

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0012646
Newton County
GDOT District 2 - Tennille
CR 653/Covington Bypass @
CR 181/Flat Shoals Road
Intersection Improvement

OFFICE Design Policy & Support

DATE 3/26/2015

FROM  for 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:

Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Ben Rabun, State Bridge Engineer
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Richard Cobb, Statewide Location Bureau Chief
Ed David Adams, State Safety Program Manager
Jimmy Smith, District Engineer
Neal O'Brien, District Preconstruction Engineer
Jaime Lindsey, District Utilities Engineer
Daniel Chastain, Project Manager
BOARD MEMBER - 4th Congressional District

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

| | |
|---|--------------------------------|
| Project Type: <u>Intersection Imprvmt</u> | P.I. Number: <u>0012646</u> |
| GDOT District: <u>2</u> | County: <u>Newton</u> |
| Federal Route Number: <u>N/A</u> | State Route Number: <u>N/A</u> |
| Project Number: _____ | N/A |

Intersection Improvements to CR 653/Covington Bypass at CR 181/Flat Shoals Road in Newton County

Submitted for approval:

| | |
|---|--------------------------|
| <u>Brad Gowen</u> Brad Gowen, PE, Michael Baker Jr., Inc. | <u>1/28/15</u> DATE |
| <u>Albert V. Shelby III</u> Local Government - Newton County | <u>1/29/15</u> DATE |
| <u>Albert V. Shelby III</u> <i>bnk</i> State Program Delivery Engineer | <u>2/10/2015</u> DATE |
| <u>L. M. Ott</u> GDOT Project Manager | <u>1/28/15</u> DATE |
| Recommendation for approval: <i>(Delete any inapplicable signature lines)</i> | |

| | |
|--|--------------------------|
| Program Control Administrator <i>* Hiral Patel/KLP</i> | DATE <u>7-30-2014</u> |
| State Environmental Administrator <i>* Andrew Heath/KLP</i> | DATE <u>2-24-2015</u> |
| State Traffic Engineer <i>* Lisa Myers/KLP</i> | DATE <u>7-2-2014</u> |
| Project Review Engineer <i>* JunBirn Kammer/KLP</i> | DATE <u>7-3-2014</u> |
| FOR State Utilities Engineer | DATE |
| District Engineer | DATE |
| State Transportation Financial Management Administrator | DATE |

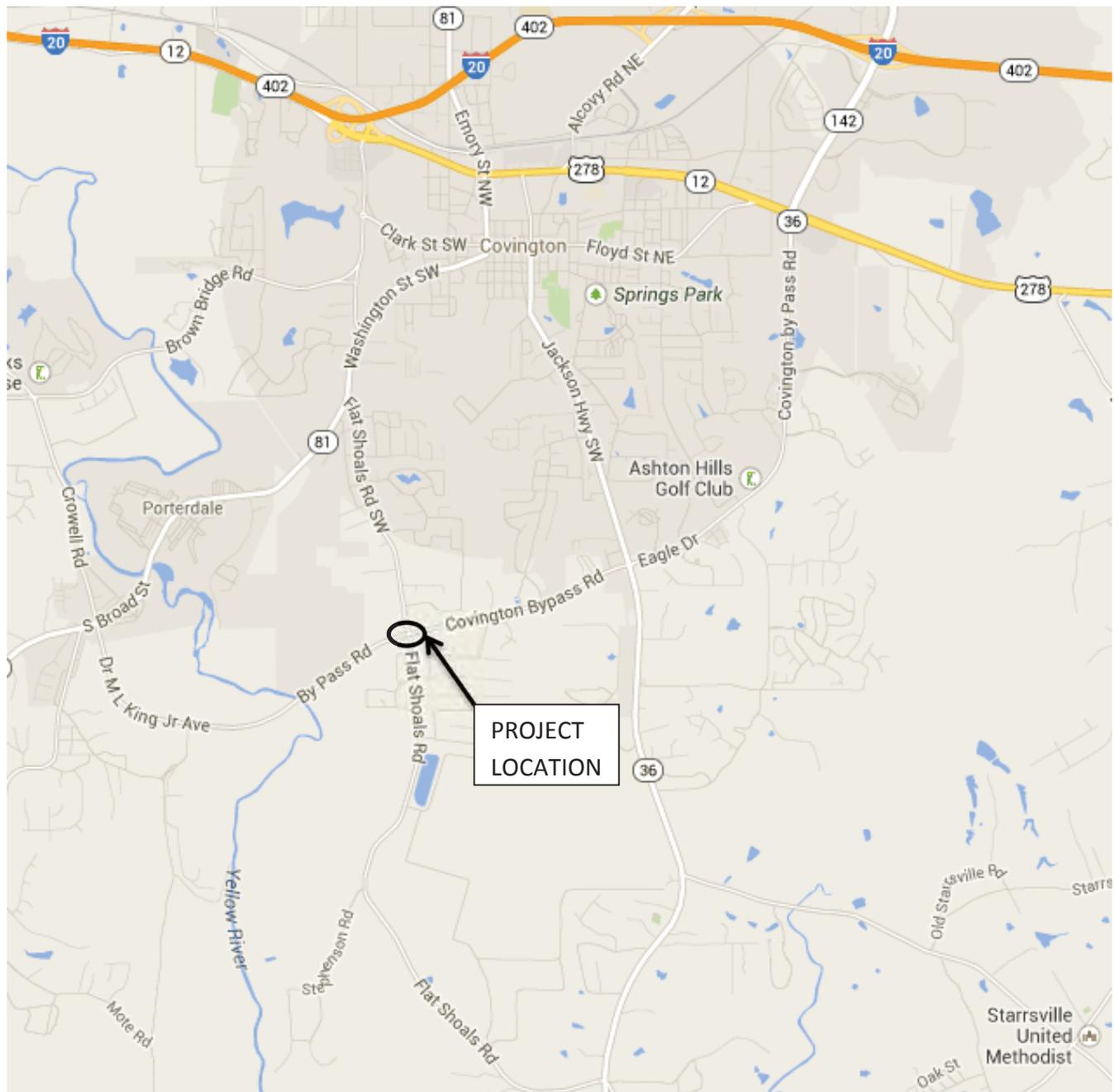
The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP).

| | |
|---|-------------------------|
| * * <i>Cynthia Van Dyke/KLP</i> | DATE <u>7-3-2014</u> |
| State Transportation Planning Administrator | DATE |

* The Planning Office is coordinating with the Local Sponsor and the MPO to get the project description revised in the TIP to match the description in the Concept Report.

County: Newton

PROJECT LOCATION MAP



Flat Shoals Road at Covington Bypass

County: Newton

PLANNING AND BACKGROUND

Project Justification Statement:

Currently, the intersection of CR 653/Covington Bypass and CR 181/Flat Shoals Road is an all way stop control intersection (not signalized). Flat Shoals Road is functionally classified as an urban collector street, and Covington Bypass is an urban principal arterial. Both are two-lane roads. This project is located within the Atlanta MPO boundary. It is listed in the TIP as NE-0996.

On CR 653/Covington Bypass, the current AADT is 10,700 (level of service, LOS, "C"), and on CR 181/Flat Shoals Rd, the AADT is 6,150 (LOS "B"). On CR 653/Covington Bypass, the 2038 traffic volumes increases to 15,250 (LOS "D") vehicles per day. On CR 181/Flat Shoals Rd, the 2038 traffic volume increases to 8,880 (LOS "C").

The crash and injury rates for CR 653/Covington Bypass and CR 181/Flat Shoals Road in the intersection area were above the statewide average for urban principal arterials and urban collector streets in 2007, 2008, and 2009.

This project is justified by the need to reduce crashes and injuries near the CR 653/Covington Bypass at CR 181/Flat Shoals Road intersection.

Existing conditions:

The existing intersection is four-way stop controlled. Both CR 653/Covington Bypass and CR 181/Flat Shoals Road are two lane roadways and the only turn lane present is for a gas station located in the southeast quadrant of the intersection. There is a Newton County Fire Department station located in the southwest quadrant. The southeast quadrant of the intersection has curb and gutter but there is no sidewalk, the remaining quadrants have rural shoulders. There are overhead utilities along the south side of Covington Bypass and the east side of Flat Shoals Rd.

Other projects in the area:

PI 0006666 – Widening of SR 36/East Covington Bypass from SR 36 to SR 12. Project is in LR1, including engineering.

MPO: Atlanta Regional Commission (ARC)

MPO Project ID NE-099B

Regional Commission: Atlanta Regional Commission

RC Project ID

Congressional District(s): 4

Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic: ADT

Current Year (2014): 10,700 Open Year (2018): 11,350 Design Year (2038): 15,250

Traffic Projections Performed by: Michael Baker Corp.

Functional Classification (Mainline): Urban Principal Arterial – CR 653/Covington Bypass
Urban Collector – CR 181/Flat Shoals Road

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:

Warrants met: None Bicycle Pedestrian Transit

County: Newton

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project?

No

Yes

Pavement Evaluation and Recommendations

Preliminary Pavement Evaluation Summary Report Required?

No

Yes

Preliminary Pavement Type Selection Report Required?

No

Yes

Feasible Pavement Alternatives:

HMA

PCC

HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project:

This project consists of the reconstruction of CR 653/Covington Bypass and CR 181/Flat Shoals Road intersection approximately 1.5 miles south east of the City of Porterdale. The project will reconstruct approximately 0.36 miles of C.R. 653/Covington Bypass and approximately 0.28 miles of C.R. 181/Flat Shoals Road. The roadways will consist of one 12-foot lane in each direction and right and left turn lanes when required. Signal warrants were met for the intersection therefore a proposed signal will be included in the design. A roundabout analysis was also performed for the intersection but was not chosen because of the close proximity to the Newton County Fire Department.

Major Structures: N/A

Mainline Design Features: CR 653/Covington Bypass – Urban Principal Arterial

| Feature | Existing | Standard* | Proposed |
|---|-----------|---|-------------------------------------|
| Typical Section | | | |
| - Number of Lanes | 2 | 2 | 2 |
| - Lane Width(s) | 12' | 12' | 12' |
| - Median Width & Type | N/A | N/A | N/A |
| - Outside Shoulder or Border Area Width | 8' | 10' (4' paved)-Rural 10'-16' - Urban | 10' (4' paved)-Rural 10' - Urban |
| - Outside Shoulder Slope | 6% | 6% | 6% |
| - Inside Shoulder Width | N/A | N/A | N/A |
| - Sidewalks | None | 5' | 5' |
| - Auxiliary Lanes | None | None | None |
| - Bike Lanes | None | None | None |
| Posted Speed | 55 | | 55 |
| Design Speed | 55 | 55 | 55 |
| Min Horizontal Curve Radius | 4160 | 1060 | 4160 |
| Maximum Superelevation Rate | | 6% | 6% |
| Maximum Grade | 4.5% | 6% | 4.5% |
| Access Control | By Permit | By Permit | By Permit |
| Design Vehicle | | WB-40 or WB-62 | WB-67 |
| Pavement Type | Asphalt | Asphalt | Asphalt |

*According to current GDOT design policy if applicable

Sideroad Design Features: Flat Shoals Rd – Urban Collector

| Feature | Existing | Standard* | Proposed |
|---|-----------|--|--------------------------------------|
| Typical Section | | | |
| - Number of Lanes | 2 | 2 | 2 |
| - Lane Width(s) | 12' | 11-12' | 12' |
| - Median Width & Type | N/A | N/A | N/A |
| - Outside Shoulder or Border Area Width | 6' | 8' (4' paved)-Rural 10'-16' – Urban | 8' (4' paved)-Rural 10' – Urban** |
| - Outside Shoulder Slope | 6% | 6% | 6% |
| - Inside Shoulder Width | N/A | N/A | N/A |
| - Sidewalks | None | 5' | 5' |
| - Auxiliary Lanes | None | None | None |
| - Bike Lanes | None | None | None |
| Posted Speed | 45 | | 45 |
| Design Speed | 45 | 35 | 45 |
| Min Horizontal Curve Radius | 20,000 | 643 | 20,000 |
| Maximum Superelevation Rate | | 6% | 6% |
| Maximum Grade | 4.5% | 9% | 4.5% |
| Access Control | By Permit | By Permit | By Permit |
| Design Vehicle | | BUS-40 or SU | WB-67 |
| Pavement Type | Asphalt | Asphalt | Asphalt |

*According to current GDOT design policy if applicable

**Handrail will be installed adjacent to the sidewalk for the 10' urban shoulder if the vertical drop is more than 30 inches/2.5 feet, exceeds a down slope grade of 1:2, and is located less than 4 feet from the edge of the walkway.

Major Interchanges/Intersections:

CR 653/Covington Bypass at CR 181/Flat Shoals Road

Lighting required: No Yes

Off-site Detours Anticipated: No Undetermined Yes

Transportation Management Plan [TMP] Required: No Yes
 If Yes: Project classified as: Non-Significant Significant
 TMP Components Anticipated: TTC TO PI

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

| FHWA/AASHTO Controlling Criteria | No | Undetermined | Yes | Appvl Date (if applicable) |
|----------------------------------|-------------------------------------|--------------------------|--------------------------|----------------------------|
| 1. Design Speed | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Lane Width | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Shoulder Width | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4. Bridge Width | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5. Horizontal Alignment | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. Superelevation | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

County: Newton

| | | | | |
|-----------------------------------|-------------------------------------|--------------------------|--------------------------|--|
| 7. Vertical Alignment | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8. Grade | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9. Stopping Sight Distance | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 10. Cross Slope | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11. Vertical Clearance | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12. Lateral Offset to Obstruction | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 13. Bridge Structural Capacity | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

Design Variances to GDOT Standard Criteria anticipated:

| GDOT Standard Criteria | Reviewing Office | No | Undeter-- mined | Yes | Appvl Date (if applicable) |
|-------------------------------------|------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------|
| 1. Access Control/Median Openings | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2. Intersection Sight Distance | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. Intersection Skew Angle | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4. Lateral Offset to Obstruction | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5. Rumble Strips | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6. Safety Edge | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7. Median Usage | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8. Roundabout Illumination Levels | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9. Complete Streets | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 10. ADA & PROWAG | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11. GDOT Construction Standards | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12. GDOT Drainage Manual | DP&S | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 13. GDOT Bridge & Structural Manual | Bridges | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

VE Study anticipated: No Yes Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: No Yes Undetermined

CR 181/Flat Shoals Rd – 750’ South to 750’ North of CR 653/Covington Bypass

Railroad Involvement: N/A

Utility Involvements:

- Snapping Shoals EMC (Fiber)
- City of Covington (Water)
- City of Covington (Power)
- City of Covington (Gas)
- City of Covington (Sewer)
- AT&T-D
- Charter Communications
- Newton County Sewer

SUE Required: No Yes Undetermined

Public Interest Determination Policy and Procedure recommended (Utilities)? No Yes

Right-of-Way (ROW): Existing width: 150 ft Proposed width: 150 ft
 Required Right-of-Way anticipated: None Yes Undetermined
 Easements anticipated: None Temporary Permanent Utility Other

County: Newton

Anticipated total number of impacted parcels: 9
 Displacements anticipated: Businesses: 0
 Residences: 0
 Other: 0
 Total Displacements: 0

Location and Design approval: Not Required Required

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions Proposed: None

ENVIRONMENTAL & PERMITS

Anticipated Environmental Document:

GEPA: NEPA: CE EA/FONSI EIS

MS4 Permit Compliance – Is the project located in a MS4 area? No Yes

Environmental Permits/Variations/Commitments/Coordination anticipated:

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

Is a PAR required? No Yes Completed – Date:

Environmental Comments and Information:

NEPA/GEPA: The proposed project is being documented under NEPA because it is anticipated that federal funding will be used to design and construct the project. Early coordination letters have been sent to the resource agencies and potential stakeholders.

Ecology: An Ecology Resources Survey and Assessment of Effects Report will be completed for the proposed project. An aquatic survey for protected fish and mussel species will not be required because there are no waters of the U.S. located within the proposed project limits.

History: A Phase I Cultural Resources Survey will be conducted for the project. If properties that are recommended as eligible for listing on the National Register of Historic Places (NRHP) are discovered within the project’s Area of Potential Effect (APE), then an Assessment of Effects (AOE) document will be completed. All documents, resource eligibility recommendations, and

County: Newton

effects determinations will be reviewed and approved by the Georgia State Historic Preservation Officer (SHPO).

Archeology: A Phase I Archaeological Survey will be completed for the proposed project. If archaeological sites that are recommended as eligible for listing on the NRHP are discovered within the project’s APE, then an AOE document will be completed. All documents, resource eligibility recommendations, and effects determinations will be reviewed and approved by the Georgia SHPO.

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
- Is a Carbon Monoxide hotspot analysis required? No Yes

The proposed project is located in Newton County, which is in non-attainment for the 2008 8-hour Ozone standard, the 1997 8-hour Ozone standard (recently revoked), and the 1997/2006 PM2.5 standard. However, the proposed project is located in an area where the State Implementation Plan contains transportation control measures.

Based on the project type it has been determined that the proposed project would not increase traffic congestion or increase idle emissions and CO concentrations; therefore, the project is consistent with state and federal air quality goals for CO. The proposed project would be reviewed by an interagency group consisting of the Federal Highway Administration (FHWA), the Environmental Protection Agency (EPA), the Georgia Department of Natural Resources – Environmental Protection Division (GDNR-EPD), and the Atlanta Regional Commission (ARC) to confirm that the proposed project would be exempt from the PM2.5 hot spot requirements.

For Mobile Source Air Toxics, the proposed project would not result in any meaningful changes in traffic volumes, vehicle fleet mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. Consequently, it is exempt from an MSAT analysis.

Noise Effects: A noise impact screening report would be required for the proposed project in order to demonstrate that the project is not a Type I project as defined by the FHWA. Projects that are not considered Type I projects do not require a full noise impact analysis.

Public Involvement: No public meetings/open houses are anticipated at this time.

