DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
TIA PROJECT CONCEPT REPORT

TIA

Project Type:	TIA-Roadway Widening	P.I. Number:	0011439
GDOT District:	District 3	County:	Sumter
Federal Route Number:	N/A	MPO ID Number:	N/A
State Route Number:	N/A		

Improvements of District Line Road from U.S. 280 to SR 49

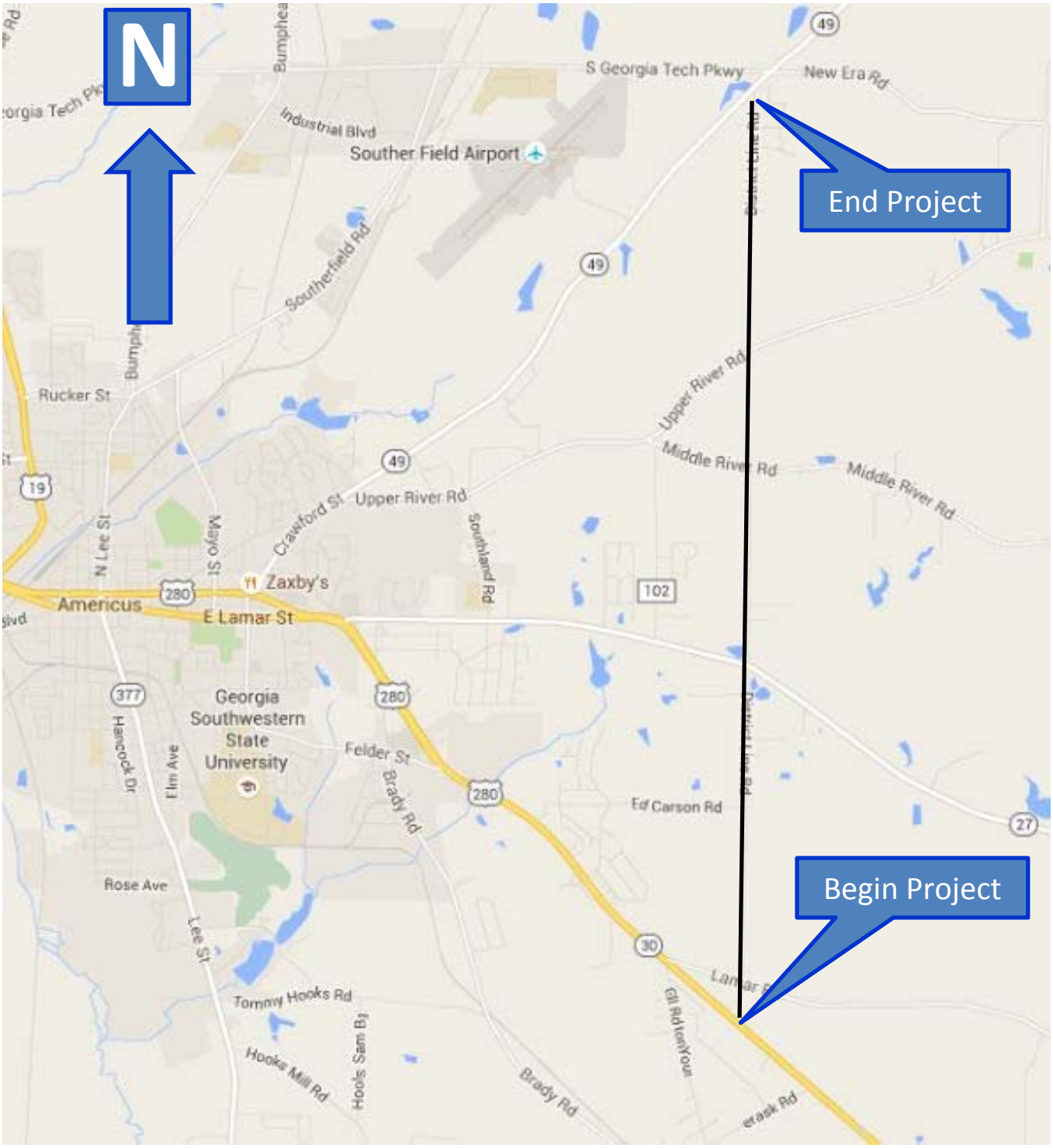
Submitted for approval:

Ben Chan	Michael Baker International	6/22/2016
Consultant & Firm		DATE
[illegible]		7/1/16
TIA Project Manager		DATE
[illegible]		7/1/16
GDOT TIA Regional Coordinator		DATE
[illegible]		6/29/16
TIA Program Manager		DATE
[illegible]		07/05/2016
GDOT State TIA Administrator		DATE

Approval:

Concur:	Hial Estal	7/6/2016
	GDOT Director of Engineering	DATE
Approve:	Margaret B. Pitts	7.7.16
	GDOT Chief Engineer	DATE

PROJECT LOCATION MAP



PLANNING AND BACKGROUND

Project Justification Statement:
The project consists of proposed corridor improvements along District Line Road from Lamar Road to just south of SR 49 in Americus, Georgia. The project also includes an extension of District Line Road from Lamar Road south to US 280/SR 30. Within the project limits, District Line Road is a north-south connector between major thoroughfares of US 280 and SR 49 and classified as a rural minor collector roadway. The existing roadway provides a narrow two-lane roadway section with graded rural shoulders of minimal width. Commercial growth to the north has resulted in an increase in vehicular and truck traffic. Currently, turn lanes do not exist at any intersections along the corridor. In the future, District Line Road is proposed to be part of a City of Americus truck bypass per the Sumter County Long Range Transportation Plan developed in 2010. The purpose of the project is to improve the operations of District Line Road, potentially reduce the frequency and severity of crashes, and reduce heavy truck traffic in historic downtown Americus.

Existing conditions: The existing roadway is two 11'-12' lanes with graded shoulders. No sidewalks are present along the project corridor. Major intersections include Lamar Road, SR 27, Middle River Road and Upper River Road.

