & Support  
CSSTP-0007-00(666)  
GDOT District 5 - Jesup  
Charlton County **DATE** April 30, 2012  
SR 4/US 301 @ CS 462/Main St. & SR 23 @ Main  
St. in Folkston

**FROM**  Brent Story, State Design Policy Engineer

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

**DISTRIBUTION:**

Genetha Rice-Singleton, Program Control Administrator  
Bobby Hilliard, State Program Delivery Engineer  
Cindy VanDyke, State Transportation Planning Administrator  
Angela Robinson, Financial Management Administrator  
Glenn Bowman, State Environmental Administrator  
Andy Casey, State Roadway Design Engineer  
Attn: Robert Reid, Design Group Manager  
Kathy Zahul, State Traffic Engineer  
Georgene Geary, State Materials & Research Engineer  
Lisa Myers, State Project Review Engineer  
Jeff Baker, State Utilities Engineer  
Ken Thompson, Statewide Location Bureau Chief  
Michael Henry, Systems & Classification Branch Chief  
Karon Ivery, District Engineer  
Bradford Saxon, District Preconstruction Engineer  
Stephen Thomas, Asst. District Utilities Engineer  
Tim Matthews, Project Manager  
BOARD MEMBER - 1st Congressional District

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CONCEPT REPORT**

|  |   |
|--|---|
| Project Type: <u>Drainage Improvements</u> | P.I. Number: <u>0007666</u>                 |
| GDOT District: <u>5</u>                    | County: <u>Charlton</u>                     |
| Federal Route Number: <u>US 30</u>         | State Route Number: <u>SR 4 &amp; SR 23</u> |

**SR 4/US 301 @ CS 462/Main St & SR 23 @ Main St In Folkston**

**Submitted for approval:**

|   |                          |
|---|--------------------------|
| <u>C. An. by Camp</u><br>GDOT Concept/Design Phase Office Head (Roadway Design) | <u>3/15/12</u><br>DATE   |
| <u>Bobby Hulbert</u><br>Office Head (GDOT Project Manager's Office)             | <u>3-20-2012</u><br>DATE |
| <u>Tim Mallas</u><br>GDOT Project Manager                                       | <u>3/20/2012</u><br>DATE |

**Recommendation for approval:**

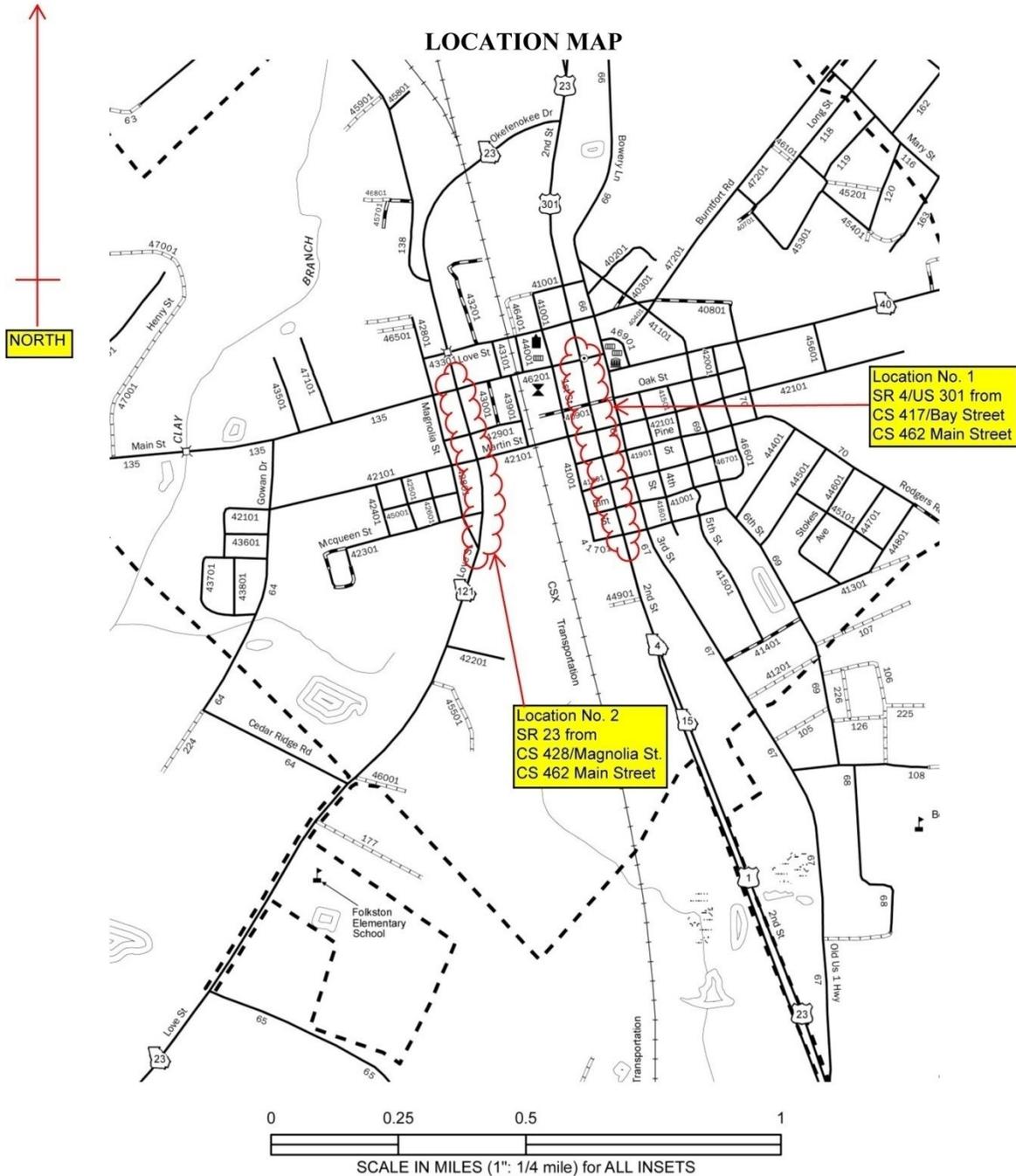
|   |                        |
|---|------------------------|
| Program Control Administrator<br><u>GLENN BOWMAN *TJ</u>  | DATE<br><u>3/30/12</u> |
| State Environmental Administrator (recommendation required)<br><u>KATHY ZAHUL *TJ</u>               | DATE<br><u>3/30/12</u> |
| State Traffic Engineer (recommendation required for roundabout projects)<br><u>LISA MYERS *T.J.</u> | DATE<br><u>3/29/12</u> |
| Project Review Engineer   | DATE                   |
| State Utilities Engineer  | DATE                   |
| District Engineer (projects not originating in District Office)                                     | DATE                   |
| State Transportation Financial Management Administrator   | DATE                   |