Major stakeholders: Traveling Public, Newton County Fire Department

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:

Access to Fire Department driveways will need to be kept open at all times

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: N/A

County: Newton

Concept Meeting: *To be completed after Concept Team Meeting is held*

Other coordination to date: None

| Project Activity | Party Responsible for Performing Task(s) |
|---|--|
| Concept Development | Newton County/Michael Baker Jr., Inc. |
| Design | Newton County/Michael Baker Jr., Inc. |
| Right-of-Way Acquisition | Newton County |
| Utility Relocation | Utility Owners |
| Letting to Contract | GDOT |
| Construction Supervision | GDOT |
| Providing Material Pits | GDOT |
| Providing Detours | GDOT |
| Environmental Studies, Documents, & Permits | Newton County/Michael Baker Jr., Inc. |
| Environmental Mitigation | Newton County/Michael Baker Jr., Inc. |
| Construction Inspection & Materials Testing | GDOT |

Project Cost Estimate Summary and Funding Responsibilities:

| | Breakdown of PE | ROW | Reimbursable Utility | CST* | Environmental Mitigation | Total Cost |
|------------------|-----------------------|-----------------------|----------------------|-----------------------|--------------------------|----------------|
| Funded By | Newton County/Federal | Newton County/Federal | Newton County/GDOT | Newton County/Federal | Newton County | |
| \$ Amount | \$183,000 | \$611,000 | \$288,900 | \$1,536,904.27 | \$0 | \$2,619,804.27 |
| Date of Estimate | 2013 | 3/7/2014 | 3/11/2014 | 1/22/2015 | 2/13/2014 | |

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

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: This alternative adds a traffic signal at the intersection and well as left and right turn lanes on each approach.

| | | | |
|------------------------------------|------------------|------------------------------|-----------------------|
| Estimated Property Impacts: | 9 | Estimated Total Cost: | \$2,619,804.27 |
| Estimated ROW Cost: | \$611,000 | Estimated CST Time: | 9 months |

Rationale: This alternative was selected because it meets the purpose of the project with limited impacts to adjacent properties and environmental impacts.

Roundabout Alternative: This alternative adds a single-lane roundabout at the intersection.

Rationale:

A roundabout analysis was performed for the intersection, but a roundabout was not chosen due to the close proximity to the Newton County Fire Station. Unnecessary delay for emergency vehicles departing the station and trying to enter the continuous flow of traffic was the primary concern.

County: Newton

| | | | |
|---|------------|------------------------------|------------|
| No-Build Alternative: <i>description</i> | | | |
| Estimated Property Impacts: | 0 | Estimated Total Cost: | \$0 |
| Estimated ROW Cost: | \$0 | Estimated CST Time: | N/A |
| Rationale: The No-Build Alternative failed to meet the objectives of the project to reduce crashes in the vicinity of the intersection | | | |

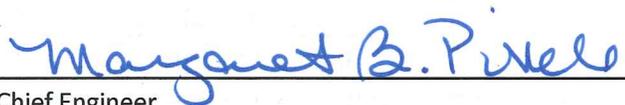
Comments: None

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Completed Fuel & Asphalt Price Adjustment forms
 - c. Right-of-Way
 - d. Utility Cost Estimate
4. Traffic Analysis Report
5. Hydrology Study for MS4 Permit
 - a. Layout
 - b. Calculation Summary
6. Preliminary Pavement Evaluation Summary Report
7. Minutes of Concept Meeting
8. PFA's and/or SAA's

APPROVALS

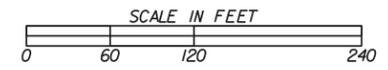
Concur: 
 Director of Engineering

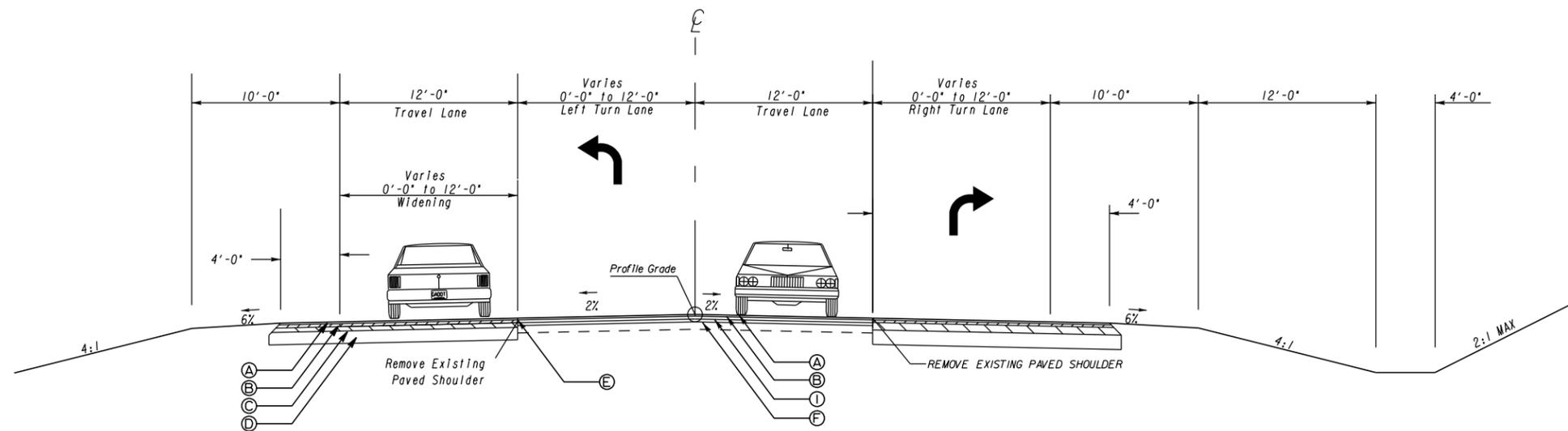
Approve: 
 Chief Engineer

3.19.15
 Date

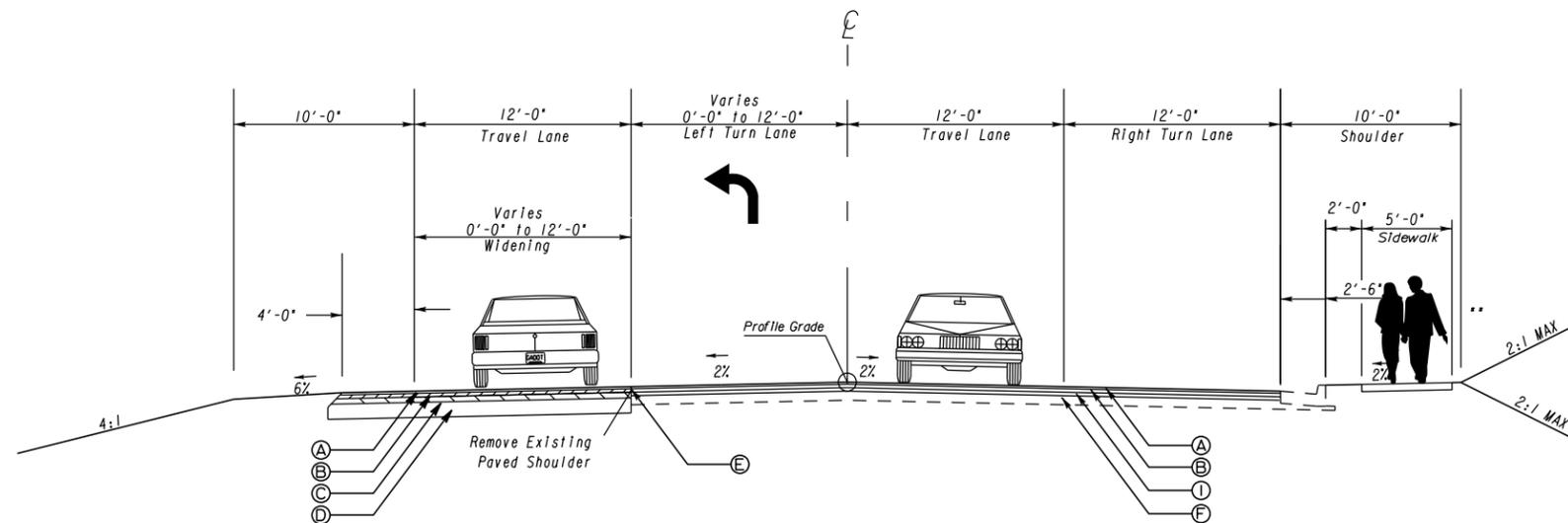


P.I.0012646
CR 653/COVINGTON BYPASS @
CR 181/FLAT SHOALS RD
CONCEPT LAYOUT
FEBRUARY 14, 2014





TANGENT SECTION
CR 653/COVINGTON BYPASS

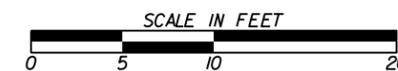


TANGENT SECTION
CR 653/COVINGTON BYPASS

**Handrail will be installed adjacent to the sidewalk for the 10 foot urban shoulder if the vertical drop is more than 30 inches/2.5 feet, exceeds a down slope grade of 1:2, and is located less than 4 feet from the edge of the walkway.

REQUIRED PAVEMENT

- (A) RECYCLED ASPH CONC 12.5 mm TYPE 11 SUPERPAVE, INCL BITUM (@ 165 LB/SY)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 220 LB/SY)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 770 LB/SY)
- (D) GRADED AGGREGATE BASE, 10", INCL MATL
- (E) PAVEMENT REINFORCEMENT FABRIC 18" WIDE, CENTERED ON JOINT
- (F) MILL ASPH CONC, 1.5" DEPTH
- (G) 8"x30" CONC CURB & GUTTER, GA STD. 9032B, TP 2
- (H) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 330 LB/SY)
- (I) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 440 LB/SY)
- (J) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 660 LB/SY)



REVISION DATES

| | | |
|--|--|--|
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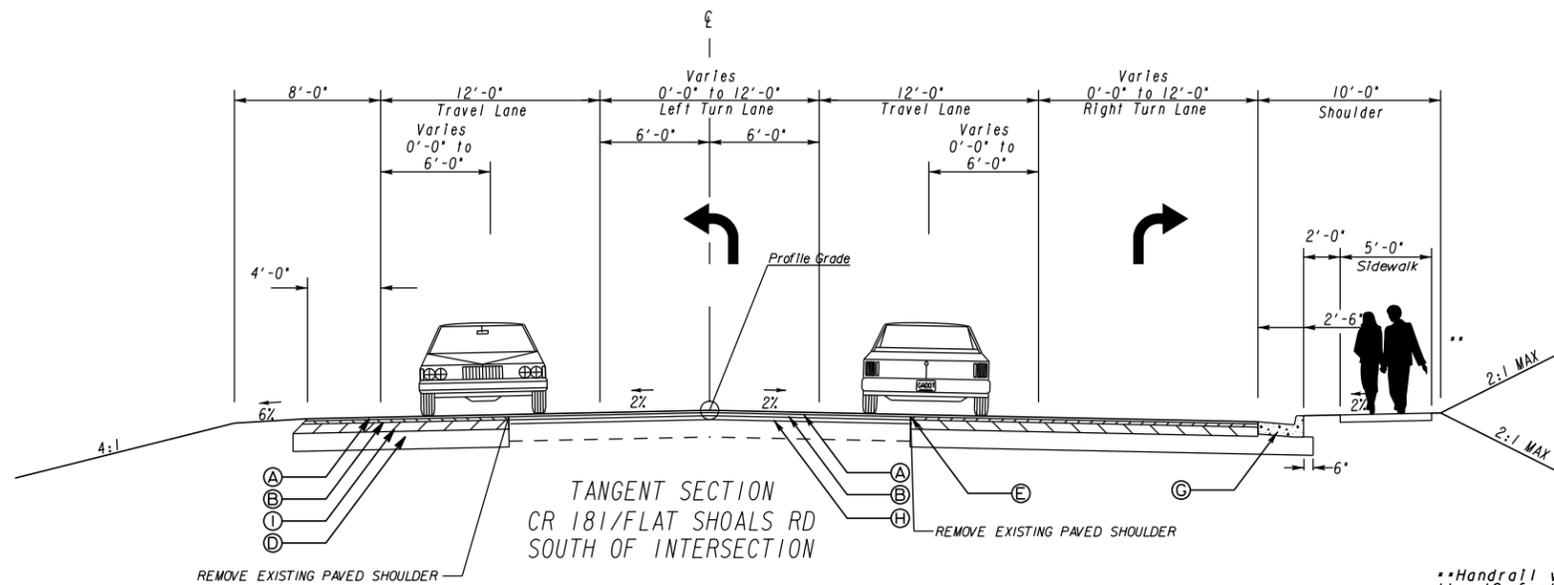
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE:

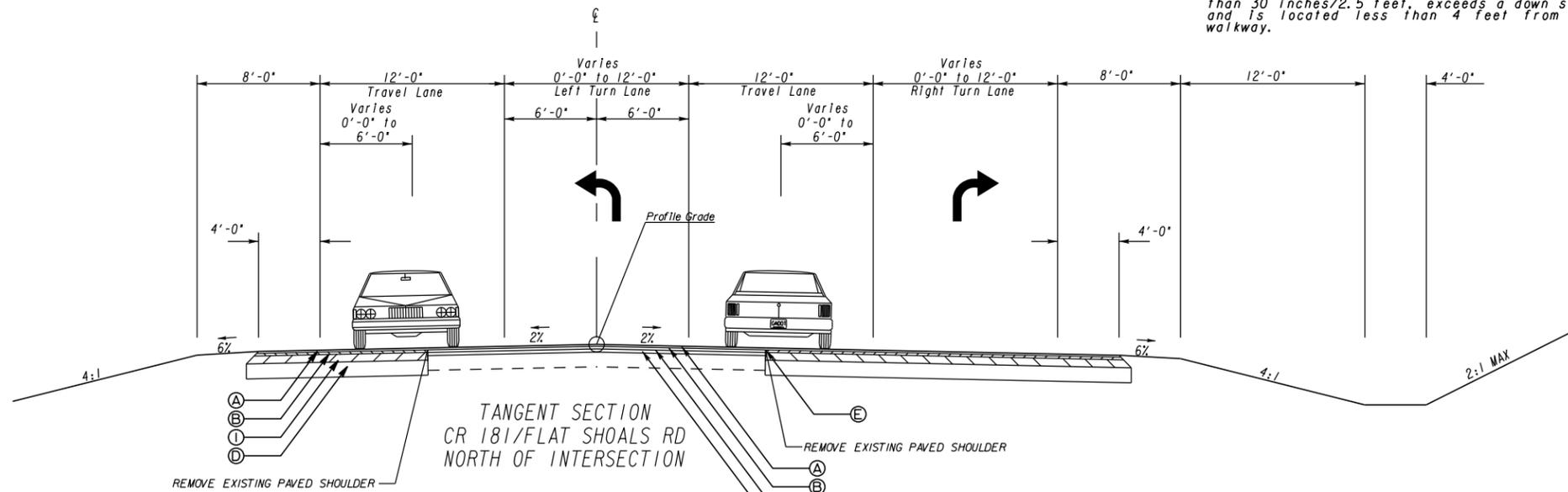
TYPICAL SECTIONS

CR 653/COVINGTON BYPASS @
CR 181/FLAT SHOALS ROAD

DRAWING No.
05-001

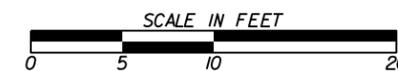


**Handrail will be installed adjacent to the sidewalk for the 10 foot urban shoulder if the vertical drop is more than 30 inches/2.5 feet, exceeds a down slope grade of 1:2, and is located less than 4 feet from the edge of the walkway.



REQUIRED PAVEMENT

- (A) RECYCLED ASPH CONC 12.5 mm TYPE 11 SUPERPAVE, INCL BITUM (@ 165 LB/SY)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 220 LB/SY)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 770 LB/SY)
- (D) GRADED AGGREGATE BASE, 10", INCL MATL
- (E) PAVEMENT REINFORCEMENT FABRIC 18" WIDE, CENTERED ON JOINT
- (F) MILL ASPH CONC, 1.5" DEPTH
- (G) 8"x30" CONC CURB & GUTTER, GA STD, 9032B, TP 2
- (H) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 330 LB/SY)
- (I) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 440 LB/SY)
- (J) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 660 LB/SY)