Other projects in the area:
PI 0013580 Widening of SR 30/US 280 fm Lamar Rd to Felder Rd – Long Range
PI 0011438 Improvements to South Georgia Tech Pkwy – Under Construction

MPO: N/A - Project not in MPO

TIP #:

TIA Regional Commission: River Valley RC **RC Project ID:** RC08-000091

Congressional District(s): 2

Federal Oversight: ☐ PoDI ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: AADT 24 HR T: 17 %
Current Year (2016): 1,350 Open Year (2020): 1,350 Design Year (2040): 1,675

Functional Classification (Mainline): Rural Minor Collector

Complete Streets - Bicycle, Pedestrian, and/or Transit Standard Warrants:
Warrants met: ☐ None ☒ Bicycle ☐ Pedestrian ☐ Transit
District Line Road is signed as a Bike Route from Lamar Rd to Middle River Rd

Is this a 3R (Resurfacing, Restoration, & Rehabilitation) Project? ☒ No ☐ Yes

Pavement Evaluation and Recommendations
Initial Pavement Evaluation Summary Report Required? ☐ No ☒ Yes
Initial Pavement Type Selection Report Required? ☒ No ☐ Yes
Feasible Pavement Alternatives: ☒ HMA ☐ PCC ☐ HMA & PCC

DESIGN AND STRUCTURAL

Description of the proposed project:
The project consists of improvements to District Line Road from US 280/SR 30 to just south of SR 49, approximately 2.8 miles east of downtown Americus in Sumter County. The corridor has a design speed of 55 mph and the total project length is approximately 5.4 miles. Beginning at the south end of the project, District Line Road will be extended approximately 0.2 miles southward from Lamar Road to US 280/SR 30. From Lamar Road north the roadway will be improved with wider paved and graded shoulders and ditches. Intersection improvements will be made at SR 27, Middle River Road and Upper River Road. The northern end will tie to a roundabout that is currently under construction under PI 0011438 at SR 49.

Major Structures:
None

Mainline Design Features: District Line Road – Rural Minor Collector
Lamar Road, Middle River Road, Upper River Road – Rural Major Collector

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**2**	**2**	**2**
- **Lane Width(s)**	**10-12 ft**	**11-12 ft**	**11 ft**
- **Median Width & Type**	**None**	**None**	**None**
- **Outside Shoulder Width**	**Varies**	**10 ft, 4 ft paved**	**10 ft, 2 ft paved**
- **Outside Shoulder Slope**	**Varies**	**6%**	**6%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**N/A**	**N/A**
- **Auxiliary Lanes**	**None**	**Left & Right Turn Lanes**	**Left & Right Turn Lanes**
- **Bike Lanes**	**None**	**None**	**None**
Posted Speed	**55**		**55**
Design Speed	**55**	**55**	**55**
Min Horizontal Curve Radius	**3650**	**960**	**1100**
Maximum Superelevation Rate		**8%**	**7.8%**
Maximum Grade	**4%**	**5%**	**4%**
Access Control	**None**	**None**	**None**
Design Vehicle		**SU**	**WB-67**
Pavement Type	**Asphalt**		**Asphalt**

*According to current GDOT design policy if applicable

US 280/SR 30 – Rural Minor Arterial
SR 27 – Rural Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- **Number of Lanes**	**2**	**2**	**2**
- **Lane Width(s)**	**12 ft**	**11-12 ft**	**12 ft**
- **Median Width & Type**	**None**	**None**	**None**
- **Outside Shoulder Width**	**4 ft, 2 ft paved**	**10 ft, 4 ft paved**	**10 ft, 4 ft paved**
- **Outside Shoulder Slope**	**6%**	**6%**	**6%**
- **Inside Shoulder Width**	**N/A**	**N/A**	**N/A**
- **Sidewalks**	**N/A**	**N/A**	**N/A**
- **Auxiliary Lanes**	**None**	**Left & Right Turn Lanes**	**Left & Right Turn Lanes**
- **Bike Lanes**	**None**	**None**	**None**
Posted Speed	**55**		**55**
Design Speed	**55**	**55**	**55**

Min Horizontal Curve Radius	**1900**	**960**	**1900**
Maximum Superelevation Rate	**6%**	**8%**	**6%**
Maximum Grade	**3%**	**5%**	**3%**
Access Control	**None**	**None**	**None**
Design Vehicle		**SU**	**WB-67**
Pavement Type	**Asphalt**		**Asphalt**

*According to current GDOT design policy if applicable

Major Interchanges/Intersections:
District Line Road at SR 27
District Line Road at US 280/SR 30

Lighting required: ☐ No ☒ Yes

Off-site Detours Anticipated: ☐ No ☐ Yes ☒ Undetermined

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	Undeter-mined	Yes	Appvl Date (if applicable)
1. Design Speed	☒	☐	☐	
2. Lane Width	☒	☐	☐	
3. Shoulder Width	☒	☐	☐	
4. Bridge Width	☒	☐	☐	
5. Horizontal Alignment	☒	☐	☐	
6. Superelevation	☒	☐	☐	
7. Vertical Alignment	☒	☐	☐	
8. Grade	☒	☐	☐	
9. Stopping Sight Distance	☒	☐	☐	
10. Cross Slope	☒	☐	☐	
11. Vertical Clearance	☒	☐	☐	
12. Lateral Offset to Obstruction	☒	☐	☐	
13. Bridge Structural Capacity	☒	☐	☐	

Design Variances to GDOT Standard Criteria anticipated:

GDOT Standard Criteria	Reviewi ng Office	No	Undeter-mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	☒	☐	☐	
2. Intersection Sight Distance	DP&S	☒	☐	☐	
3. Intersection Skew Angle	DP&S	☒	☐	☐	
4. Lateral Offset to Obstruction	DP&S	☒	☐	☐	
5. Rumble Strips	DP&S	☒	☐	☐	
6. Safety Edge	DP&S	☒	☐	☐	
7. Median Usage	DP&S	☒	☐	☐	
8. Roundabout Illumination Levels	DP&S	☒	☐	☐	
9. Complete Streets	DP&S	☒	☐	☐	

10. ADA & PROWAG	DP&S	☒	☐	☐	
11. GDOT Construction Standards	DP&S	☒	☐	☐	
12. GDOT Drainage Manual	DP&S	☒	☐	☐	
13. GDOT Bridge & Structural Manual	Bridges	☒	☐	☐	

VE Study anticipated: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Temporary State Route needed: ☒ No ☐ Yes ☐ Undetermined

Railroad Involvement: None

Utility Involvements:
AT&T - Telephone
Citizens Telephone Company - Telephone
Georgia Power - Electric
Southern Natural Gas - Gas
Sumter EMC - Electric
Mediacom – Cable

SUE Required: ☒ No ☐ Yes ☐ Undetermined

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way (ROW): Existing width: 60-90 ft. Proposed width: Min 90 ft.
Required Right-of-Way anticipated: ☐ None ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☒ Permanent ☐ Utility ☐ Other

Anticipated total number of impacted parcels: 63
Displacements anticipated: Businesses: 0
Residences: 0
Other: 0
Total Displacements: 0

Location and Design approval: ☐ Not Required ☒ Required

Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

ROUNDABOUTS

A roundabout is included at District Line Road and SR 27.