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

|   |                        |
|---|------------------------|
| <u>Cynthia L. Vankle</u><br>State Transportation Planning Administrator (recommendation required) | <u>3-29-12</u><br>DATE |
|---|------------------------|

*\* RECOMMENDATION ON FILE*

### PROJECT LOCATION



CSSTP-0007-00(666) P.I. # 0007666 Charlton County  
SR 4/US 301 @ Main St. & SR 23 @ Main St. in Folkston  
Drainage Improvement Project

## PLANNING & BACKGROUND DATA

**Project Justification Statement:** SR 4/US 301 (concurrent with SR 15/US 1/US 23/2<sup>nd</sup> St.) in Charlton County is an existing north-south route with four lanes in the city of Folkston that is designated as a Hurricane Evacuation Route and provides ultimate access to another designated Hurricane Evacuation Route – US 82/SR 520 in Ware County. SR 23 (concurrent with SR 121/Okefenokee Pkwy.) is an existing north-south route in Folkston that roughly parallels SR 4 and is a two-lane route.

GDOT District Five reported that two areas along SR 4/US 301 and SR 23 through Folkston have a history of holding standing water on the pavement during significant rain events over a short period of time. General locations where the flooding issue was observed are on SR 4/US 301 from CS 417/Bay Street to CS 462/Main Street and on SR 23 from CS 428/Magnolia Street extending to CS 462/Main Street. The total length of these two sections is approximately 0.86 miles. The identified limits represent the extent of the observed flooding issues.

This project proposes to improve the existing drainage structures and drainage system at specific points in the area. The improvement is important due to the route's designation as a Hurricane Evacuation Route that could be subject to heavy rains and potentially affect evacuation.

Traffic counts are available from the GDOT State Traffic and Report Statistics (STARS) program. In the year 2010, the STARS traffic volume on SR 4 ranged from 10,380 AADT to 11,070 AADT, with an acceptable Level of Service (LOS) of "A". The future year, 2035, volumes for this same section of SR 4 is projected to range from 15,522 to 15,883 AADT, resulting in an acceptable Level of Service of "A". On SR 23, the year 2010 traffic volumes is 3,070 AADT, with an acceptable LOS of "A". The future year, 2035, volumes for this same section of SR 23 is projected to increase to 3,847 AADT, resulting in an acceptable LOS of "A". The latest accident data from the year 2009 indicate that the sections of SR 4 and SR 23 are above the statewide average.

The primary justification of the proposed improvement to the drainage system in this area is to improve drainage capacity and reduce gutter spread, especially during periods of heavy rain, in order to reduce the potential hazard of excess standing water in the roadway.

**Description of the proposed project:** The project consists of improving the insufficient storm drain systems that allow excess water to pond on the existing roadways during significant rainfall events along SR 4/US 301 from CS 417/Bay Street to CS 462/Main Street and along SR 23 from CS 428/Magnolia Street to CS 462/Main Street within the Folkston city limits. To alleviate the problem, existing drainage structures will be replaced, and additional drainage structures will be added to capture more of the pavement drainage in order to reduce gutter spread. In addition, the existing longitudinal pipes will be replaced with larger pipes, and new pipes will be added to allow for a greater flow and storage capacity within the system. Each system will outfall at the existing outfall locations. The project length along SR 4/US 301 is approximately 0.53 miles from road inventory milepost 3.87 to road inventory milepost 4.24 and the project length along SR 23 is approximately 0.33 miles from road inventory milepost 35.49 to road inventory milepost 35.82.

**Federal Oversight:**  Full Oversight  Exempt  State Funded  Other  
**MPO:**  N/A  MPO - MPO Project TIP #

Regional Commission:  N/A  RC – RC Project ID #

Congressional District(s): 1

**SR 4/US 23 Projected Traffic AADT:**

Current Year (2010): 11,070 Open Year (2016): 12,225 Design Year (2035): 15,883

**SR 23 Projected Traffic AADT:**

Current Year (2010): 3,070 Open Year (2016): 3,256 Design Year (2035): 3,847

Functional Classification (SR 4/US 301): Rural Principal Arterial

Functional Classification (SR 23): Rural Major Collector

Is this project on a designated bike route?  No  YES

Is this project located on a pedestrian plan?  No  YES

Is this project located on or part of a transit network?  No  YES

**CONTEXT SENSITIVE SOLUTIONS**

**Issues of Concern:** Maintaining integrity of existing terrain and environment with minimum disruption to business operations and to both pedestrian and roadway traffic.

**Context Sensitive Solutions:** All proposed drainage solutions should be resolved within the existing right of way limits. Any required right of way and/or easements needed to facilitate outfall of the proposed upgrade to the drainage system will be acquired in areas that will not be detrimental to individual property or day-to-day activities.

**DESIGN AND STRUCTURAL DATA**

Mainline Design Features: SR 4/US 301

| Feature                         | Existing     | Standard* | Proposed     |
|---------------------------------|--------------|-----------|--------------|
| <b>Typical Section</b>          |              |           |              |
| - Number of Lanes               | 4            | 4         | 4            |
| - Lane Width(s)                 | 12'          | 12'       | 12'          |
| - Median Width & Type           | 14' Flush    | 14' Flush | 14' Flush    |
| - Outside Shoulder Width & Type | 10' w/C & G  | N/A       | 10' w/C & G  |
| - Outside Shoulder Slope        | 2%           | N/A       | 2%           |
| - Inside Shoulder Width & Type  | N/A          | N/A       | N/A          |
| - Sidewalks                     | Yes          | Yes       | Yes          |
| - Auxiliary Lanes               | N/A          | N/A       | N/A          |
| - Bike Lanes                    | N/A          | N/A       | N/A          |
| Posted Speed                    | 35 mph       |           | 35 mph       |
| Design Speed                    | 35 mph       | 35 mph    | 35 mph       |
| Min Horizontal Curve Radius     | 2,290'       | 340'      | 2,290'       |
| Superelevation Rate             | Normal Crown | 4% Max    | Normal Crown |
| Grade                           | 0.5%         | 7%        | 0.5%         |
| Access Control                  | By Permit    | N/A       | By Permit    |
| Right-of-Way Width              | 100'         | N/A       | 100'         |
| Maximum Grade – Crossroad       | 0.5%         | 7%        | 0.5%         |
| Design Vehicle                  | N/A          | N/A       | N/A          |