REVISION DATES

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

TYPICAL SECTIONS

CR 653/COVINGTON BYPASS @
CR 181/FLAT SHOALS ROAD

DRAWING No.
05-002

JOB ESTIMATE REPORT

JOB NUMBER : 0012646 SPEC YEAR: 13
 DESCRIPTION: COVINGTON BYPASS AT FLAT SHOALS

ITEMS FOR JOB 0012646

| LINE | ITEM | ALT | UNITS | DESCRIPTION | QUANTITY | PRICE | AMOUNT |
|------|----------|-----|-------|--|----------|-----------|-----------|
| 0005 | 150-1000 | | LS | TRAFFIC CONTROL - PI 0012646 | 1.000 | 110000.00 | 110000.00 |
| 0010 | 210-0100 | | LS | GRADING COMPLETE - PI 0012646 | 1.000 | 180000.00 | 180000.00 |
| 0015 | 310-1101 | | TN | GR AGGR BASE CRS, INCL MATL | 5918.000 | 18.59 | 110056.22 |
| 0020 | 402-1812 | | TN | RECYL AC LEVELING, INC BM&HL | 492.000 | 77.55 | 38158.12 |
| 0025 | 402-3113 | | TN | RECYL AC 12.5MM SP, GP1/2, BM&HL | 1469.000 | 73.91 | 108580.37 |
| 0030 | 402-3121 | | TN | RECYL AC 25MM SP, GP1/2, BM&HL | 2511.000 | 72.04 | 180907.08 |
| 0035 | 402-3190 | | TN | RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL | 927.000 | 81.18 | 75254.67 |
| 0040 | 413-1000 | | GL | BITUM TACK COAT | 1352.000 | 5.24 | 7087.31 |
| 0045 | 441-0016 | | SY | DRIVEWAY CONCRETE, 6 IN TK | 288.000 | 34.99 | 10079.59 |
| 0050 | 441-0104 | | SY | CONC SIDEWALK, 4 IN | 213.000 | 43.70 | 9308.41 |
| 0055 | 441-6022 | | LF | CONC CURB & GUTTER, 6X30TP2 | 380.000 | 33.58 | 12763.52 |
| 0060 | 446-1100 | | LF | PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH | 4870.000 | 4.03 | 19634.87 |
| 0065 | 634-1200 | | EA | RIGHT OF WAY MARKERS | 14.000 | 105.44 | 1476.24 |
| 0070 | 641-1200 | | LF | GUARDRAIL, TP W | 530.000 | 18.53 | 9823.04 |
| 0075 | 641-5012 | | EA | GUARDRAIL ANCHORAGE, TP 12 | 4.000 | 1939.67 | 7758.70 |
| 0080 | 550-2180 | | LF | SIDE DR PIPE 18, H 1-10 | 380.000 | 28.15 | 10698.16 |
| 0085 | 550-4118 | | EA | FLARED END SECT 18 IN, SIDE DR | 16.000 | 204.12 | 3265.98 |
| 0090 | 163-0232 | | AC | TEMPORARY GRASSING | 2.000 | 433.40 | 866.81 |
| 0095 | 163-0240 | | TN | MULCH | 62.000 | 221.52 | 13734.46 |
| 0100 | 163-0300 | | EA | CONSTRUCTION EXIT | 2.000 | 1054.20 | 2108.41 |
| 0105 | 163-0520 | | LF | CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN | 220.000 | 12.81 | 2819.52 |
| 0110 | 163-0528 | | LF | CONSTR AND REM FAB CK DAM -TP C SLT FN | 37.000 | 4.51 | 167.08 |
| 0115 | 165-0030 | | LF | MAINT OF TEMP SILT FENCE, TP C | 2500.000 | 0.76 | 1913.95 |
| 0120 | 165-0041 | | LF | MAINT OF CHECK DAMS - ALL TYPES | 37.000 | 2.10 | 78.06 |
| 0125 | 165-0101 | | EA | MAINT OF CONST EXIT | 2.000 | 438.35 | 876.72 |
| 0130 | 167-1000 | | EA | WATER QUALITY MONITORING AND SAMPLING | 2.000 | 189.83 | 379.68 |
| 0135 | 167-1500 | | MO | WATER QUALITY INSPECTIONS | 9.000 | 364.01 | 3276.10 |
| 0140 | 171-0030 | | LF | TEMPORARY SILT FENCE, TYPE C | 5000.000 | 3.74 | 18706.95 |
| 0145 | 603-2024 | | SY | STN DUMPED RIP RAP, TP 1, 24 | 24.000 | 55.64 | 1335.59 |
| 0150 | 603-7000 | | SY | PLASTIC FILTER FABRIC | 24.000 | 4.45 | 106.85 |
| 0155 | 700-6910 | | AC | PERMANENT GRASSING | 3.000 | 834.76 | 2504.29 |
| 0160 | 700-7000 | | TN | AGRICULTURAL LIME | 10.000 | 134.11 | 1341.15 |
| 0165 | 700-8000 | | TN | FERTILIZER MIXED GRADE | 3.000 | 526.86 | 1580.60 |
| 0170 | 700-8100 | | LB | FERTILIZER NITROGEN CONTENT | 153.000 | 2.43 | 372.01 |
| 0175 | 716-2000 | | SY | EROSION CONTROL MATS, SLOPES | 744.000 | 1.40 | 1044.84 |
| 0180 | 999-3155 | | LF | DRY SWALE EDGE DRAIN | 640.000 | 31.80 | 20356.25 |
| 0185 | 636-1020 | | SF | HWY SGN, TP1MAT, REFL SH TP3 | 200.000 | 12.26 | 2452.54 |
| 0190 | 636-2070 | | LF | GALV STEEL POSTS, TP 7 | 260.000 | 8.93 | 2322.28 |
| 0195 | 653-0120 | | EA | THERM PVMT MARK, ARROW, TP 2 | 26.000 | 71.35 | 1855.22 |

JOB ESTIMATE REPORT

| Item No | Description | Unit | Quantity | Unit Price | Amount | Rate | Total |
|---------|-------------|------|----------|------------|----------|-----------|-----------|
| 0200 | 653-1501 | LF | | | 7955.000 | 0.44 | 3535.44 |
| 0205 | 653-1502 | LF | | | 3192.000 | 0.42 | 1361.10 |
| 0210 | 653-1704 | LF | | | 144.000 | 7.01 | 1009.73 |
| 0215 | 653-1804 | LF | | | 1120.000 | 2.41 | 2708.52 |
| 0220 | 653-3501 | GLF | | | 900.000 | 0.16 | 151.43 |
| 0225 | 653-6006 | SY | | | 894.000 | 3.04 | 2718.28 |
| 0230 | 654-1001 | EA | | | 108.000 | 4.41 | 477.26 |
| 0235 | 654-1003 | EA | | | 103.000 | 3.04 | 313.54 |
| 0240 | 647-1000 | LS | | | 1.000 | 120000.00 | 120000.00 |
| 0245 | 639-4004 | EA | | | 4.000 | 5800.00 | 23200.00 |

 ITEM TOTAL 1130526.91
 INFLATED ITEM TOTAL 1130526.91

TOTALS FOR JOB 0012646

 ESTIMATED COST: 1128671.72
 CONTINGENCY PERCENT (20% Reconstruction/Rehabilitation Added Capacity): 225734.34
 ESTIMATED TOTAL: 1354406.06

NOTE: The item totals include all alternate items. The estimated totals include only the low cost alternate items.

PROJ. NO.

[Redacted]

CALL NO.

P.I. NO.

0012646

DATE

11/17/2014

INDEX (TYPE)

REG. UNLEADED
DIESEL
LIQUID AC

| DATE | INDEX |
|--------|-----------|
| Jan-15 | \$ 2.186 |
| | \$ 3.045 |
| | \$ 556.00 |

Link to Fuel and AC Index:

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

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

| | | | | | | |
|--|----------|-----|----|---------------|----|-------------------|
| Price Adjustment (PA) | | | | 180561 | \$ | 180,561.00 |
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | \$ | 889.60 | | |
| Monthly Asphalt Cement Price month project let (APL) | | | \$ | 556.00 | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | | 541.25 | | |

| ASPHALT | Tons | %AC | AC ton |
|-----------|--------------|------|---------------|
| Leveling | 5918 | 5.0% | 295.9 |
| 12.5 OGFC | | 5.0% | 0 |
| 12.5 mm | 1469 | 5.0% | 73.45 |
| 9.5 mm SP | | 5.0% | 0 |
| 25 mm SP | 2511 | 5.0% | 125.55 |
| 19 mm SP | 927 | 5.0% | 46.35 |
| | 10825 | | 541.25 |

BITUMINOUS TACK COAT

| | | | | | | | |
|--|----------|-----|----|--------|-----------------|----|-----------------|
| Price Adjustment (PA) | | | | \$ | 1,937.21 | \$ | 1,937.21 |
| Monthly Asphalt Cement Price month placed (APM) | Max. Cap | 60% | \$ | 889.60 | | | |
| Monthly Asphalt Cement Price month project let (APL) | | | \$ | 556.00 | | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | | | | | 5.806976447 |

Bitum Tack

| Gals | gals/ton | tons |
|------|----------|------------|
| 1352 | 232.8234 | 5.80697645 |

PROJ. NO.

[Redacted]

CALL NO.

P.I. NO.

0012646

DATE

11/17/2014

BITUMINOUS TACK COAT (surface treatment)

| | | | | | | | | |
|--|--|----------|-----|----|--|----------|-----------|----------|
| Price Adjustment (PA) | | | | | | 0 | \$ | - |
| Monthly Asphalt Cement Price month placed (APM) | | Max. Cap | 60% | \$ | | 889.60 | | |
| Monthly Asphalt Cement Price month project let (APL) | | | | \$ | | 556.00 | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | | | | 0 | | |

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

| | | |
|-----------------------------------|-----------|-------------------|
| TOTAL LIQUID AC ADJUSTMENT | \$ | 182,498.21 |
|-----------------------------------|-----------|-------------------|

Department of Transportation

State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE March 07, 2014

FROM Phil Copeland, Right of Way Administrator
LaShone Alexander, Right of Way Cost Estimator

TO Daniel Chastain, Project Manager

SUBJECT **Preliminary Right of Way Cost Estimate**
Project: 0012646 Newton County
P.I. No.: 0012646
Description: Flat Shoals Improvements

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimates on the above referenced projects.

If you have any questions, please contact LaShone Alexander at One Georgia Center 600 West Parkway Street, NW Atlanta, GA 30308, Right of Way Office at (478) 553-1569 or (478) 232-4045.

PC:LA
Attachments
c: File

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 3/6/2014 Project: 0012646
 Revised: County: Newton
 PI: 0012646

Description: Flat Shoals Improvement
 Project Termini: Flat Shoals Improvement

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 9

Land and Improvements _____ \$416,940.00

| | |
|-----------------------------|---------------------|
| <i>Proximity Damage</i> | <i>\$0.00</i> |
| <i>Consequential Damage</i> | <i>\$0.00</i> |
| <i>Cost to Cures</i> | <i>\$0.00</i> |
| <i>Trade Fixtures</i> | <i>\$0.00</i> |
| <i>Improvements</i> | <i>\$225,000.00</i> |

Valuation Services _____ \$13,750.00

Legal Services _____ \$81,075.00

Relocation _____ \$18,000.00

Demolition _____ \$0.00

Administrative _____ \$80,500.00

TOTAL ESTIMATED COSTS _____ \$610,265.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$611,000.00

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

Prepared By: Jathone Alexander CG#: 286999 03/07/2014 (E)
 Approved By: Jathone Alexander CG#: 286999 03/07/2014 (E)

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE 0012646 Newton County **OFFICE** Tennille
P.I. No. 0012646
LB 9/7/14 **DATE** March 11, 2014

FROM Lynn Bean, District Utilities Engineer

TO Albert Shelby, State Program Delivery Engineer
ATTN Daniel Chastain, Project Manager

SUBJECT **CONCEPT UTILITY COST ESTIMATE**

As requested by your office, we are furnishing you with a Concept Utility Cost estimate for each utility with facilities located within the project limits.

| FACILITY OWNER | NON-REIMBURSABLE | REIMBURSABLE |
|-----------------------------|-------------------------|---------------------|
| SNAPPING SHOALS EMC (FIBER) | \$2,160.00 | \$0.00 |
| CITY OF COVINGTON (WATER) | \$136,500.00 | \$0.00 |
| CITY OF COVINGTON (POWER) | \$125,000.00 | \$0.00 |
| CITY OF COVINGTON (GAS) | \$163,091.00 | \$0.00 |
| CITY OF COVINGTON (SEWER) | \$130,000.00 | \$0.00 |
| AT&T-D | \$117,381.00 | \$0.00 |
| CHARTER COMMUNICATIONS | \$9,908.00 | \$0.00 |
| NEWTON COUNTY SEWER | \$0.00 | \$288,900.00 |
| TOTAL | \$684,040.00 | \$288,900.00 |

Totals

Total Non-Reimbursable Cost: \$684,040.00
Total Reimbursable Cost: \$288,900.00
Total Relocations: \$972,940.00

This estimate was compiled using information provided by the various utility owners. Please be advised this is an estimate and may be revised when project plans are developed and prior rights research is completed.

If you should have questions or need additional information, please contact Jimmy Hobby at 478-552-4633.

LB: JFH

C: Mike Bolden, State Utilities Engineer
Lee Upkins, Assistant State Utilities Engineer
Angela D. Robinson, Office of Financial Management;
Robert Moon, Area Engineer

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Newton County **OFFICE** Planning
P.I. # 0012646
DATE January 20, 2015

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

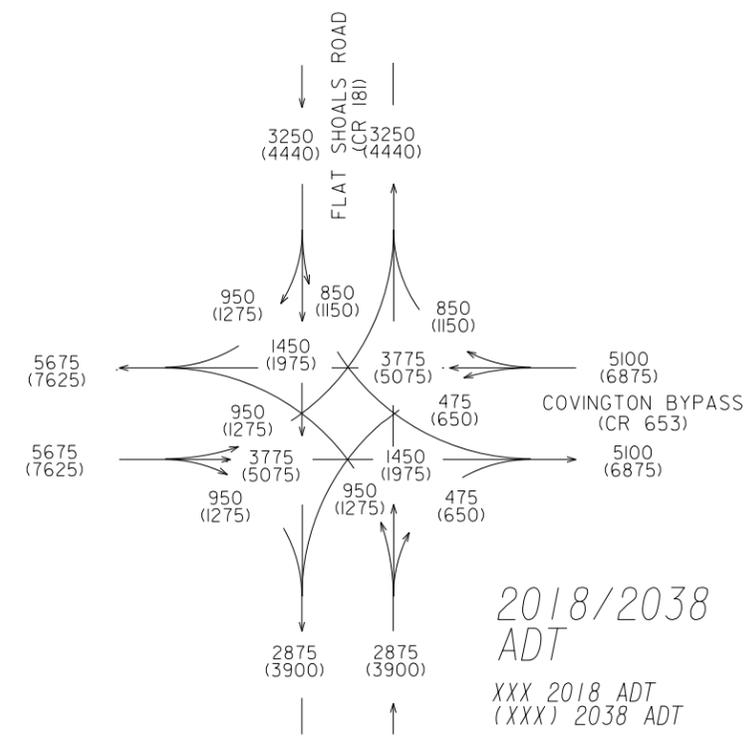
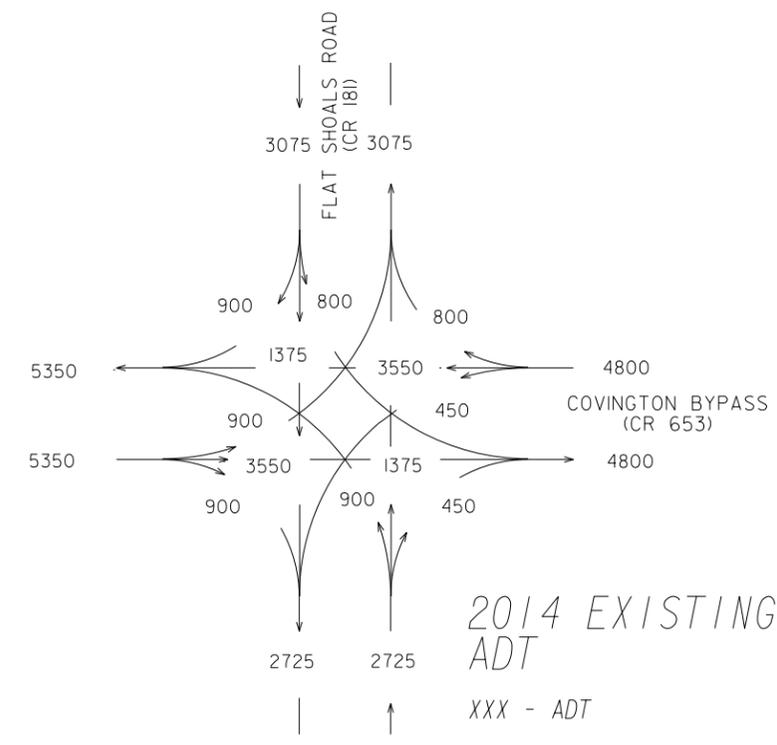
TO Albert Shelby, State Program Delivery Engineer
Attention: Daniel Chastain

SUBJECT **Design Traffic Review** for CR 653/COVINGTON BYPASS @ CR 181/FLAT SHOALS ROAD.

We have reviewed the consultant's Design Traffic for the above project. The Design Traffic is approved.

If you have any questions concerning this information, please contact Rhonda Niles at (404) 631-1924.

CLV/RFN

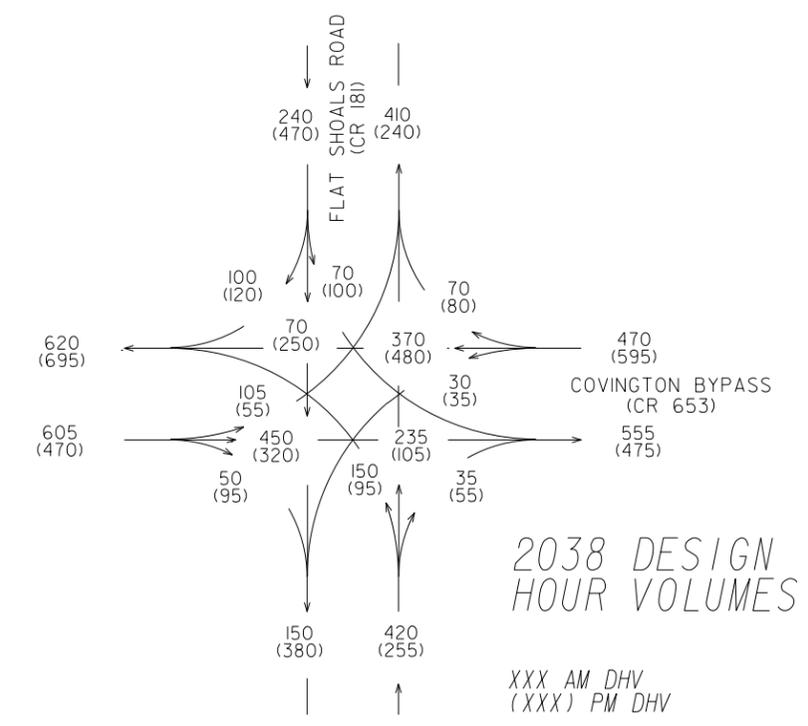
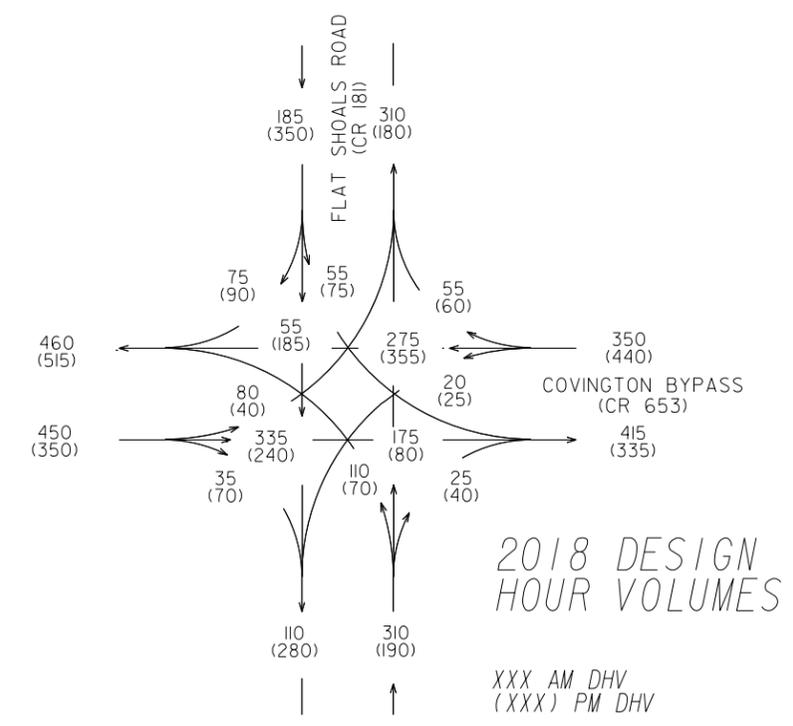
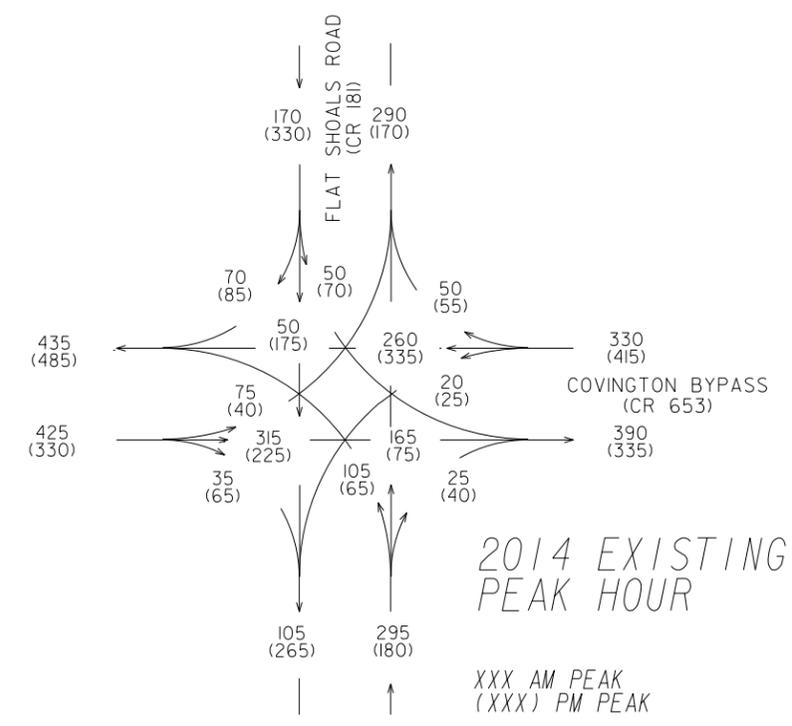