Roundabout Lighting Agreement/Commitment Letter received: ☒ No ☐ Yes

Roundabout Planning Level Assessment:
The Planning Level Assessment for the proposed alternative is attached. Conditions at the intersection include several factors that are favorable for a roundabout.

Roundabout Feasibility Study: A Roundabout Feasibility Study will be completed during Preliminary Plans.

Roundabout Peer Review Required: ☐ No ☒ Yes ☐ Completed – Date:
The proposed roundabout is at an intersection with a State Route, so a Peer Review is required.

CONTEXT SENSITIVE SOLUTIONS

Context Sensitive Solutions Proposed: No issues identified

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/Variances/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard Permit	☒	☐	
2. Forest Service/Corps Land	☒	☐	
3. CWA Section 404 Permit	☐	☒	IP not anticipated; RP or NWP expected
4. 33 USC 408 Decision	☒	☐	
5. Tennessee Valley Authority Permit	☒	☐	
6. Buffer Variance	☐	☒	
7. Coastal Zone Management Coordination	☒	☐	
8. NPDES	☐	☒	
9. FEMA	☒	☐	
10. Cemetery Permit	☒	☐	
11. Other Permits	☒	☐	
12. Other Commitments	☒	☐	
13. Other Coordination	☒	☐	

Is a PAR required? ☒ No ☐ Yes ☐ Completed – Date:

Environmental Comments and Information:

NEPA/GEPA: A GEPA process document is anticipated for this project

Ecology:

An ecological resources survey has been conducted for the project. All wetland and stream resources have been identified and delineated. Habitat types along the project corridor also have been identified and mapped. A habitat suitability assessment for federally protected species known to occur in Sumter County has been conducted, and it has been determined that there is no potentially suitable habitat for fat three-ridge mussel (*Amblema neislerii*), Hirst's panic grass (*Dicanthelium hirstii*), purple bankclimber (*Elliptoideus sloatianus*), gopher tortoise (*Gopherus polyphemus*), shinyrayed pocketbook (*Hamiota subangulata*), gulf moccasinshell (*Medionidus penicillatus*), Canby's dropwort (*Oxypolis canbyi*), oval pigtoe (*Pleurobema pyriforme*), or relict trillium (*Trillium reliquum*) located within the project survey area. Therefore, it is anticipated that project implementation would have no effect on federally protected species.

A habitat suitability assessment for state-protected species known to occur in Sumter County has been conducted, and it has been determined that there is no potentially suitable habitat for southern elktoe (*Alasmidonta triangulata*), spotted bullhead (*Ameiurus serracanthus*), Apalachicola floater (*Anodonta heardi*), rayed creekshell (*Anodontoides radiatus*), delicate spike (*Elliptio arctata*), inflated spike (*Elliptio purpurella*), Barbour's map turtle (*Graptemys barbouri*), alligator snapping turtle (*Macrochelys temminckii*), Muckalee crayfish (*Procambarus gibbus*),

Harper's fimbry (*Fimbristylis perpusilla*), bog St. John's-wort (*Hypericum adpressum*), whitetop pitcherplant (*Sarracenia leucophylla*), parrot pitcherplant (*Sarracenia psittacina*), sweet pitcherplant (*Sarracenia rubra*), or swamp buckthorn (*Sideroxylon thornei*) located within the project study area. Therefore, it is anticipated that project implementation would have no effect on these state-protected species. Potentially suitable habitat for the spotted turtle (*Clemmys guttata*) was observed within the project study area; therefore, a species-specific survey for this reptile may be required if it is determined that the Georgia Department of Natural Resources – Wildlife Resources Division has a record of occurrence of this species within a 3-mile radius of the project study area.

During the ecology resources survey, numerous jurisdictional waters of the U.S. were identified within the project study area. It is anticipated that project implementation would require a Clean Water Act Section 404 Permit issued by the U.S. Army Corps of Engineers (USACE). At the Concept phase, it is not anticipated that an Individual Permit would be required for this project. In addition, it is anticipated that project implementation would result in non-exempt impacts to the 25-foot vegetative buffer of buffered State waters located along the project corridor. As a result, a State Buffer Variance issued by the Georgia Department of Natural Resources – Environmental Protection Division would be required.

History:
Several historic resources have been recommended eligible for the National Register of Historic Places, including the Osborne Farm, Daniel Farm, Hewett Cemetery and Duke Farm. An Assessment of Effects (AOE) will be required for the impacted resources as part of Section 106 permitting to determine if any are adversely impacted. Any adverse impacts will need to be justified and avoidance alternatives explained.

Archaeology: 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 Area of Potential Effect (APE), then an AOE document will be completed.

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
Carbon Monoxide hotspot analysis:	☐ Required	☐ Not Required	☒ TBD

The proposed project is located in an area that is in attainment for both ozone and PM 2.5. An assessment will be required for the project to address the potential for the proposed project to result in air quality impacts associated with carbon monoxide and Mobile Source Air Toxics (MSATs).

Noise Effects: A noise impact analysis is not required under GEPA.

Public Involvement: The public was involved in the selection of this TIA project. Additional public involvement is not required under GEPA; however, GDOT may determine that it is necessary, based on the extent of project impacts. A stakeholder meeting was held on March 16, 2016.

Major stakeholders: Sumter County, the Traveling Public

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:
No known issues

Early Completion Incentives recommended for consideration: ☒ No ☐ Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: N/A

Concept Meeting: The Concept Team Meeting was held on June 8, 2016. See attached minutes.

Other coordination to date: None

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Michael Baker International
Design	Michael Baker International
Right-of-Way Acquisition	TIA Program Manager
Utility Coordination (Preconstruction)	Michael Baker International
Utility Relocation (Construction)	TIA Program Manager
Letting to Contract	TIA Program Manager
Construction Supervision	TIA Program Manager
Providing Material Pits	Contractor
Providing Detours	Contractor
Environmental Studies, Documents, & Permits	Michael Baker International & Edwards Pitman Environmental
Environmental Mitigation	TIA Program Manager
Construction Inspection & Materials Testing	TIA Program Manager

Project Cost Estimate Summary and Funding Responsibilities:

	Breakdown of PE	Breakdown of RW	Breakdown of Reimbursable Utilities	Breakdown of CST **	Total Cost
TIA Programmed Budget					$10,000,000
Funded By	TIA	TIA	TIA	TIA	
Date of Estimate		5/12/2016	2/25/2016	5/16/2016	
Estimated Amount	$750,000	$1,176,899	$475,000	$6,879,830	
Budget Contingency *	$55,000	$247,500	-	$247,500	
Total Estimated Cost	$805,000	$1,424,399	$475,000	$7,127,330	$9,831,729

Note:

* Budget Contingency includes project contingency, program contingency, and program level of effort costs.