\*According to current GDOT design policy if applicable

**Mainline Design Features: SR 23**

| Feature                         | Existing     | Standard* | Proposed     |
|---------------------------------|--------------|-----------|--------------|
| <b>Typical Section</b>          |              |           |              |
| - Number of Lanes               | 2            | 2         | 2            |
| - Lane Width(s)                 | 20'          | 12'       | 20'          |
| - Median Width & Type           | N/A          | N/A       | N/A          |
| - Outside Shoulder Width & Type | 10' w/C & G  | N/A       | 10' w/C & G  |
| - Outside Shoulder Slope        | 2%           | N/A       | 2%           |
| - Inside Shoulder Width & Type  | N/A          | N/A       | N/A          |
| - Sidewalks                     | Yes          | Yes       | Yes          |
| - Auxiliary Lanes               | N/A          | N/A       | N/A          |
| - Bike Lanes                    | N/A          | N/A       | N/A          |
| Posted Speed                    | 35 mph       |           | 35 mph       |
| Design Speed                    | 35 mph       | 35 mph    | 35 mph       |
| Min Horizontal Curve Radius     | 2,290'       | 371'      | 2,290'       |
| Superelevation Rate             | Normal Crown | 4% Max    | Normal Crown |
| Grade                           | 0.5%         | 9%        | 0.5%         |
| Access Control                  | By Permit    | N/A       | By Permit    |
| Right-of-Way Width              | 70'          | N/A       | 70'          |
| Maximum Grade – Crossroad       | 0.5%         | 9%        | 0.5%         |
| Design Vehicle                  | N/A          | N/A       | N/A          |

\*According to current GDOT design policy if applicable

**Major Structures:** N/A

**Major Interchanges/Intersections:**

SR 4/US 301 @ Martin St/CS 421 – Signalized Intersection w/ Pedestrian Signal

SR 4/US 301 @ Main St/CS 462 – Signalized Intersection w/ Pedestrian Signal

SR 23 @ Main St/CS 462 – Signalized Intersection w/ Pedestrian Signal

**Utility Involvements:**

Georgia Power Distribution - Electric

Atlanta Gas Light - Gas

City of Folkston - Water/Sewer

Windstream - Cable

**Public Interest Determination Policy and Procedure recommended (Utilities)?**  YES  NO

**SUE Required:**  Yes  No

**Railroad Involvement:** CSX Railroad coordination will be required. Existing Railroad ditch will be impacted by increased flow at the outfall location of the proposed drainage system.

**Right-of-Way:**

Required Right-of-Way anticipated:  YES  NO  Undetermined  
 Easements anticipated:  Temporary  Permanent  Utility  Other

Anticipated number of impacted parcels: 4  
 Anticipated number of displacements (Total): 0  
 Businesses: 0  
 Residences: 0  
 Other: 0

Location and Design approval:  Not Required  Required

Off-site Detours Anticipated:  No  Yes  Undetermined

Transportation Management Plan Anticipated:  YES  NO

**Design Exceptions to FHWA/AASHTO controlling criteria anticipated:**

| FHWA/AASHTO Controlling Criteria  | YES                      | Appvl Date<br>(if applicable) | NO                                  | Undetermined             |
|-----------------------------------|--------------------------|-------------------------------|-------------------------------------|--------------------------|
| 1. Design Speed                   | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Lane Width                     | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Shoulder Width                 | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Bridge Width                   | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Horizontal Alignment           | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Superelevation                 | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. Vertical Alignment             | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Grade                          | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. Stopping Sight Distance        | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Cross Slope                   | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Vertical Clearance            | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. Lateral Offset to Obstruction | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 13. Bridge Structural Capacity    | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Design Variances to GDOT standard criteria anticipated:**

| GDOT Standard Criteria                        | Reviewing<br>Office | YES                      | Appvl Date<br>(if applicable) | NO                                  | Undetermined             |
|---|---------------------|--------------------------|-------------------------------|-------------------------------------|--------------------------|
| 1. Access Control<br>- Median Opening Spacing | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Median Usage & Width                       | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Intersection Skew Angle                    | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Lateral Offset to Obstruction              | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Intersection Sight Distance                | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Bike & Pedestrian Accommodations           | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. GDOT Drainage Manual                       | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. Georgia Standard Drawings                  | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. GDOT Bridge & Structural Manual            | Bridge              | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Roundabout Illumination                   | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Rumble Strips/Safety Edge                 | DP&S                | <input type="checkbox"/> |                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

VE Study anticipated:  No  Yes  Completed – Date:

## ENVIRONMENTAL DATA

### Anticipated Environmental Document:

GEPA:  NEPA:  Categorical Exclusion  EA/FONSI  EIS

### Air Quality:

Is the project located in a PM 2.5 Non-attainment area?  No  Yes  
 Is the project located in an Ozone Non-attainment area?  No  Yes

### Environmental Permits/Variations/Commitments/Coordination anticipated:

| Permit/ Variance/ Commitment/<br>Coordination Anticipated | YES                      | NO                                  | Remarks                      |
|---|--------------------------|-------------------------------------|------------------------------|
| 1. U.S. Coast Guard Permit                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 2. Forest Service/Corps Land                              | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 3. CWA Section 404 Permit                                 | <input type="checkbox"/> | <input type="checkbox"/>            | To be determined             |
| 4. Tennessee Valley Authority Permit                      | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 5. Buffer Variance  | <input type="checkbox"/> | <input type="checkbox"/>            | To be determined             |
| 6. Coastal Zone Management<br>Coordination                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 7. NPDES  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Less than 1 acre anticipated |
| 8. FEMA   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 9. Cemetery Permit  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 10. Other Permits   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 11. Other Commitments                                     | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |
| 12. Other Coordination                                    | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                              |

Is a PAR required?  No  Yes  Completed – Date:

**NEPA/GEPA:** Process has not started. Ecology Studies/Reports and Air/Noise assessments will be handled with a District 5 Environmental Task Order, History and Archaeology studies and reports will be handled by DOT OES personnel.