COVINGTON BYPASS

| | |
|------------|----|
| Peak T | 6% |
| Peak SU | 2% |
| Peak COMB | 4% |
| Daily T | 9% |
| Daily SU | 3% |
| Daily COMB | 6% |

FLAT SHOALS ROAD

| | |
|------------|----|
| Peak T | 6% |
| Peak SU | 5% |
| Peak COMB | 1% |
| Daily T | 6% |
| Daily SU | 4% |
| Daily COMB | 2% |



BUILD CONDITION IS EQUIVALENT TO NO BUILD

PI 0012646
NEWTON CO.
SHEET 1 OF 1

JAN 2015 WMR/KC

Michael Baker
INTERNATIONAL
3595 ENGINEERING DRIVE
NORCROSS, GEORGIA 30092
(770) 263-9118

NO SCALE

REVISION DATES

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STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
TRAFFIC DIAGRAM
COVINGTON BYPASS
AT FLAT SHOALS ROAD
INTERSECTION UPGRADE

DRAWING No.
10-001

Capacity Analysis

The traffic software *Synchro* was used to perform capacity analysis for the stop controlled and signalized scenarios of the project intersection. Using the methods described in the *Highway Capacity Manual (HCM)*, *Synchro* evaluates the performance of an intersection or group of intersections and provides a Level of Service (LOS).

As per The Georgia Department of Transportation’s policy, a roundabout was also evaluated as a build option for the intersection. The roundabout scenario for the project intersection was evaluated using GDOT’s Roundabout Analysis Tool v2.1. The Roundabout Analysis Tool performs two separate calculations based on the *2010 Highway Capacity Manual* and *NCHRP Report 672, FHWA’s Roundabout Informational Guide*. The first calculation, HCM 2010 Model, is based on an analytical method based on gap acceptance behavior on roundabouts in the United States. The formula yields a lower value for capacity because of source data taken from US roundabouts where driver familiarity is lower. The second calculation, Calibrated HCM Model, adjusts the entry capacity formula based on empirical data collected from Bend, Oregon and various roundabouts in California which have been in service for many years and driver familiarity is higher.

The HCM uses the total delay experienced for each vehicle as a result of traffic control devices to determine the LOS. The HCM definitions of LOS for stop controlled, roundabout and signalized intersections are shown in Table 10.

Table 10: Level of Service Definitions

| Level of Service | Control Delay (sec/veh) | |
|------------------|--|-------------------------|
| | Stop Controlled or Roundabout Intersection | Signalized Intersection |
| A | ≤ 10 | ≤ 10 |
| B | > 10 and ≤ 15 | > 10 and ≤ 20 |
| C | > 15 and ≤ 25 | > 20 and ≤ 35 |
| D | > 25 and ≤ 35 | > 35 and ≤ 55 |
| E | > 35 and ≤ 50 | > 55 and ≤ 80 |
| F | > 50 | > 80 |

Existing Conditions

A capacity analysis for the project intersection was first completed with the existing geometry and traffic control using *Synchro*. The morning and afternoon peak hour volumes were analyzed for the Present Year 2014, Opening Year 2018 and Design Year 2038. The resulting LOS for each approach to the intersection is shown in Table 11 and the *Synchro* reports are presented in Appendix C.

Table 11: Capacity Analysis Results – Existing Geometry

| | | Existing Four-Way Stop Level of Service (delay in sec/veh) | | | | | |
|-------------------------|-------------------|--|----------|-------------------------------|----------|------------------------------|-----------|
| | | Present Year 2014 | | Opening Year 2018 No Build | | Design Year 2038 No Build | |
| | | AM Peak | PM Peak | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass | Eastbound | E (43.8) | D (29.7) | E (43.8) | E (39.7) | F (308.2) | F (182.3) |
| | Westbound | D (26.1) | E (48.5) | D (26.1) | F (78.6) | F (155.1) | F (320.6) |
| Flat Shoals Road | Northbound | C (24.3) | C (18.0) | C (24.3) | C (20.3) | F (110.3) | D (35.0) |
| | Southbound | C (16.0) | D (30.4) | C (16.0) | E (40.0) | D (30.4) | F (170.5) |

With present conditions the eastbound and westbound approaches of Covington Bypass operate unacceptably in the afternoon peak hour. The delay on all approaches to the intersection will continue to increase with future volumes projected at the intersection. If no geometric or traffic control improvements are made, in 2038 the majority of approaches to the intersection will operate at LOS F during both the morning and afternoon peak hours.

Signalized Intersection

Using *Synchro*, the proposed signalized intersection geometry, as shown in Figure 9, was analyzed with the morning and afternoon peak hour volumes of the Opening Year 2018 and Design Year 2038. The resulting levels of service for the intersection are shown in Table 12 and the *Synchro* reports are included in Appendix D.

Table 12: Capacity Analysis Results – Signalized Geometry

| | Build Condition Signalized Intersection Level of Service (delay in sec/veh) | | | |
|---|---|---------|------------------|----------|
| | Opening Year 2018 | | Design Year 2038 | |
| | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass at Flat Shoals Road | A (9.1) | A (9.6) | A (9.9) | B (10.2) |

As shown above, with the proposed geometric and operation improvements of signalization with turn lanes, the intersection of Covington Bypass and Flat Shoals Road is projected to operate at LOS B or better during both peak periods of 2018 and 2038.

Roundabout

The construction of a single-lane roundabout for the project intersection was also analyzed with the morning and afternoon peak hour volumes of the Opening Year 2018 and Design Year 2038. The resulting levels of service for the roundabout, analyzed using the GDOT's Roundabout Analysis Tool, are shown in Table 13 and Table 14. The Roundabout Analysis Tool reports are shown in Appendix E.

Table 13: 2018 Capacity Analysis Results – Roundabout Geometry

| | | Opening Year 2018 Roundabout Level of Service (delay in sec/veh) {v/c ratio} | | | |
|------------------|------------|---|---------------|----------------------|---------------|
| | | HCM 2010 Model | | Calibrated HCM Model | |
| | | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass | Eastbound | B (13) {0.53} | B (12) {0.55} | A (9) {0.44} | A (9) {0.47} |
| | Westbound | B (11) {0.53} | B (11) {0.49} | A (8) {0.45} | A (8) {0.41} |
| Flat Shoals Road | Northbound | A (9) {0.29} | C (16) {0.58} | A (6) {0.23} | A (10) {0.46} |
| | Southbound | B (14) {0.52} | A (8) {0.28} | A (9) {0.41} | A (6) {0.23} |

Table 14: 2038 Capacity Analysis Results – Roundabout Geometry

| | | Design Year 2038 Roundabout Level of Service (delay in sec/veh) {v/c ratio} | | | |
|------------------|------------|--|---------------|----------------------|---------------|
| | | HCM 2010 Model | | Calibrated HCM Model | |
| | | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass | Eastbound | D (31) {0.82} | C (24) {0.76} | C (16) {0.66} | B (14) {0.62} |
| | Westbound | C (18) {0.74} | C (21) {0.73} | B (12) {0.63} | B (13) {0.60} |
| Flat Shoals Road | Northbound | B (13) {0.44} | F (51) {0.93} | A (9) {0.34} | C (19) {0.71} |
| | Southbound | E (38) {0.85} | B (12) {0.43} | C (17) {0.64} | A (8) {0.34} |

As shown above, both models predict each approach of the roundabout at the intersection of Covington Bypass and Flat Shoals Road will operate at LOS C better, during both peak hours in 2018. However, in 2038 the HCM 2010 Model predicts that half of the approaches will operate at LOS D or worse. However the Calibrated HCM Model, which models familiar drivers, predicts the roundabout option would provide acceptable operations for all approaches in 2038. The analysis of a single lane roundabout also shows improved level of service over the existing conditions. As expected, the results of the HCM 2010 and Calibrated HCM models differ slightly in the projected LOS for both the Opening Year 2018 and Design Year 2038. While both models agree that a roundabout will provide acceptable operations for all approaches in 2018, the HCM 2010 model predicts unacceptable delay for the northbound approach in the morning peak hour and the southbound approach in the afternoon peak hour of 2038.

A comparison of the Stop Control, Signaled Intersection and Roundabout scenarios for the future years are presented in Table 15 and Table 16. As the HCM 2010 model uses a conservative entry capacity, it is recommended to be applied when driver familiarity is low, and therefore results from this model are shown in

Table 15 for the Opening Year 2018. The Calibrated HCM model yields a higher entry capacity, and is recommended to be applied when driver familiarity has increased, so these results are presented in Table 16 for the Design Year 2038 of the roundabout.

Table 15: Opening Year 2018 LOS Comparison

| | | Opening Year 2018 Level of Service (delay in sec/veh) | | | | | |
|------------------|------------|---|----------|---------------|---------------|---------|---------|
| | | Stop Control | | Roundabout | | Signal | |
| | | AM Peak | PM Peak | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass | Eastbound | E (43.8) | E (39.7) | B (13) {0.53} | B (12) {0.55} | A (9.1) | A (9.6) |
| | Westbound | D (26.1) | F (78.6) | B (11) {0.53} | B (11) {0.49} | | |
| Flat Shoals Road | Northbound | C (24.3) | C (20.3) | A (9) {0.29} | C (16) {0.58} | | |
| | Southbound | C (16.0) | E (40.0) | B (14) {0.52} | A (8) {0.28} | | |

Table 16: Design Year 2038 LOS Comparison

| | | Design Year 2038 Level of Service (delay in sec/veh) | | | | | |
|------------------|------------|--|-----------|---------------|---------------|---------|----------|
| | | Stop Control | | Roundabout | | Signal | |
| | | AM Peak | PM Peak | AM Peak | PM Peak | AM Peak | PM Peak |
| Covington Bypass | Eastbound | F (308.2) | F (182.3) | C (16) {0.66} | B (14) {0.62} | A (9.9) | B (10.2) |
| | Westbound | F (155.1) | F (320.6) | B (12) {0.63} | B (13) {0.60} | | |
| Flat Shoals Road | Northbound | F (110.3) | D (35.0) | A (9) {0.34} | C (19) {0.71} | | |
| | Southbound | D (30.4) | F (170.5) | C (17) {0.64} | A (8) {0.34} | | |

As shown above both the Signalized Intersection and Roundabout scenarios are anticipated to provide acceptable operations for the intersection of Covington Bypass and Flat Shoals Road in both the Opening Year 2018 and Design Year 2038. However, even using the Calibrated HCM model for evaluation of the roundabout in 2038, half of the approaches to the intersection are projected to operate at LOS C in the morning peak hour and one is projected to operate at LOS C in the afternoon peak hour. In contrast, the signalized intersection is projected to operate at LOS A in the morning peak hour and LOS B in the afternoon peak hour of 2038.

In addition, there are concerns about constructing a roundabout in such close proximity to a fire station. As roundabouts are not familiar to the majority of American drivers, inexperience may cause unnecessary delay for emergency vehicles departing the Newton County Fire Station should a roundabout be constructed at the intersection of Covington Bypass at Flat Shoals Road



P.I.0012646
CR 653/COVINGTON BYPASS @
CR 181/FLAT SHOALS RD
DRAINAGE LAYOUT
FEBRUARY 14, 2014



Pavement Evaluation Report Flat Shoals Road at Covington Bypass Intersection Improvement

PI No.:0012646

Newton County, Georgia

February 3, 2015



EXISTING PAVEMENT EVALUATION REPORT
Flat Shoals Road at Covington Bypass Intersection Improvement
GDOT PI No. 0012646
Newton County, Georgia

WILLMER ENGINEERING INC.
Willmer Project No. 71.3954

Prepared For

Michael Baker Jr., Inc.
Norcross, Georgia

Prepared By

WILLMER ENGINEERING INC.
3772 Pleasantdale Road
Suite 165
Atlanta, Georgia 30340-4270

770.939.0089

February 3, 2015

VIA EMAIL/HAND DELIVERY

Mr. Brad Gowen, PE
Project Manager
Michael Baker Jr. Inc.
3595 Engineering Drive
Norcross, Georgia 30092

SUBJECT: Pavement Evaluation Report
Flat Shoals Road at Covington Bypass Intersection Improvement
PI No. 0012646
Newton County, Georgia
Willmer Project No. 71.3954

Dear Mr. Gowen:

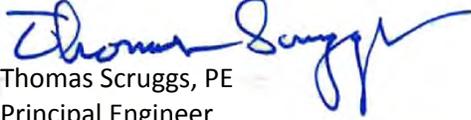
Willmer Engineering Inc. (Willmer) is pleased to provide this Existing Pavement Evaluation report for the proposed Flat Shoals Road at Covington Bypass Intersection Improvement project in Newton County, Georgia. The pavement evaluation was performed based on a set of plans dated October 14, 2014 provided to us by Michael Baker Jr., Inc. (Baker). This work was performed in general accordance with our contract dated January 7, 2014 with Baker and the GDOT guidance documents for pavement evaluation.

The attached summary presents the existing pavement conditions along the project alignment and our recommendations for pavement design. The pavement design is based on traffic data provided to us by Baker. The GDOT Pavement Design Tool Version 2.0 computer program was used for all designs.

We appreciate the opportunity to be of service to you on this project and look forward to a continuing relationship. Please contact us if you have any questions concerning this report or require further assistance.

Sincerely,

WILLMER ENGINEERING INC.


Thomas Scruggs, PE
Principal Engineer


James L. Willmer, PE
Executive Vice President/Principal Consultant


Sujit K. Bhowmik, PhD, PE
Chief Engineer

This original document was signed and sealed
by James L. Willmer, PE
Registration No. 10780 on February 3, 2015

**THIS REPRODUCTION IS NOT A CERTIFIED
DOCUMENT**

TS/JLW

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Attachments: Existing Pavement Evaluation Summary

Table

Table 1 Summary of Pavement Core, Rut Depth, and Crack Depth Information

Figures

Figure 1 Project Location Map
Figure 2 Project Alignment Plan
Figure 3 Coring Location Plan
Figure 4 Traffic Diagrams
Figure 5 Typical Pavement Sections (Sheets 1 and 2)

Appendices

Appendix I Site Photographs
Appendix II Pavement Core Photographs
Appendix III Asphalt Pavement Design Calculations



EXISTING PAVEMENT EVALUATION SUMMARY
 for
Flat Shoals Road at Covington Bypass
Newton County, Georgia

1. Location / Description This project involves improvements to the intersection of Covington Bypass at Flat Shoals Road in Newton County, Georgia. Both roads will be widened beginning from approximately 400 feet from the intersection to add left and right turn lanes in each direction. The total project length is approximately 1600 feet. The location of the project is shown in Figure 1, and a project alignment plan is presented in Figure 2.

2. Historical Data A historical data search was performed for this project using the GDOT TransPI website to search for existing pavement data for the project section of the roads. No historical data was available for this project.

3. Traffic Data Traffic data used in this study was provided to us by Baker in the form of traffic diagrams which are shown in Figure 4. Based on the traffic diagrams, the following traffic data was used for pavement design:

| Flat Shoals Road | |
|--------------------------|------------------------|
| Design period | 2018 to 2038 |
| One-way AADT in 2014 | 3250 vpd |
| One-way AADT in 2040 | 4440 vpd |
| Lane Distribution Factor | 1.0 |
| 24-hour Truck Percentage | 6.0% (4% SU and 2% MU) |

| Covington Bypass | |
|--------------------------|------------------------|
| Design period | 2018 to 2038 |
| One-way AADT in 2019 | 5675 vpd |
| One-way AADT in 2040 | 7625 vpd |
| Lane Distribution Factor | 1.0 |
| 24-hour Truck Percentage | 9.0% (3% SU and 6% MU) |

3. Field Photographs Photographs were taken at the time of our fieldwork to record the existing pavement conditions. These photographs are presented in Appendix I.

4. Drainage Survey Based on our field reconnaissance, the roadway was in good drainage condition. No standing water or other drainage problems were observed during this survey.