** Construction Phase includes Construction, 5.85% CEI, and Environmental Mitigation (as Applicable)

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: This alternative extends District Line Road to the south to intersect with US 280/SR 30 and includes widening District Line Road to two 12-foot lanes with four-foot paved shoulders. The intersections with SR 27, Middle River Road and Upper River Road are improved to include turn lanes. District Line Road is realigned at the intersections with SR 27 and Upper River Road to eliminate the existing skew angles.

Estimated Property Impacts:	**63 parcels**	**Estimated Total Cost:**	**$9,831,729**
Estimated ROW Cost:	**$1.18 million**	**Estimated CST Time:**	**18 months**
Rationale: This alternative meets the project goals of making improvements to District Line Road that will better facilitate future traffic levels, including more truck traffic through wider graded and paved shoulders and improvements at the major intersections including a roundabout at SR 27. The sub-standard skew angles at two intersections are also fixed to create better visibility.			

No-Build Alternative			
Estimated Property Impacts:	**None**	**Estimated Total Cost:**	**$0**
Estimated ROW Cost:	**$0**	**Estimated CST Time:**	**None**
Rationale: This alternative was not selected because it does not meet the needs of the project to improve District Line Road.			

Other Alternatives Considered:

In order to balance the project budget multiple alternatives were considered that varied shoulder widths, intersection types, turn bays and realignments. A summary of the costs of those items relative to the proposed alternative is shown below

Current Concept – Construction Cost	$6,273,765
12' lanes (current 11')	$400,000
4' paved shoulder (current 2') **	$500,000
6.5' paved shoulder (current 2')	$675,000
No roundabout at SR 27	-$100,000
Realign at SR 27 instead of roundabout	-$85,000
Realignment at Upper River Road	$25,000
No extension to US 280	-$1,050,000
Include Turn Lanes for Stop Conditions on Major Sideroads	$200,000
3' deep ditches (R/W Cost)	$520,000
Standard Length Turn Bays	$125,000

****** To be included as bid alternate

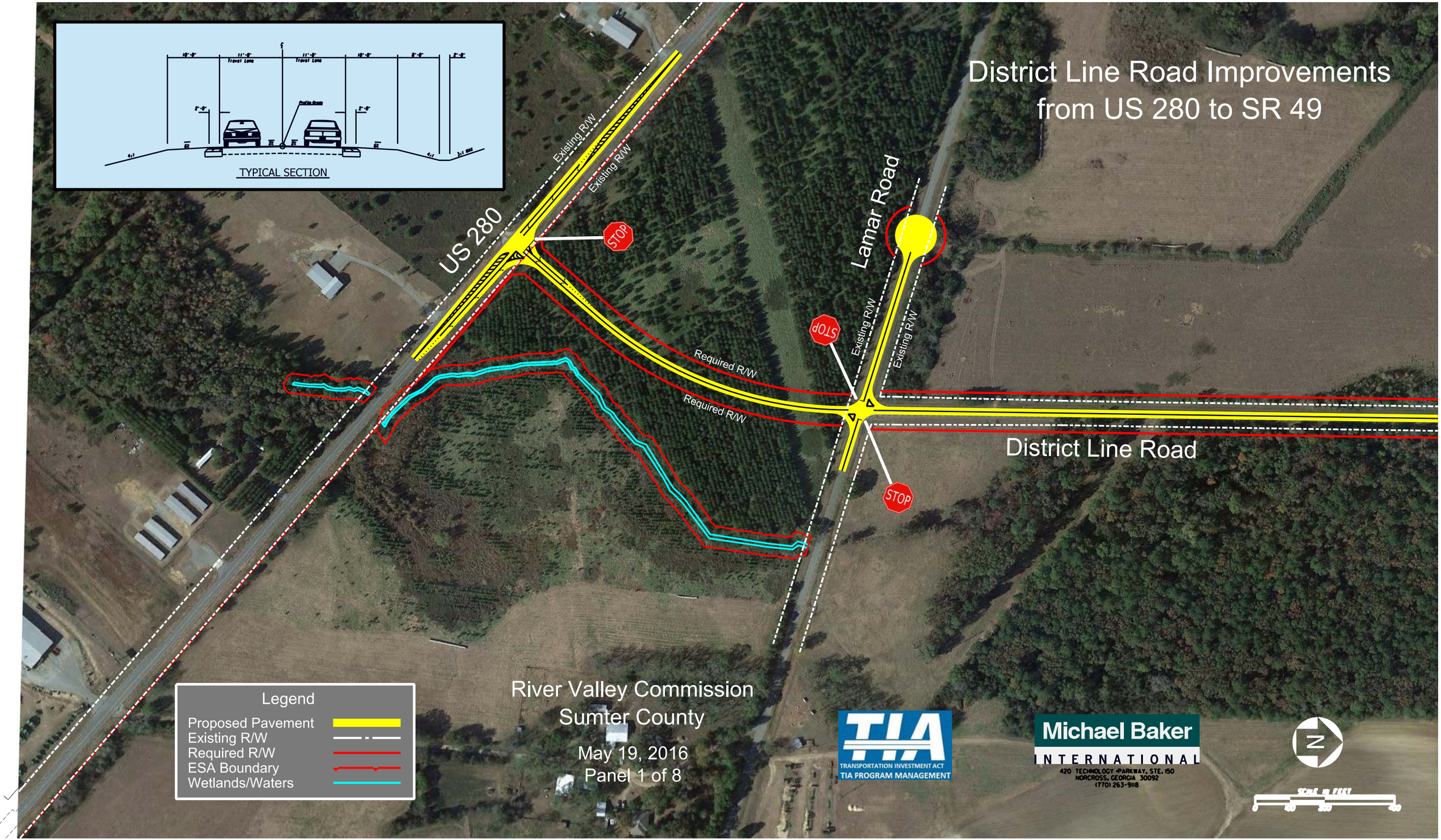
Comments:

None

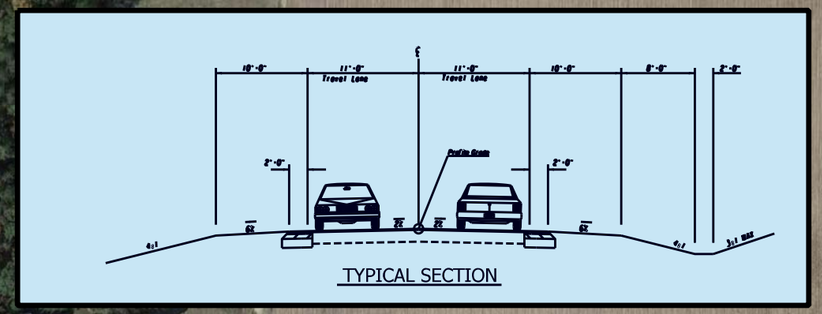
LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
    a. Construction including Engineering and Inspection and Contingencies
    b. Right-of-Way
    c. Utility Cost Estimate
    d. Environmental Mitigation
4. Roundabout Planning level assessment
5. Pavement studies
6. Minutes of Concept meeting
7. Minutes of any meetings that shows support or objection to the concept
8. TIA Project Sheet

District Line Road Improvements from US 280 to SR 49



District Line Road Improvements from US 280 to SR 49



Ed Carson Dr

Required R/W

Required R/W

District Line Road

Legend

- Proposed Pavement
- Existing R/W
- Required R/W
- ESA Boundary
- Wetlands/Waters

River Valley Commission
Sumter County

May 19, 2016
Panel 2 of 8

TIA
TRANSPORTATION INVESTMENT ACT
TIA PROGRAM MANAGEMENT

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SCALE IN FEET
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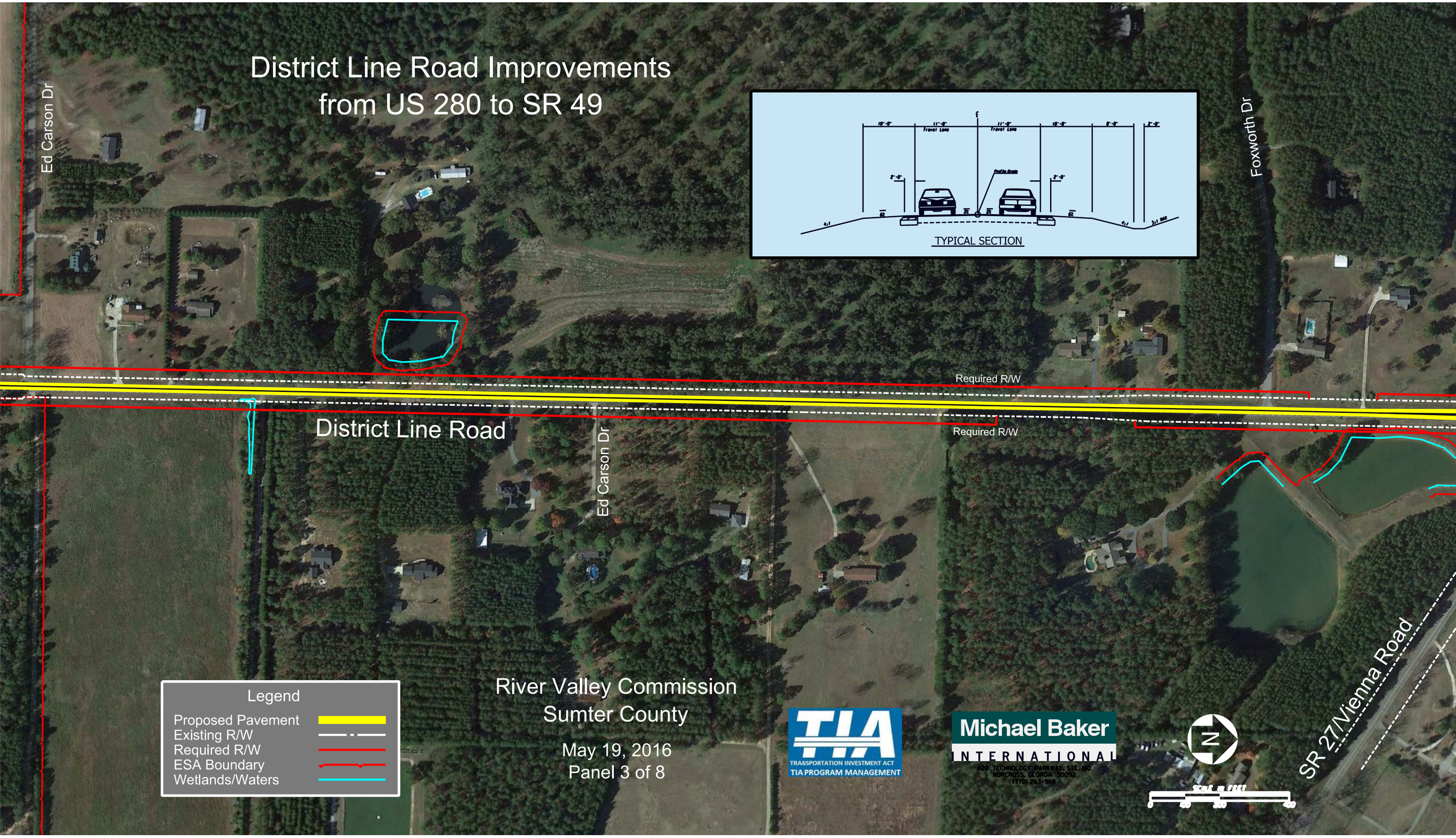
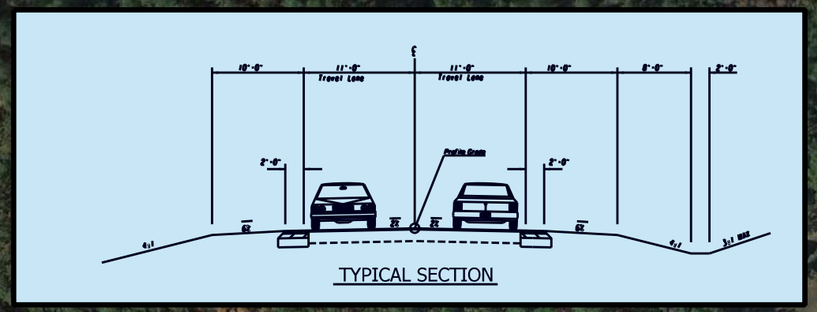
District Line Road Improvements from US 280 to SR 49



District Line Road Improvements from US 280 to SR 49

SR 27/Vienna Road



Required R/W

Required R/W

District Line Road

Page Dr

Pearl Dr

Google earth

Legend

- Proposed Pavement
- Existing R/W
- Required R/W
- ESA Boundary
- Wetlands/Waters