**Ecology:** Ecology Survey has not begun. Anticipate NO EFFECTS DETERMINATION.

**History:** Section 106 consultation has begun. History survey will be performed when schedule is uploaded.

**Archeology:** Section 106 consultation has begun.

**Air & Noise:** Anticipate TP III Noise Assessment, Air Assessment, No Mitigation anticipated.

**Public Involvement:** None anticipated

**Major stakeholders:** The local traveling public, hurricane evacuees, local businesses, residents in the area and Emergency Services.

## ROUNDBABOUTS

Lighting agreement/commitment letter received:  No  Yes

Planning Level assessment: N/A

Feasibility Study: N/A

Peer Review required:  No  Yes  Completed – Date:

## CONSTRUCTION

**Issues potentially affecting constructability/construction schedule:** Issues potentially affecting constructability/construction schedule include traffic control during peak hour traffic and conflict between proposed drainage system and existing utilities.

Early Completion Incentives recommended for consideration:  No  Yes

## PROJECT RESPONSIBILITIES

### Project Activities:

| Project Activity                              | Party Responsible for Performing Task(s)                 |
|---|--|
| Concept Development                           | GDOT Roadway Design                                      |
| Design  | GDOT Roadway Design                                      |
| Right-of-Way Acquisition                      | GDOT Right of Way  |
| Utility Relocation                            | GDOT District 5 Utilities                                |
| Letting to Contract                           | GDOT Bidding Administration                              |
| Construction Supervision                      | GDOT District Construction                               |
| Providing Material Pits                       | Contractor   |
| Providing Detours                             | GDOT Construction – To be implemented by Contractor      |
| Environmental Studies, Documents, and Permits | GDOT Environmental Services – Dist 5 Task Order Services |
| Environmental Mitigation                      | GDOT Environmental Services                              |
| Construction Inspection & Materials Testing   | GDOT Materials and Research                              |

Lighting required:  No  Yes

Initial Concept Meeting: N/A

Concept Meeting: N/A

Other projects in the area: None

**Other coordination to date:** Met with District 5 personnel in the field on June 16, 2011 to discuss the issues of the project and any recommended solutions.

**Project Cost Estimate and Funding Responsibilities:**

|                  | <b>Breakdown of PE</b> | <b>ROW</b> | <b>Utility</b> | <b>CST*</b>    | <b>Environmental Mitigation</b> | <b>Total Cost</b> |
|------------------|------------------------|------------|----------------|----------------|---------------------------------|-------------------|
| By Whom          | GDOT                   | GDOT       | GDOT           | GDOT           | NA                              |                   |
| \$ Amount        | \$168,924.36           | \$129,000  | \$0.00#        | \$1,129,583.64 | NA                              | \$1,427,507.00    |
| Date of Estimate | 9/1/2005               | 2/28/2012  | 3/06/2012      | 2/29/2012      | NA                              |                   |

\*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

# Utility Costs will all be Non-Reimbursable per District Utilities.

**ALTERNATIVES DISCUSSION**

**Alternative selection:**

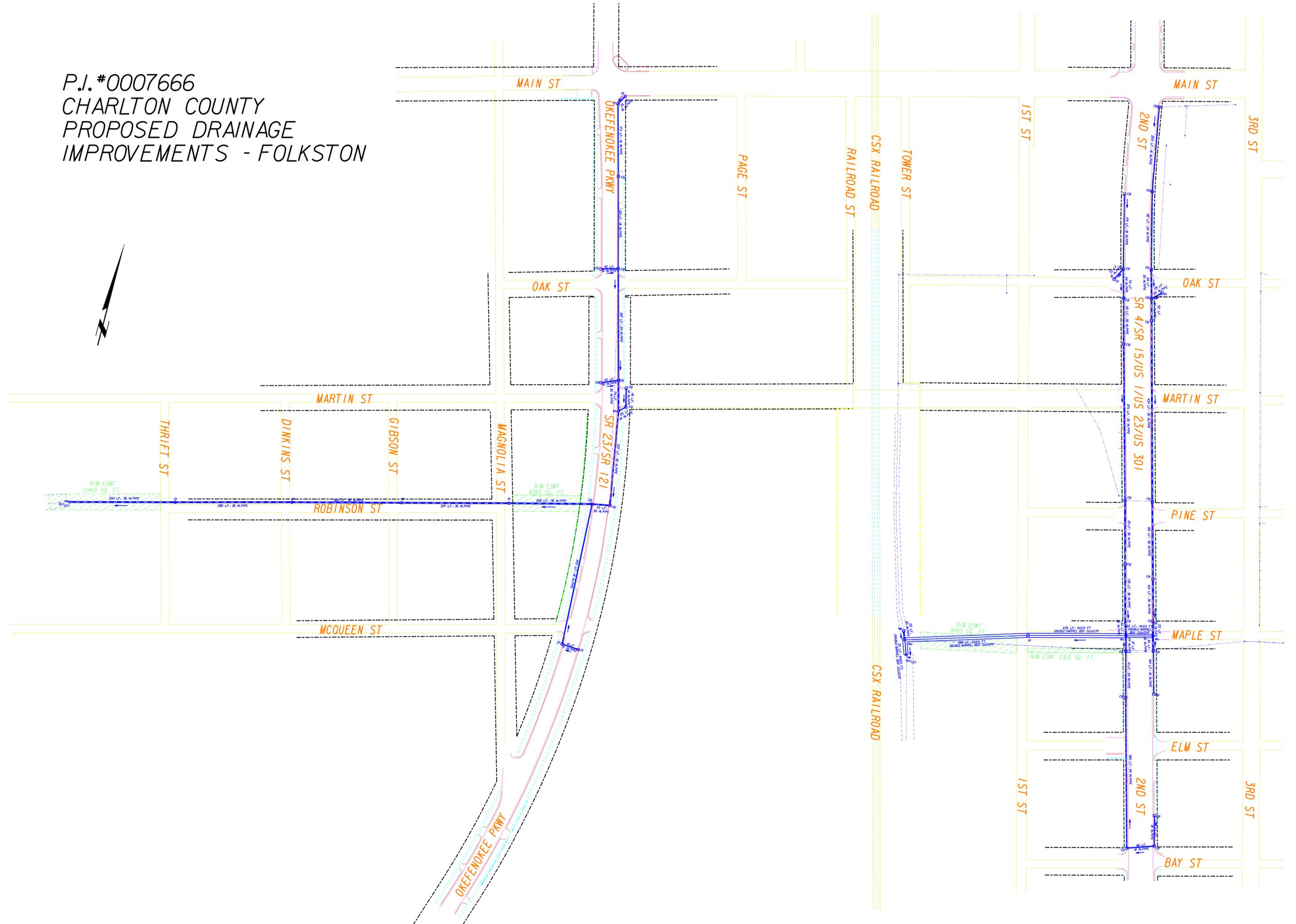
|   |           |                              |             |
|---|-----------|------------------------------|-------------|
| <b>Preferred Alternative:</b> This alternate will help alleviate the existing drainage problems by replacing existing drainage structures and adding additional structures to capture more of the pavement drainage to reduce gutter spread, and by replacing the existing storm drain pipes with larger pipes, and adding new pipes to allow for a greater flow and storage capacity within the system. The project length along SR 4/US 301 is approximately 0.53 miles from road inventory milepost 3.87 to road inventory milepost 4.24, and the project length along SR 23 is approximately 0.33 miles from road inventory milepost 35.49 to road inventory milepost 35.82. Total length of project combining both sections is 0.86 miles. |           |                              |             |
| <b>Estimated Property Impacts:</b>  | 4         | <b>Estimated Total Cost:</b> | \$1,112,125 |
| <b>Estimated ROW Cost:</b>  | \$129,000 | <b>Estimated CST Time:</b>   | 18 Months   |
| <b>Rationale:</b> The preferred alternate was selected because it provides a reasonable solution to the drainage problems observed. It has minimal impacts outside the existing right of way, thus reducing right of way costs. It also provides the least disruption to traffic as well as to adjacent businesses. This is especially crucial along SR 4/US 301, since it serves as a designated Hurricane Evacuation Route.   |           |                              |             |