5. Non-Destructive Field Testing No non-destructive tests were performed for this project.

6. Rutting No rutting was observed.

7. Load Cracking The roadway segments selected for pavement evaluation were divided into a total of four rating segments for the purpose of conducting the pavement condition survey. The load cracking conditions for each rating segment are summarized in the following table:

| Rating Segment | Sample Stations | Load Cracking (%) | | | |
|----------------------|------------------|-------------------|---------|---------|---------|
| | | Level 1 | Level 2 | Level 3 | Level 4 |
| Covington Bypass, EB | 102+40 to 103+40 | 50 | 25 | 0 | 0 |
| Covington Bypass, WB | 111+00 to 112+00 | 25 | 75 | 0 | 0 |
| Flat Shoals Road, NB | 202+55 to 203+55 | 0 | 0 | 0 | 0 |
| Flat Shoals Road, SB | 212+85 to 213+85 | 25 | 50 | 25 | 0 |

8. Block/ Transverse Cracking No block/transverse cracking was observed.

9. Reflection Cracking No reflection cracking was observed.

10. Raveling The raveling conditions for each rating segment are summarized in the following table:

| Rating Segment | Raveling (%) | | |
|----------------------|--------------|---------|---------|
| | Level 1 | Level 2 | Level 3 |
| Covington Bypass, EB | 5 | 0 | 0 |
| Covington Bypass, WB | 5 | 0 | 0 |
| Flat Shoals Road, NB | 0 | 0 | 0 |
| Flat Shoals Road, SB | 0 | 0 | 0 |



11. Edge Distress

The edge distress conditions for each rating segment are summarized in the following table:

| Rating Segment | Edge Distress (%) | | |
|----------------------|-------------------|---------|---------|
| | Level 1 | Level 2 | Level 3 |
| Covington Bypass, EB | 0 | 0 | 0 |
| Covington Bypass, WB | 0 | 0 | 0 |
| Flat Shoals Road, NB | 0 | 0 | 0 |
| Flat Shoals Road, SB | 25 | 0 | 0 |

12. Bleeding or Flushing

No bleeding or flushing was observed.

13. Corrugation or Pushing

No corrugation or pushing was observed.

14. Loss of Section

No loss of section was observed.

15. Patches, Potholes, and Local Base Failures

No patches/potholes or local base failures were observed.

16. Pavement Coring

The existing pavement was cored at two locations on Flat Shoals Road and at two locations on Covington Bypass. The type and thickness of the existing pavement and base materials were determined at each location. The pavement core information is summarized in Table 1, and core sample photographs are included in Appendix II.

On Flat Shoals Road, the asphalt pavement thickness ranged from 5 to 8.5 inches, with an average of 6.75 inches. No base material was encountered in the Flat Shoals Road pavement section. On Covington Bypass, the asphalt pavement thickness ranged from 6 to 6.75 inches, with an average of 6.4 inches, and base material (consisting of soil mixed with aggregate) thickness ranged from 10 to 11 inches with an average of 10.5 inches.



17. Pavement Condition Summary

The pavement surface condition rating for this project was performed in accordance with GDOT Pavement Condition Evaluation System (PACES), and the PACES-based ratings are summarized below:

| Road | Rating Segments | Surface Condition Rating (PACES-based) |
|------------------|-----------------|--|
| Covington Bypass | EB | 83 |
| | WB | 68 |
| Flat Shoals Road | NB | 100 |
| | SB | 69 |

18. Flexible Pavement Design

Based on our evaluation of the existing pavement surface conditions and pavement core data, we assess that the existing pavements are suitable for overlay. Overlay with milling is recommended in all of these segments, with the exception of the segment of Flat Shoals Road south of the intersection where a direct overlay is recommended. A milling depth of 1.5 inches is recommended. After milling, any visible cracks and construction joints in the existing pavement should be filled with Type M crack sealant. This work should be done in accordance with Section 407 of the GDOT Standard Specifications.

The GDOT Pavement Design Tool Version 2.0 computer program was used for the pavement design calculations. The recommended full-depth and overlay pavement designs are provided in the tables below, and summary outputs from the computer program are included in Appendix III.

Full-depth Pavement Design:

| Full-depth Design: Covington Bypass | | | |
|-------------------------------------|----------------------|-----------------------|--------------------|
| Pay Item | Course | Material | Thickness (inches) |
| 402-4510 | Asphalt Surface | 12.5 mm Superpave | 1½ |
| 402-3190 | Asphalt Intermediate | 19 mm Superpave | 2 |
| 402-3121 | Asphalt Base | 25 mm Superpave | 7 |
| -- | Base | Graded Aggregate Base | 10 |



| Full-depth Design: Flat Shoals Road | | | |
|--|----------------------|-----------------------|---------------------------|
| Pay Item | Course | Material | Thickness (inches) |
| 402-4510 | Asphalt Surface | 12.5 mm Superpave | 1½ |
| 402-3190 | Asphalt Intermediate | 19 mm Superpave | 2 |
| 402-3121 | Asphalt Base | 25 mm Superpave | 4 |
| -- | Base | Graded Aggregate Base | 10 |

Mill and Overlay Pavement Design:

| Mill and Overlay Design: Covington Bypass | | | |
|--|----------------------|-------------------|---------------------------|
| Pay Item | Course | Material | Thickness (inches) |
| 402-4510 | Asphalt Surface | 12.5 mm Superpave | 1½ |
| 402-3190 | Asphalt Intermediate | 19 mm Superpave | 2 |
| 402-3121 | Asphalt Base | 25 mm Superpave | 4 |
| Note: Milling Depth = 1.5 inches | | | |

| Mill and Overlay Design: Flat Shoals Road, north of Intersection | | | |
|---|----------------------|-------------------|---------------------------|
| Pay Item | Course | Material | Thickness (inches) |
| 402-4510 | Asphalt Surface | 12.5 mm Superpave | 1½ |
| 402-3190 | Asphalt Intermediate | 19 mm Superpave | 2 |
| 402-3121 | Asphalt Base | 25 mm Superpave | 6 |
| Note: Milling Depth = 1.5 inches | | | |



Overlay Pavement Design:

| Overlay Design: Flat Shoals Road, south of Intersection | | | |
|--|----------------------|-------------------|---------------------------|
| Pay Item | Course | Material | Thickness (inches) |
| 402-4510 | Asphalt Surface | 12.5 mm Superpave | 1.5 |
| 402-3190 | Asphalt Intermediate | 19 mm Superpave | 2 |
| 402-3121 | Asphalt Base | 25 mm Superpave | 3 |
| Note: No milling required | | | |

19. Life Cycle Cost Analysis No Life Cycle Cost Analysis was performed.

Prepared By: Thomas Scruggs, PE/Sujit K. Bhowmik, PhD, PE

Senior Review By: James L. Willmer, PE

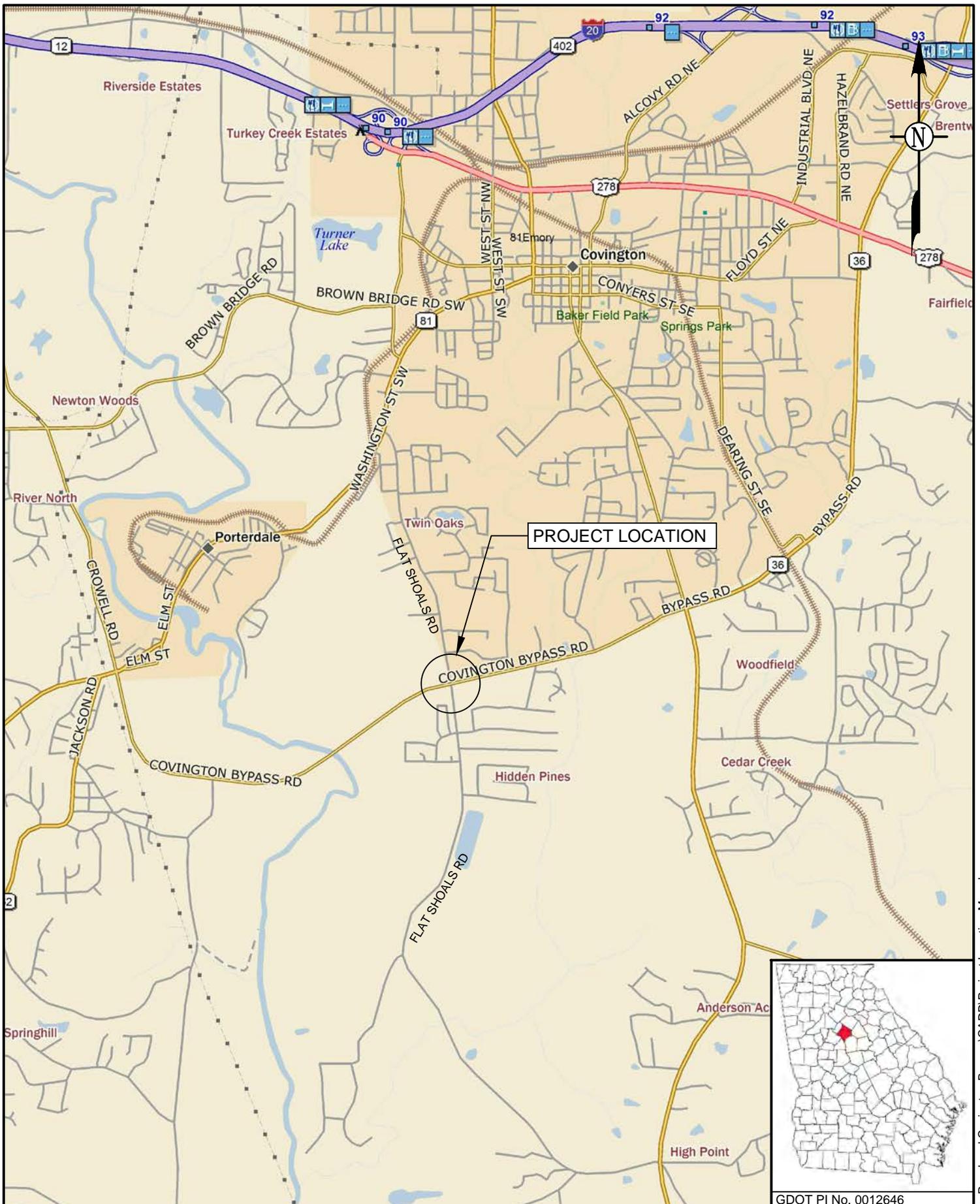
TABLE

Summary of Pavement Core, Rut Depth and Crack Depth Information
Flat Shoals Road at Covington Bypass Intersection Improvement
Newton County, Georgia
PI No. 0012646
Willmer Project No. 71.3954

| Core Number | Location | Station | Traffic Direction | Asphalt Pavement Thickness (inches) | Soil-Aggregate Thickness* (inches) | Rut Depth (inches) | Crack Depth (inches) | Comments |
|--------------------|------------------|----------------|--------------------------|--|---|---------------------------|-----------------------------|----------------------|
| C-1 | Covington Bypass | 103+00 | EB | 6.75 | 10 | 0 | 6.75 | |
| C-2 | Covington Bypass | 111+65 | WB | 6 | 11 | 0 | 6 | |
| C-3 | Flat Shoals Road | 202+65 | NB | 8.5 | 0 | 0 | 0 | New overlay pavement |
| C-4 | Flat Shoals Road | 213+50 | SB | 5 | 0 | 0 | 5 | |

* The base material consisted of a mixture of soil and aggregate

FIGURES



GDOT PI No. 0012646

SCALE: 1" = 3500'
 DATE: 2/2/2015
 DRAWN BY: JB
 REVIEWED BY: BD



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 CONSTRUCTION SERVICES
 ENVIRONMENTAL SERVICES AND ENGINEERING
 3772 PLEASANTDALE ROAD - SUITE 165
 ATLANTA, GA 30340-4270

FIGURE 1
 PROJECT LOCATION MAP
 SOIL SURVEY
 FLAT SHOALS ROAD AT COVINGTON BYPASS
 COVINGTON, NEWTON COUNTY, GEORGIA
 WILLMER PROJECT No. 71.3954

LIMIT OF CONSTRUCTION
STA. 215+85.00

BEGIN PROJECT
STA. 100+00.00

LIMIT OF CONSTRUCTION
STA. 199+25.00

END PROJECT
STA. 119 + 00.00

FLAT SHOALS RD

COVINGTON BYPASS

215+00

210+00

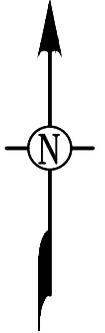
115+00

110+00

105+00

205+00

200+00



NOTE: BASE DRAWING PROVIDED BY BAKER.

PI No. 0012646

| |
|------------------|
| SCALE: 1" = 300' |
| DATE: 2/2/2015 |
| DRAWN BY: JB |
| REVIEWED BY: TS |

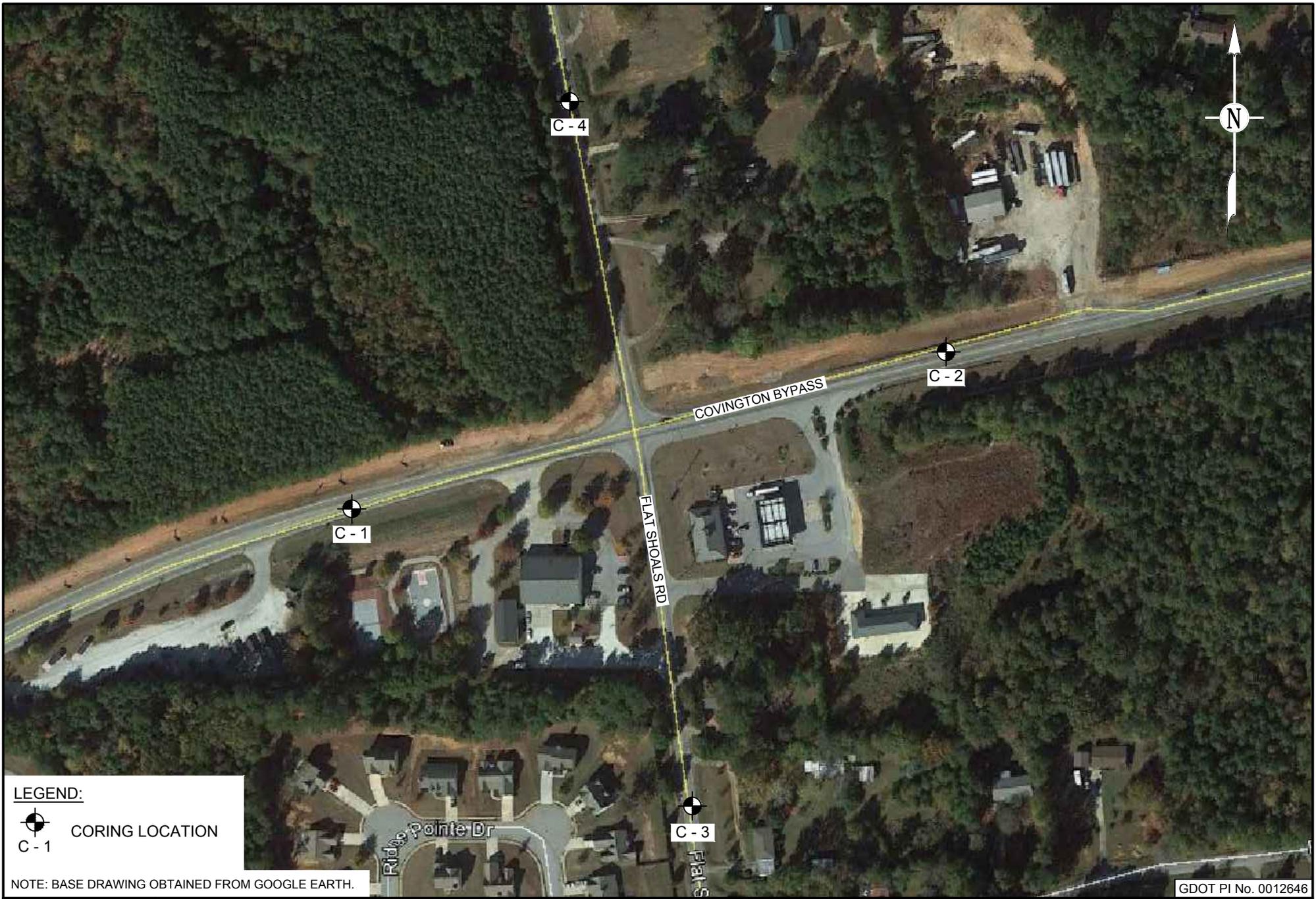
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GEOTECHNICAL ENGINEERING & CONSTRUCTION SERVICES
ENVIRONMENTAL SERVICES AND ENGINEERING
3772 PLEASANTDALE ROAD - SUITE 165
ATLANTA, GA 30340-4270

FIGURE 2
PROJECT ALIGNMENT PLAN
EXISTING PAVEMENT EVALUATION
FLAT SHOALS ROAD AT COVINGTON BYPASS
COVINGTON, NEWTON COUNTY, GEORGIA
WILLMER PROJECT No. 71.3954

P:\3954 Flat Shoals Road and Covington Bypass\CADD\Project Alignment Plan.dwg



LEGEND:



CORING LOCATION

C - 1

NOTE: BASE DRAWING OBTAINED FROM GOOGLE EARTH.