River Valley Commission
Sumter County

May 19, 2016
Panel 4 of 8

TIA
TRANSPORTATION INVESTMENT ACT
TIA PROGRAM MANAGEMENT

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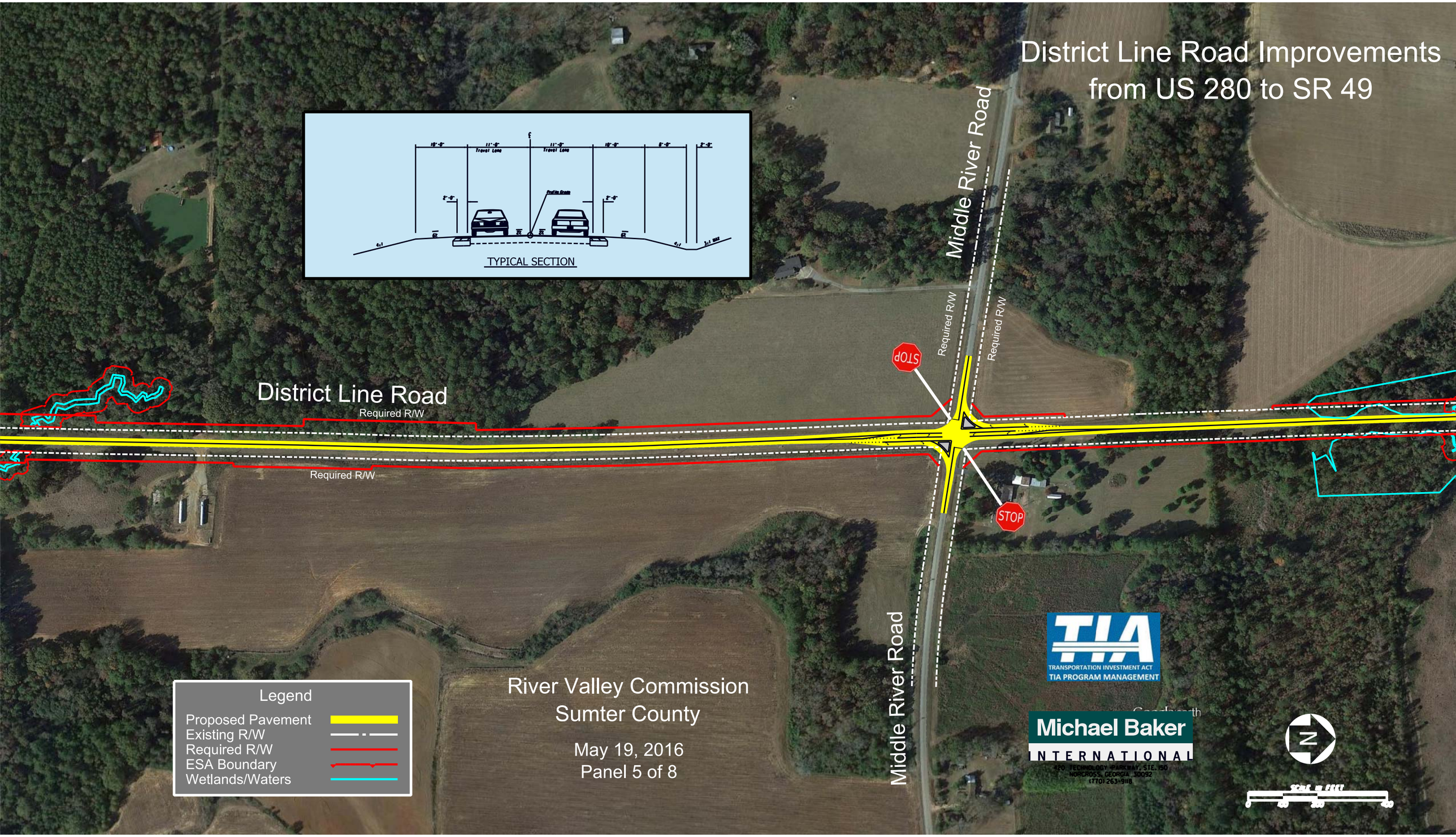
SCALE IN FEET

District Line Road Improvements from US 280 to SR 49



River Valley Commission
Sumter County

May 19, 2016
Panel 5 of 8

District Line Road Improvements from US 280 to SR 49

Upper River Road

Required R/W

Required R/W

Required R/W

Required R/W

STOP

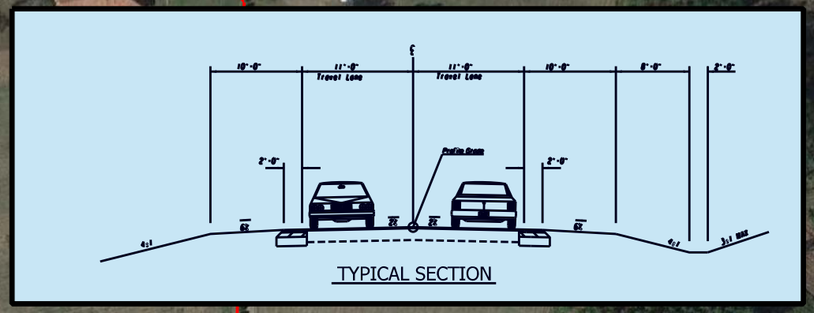
STOP

District Line Road

Existing R/W

Existing R/W

Upper River Road



Legend

- Proposed Pavement
- Existing R/W
- Required R/W
- ESA Boundary
- Wetlands/Waters