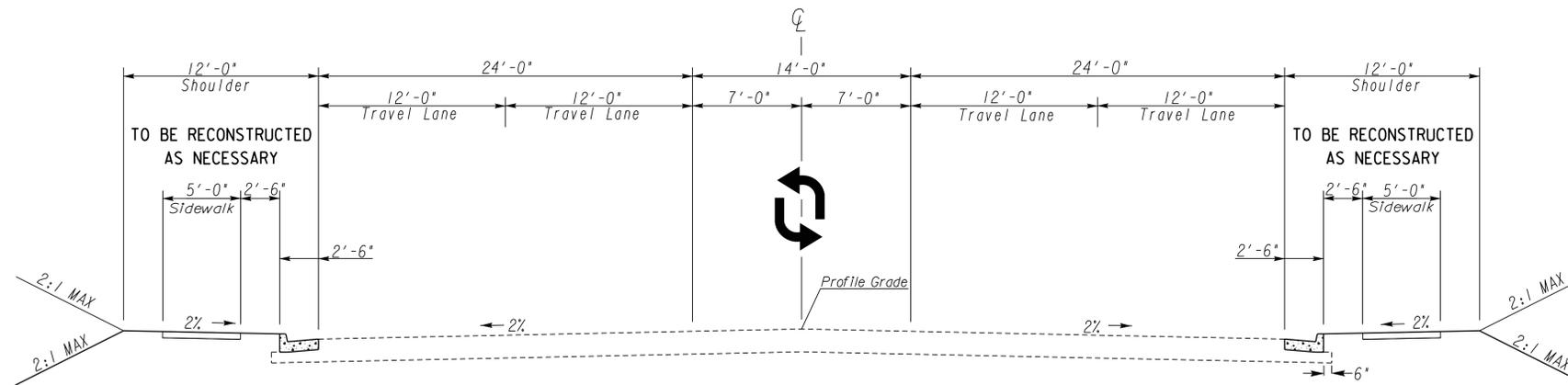
|   |     |                              |     |
|---|-----|------------------------------|-----|
| <b>No-Build Alternative:</b> Retain existing drainage system as is.   |     |                              |     |
| <b>Estimated Property Impacts:</b>  | N/A | <b>Estimated Total Cost:</b> | N/A |
| <b>Estimated ROW Cost:</b>  | N/A | <b>Estimated CST Time:</b>   | N/A |
| <b>Rationale:</b> This alternate was not selected because it does not alleviate the excessive gutter spread caused by standing water on the roadways, and it does not allow adequate flow capacity in the pipes. This is a particularly important safety issue along SR 4/US 301, since it serves as a designated Hurricane Evacuation Route. |     |                              |     |

**Comments:** A thorough analysis of each of the existing drainage systems was done based on a field survey. This analysis led to the conclusion that the existing drainage system was under-designed to handle the current urban runoff conditions. An analysis of the areas where flooding was known to occur during heavy rain events show calculated gutter spreads in the range of 20 feet or more in the sag areas. The proposed improvements were designed to accommodate flows for the 50-year return event within the storm drain pipe system, and the 10-year return event for allowable gutter spread. The existing drop inlets along these sections of roadway will be replaced with more closely-spaced catch basins to reduce the gutter spread in the affected areas. Replacing the existing longitudinal pipes with larger ones as well as adding new ones will provide more flow capacity, a more consistent slope, and allow additional storage capacity within the system. All work should be accomplished within the existing shoulders and right of way limits with minimal