SCALE: 1" = 200'

DATE: 2/2/2015

DRAWN BY: JB

REVIEWED BY: TS

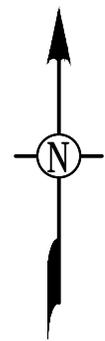
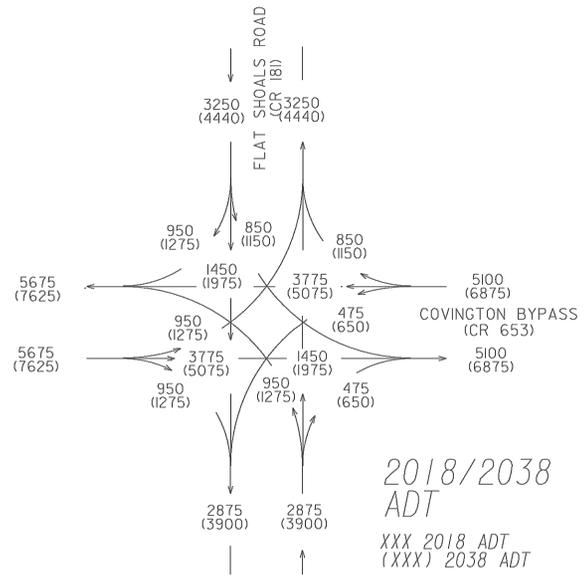
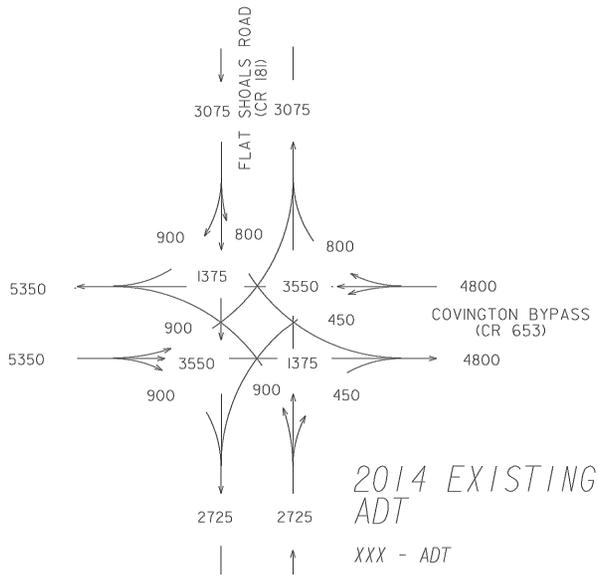
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 ENVIRONMENTAL SERVICES AND ENGINEERING
 3772 PLEASANTDALE ROAD - SUITE 165
 ATLANTA, GA 30340-4270

GDOT PI No. 0012646

FIGURE 3
 CORING LOCATION PLAN
 EXISTING PAVEMENT EVALUATION
 FLAT SHOALS ROAD AT COVINGTON BYPASS
 COVINGTON, NEWTON COUNTY, GEORGIA
 WILLMER PROJECT No. 71.3954

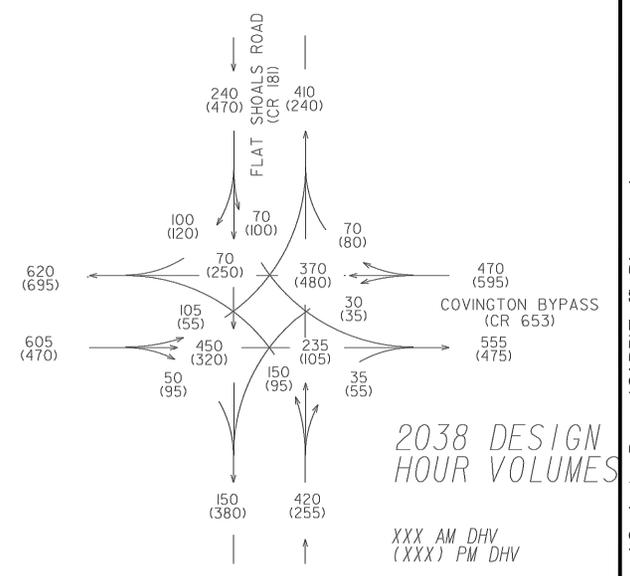
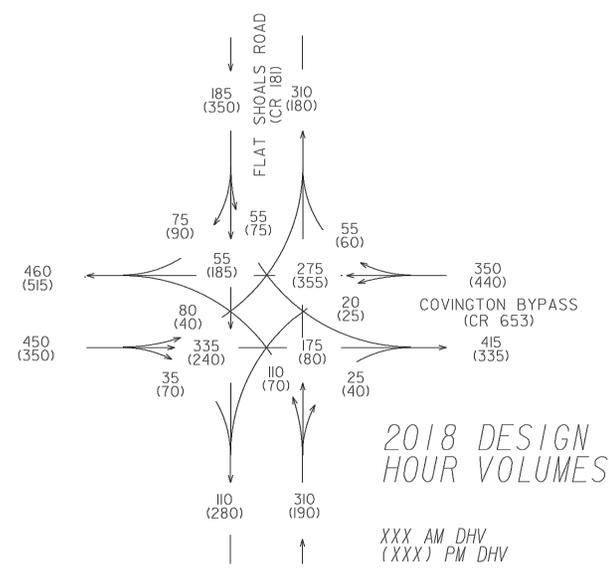
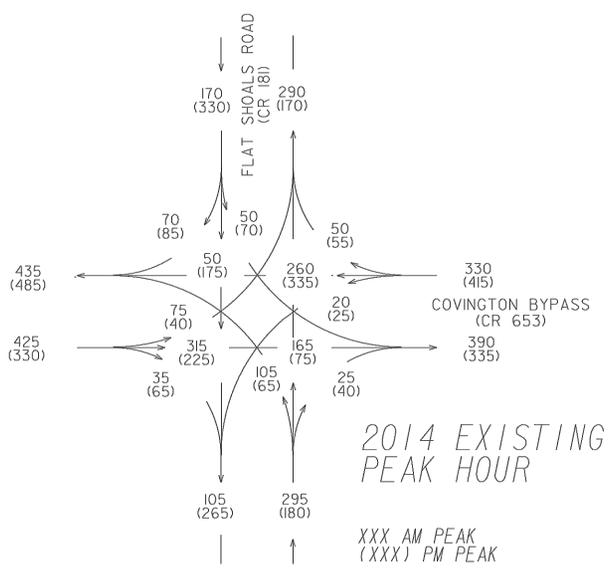


COVINGTON BYPASS

| | |
|------------|----|
| Peak T | 6% |
| Peak SU | 2% |
| Peak COMB | 4% |
| Daily T | 9% |
| Daily SU | 3% |
| Daily COMB | 6% |

FLAT SHOALS ROAD

| | |
|------------|----|
| Peak T | 6% |
| Peak SU | 5% |
| Peak COMB | 1% |
| Daily T | 6% |
| Daily SU | 4% |
| Daily COMB | 2% |



NOTE: BASE DRAWING PROVIDED TO WILLMER BY MICHAEL BAKER JR. INC.

GDOT PI No. 0012646

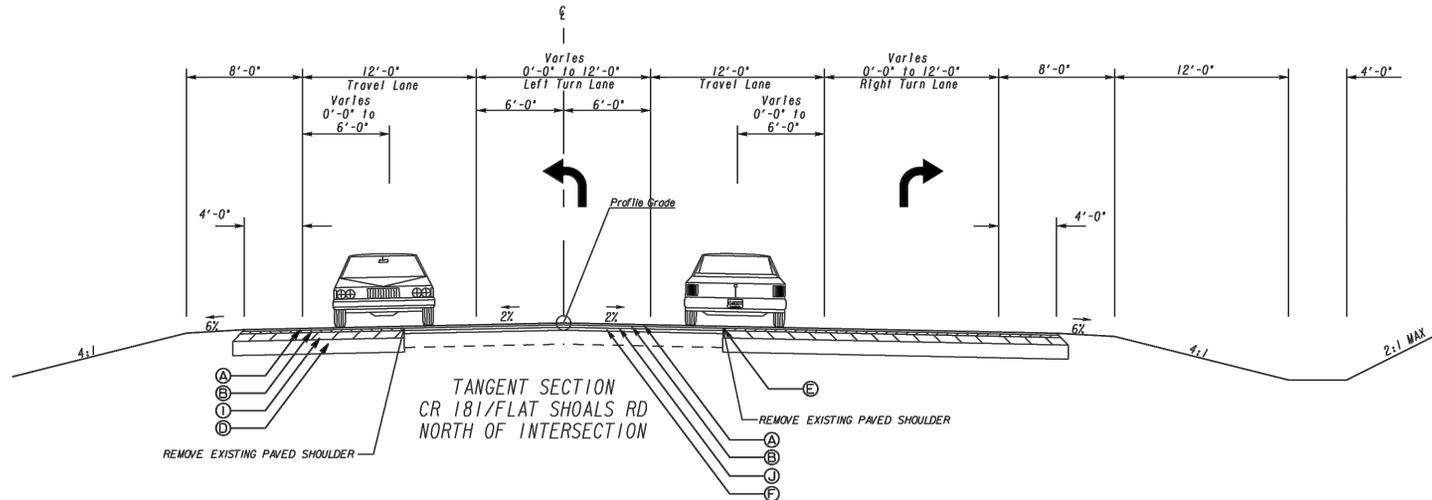
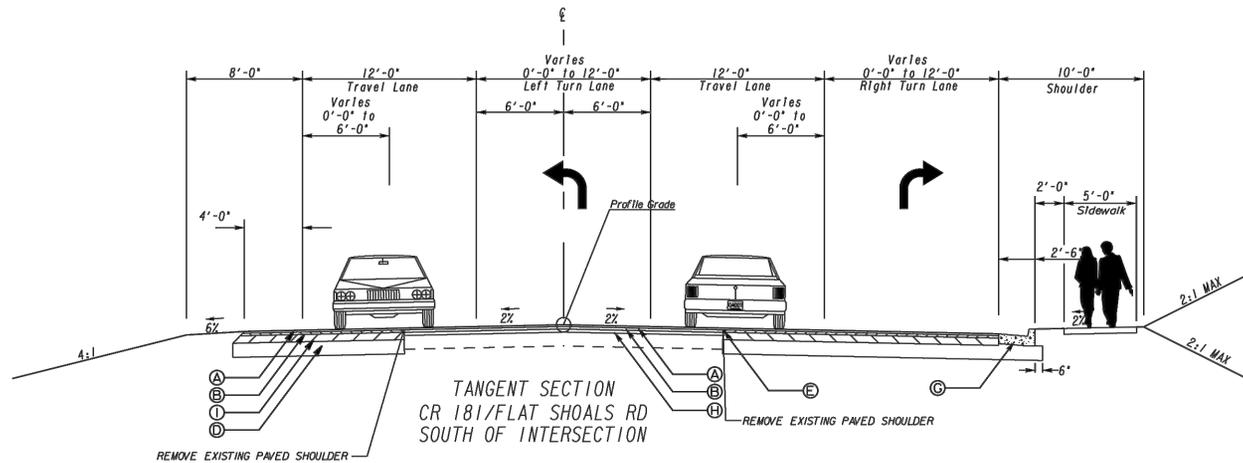
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|-----------------|
| SCALE: NTS |
| DATE: 2/2/2015 |
| DRAWN BY: JB |
| REVIEWED BY: TS |

WILLMER ENGINEERING INC.

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ENVIRONMENTAL SERVICES AND ENGINEERING
3772 PLEASANTDALE ROAD - SUITE 165
ATLANTA, GA 30340-4270

FIGURE 4
TRAFFIC DIAGRAMS
EXISTING PAVEMENT EVALUATION
FLAT SHOALS ROAD AT COVINGTON BYPASS
COVINGTON, NEWTON COUNTY, GEORGIA
WILLMER PROJECT No. 71.3954

P:\3954 Flat Shoals Road and Covington Bypass\CADD\Traffic Diagrams.dwg



REQUIRED PAVEMENT

- (A) RECYCLED ASPH CONC 12.5 mm TYPE 11 SUPERPAVE, INCL BITUM (@ 165 LB/SY)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 220 LB/SY)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 770 LB/SY)
- (D) GRADED AGGREGATE BASE, 10", INCL MATL
- (E) PAVEMENT REINFORCEMENT FABRIC 18" WIDE, CENTERED ON JOINT
- (F) MILL ASPH CONC, 1.5" DEPTH
- (G) 8"x30" CONC CURB & GUTTER, GA STD. 9032B, TP 2
- (H) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 330 LB/SY)
- (I) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 440 LB/SY)
- (J) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (@ 660 LB/SY)

NOTE: BASE DRAWING PROVIDED TO WILLMER BY MICHAEL BAKER JR. INC.

GDOT PI No. 0012646

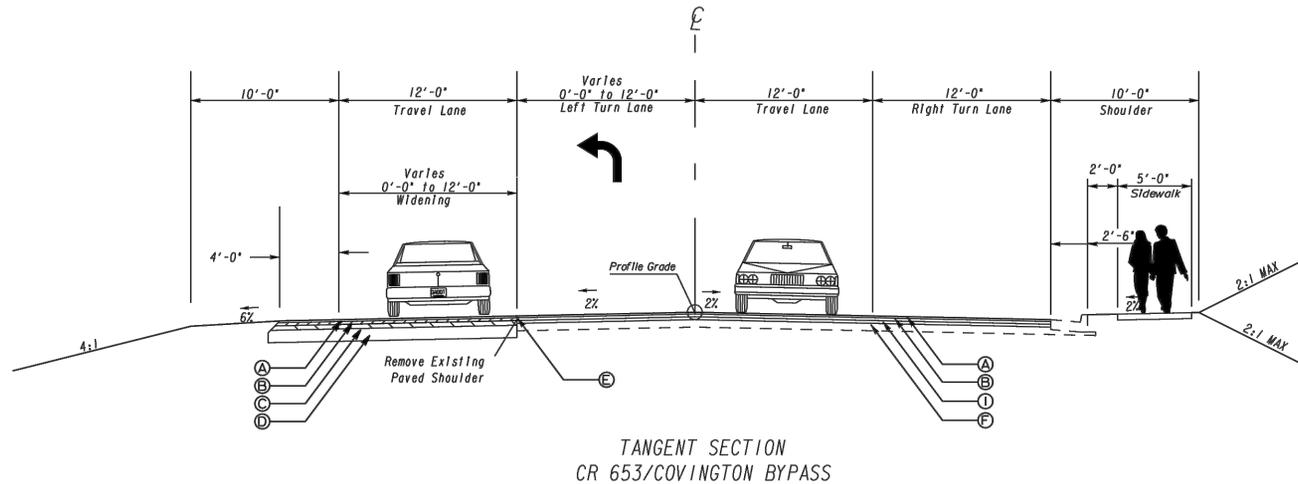
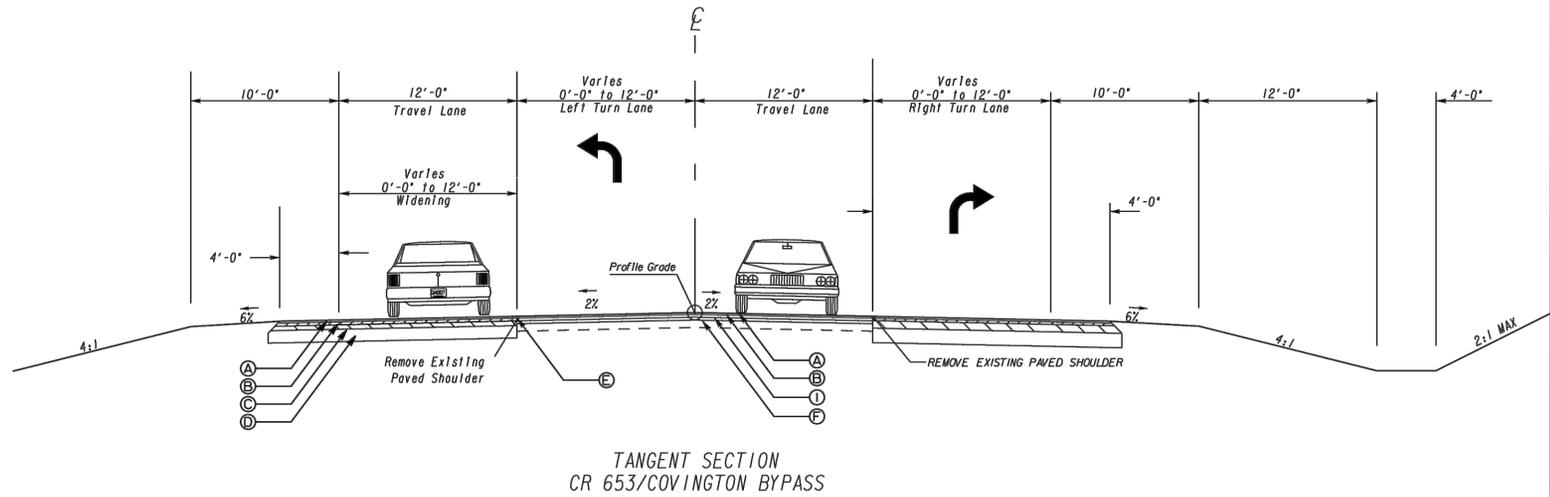
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| SCALE: NTS |
| DATE: 2/3/2015 |
| DRAWN BY: JB |
| REVIEWED BY: TS |

WILLMER ENGINEERING INC.



GEOTECHNICAL ENGINEERING ■ CONSTRUCTION SERVICES
 ENVIRONMENTAL SERVICES AND ENGINEERING
 3772 PLEASANTDALE ROAD - SUITE 165
 ATLANTA, GA 30340-4270

FIGURE 5 - SHEET 2 OF 2
 TYPICAL PAVEMENT SECTIONS
 EXISTING PAVEMENT EVALUATION
 FLAT SHOALS ROAD AT COVINGTON BYPASS
 COVINGTON, NEWTON COUNTY, GEORGIA
 WILLMER PROJECT No. 71.3954



REQUIRED PAVEMENT

- (A) RECYCLED ASPH CONC 12.5 mm TYPE 11 SUPERPAVE, INCL BITUM (ø 165 LB/ST)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (ø 220 LB/ST)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (ø 770 LB/ST)
- (D) GRADED AGGREGATE BASE, 10", INCL MATL
- (E) PAVEMENT REINFORCEMENT FABRIC 18" WIDE, CENTERED ON JOINT
- (F) MILL ASPH CONC, 1.5" DEPTH
- (G) 8"x30" CONC CURB & GUTTER, GA STD. 9032B, TP 2
- (H) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (ø 330 LB/ST)
- (I) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (ø 440 LB/ST)
- (J) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM (ø 660 LB/ST)

NOTE: BASE DRAWING PROVIDED TO WILLMER BY MICHAEL BAKER JR. INC.

GDOT PI No. 0012646

| |
|-----------------|
| SCALE: NTS |
| DATE: 2/3/2015 |
| DRAWN BY: JB |
| REVIEWED BY: TS |

WILLMER ENGINEERING INC.