River Valley Commission
Sumter County

May 19, 2016
Panel 6 of 8

TIA
TRANSPORTATION INVESTMENT ACT
TIA PROGRAM MANAGEMENT

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SCALE IN FEET
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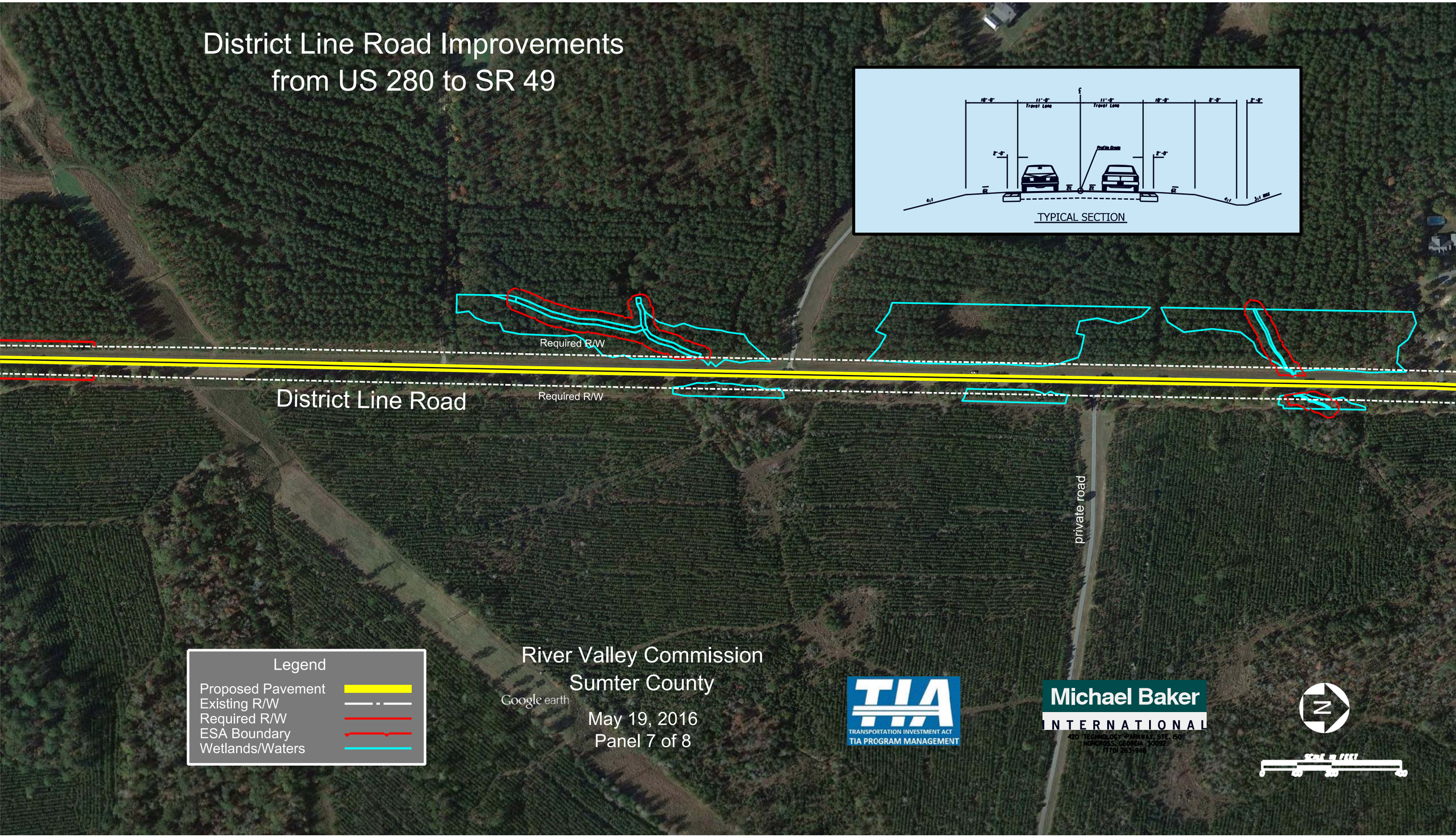
District Line Road Improvements from US 280 to SR 49



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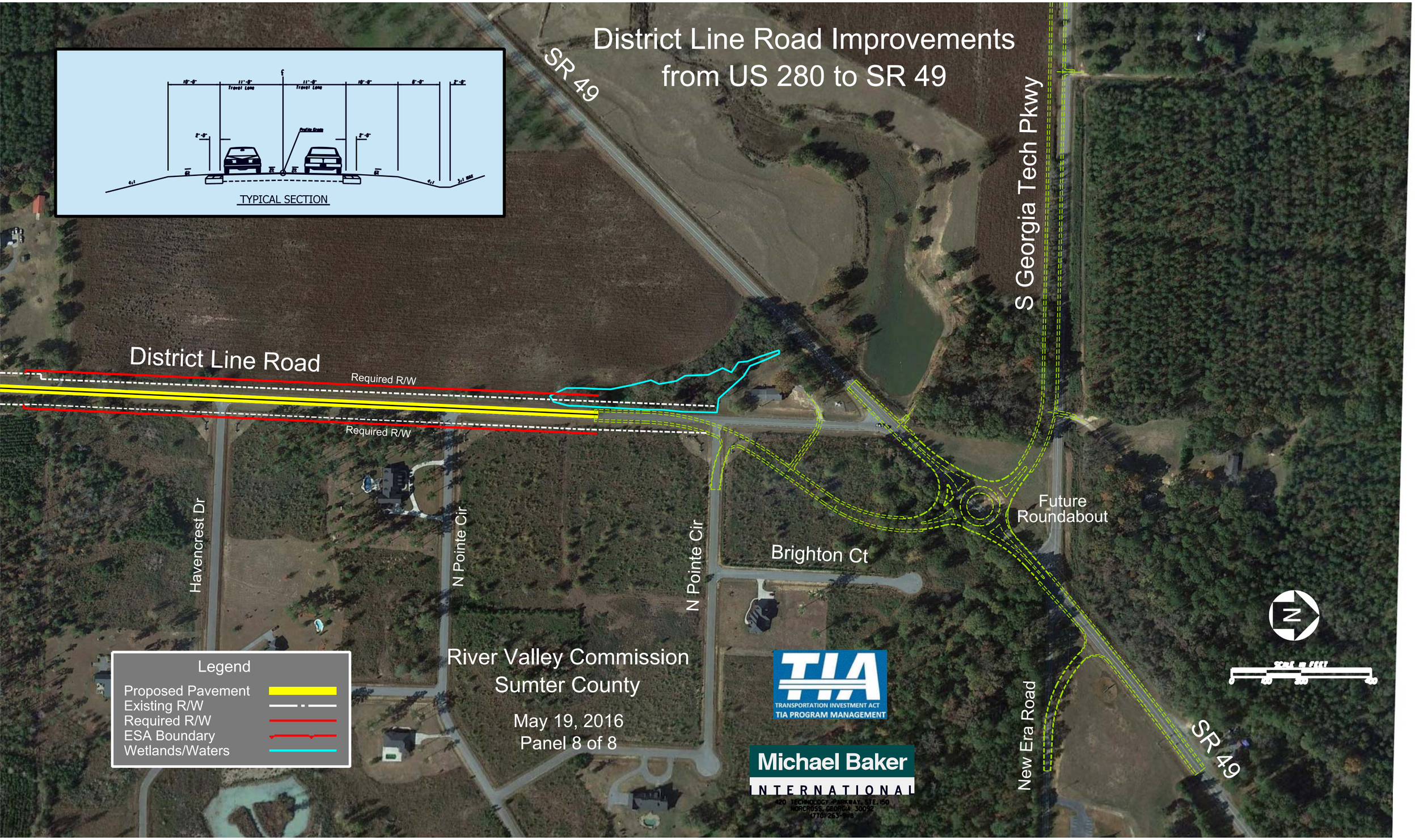
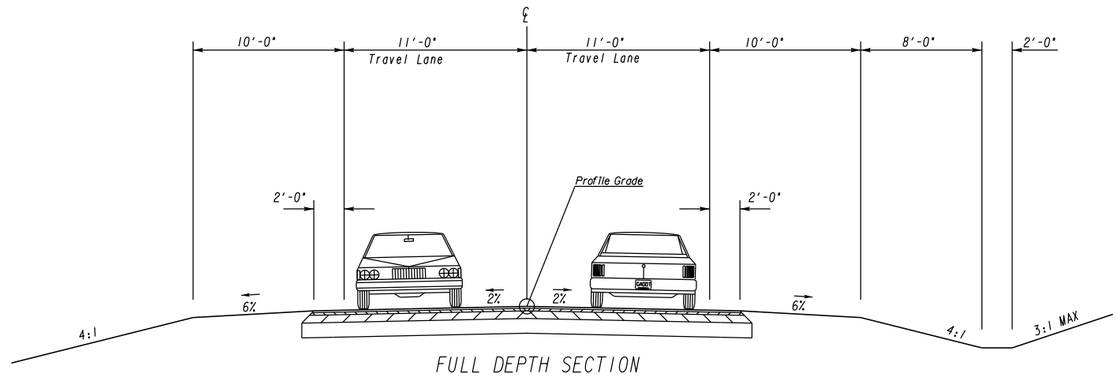
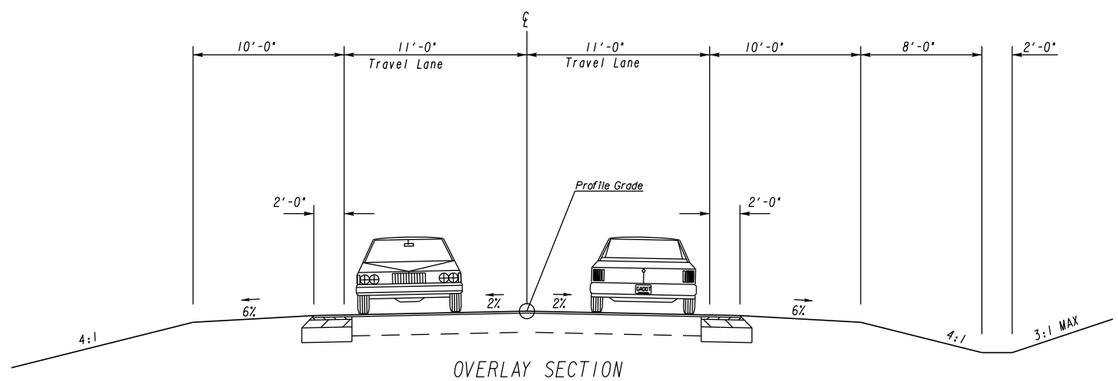