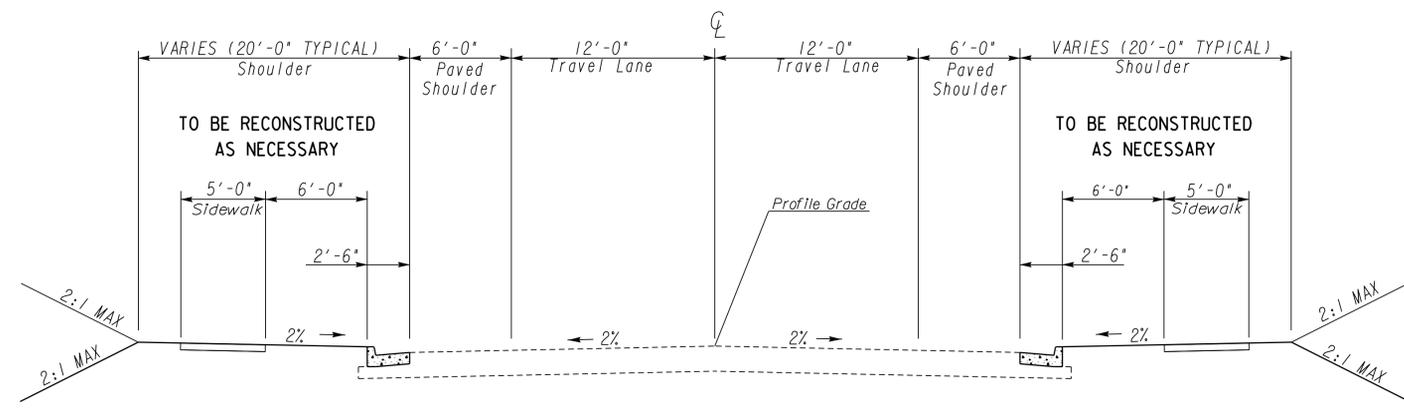


P.I.#0007666  
CHARLTON COUNTY  
PROPOSED DRAINAGE  
IMPROVEMENTS - FOLKSTON



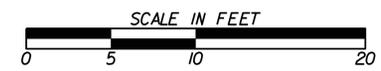


TYPICAL SECTION #01  
TANGENT SECTION  
US 1 & 27 \ SR 301, 4 & 15



TYPICAL SECTION #02  
TANGENT SECTION  
SR 121 & 23

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION



| REVISION DATES |  |
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STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: ROADWAY DESIGN  
**TYPICAL SECTIONS**

DRAWING No.  
**05-001**

# DETAILED COST ESTIMATE



**Job: 0007666**

**JOB NUMBER:** 0007666

**FED/STATE PROJECT NUMBER** CSSTP-0007-00(666)

**SPEC YEAR:** 01

**DESCRIPTION:** SR 4/US 301 @ CS 462/MAIN ST & SR 23 @ MAIN ST IN FOLKSTON  
CONCEPT - ROUGH COST ESTIMATE

**ITEMS FOR JOB 0007666**

**0010 - ROADWAY ITEMS**

| Line Number                        | ITEM     | QUANTITY | UNITS | PRICE        | DESCRIPTION                    | AMOUNT              |
|------------------------------------|----------|----------|-------|--------------|--------------------------------|---------------------|
| 0145                               | 150-1000 | 1.000    | LS    | \$100,000.00 | TRAFFIC CONTROL - 0007666      | \$100,000.00        |
| 0105                               | 441-0014 | 1000.000 | SY    | \$19.67      | DRIVEWAY CONCRETE, 4 IN TK     | \$19,669.71         |
| 0110                               | 441-0016 | 1000.000 | SY    | \$35.12      | DRIVEWAY CONCRETE, 6 IN TK     | \$35,124.44         |
| 0115                               | 441-0104 | 1000.000 | SY    | \$29.40      | CONC SIDEWALK, 4 IN            | \$29,395.82         |
| 0125                               | 441-5002 | 500.000  | LF    | \$14.31      | CONC HEADER CURB, 6", TP 2     | \$7,155.89          |
| 0120                               | 441-6222 | 500.000  | LF    | \$17.99      | CONC CURB & GUTTER/ 8"X30"TP2  | \$8,995.68          |
| 0130                               | 444-1000 | 1200.000 | LF    | \$3.34       | SAWED JTS IN EXIST PVMTS - PCC | \$4,002.10          |
| 0044                               | 600-0001 | 100.000  | CY    | \$219.36     | FLOWABLE FILL                  | \$21,936.18         |
| 0045                               | 615-1000 | 200.000  | LF    | \$208.15     | JACK OR BORE PIPE - 0007666    | \$41,630.88         |
| 0050                               | 634-1200 | 20.000   | EA    | \$107.64     | RIGHT OF WAY MARKERS           | \$2,152.72          |
| <b>SUBTOTAL FOR ROADWAY ITEMS:</b> |          |          |       |              |                                | <b>\$270,063.42</b> |

**0020 - PAVEMENT ITEMS**

| Line Number                         | ITEM     | QUANTITY | UNITS | PRICE    | DESCRIPTION                            | AMOUNT             |
|-------------------------------------|----------|----------|-------|----------|--|--------------------|
| 0010                                | 310-1101 | 100.000  | TN    | \$24.81  | GR AGGR BASE CRS, INCL MATL            | \$2,480.71         |
| 0025                                | 402-3121 | 50.000   | TN    | \$84.44  | RECYL AC 25MM SP,GP1/2,BM&HL           | \$4,221.99         |
| 0015                                | 402-3130 | 50.000   | TN    | \$71.78  | RECYL AC 12.5MM SP,GP2,BM&HL           | \$3,588.81         |
| 0020                                | 402-3190 | 50.000   | TN    | \$85.22  | RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL | \$4,260.83         |
| 0030                                | 413-1000 | 50.000   | GL    | \$3.50   | BITUM TACK COAT                        | \$175.00           |
| 0035                                | 500-3200 | 100.000  | CY    | \$300.00 | CL B CONC                              | \$30,000.00        |
| <b>SUBTOTAL FOR PAVEMENT ITEMS:</b> |          |          |       |          |  | <b>\$44,727.34</b> |

**0030 - EARTHWORK ITEMS**

| Line Number                          | ITEM     | QUANTITY | UNITS | PRICE        | DESCRIPTION                | AMOUNT              |
|--------------------------------------|----------|----------|-------|--------------|----------------------------|---------------------|
| 0040                                 | 210-0100 | 1.000    | LS    | \$100,000.00 | GRADING COMPLETE - 0007666 | \$100,000.00        |
| <b>SUBTOTAL FOR EARTHWORK ITEMS:</b> |          |          |       |              |                            | <b>\$100,000.00</b> |