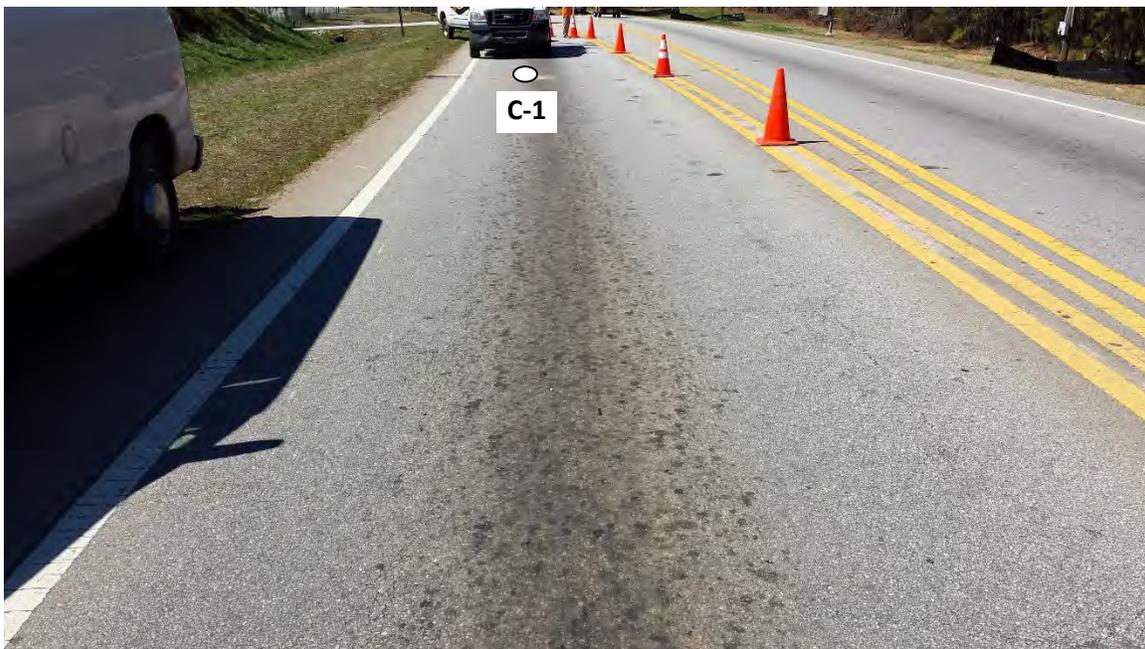
GEOTECHNICAL ENGINEERING ■ CONSTRUCTION SERVICES
 ENVIRONMENTAL SERVICES AND ENGINEERING
 3772 PLEASANTDALE ROAD - SUITE 165
 ATLANTA, GA 30340-4270

FIGURE 5 - SHEET 1 OF 2
 TYPICAL PAVEMENT SECTIONS
 EXISTING PAVEMENT EVALUATION
 FLAT SHOALS ROAD AT COVINGTON BYPASS
 COVINGTON, NEWTON COUNTY, GEORGIA
 WILLMER PROJECT No. 71.3954

APPENDIX I



Covington Bypass; Station 102+40±; Looking East



Covington Bypass; Station 103+40±; Looking West



Covington Bypass; Station 111+00±; Looking East



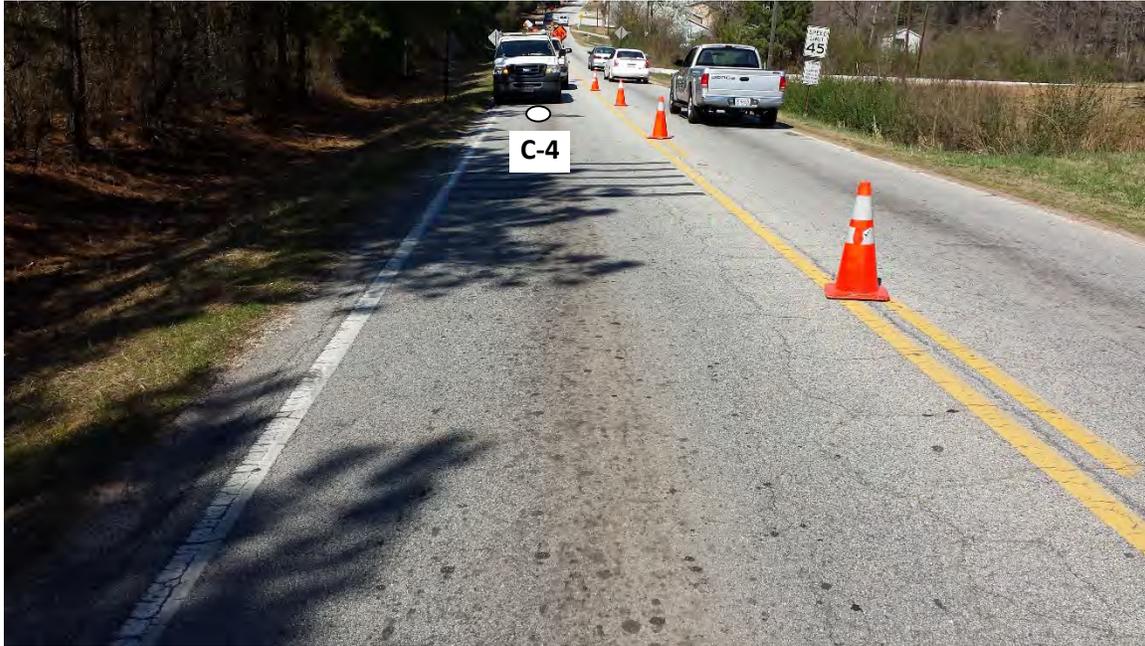
Covington Bypass; Station 112+00±; Looking West



Flat Shoals Road; Station 202+55±; Looking North



Flat Shoals Road; Station 203+55±; Looking South

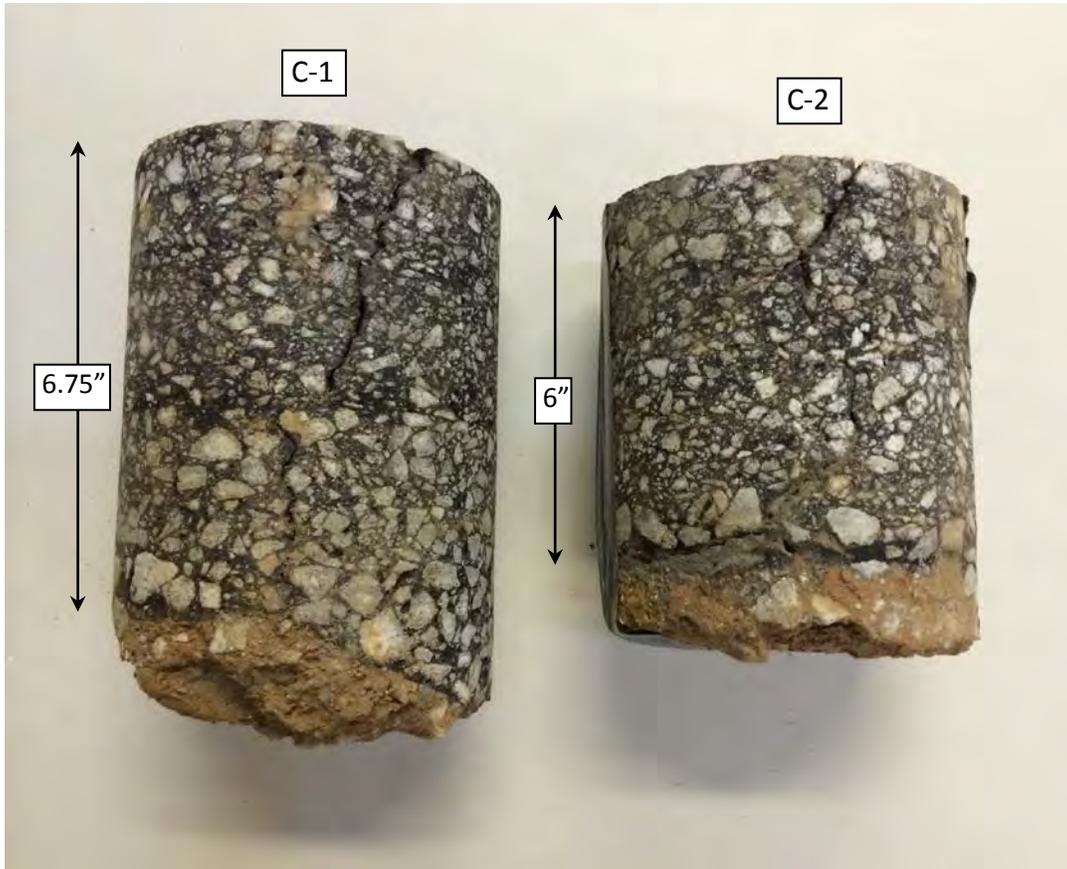


Flat Shoals Road; Station 212+85±; Looking North



Flat Shoals Road; Station 213+85±; Looking South

APPENDIX II



| Core No. | Location | Station | Traffic Direction | Lane/Shoulder |
|----------|------------------|---------|-------------------|---------------|
| C-1 | Covington Bypass | 103+00 | Eastbound | Lane |
| C-2 | Covington Bypass | 111+65 | Westbound | Lane |



| Core No. | Location | Station | Traffic Direction | Lane/Shoulder |
|----------|------------------|---------|-------------------|---------------|
| C-3 | Flat Shoals Road | 202+65 | Northbound | Lane |
| C-4 | Flat Shoals Road | 213+50 | Southbound | Lane |

APPENDIX III

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--------------------------------------|--------------------|-----------------------------|
| PI Number | 0012646 | County(s) | Newton |
| Project Number | | Design Name | Covington Bypass Full-depth |
| Project Description | Flat Shoals Road at Covington Bypass | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|-------|------------------------|--------------------|----------------------------------|----|
| Initial Design Year | 2018 | Initial AADT, VPD | 5,675 | 24 Hour Truck % | 9.00 | Lanes in one direction | 1 |
| Final Design Year | 2038 | Final AADT, VPD | 7,625 | SU Truck % | 3.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 6,650 | MU Truck % | 6.00 | | |

| Design Data | | | | | |
|--------------------------------------|--------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 100.00 | Soil Support Value | 2.50 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.60 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 1.13 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|----------------|---------------------|-------------------|--------------------|-------------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 6,650 | 100.00 | Single Unit Truck | 3.00 | 0.40 | 80 |
| | | Multi Unit Truck | 6.00 | 1.50 | 599 |
| Total Daily ESALs | | | | | 679 |
| Total Design Period ESALs | | | | | 4,956,700 |

| Proposed Flexible Full Depth Pavement Structure | | | | |
|---|-----------------------|---|------------------------|--------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Course 1 | 12.5 mm Superpave | 1.50 | 0.4400 | 0.66 |
| Course 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 3 | 25 mm Superpave | 1.00 | 0.4400 | 0.44 |
| | | 6.00 | 0.3000 | 1.80 |
| Course 4 | Graded Aggregate Base | 10.00 | 0.1600 | 1.60 |
| Required SN | 5.70 | Proposed pavement is 5.53% Underdesigned | | Proposed SN |
| | | | | 5.38 |

| | |
|-----------------------|--|
| Design Remarks | Flat Shoals Road at Covington Bypass, Newton County, GDOT PI 0012646 |
|-----------------------|--|

| | | |
|-----------------------|------------------------------------|-------------------|
| Prepared By | Thomas Scruggs, Principal Engineer | 2/2/2015 10:42 AM |
| | Date | |
| Recommended By | Office Head | Date |
| Approved By | State Pavement Engineer | Date |

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--------------------------------------|--------------------|-----------------------------|
| PI Number | 0012646 | County(s) | Newton |
| Project Number | | Design Name | Flat Shoals Road Full-depth |
| Project Description | Flat Shoals Road at Covington Bypass | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|-------|------------------------|--------------------|----------------------------------|----|
| Initial Design Year | 2018 | Initial AADT, VPD | 3,250 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2038 | Final AADT, VPD | 4,440 | SU Truck % | 4.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 3,845 | MU Truck % | 2.00 | | |

| Design Data | | | | | |
|--------------------------------------|--------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 100.00 | Soil Support Value | 2.50 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.60 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|----------------|---------------------|-------------------|--------------------|-------------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 3,845 | 100.00 | Single Unit Truck | 4.00 | 0.40 | 62 |
| | | Multi Unit Truck | 2.00 | 1.50 | 116 |
| Total Daily ESALs | | | | | 178 |
| Total Design Period ESALs | | | | | 1,299,400 |

| Proposed Flexible Full Depth Pavement Structure | | | | |
|---|-----------------------|---|-------------------------------|-------------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Course 1 | 12.5 mm Superpave | 1.50 | 0.4400 | 0.66 |
| Course 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Course 3 | 25 mm Superpave | 1.00 | 0.4400 | 0.44 |
| | | 3.00 | 0.3000 | 0.90 |
| Course 4 | Graded Aggregate Base | 10.00 | 0.1600 | 1.60 |
| Required SN | 4.71 | Proposed pavement is 4.96% Underdesigned | | Proposed SN |
| | | | | 4.48 |

| | |
|-----------------------|--|
| Design Remarks | Flat Shoals Road at Covington Bypass, Newton County, GDOT PI 0012646 |
|-----------------------|--|

Prepared By _____ 2/2/2015 10:50 AM
Thomas Scruggs, Principal Engineer **Date**

Recommended By _____
Office Head **Date**

Approved By _____
State Pavement Engineer **Date**

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--------------------------------------|--------------------|--------------------------|
| PI Number | 0012646 | County(s) | Newton |
| Project Number | | Design Name | Covington Bypass Overlay |
| Project Description | Flat Shoals Road at Covington Bypass | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|-------|------------------------|--------------------|----------------------------------|------|
| Initial Design Year | 2018 | Initial AADT, VPD | 5,675 | 24 Hour Truck % | 9.00 | Lanes in one direction | 1 |
| Final Design Year | 2038 | Final AADT, VPD | 7,625 | SU Truck % | 3.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 6,650 | MU Truck % | 6.00 | Milling Depth (inches) | 1.50 |

| Design Data | | | | | |
|--------------------------------------|--------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 100.00 | Soil Support Value | 2.50 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.60 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 1.13 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|----------------|---------------------|-------------------|--------------------|-------------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 6,650 | 100.00 | Single Unit Truck | 3.00 | 0.40 | 80 |
| | | Multi Unit Truck | 6.00 | 1.50 | 599 |
| Total Daily ESALs | | | | | 679 |
| Total Design Period ESALs | | | | | 4,956,700 |

| Proposed Flexible Overlay Pavement Structure | | | | |
|--|---------------------|---|-------------------------------|-------------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Overlay 1 | 12.5 mm Superpave | 1.50 | 0.4400 | 0.66 |
| Overlay 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Overlay 3 | 25 mm Superpave | 1.00 | 0.4400 | 0.44 |
| | | 3.00 | 0.3000 | 0.90 |
| Existing 1 | Asphaltic Concrete | 4.75 | 0.3000 | 1.43 |
| Existing 2 | Soil Aggregate Base | 10.50 | 0.1200 | 1.26 |
| Required SN | 5.70 | Proposed pavement is 2.29% Underdesigned | | Proposed SN |
| | | | | 5.57 |

| | |
|-----------------------|--|
| Design Remarks | Flat Shoals Road at Covington Bypass, Newton County, GDOT PI 0012646 |
|-----------------------|--|

Prepared By _____ 2/2/2015 9:39 AM
Thomas Scruggs, Principal Engineer **Date**

Recommended By _____
Office Head **Date**

Approved By _____
State Pavement Engineer **Date**

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--------------------------------------|--------------------|--|
| PI Number | 0012646 | County(s) | Newton |
| Project Number | | Design Name | Flat Shoals Rd overlay N of Intersection |
| Project Description | Flat Shoals Road at Covington Bypass | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|-------|------------------------|--------------------|----------------------------------|------|
| Initial Design Year | 2018 | Initial AADT, VPD | 3,250 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2038 | Final AADT, VPD | 4,440 | SU Truck % | 4.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 3,845 | MU Truck % | 2.00 | Milling Depth (inches) | 1.50 |

| Design Data | | | | | |
|--------------------------------------|--------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 100.00 | Soil Support Value | 2.50 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.60 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|----------------|---------------------|-------------------|--------------------|-------------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 3,845 | 100.00 | Single Unit Truck | 4.00 | 0.40 | 62 |
| | | Multi Unit Truck | 2.00 | 1.50 | 116 |
| Total Daily ESALs | | | | | 178 |
| Total Design Period ESALs | | | | | 1,299,400 |

| Proposed Flexible Overlay Pavement Structure | | | | |
|--|--------------------|---|------------------------|-------------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Overlay 1 | 12.5 mm Superpave | 1.50 | 0.4400 | 0.66 |
| Overlay 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Overlay 3 | 25 mm Superpave | 1.00 | 0.4400 | 0.44 |
| | | 5.00 | 0.3000 | 1.50 |
| Existing 1 | Asphaltic Concrete | 3.50 | 0.3000 | 1.05 |
| Required SN | 4.71 | Proposed pavement is 3.90% Underdesigned | | Proposed SN 4.53 |

| | |
|-----------------------|--|
| Design Remarks | Flat Shoals Road at Covington Bypass, Newton County, GDOT PI 0012646 |
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|-----------------------|------------------------------------|-------------------|
| Prepared By | Thomas Scruggs, Principal Engineer | 2/2/2015 10:54 AM |
| Recommended By | Office Head | Date |
| Approved By | State Pavement Engineer | Date |

Flexible Pavement Design Analysis

| | | | |
|----------------------------|--------------------------------------|--------------------|----------------------------------|
| PI Number | 0012646 | County(s) | Newton |
| Project Number | | Design Name | Flat Shoals Rd S of Intersection |
| Project Description | Flat Shoals Road at Covington Bypass | | |

| Traffic Data (AADTs are one-way) | | | | | Miscellaneous Data | | |
|----------------------------------|------|--------------------------|-------|------------------------|--------------------|----------------------------------|----|
| Initial Design Year | 2018 | Initial AADT, VPD | 3,250 | 24 Hour Truck % | 6.00 | Lanes in one direction | 1 |
| Final Design Year | 2038 | Final AADT, VPD | 4,440 | SU Truck % | 4.00 | Curb & Gutter/Barrier | No |
| | | Mean AADT, VPD | 3,845 | MU Truck % | 2.00 | Milling Depth (inches) | |

| Design Data | | | | | |
|--------------------------------------|--------|---------------------------------|------|-------------------------------|------|
| Lane Distribution Factor (%) | 100.00 | Soil Support Value | 2.50 | Single Unit ESAL | 0.40 |
| Terminal Serviceability Index | 2.50 | Regional Factor | 1.60 | Multiple Unit ESAL | 1.50 |
| | | User Defined 18-KIP ESAL | 0.00 | Calculated 18-KIP ESAL | 0.77 |
| Non-Standard Value Comment | | | | | |

| Design Loading (Calculated 18-KIP ESAL) | | | | | |
|---|----------------|---------------------|-------------------|--------------------|-------------------|
| Mean AADT, VPD | LDF (%) | Vehicle Type | Volume (%) | ESAL Factor | Daily ESAL |
| 3,845 | 100.00 | Single Unit Truck | 4.00 | 0.40 | 62 |
| | | Multi Unit Truck | 2.00 | 1.50 | 116 |
| Total Daily ESALs | | | | | 178 |
| Total Design Period ESALs | | | | | 1,299,400 |

| Proposed Flexible Overlay Pavement Structure | | | | |
|--|--------------------|--|-------------------------------|-------------------------|
| Course | Material | Thickness (inches) | Structural Coefficient | Structural Value |
| Overlay 1 | 12.5 mm Superpave | 1.50 | 0.4400 | 0.66 |
| Overlay 2 | 19 mm Superpave | 2.00 | 0.4400 | 0.88 |
| Overlay 3 | 25 mm Superpave | 1.00 | 0.4400 | 0.44 |
| | | 2.00 | 0.3000 | 0.60 |
| Existing 1 | Asphaltic Concrete | 8.50 | 0.3000 | 2.55 |
| Required SN | 4.71 | Proposed pavement is 8.83% Overdesigned | | Proposed SN 5.13 |

| | |
|-----------------------|--|
| Design Remarks | Flat Shoals Road at Covington Bypass, Newton County, GDOT PI 0012646 |
|-----------------------|--|

Prepared By _____ 2/2/2015 10:57 AM
Thomas Scruggs, Principal Engineer **Date**

Recommended By _____
Office Head **Date**

Approved By _____
State Pavement Engineer **Date**

Concept Team Meeting Minutes
May 8, 2014
C.R. 653/Covington By-Pass at C.R. 181/Flat Shoals Road Intersection
Improvement
P.I. No.: 0012646
9:30 AM Newton County Administration Building

Attendees:

Tom Garrett-Newton County
Chester Clegg-Newton County
George Brewer-GDOT
Lynn Bean-GDOT
Quinton Spann-GDOT
Bessie Reina-GDOT
Ronald Ashley-GDOT
Lily Manari-GDOT
Winton Ward-GDOT
Thomas Johnson-GDOT
Brad Stoothoff-City of Covington
Kenny Watkins-AT&T
Chad Reden-NCWSA
Jamie Nash-SSEMC
Al Bowman-Baker
Bill Ruhsam-Baker
Brad Gowen-Baker

- The meeting began with introductions.
- Brad Gowen went through the concept report information.
- Brad Gowen gave an overview of the Concept Layout.
- George Brewer asked about coordination with the Fire Station. Brad Gowen stated that an early coordination meeting was held with the Fire Station and that preemption of the signal would be provided.
- A short discussion was held about three potentially historic properties. Based on the limited amount of required right of way, the project should be able to get a *de minimis* finding.
- George Brewer asked if the project environmental document was going to be a CE. It was stated that a CE was anticipated for the project.