**0040 - DRAINAGE ITEMS**

| Line Number                         | ITEM     | QUANTITY | UNITS | PRICE      | DESCRIPTION                    | AMOUNT              |
|-------------------------------------|----------|----------|-------|------------|--------------------------------|---------------------|
| 0070                                | 550-1180 | 1800.000 | LF    | \$29.69    | STM DR PIPE 18",H 1-10         | \$53,448.35         |
| 0075                                | 550-1240 | 1200.000 | LF    | \$36.10    | STM DR PIPE 24",H 1-10         | \$43,325.44         |
| 0080                                | 550-1300 | 1100.000 | LF    | \$45.12    | STM DR PIPE 30",H 1-10         | \$49,632.18         |
| 0085                                | 550-1360 | 2700.000 | LF    | \$51.40    | STM DR PIPE 36",H 1-10         | \$138,783.59        |
| 0090                                | 550-3318 | 2.000    | EA    | \$594.33   | SAFETY END SECTION 18",STD,4:1 | \$1,188.67          |
| 0095                                | 550-3324 | 2.000    | EA    | \$877.79   | SAFETY END SECTION 24",STD,4:1 | \$1,755.57          |
| 0099                                | 550-4230 | 2.000    | EA    | \$756.92   | FLARED END SECT 30 IN, ST DR   | \$1,513.83          |
| 0100                                | 550-4236 | 2.000    | EA    | \$947.97   | FLARED END SECT 36 IN, ST DR   | \$1,895.94          |
| 0055                                | 668-1100 | 35.000   | EA    | \$2,045.05 | CATCH BASIN, GP 1              | \$71,576.72         |
| 0059                                | 668-2105 | 10.000   | EA    | \$3,220.93 | DROP INLET, GP 1, SPCL DES     | \$32,209.27         |
| 0060                                | 668-4300 | 10.000   | EA    | \$1,648.36 | STORM SEW MANHOLE, TP 1        | \$16,483.57         |
| 0065                                | 668-5000 | 5.000    | EA    | \$1,634.26 | JUNCTION BOX                   | \$8,171.29          |
| 0069                                | 668-7000 | 5.000    | EA    | \$7,121.63 | DRWAY GRATE INLET SP D PIP SZ- | \$35,608.13         |
| <b>SUBTOTAL FOR DRAINAGE ITEMS:</b> |          |          |       |            |                                | <b>\$455,592.55</b> |

**0120 - BRIDGE CULVERT ITEMS**

| Line Number                               | ITEM     | QUANTITY  | UNITS | PRICE    | DESCRIPTION               | AMOUNT              |
|---|----------|-----------|-------|----------|---------------------------|---------------------|
| 0149                                      | 207-0203 | 204.000   | CY    | \$39.70  | FOUND BK FILL MATL, TP II | \$8,098.36          |
| 0150                                      | 500-3101 | 274.000   | CY    | \$474.77 | CLASS A CONCRETE          | \$130,086.11        |
| 0155                                      | 511-1000 | 31839.000 | LB    | \$0.77   | BAR REINF STEEL           | \$24,563.47         |
| <b>SUBTOTAL FOR BRIDGE CULVERT ITEMS:</b> |          |           |       |          |                           | <b>\$162,747.94</b> |

# DETAILED COST ESTIMATE



**Job: 0007666**

**0130 - EROSION CONTROL - TEMPORARY**

| Line Number                                      | ITEM     | QUANTITY | UNITS | PRICE       | DESCRIPTION                 | AMOUNT             |
|--|----------|----------|-------|-------------|-----------------------------|--------------------|
| 0135   | 161-1000 | 1.000    | LS    | \$25,000.00 | EROSION CONTROL - TEMPORARY | \$25,000.00        |
| <b>SUBTOTAL FOR EROSION CONTROL - TEMPORARY:</b> |          |          |       |             |                             | <b>\$25,000.00</b> |

**0140 - EROSION CONTROL - PERMANENT**

| Line Number                                      | ITEM     | QUANTITY | UNITS | PRICE       | DESCRIPTION                 | AMOUNT             |
|--|----------|----------|-------|-------------|-----------------------------|--------------------|
| 0140   | 161-1000 | 1.000    | LS    | \$15,000.00 | EROSION CONTROL - PERMANENT | \$15,000.00        |
| <b>SUBTOTAL FOR EROSION CONTROL - PERMANENT:</b> |          |          |       |             |                             | <b>\$15,000.00</b> |

**COST GROUP FOR JOB 0007666**

| LINE NUMBER      | UNIT | CALCULATION RULE | QUANTITY | PRICE | COST GROUP ID | DESCRIPTION                            | AMOUNT |
|------------------|------|------------------|----------|-------|---------------|--|--------|
| 00000001         | TN   | NORM             |          |       | ASPH          | ASPHALT (TN)                           |        |
| 00000002         | TN   | NORM             |          |       | BASE          | BASE/AGGREGATE (TN)                    |        |
| 00000003         | CY   | NORM             |          |       | ERTHCY        | EARTHWORK (CY)                         |        |
| 00000004         | TN   | NORM             |          |       | CONC          | CONCRETE (SY)                          |        |
| 00000005         | SY   | NORM             |          |       | EROC          | EROSION CONTROL (SY)                   |        |
| 00000006         | SF   | NORM             |          |       | STRO          | STRUCTURES, OTHER (SF)                 |        |
| 00000007         | LF   | NORM             |          |       | GDRL          | GUARDRAIL/BARRIER (LF)                 |        |
| 00000009         | LS   | NORM             |          |       | TRFT          | TRAFFIC CONTROL-TEMPORARY (LS)         |        |
| 00000011         | LF   | NORM             |          |       | CURB          | CURB & GUTTER (LF)                     |        |
| 00000012         | LF   | NORM             |          |       | THSL          | THERMO PLASTIC LINEAR PAVEMENT MARKING |        |
| <b>SUBTOTAL:</b> |      |                  |          |       |               |  |        |

**TOTALS FOR JOB 0007666**

|   |                       |
|---|-----------------------|
| <b>ITEMS COST:</b>                                  | <b>\$1,073,131.25</b> |
| <b>COST GROUP COST:</b>                             | <b>\$0.00</b>         |
| <b>ESTIMATED COST:</b>                              | <b>\$1,073,131.25</b> |
| <b>CONTINGENCY PERCENT:</b>                         | <b>0.00</b>           |
| <b>ENGINEERING AND INSPECTION:</b>                  | <b>0.05</b>           |
| <b>ESTIMATED COST WITH CONTINGENCY AND E&amp;I:</b> | <b>\$1,126,787.81</b> |

000766 Charlton Drainage Improvement

|                  |                    |
|------------------|--------------------|
| <b>PROJ. NO.</b> | CSSTP-0007-00(666) |
| <b>P.I. NO.</b>  | 0007666            |
| <b>DATE</b>      | 3/1/12             |

CALL NO.

| <b>INDEX (TYPE)</b> | <b>DATE</b> | <b>INDEX</b> |
|---------------------|-------------|--------------|
| REG. UNLEADED       | Feb-12      | \$ 3.481     |
| DIESEL              |             | \$ 3.796     |
| LIQUID AC           |             | \$ 604.00    |

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

**LIQUID AC ADJUSTMENTS**

$$PA = \left[ \frac{APM - APL}{APL} \right] \times TMT \times APL$$

**Asphalt**

|  |          |     |    |             |    |                 |
|--|----------|-----|----|-------------|----|-----------------|
| Price Adjustment (PA)                                |          |     |    | <b>2718</b> | \$ | <b>2,718.00</b> |
| Monthly Asphalt Cement Price month placed (APM)      | Max. Cap | 60% | \$ | 966.40      |    |                 |
| Monthly Asphalt Cement Price month project let (APL) |          |     | \$ | 604.00      |    |                 |
| <b>Total Monthly Tonnage of asphalt cement (TMT)</b> |          |     |    | <b>7.5</b>  |    |                 |

| <b>ASPHALT</b> | <b>Tons</b> | <b>%AC</b> | <b>AC ton</b> |
|----------------|-------------|------------|---------------|
| Leveling       |             | 5.0%       | 0             |
| 12.5 OGFC      |             | 5.0%       | 0             |
| 12.5 mm        | 50          | 5.0%       | 2.5           |
| 9.5 mm SP      |             | 5.0%       | 0             |
| 25 mm SP       | 50          | 5.0%       | 2.5           |
| 19 mm SP       | 50          | 5.0%       | 2.5           |
|                | <b>150</b>  |            | <b>7.5</b>    |

**BITUMINOUS TACK COAT**

|  |          |     |    |                    |    |              |
|--|----------|-----|----|--------------------|----|--------------|
| Price Adjustment (PA)                                |          |     | \$ | <b>77.83</b>       | \$ | <b>77.83</b> |
| Monthly Asphalt Cement Price month placed (APM)      | Max. Cap | 60% | \$ | 966.40             |    |              |
| Monthly Asphalt Cement Price month project let (APL) |          |     | \$ | 604.00             |    |              |
| <b>Total Monthly Tonnage of asphalt cement (TMT)</b> |          |     |    | <b>0.214755046</b> |    |              |

Bitum Tack

| <b>Gals</b> | <b>gals/ton</b> | <b>tons</b> |
|-------------|-----------------|-------------|
| 50          | 232.8234        | 0.21475505  |

000766 Charlton Drainage Improvement

PROJ. NO.

CSSTP-0007-00(666)

CALL NO.

P.I. NO.

0007666

DATE

3/1/12

**BITUMINOUS TACK COAT (surface treatment)**

|  |  |          |     |    |  |          |    |   |
|--|--|----------|-----|----|--|----------|----|---|
| Price Adjustment (PA)                                |  |          |     |    |  | <b>0</b> | \$ | - |
| Monthly Asphalt Cement Price month placed (APM)      |  | Max. Cap | 60% | \$ |  | 966.40   |    |   |
| Monthly Asphalt Cement Price month project let (APL) |  |          |     | \$ |  | 604.00   |    |   |
| Total Monthly Tonnage of asphalt cement (TMT)        |  |          |     |    |  | 0        |    |   |

| Bitum Tack         | SY | Gals/SY | Gals | gals/ton | tons |
|--------------------|----|---------|------|----------|------|
| Single Surf. Trmt. |    | 0.20    | 0    | 232.8234 | 0    |
| Double Surf.Trmt.  |    | 0.44    | 0    | 232.8234 | 0    |
| Triple Surf. Trmt  |    | 0.71    | 0    | 232.8234 | 0    |
|                    |    |         |      |          | 0    |

|                                   |           |                 |
|-----------------------------------|-----------|-----------------|
| <b>TOTAL LIQUID AC ADJUSTMENT</b> | <b>\$</b> | <b>2,795.83</b> |
|-----------------------------------|-----------|-----------------|

**GEORGIA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 2/28/2012 Project: Folkston Drainage Improvement  
 Revised: County: Charlton  
 PI: 0007666

Description: SR 4/US 301 @ CS 462/Main Street & SR 23 @ Main St  
 Project Termini: SR 4/US 301 @ CS 462/Main Street & SR 23 @ Main St

Existing ROW: Varies  
 Required ROW: Varies  
 Parcels: 4

Land and Improvements \$40,425.00

|                      |             |
|----------------------|-------------|
| Proximity Damage     | \$0.00      |
| Consequential Damage | \$0.00      |
| Cost to Cures        | \$0.00      |
| Trade Fixtures       | \$0.00      |
| Improvements         | \$25,000.00 |

Valuation Services \$4,000.00

Legal Services \$40,200.00

Relocation \$8,000.00

Demolition \$0.00

Administrative \$35,500.00

**TOTAL ESTIMATED COSTS \$128,125.00**

**TOTAL ESTIMATED COSTS (ROUNDED) \$129,000.00**

| Preparation Credits | Hours | Signature |
|---------------------|-------|-----------|
|                     |       |           |
|                     |       |           |
|                     |       |           |

Prepared By: Lashone Alexander CG#: 286999 02/27/2012  
 Approved By: Lashone Alexander CG#: 28699 02/27/2012

**NOTE: No Market Appreciation is included in this Preliminary Cost Estimate**

# Georgia Department of Transportation

## District Five Utility Office

Stephen Thomas, District Utilities Engineer

March 06, 2012

Jack

This office has reviewed the sketch you sent and visited the project, along with talking to the City of Folkston, Atlanta Gas Light and Windstream; we have a rough preliminary estimate for you.

Windstream advised that they have a major duct bank system in this vicinity since their central office is located at Martin and Second streets /SR 4. Fiber optic and copper cables come out of this office and run north along the east side of second street/SR 4. Also a 6 or 9 conduit duct bank encased in concrete leaves their office and runs west along the south side of Martin street crossing second street/SR4 and SR121 to a manhole on the southwest corner of Martin and SR 121 and some of the facilities run south on the west side in front of the sidewalk; if any of these facilities are impacted the worst scenario of everything needed to be relocated upwards of \$600,000.00.

Atlanta Gas Light has a 2" medium pressure plastic line along the east side of SR121 behind the sidewalk if this line is impacted and needs to relocate the cost could be upwards of \$40,000.00.

The City of Folkston advised that none of their facilities should be impacted with this project.

Georgia Power-Distribution has a total of 16 poles along this project on second street/SR4; 8 on the east side from the beginning to Martin and then 8 poles on the west side from Martin to Main the end of the project; all of these poles are located between the back of curb and the sidewalk, R/W appears to at the back edge of the sidewalk. If the new drainage could be located under the sidewalk then the power could remain where it is, if not you are talking about rerouting the entire power system for all of the businesses in this area; upwards of \$1,000,000.00.

George Shenk, Consultant for

John Royal, Utility Engineer