- Tom Garrett and George Brewer asked about the need for the right turn lane on Flat Shoals to EB Covington By-Pass. Removing the turn lane would reduce impacts to the existing gas station. After the meeting Baker analyzed the intersection with the right turn lane removed and the AM LOS drops to grade C and queues lengthen by about 30 feet. The PM LOS stays at B and the queues lengthen by sixty feet. However, based on GDOT policy and analysis of the traffic flow it is our recommendation that the right turn lane remains as part of the design.
- There was some concern about the impacts to the parking for the fire station. The County will check with the fire station about their parking needs. One solution is to put curb and gutter on the ROW take and retain existing spots. Baker will be better able to assess impacts after cross sections are run.
- Lynn Bean asked who is purchasing ROW. Tom Garrett stated the County would purchase the ROW.
- Advanced ROW acquisition was discussed. The conclusion was that it would have to wait on approval of the Environmental Document.
- Brad Gowen stated this is an MS4 county and drainage designs will have to take that into account.
- It was stated to be sure to include the time needed for utility movement prior to construction commencement, however no time period was specified.
- The current let date is August of 2016.
- It was stated that the ROW cost estimate prepared by GDOT is much higher than the value programmed by GDOT.
- It was stated that there is a sewer force main on the north side. It is approximately 8 or 10 feet inside the existing ROW.
- It was stated there is a gas main through the intersection along north east leg, crosses Covington By-Pass, makes a Y and crosses Flat Shoals.
- It was stated that there are electrical lines on the south side.
- It was stated that AT&T lines are buried and aerial along poles within the project limits.
- It was stated that Snapping Shoals EMC has fiber along poles.

- It was stated that Charter Communications is probably out there and probably on poles based on the costs programmed to relocate.

- Brad Gowen stated that a SUE Survey Quality Level B will be performed.

- Meeting ended at approximately 10:00 am.

AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
NEWTON COUNTY
FOR
TRANSPORTATION FACILITY IMPROVEMENTS

This Framework Agreement is made and entered into this ____ day of _____, 20__, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and **NEWTON COUNTY**, acting by and through its Board of Commissioners, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the DEPARTMENT has provided an estimated cost to the LOCAL GOVERNMENT for its participation in certain activities of the PROJECT; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another “for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide.” Ga. Constitution Article IX, §III, ¶I(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT has applied for and received “Qualification Certification” to administer federal-aid projects. The GDOT Local Administered Project (LAP) Certification Committee has reviewed, confirmed and approved the certification for the LOCAL GOVERNMENT to develop federal project(s) within the scope of its certification using the DEPARTMENT’S Local Administered Project Manual procedures. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities,

hereinafter referred to as "PE", all reimburseable utility relocations, all non-reimburseable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment A, affixed hereto and incorporated herein by reference. In addition, the September 17, 2010 Planning Office memorandum titled "Preliminary Engineering Oversight for Project Managers/Project Delivery Staff", outlines the five (5) conditions when the LOCAL GOVERNMENT will be requested to fund the PE oversight activities at 100%. Attached as Attachment "C" and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction (specified in Attachment A) affixed hereto and incorporated herein by reference, and none of the five (5) conditions apply from the Planning Office memorandum dated September 17, 2010 (specified in Attachment C).

3. The DEPARTMENT shall provide a PE Oversight Estimate to the LOCAL GOVERNMENT, if appropriate, appended as Attachment "D" and incorporated by reference as if fully set out herein. The LOCAL GOVERNMENT will be responsible for

providing payment, which represents 100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

If at any time the PE Oversight funds are depleted within \$5,000 of the remaining PE Oversight balance and project activities and tasks are still outstanding, the LOCAL GOVERNMENT shall, upon request, make additional payment to the DEPARTMENT. The payment shall be determined by prorating the percentage complete and using the same estimate methodology as provided in Attachment "D". If there is an unused balance after completion of all tasks and phases of the project, then pending a final audit, the remainder will be refunded to the sponsor.

4. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to other activities when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or

cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

5. In accordance with Georgia Code 32-2-2, The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits. The LOCAL GOVERNMENT shall also be responsible for the continual maintenance and operation of all lighting systems installed to illuminate any roundabouts constructed as part of this PROJECT. Furthermore, the LOCAL GOVERNMENT shall also be responsible for the maintaining of all landscaping installed as part of any roundabout constructed as part of this PROJECT.

6. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction phases, as applicable.

7. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

8. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations, Public Interest Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation reports and complete Environmental Document for the PROJECT along with all environmental re-

evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental Procedures Manual. In addition, a re-evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the storm water drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydrology Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with

the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation V8i and InRoads software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated annually if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's

implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

9. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance

with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

10. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

11. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

12. The LOCAL GOVERNMENT unless otherwise noted in attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The utility costs shall include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the

DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' existing and proposed facilities are shown on the plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad conflicts that arise during construction.

13. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

14. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is \$10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL

GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment A, shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

16. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

- a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.
- b. Certification that all needed rights of way have been obtained and cleared of obstructions.
- c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.
- d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and

shall follow the requirements stated in Chapters 10, 11, 12 and 13 of the DEPARTMENT's Local Administered Project Manual. The LOCAL GOVERNMENT shall be responsible for providing qualified construction oversight with their personnel or by employing a Consultant firm prequalified in Area Class 8.01 to perform construction oversight. The LOCAL GOVERNMENT shall be responsible for employing a GDOT prequalified consultant in area classes 6.04a and 6.04b for all materials testing on the PROJECT, with the exception of field concrete testing. All materials testing, including field concrete testing shall be performed by GDOT certified technicians who are certified for the specific testing they are performing on the PROJECT. The testing firm(s) and the individual technicians must be submitted for approval prior to Construction.

17. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors, omissions or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays and supplemental agreements caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

20. The DEPARTMENT shall be furnished with a copy of all contracts and agreements between the LOCAL GOVERNMENT and any other agency or contractor associated with construction activities. The DEPARTMENT's Project Manager shall be the primary point of contact unless otherwise specified.

21. The LOCAL GOVERNMENT shall provide the DEPARTMENT with a detailed project schedule that reflects milestones, deliverables with durations for all pertinent activities to develop critical path elements. An electronic project schedule shall be submitted to the Project Manager after execution of this agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

DEPARTMENT OF
TRANSPORTATION

NEWTON COUNTY

BY: _____
Commissioner

BY: _____
Keith Ellis, Chairman

ATTEST:

Signed, sealed and delivered this ____ day of _____, 20__, in the presence of:

Treasurer

Witness

Notary Public

This Agreement approved by Local Government, the ____ day of _____, 20__.

Attest

Name and Title

FEIN: _____

Attachment "A" Funding Sources and Distribution

Project No.: 0012646

Attach "Project Manager" Project Charging Form for Approval

| Preliminary Engineering - Phase I | | | | Preliminary Engineering Grand Total (Phase I) ² | | | |
|-----------------------------------|---------------------|--------------------------------------|-------------|--|---------------|-------------|---------------------|
| Percentage | PE Amount | Maximum PE Participation Amount (\$) | Participant | Percentage | Amount | Participant | Amount |
| 80% | \$146,400.00 | \$146,400.00 | Federal | 80% | \$0.00 | Federal | \$146,400.00 |
| 0% | \$0.00 | \$0.00 | State | 0% | \$0.00 | State | \$0.00 |
| 20% | \$36,600.00 | N/A | Local | 20% | \$0.00 | Local | \$36,600.00 |
| 0% | \$0.00 | \$0.00 | Other | 0% | \$0.00 | Other | \$0.00 |
| 100% | \$183,000.00 | | | 100% | \$0.00 | | \$183,000.00 |

| Right of Way - Phase II | | | | GDOT Oversight for PE (Phase I) ² | | | |
|-------------------------|--------------------|---------------------------------------|-------------|--|--------|-------------|--------|
| Percentage | ROW Amount | Maximum ROW Participation Amount (\$) | Participant | Percentage | Amount | Participant | Amount |
| 80% | \$8,000.00 | \$8,000.00 | Federal | #DIV/0! | \$0.00 | Federal | \$0.00 |
| 0% | \$0.00 | \$0.00 | State | #DIV/0! | \$0.00 | State | \$0.00 |
| 20% | \$2,000.00 | N/A | Local | #DIV/0! | \$0.00 | Local | \$0.00 |
| 0% | \$0.00 | \$0.00 | Other | #DIV/0! | \$0.00 | Other | \$0.00 |
| 100% | \$10,000.00 | | | | | | |

| Construction - Phase III | | | | Utility Phase IV | | | |
|--------------------------|---------------------|---------------------------------------|-------------|---------------------|--------|----------------------|-------------|
| Percentage | CST Amount | Maximum CST Participation Amount (\$) | Participant | Percentage | Amount | Participant | Amount |
| 80% | \$705,600.00 | \$705,600.00 | Federal | 80% / 20% | | | |
| 0% | \$0.00 | \$0.00 | State | Utility Funding By: | | Railroad Funding By: | |
| 20% | \$176,400.00 | N/A | Local | GDOT/Locals | | N/A | |
| 0% | \$0.00 | \$0.00 | Other | | | | |
| 100% | \$882,000.00 | | | | | | 100% |

| Summary of Phases II Through III | | | | GDOT Oversight for CST (Phase III) ² | | | |
|----------------------------------|---------------------|---------------------------------------|-------------|---|--------|-----------------------------------|-------------|
| Percentage | CST Amount | Maximum ROW Participation Amount (\$) | Participant | Percentage | Amount | Participant | Amount |
| 80% | \$713,600.00 | \$713,600.00 | Federal | 100% | | | |
| 0% | \$0.00 | \$0.00 | State | Testing (Phase V) Funding By: | | Inspection (Phase VI) Funding By: | |
| 20% | \$178,400.00 | N/A | Local | Local Government | | Local Government | |
| 0% | \$0.00 | \$0.00 | Other | | | | |
| 100% | \$892,000.00 | | | 100% | | | 100% |

The funding portion identified in Attachment "A" only applies to PE. The Right of Way and Construction funding estimates are provided for planning purposes and do not constitute a funding commitment for right of way and construction.

¹The Maximum allowable GDOT participating amounts for PE phase are shown above. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.

²GDOT Oversight for PE (Phase I) is detailed in Attachment "D".

³The ROW Oversight estimates are furnished to the usual planning and programming engineer along with the signed Project Framework Agreement (PFA).

⁴ Right-of-Way and Construction amounts shown are for budget planning purposes only.

ATTACHMENT "B" Project Timeline

PI # 0012646 – Newton County

Proposed Project Timeline

| | | | | | | | | | |
|--------------------------------------|----------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Environmental Phase | | | | | | | | | |
| Concept Phase | | | | | | | | | |
| Preliminary Plan Phase | | | | | | | | | |
| Right of Way Phase | | | | | | | | | |
| Deadlines for Responsible Parties | Execute Agreement | Month/Year |
| | | 03/2014 | 04/2015 | 12/2015 | 06/2016 | | | | |

Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

| | | |
|----------------|---|--------------------|
| FILE | OFFICE | Planning |
| FROM | DATE | September 17, 2010 |
| TO |  Angela T. Alexander, State Transportation Planning Administrator | |
| SUBJECT | Todd I. Long, PE, PTOE, Director of Planning Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner Preliminary Engineering Oversight for Project Managers/Project Delivery Staff | |

Note: This memo supersedes the previous PE Oversight Memo, dated August 17, 2010. PE Oversight funding for Safe Route to School (SRTS) projects are eligible for PE Oversight funds, paid for with funding from the SRTS program. No other changes were made to the memo.

As you are aware, the Department is unable to continue funding PE oversight with 100% motor fuel funds due to the decline in motor fuel revenues. As a result, the Department needs an established procedure detailing the circumstances under which the Department will fund PE oversight with federal-aid funds (matched with state motor fuel funds) and when the Department will request that the local government/project sponsor fund the Department's expenses associated with PE oversight. The PE Oversight funds will be used to fund staff man-hours and any other associated expenses incurred by any GDOT employee working on the project. Please note that the process detailed below applies equally to routes both on and off the state highway system.

GDOT Funds PE Oversight with Federal-Aid:

The Department will fund PE oversight with federal-aid funds (and matching motor fuel funds), only if a subsequent project phase (ROW, UTL, CST) is programmed within the first 4 active years of the currently approved TIP/STIP. The source of federal-aid funds to be used for the PE oversight activities is as follows:

- 1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses
- 2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:
 - a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)
 - b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)
 - c) Projects in rural areas with a population less than 5,000 will use L250 funds
 - d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

- 3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).
- 4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

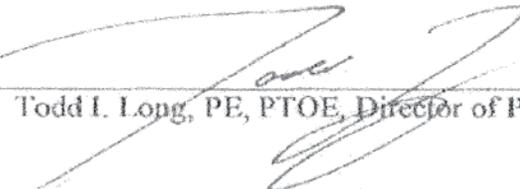
GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:

The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

- 1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP
- 2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses
- 3) The project is funded with CMAQ funds
- 4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses
- 5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

Once the PE oversight process is implemented, it will be the responsibility of the GDOT Project Manager to work with the GDOT Office of Financial Management to establish an appropriate amount of federal-aid funded PE oversight funding, or work with the local government to secure locally sourced PE oversight funds.

If you approve of this process, please sign below. Once an acceptable process is developed and approved by both the Chief Engineer and Director of Planning, we will provide the finalized process to the Office of Program Control for distribution to the GDOT Project Managers and incorporation into future Project Framework Agreements. If you have any questions, please contact Matthew Fowler at 404-631-1777.

Approved:  _____ 9/27/10
 Todd I. Long, PE, PTOE, Director of Planning Date

Approved:  _____ 10/7/20
 Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner Date

ATTACHMENT D

GDOT Oversight Estimate for Consultant Project

PI Number Project Number
 County Project Length Miles
 Project Manager Project Cost
 Project Type
 Project Description
 Expected Life of Project Years

| Project Phase | Oversight Hours | Oversight Cost |
|---------------------------------|-----------------|----------------|
| 1. Procurement | 0 | \$ - |
| 2. Concept Development | 0 | \$ - |
| 3. Database Preparation | 0 | \$ - |
| 4. Preliminary Design | 0 | \$ - |
| 5. Environmental | 0 | \$ - |
| 6. Final Design | 0 | \$ - |
| Travel Expenses | | \$ - |
| Total Oversight Estimate | 0 | \$ - |
| Percentage of Project Cost | 0.00 % | |

GDOT Oversight Estimate for Consultant and Locally Administered Projects - Version 2.0 - July 2011

Revised : 12/2011

ATTACHMENT E

APPENDIX E--GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

Name of Contracting Entity: Newton County

Contract No. and Name: PI 0012646

CR 653/Covington Bypass at CR 181/Flat Shoals Road

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or entity which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.G.A. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation within five (5) business days after any subcontractor is retained to perform such service.

E-Verify / Company Identification Number

Signature of Authorized Officer or Agent

Date of Authorization

Printed Name of Authorized Officer or Agent

Title of Authorized Officer or Agent

Date

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE

____ DAY OF _____, 201__

Notary Public

[NOTARY SEAL]

My Commission Expires: _____

ATTACHMENT F

TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

“No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected To discrimination under any program or activity receiving federal assistance under This title or carried out under this title.”

Additionally, the Civil Rights Restoration Act of 1987, expanded the definition of the terms “programs and activities” to include all programs or activities of federal recipients, subrecipients, and contractors, whether or not such programs and activities are federally assisted.

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964. In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.

Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

TITLE VI ACKNOWLEDGEMENT FORM

The _____ assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The _____ assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

Official Name and Title

Date

Revised : 12/2011

Citations:

Title VI of the Civil Rights Act of 1964; 42 USC 2000d to 2000d-4; 42 USC 4601 to 4655; 23 USC 109(h); 23 USC 324; DOT Order 1050.2; EO 12250; EO 12898; 28CFR 50.3

Other Nondiscrimination Authorities Expanded the range and scope of Title VI coverage and applicability

The 1970 Uniform Act (42 USC 4601)

Section 504 of the 1973 Rehabilitation Act (29 USC 790)

The 1973 Federal-aid Highway Act (23 USC 324)

The 1975 Age Discrimination Act (42 USC 6101)

Implementing Regulations (49 CFR 21 & 23 CFR 200)

Executive Order 12898 on Environmental Justice (EJ)

Executive Order 13166 on Limited English Proficiency (LEP)