FULL DEPTH SECTION
REDUCED DITCH DEPTH



OVERLAY SECTION
REDUCED DITCH DEPTH

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ROADWAY DESIGN

REVISION DATES

TYPICAL SECTIONS
DISTRICT LINE ROAD

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
05-001

10/23/2015 GPLN

JOB ESTIMATE REPORT

JOB NUMBER : 0011439 SPEC YEAR: 13
DESCRIPTION: DISTRICT LINE ROAD

ITEMS FOR JOB 0011439

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0011439	1.000	360000.00	360000.00
0010	153-1100		EA	FIELD ENGINEERS OFFICE TP 1	1.000	83000.00	83000.00
0015	210-0100		LS	GRADING COMPLETE - 0011439	1.000	950000.00	950000.00
0018	301-5000		TN	PORTLAND CEMENT	1795.000	135.00	242325.00
0019	306-0100		SY	FULL-DEPT RECLAIMED BASE CRS	70407.000	1.50	105610.50
0024	310-1101		TN	GR AGGR BASE CRS, INCL MATL	8694.000	29.91	260037.54
0025	318-3000		TN	AGGR SURF CRS	500.000	26.66	13333.93
0030	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	200.000	129.38	25876.63
0035	402-1812		TN	RECYL AC LEVELING,INC BM&HL	1760.000	76.73	135062.07
0039	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	8947.000	73.69	659304.43
0044	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	13597.000	64.07	871159.79
0049	402-3111		TN	RECYL AC 19MM MIX,GP1OR2,BM&HL	10877.000	76.46	831655.42
0055	413-0750		GL	TACK COAT	6642.000	2.54	16870.68
0059	439-0022		SY	PLN PC CONC PVMT CL3 10 THK	630.000	110.98	69920.13
0060	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	500.000	48.16	24082.13
0061	441-0748		SY	CONC MEDIAN, 6 IN	678.000	42.40	28751.55
0062	441-5008		LF	CONC HEADER CURB, 6 IN, TP 7	239.000	16.12	3853.47
0063	441-5025		LF	CONC HEADER CURB, 4, TP 9	359.000	17.00	6103.00
0064	441-6222		LF	CONC CURB & GUTTER/ 8X30TP2	1814.000	23.35	42362.87
0065	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	7128.000	3.72	26555.36
0074	456-2015		GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	11.000	795.59	8751.56
0075	634-1200		EA	RIGHT OF WAY MARKERS	100.000	112.08	11208.10
0080	641-1200		LF	GUARDRAIL, TP W	1250.000	19.63	24546.86
0085	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	3.000	2205.22	6615.67
0090	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	15000.000	1.66	24906.00
0095	632-0003		EA	CHANGEABLE MESS SIGN,PORT,TP 3	4.000	8580.87	34323.49
0100	620-0100		LF	TEMP BARRIER, METHOD NO. 1	1000.000	27.08	27080.27
0105	207-0204		TN	FOUND BKFILL MATL, TP II	100.000	57.28	5728.00
0110	500-3101		CY	CLASS A CONCRETE	110.000	886.96	97565.64
0115	511-1000		LB	BAR REINF STEEL	9000.000	1.13	10253.70
0120	550-1180		LF	STM DR PIPE 18,H 1-10	935.000	45.50	42546.74
0125	550-1240		LF	STM DR PIPE 24,H 1-10	715.000	53.87	38520.47
0130	550-1300		LF	STM DR PIPE 30,H 1-10	495.000	59.24	29325.45
0135	550-1360		LF	STM DR PIPE 36,H 1-10	220.000	80.03	17608.78
0140	550-2180		LF	SIDE DR PIPE 18,H 1-10	1125.000	30.38	34187.76
0145	550-2240		LF	SIDE DR PIPE 24,H 1-10	375.000	23.93	8975.72
0150	550-3318		EA	SAFETY END SECTION 18,STD,4:1	34.000	667.75	22703.65
0155	550-3324		EA	SAFETY END SECTION 24,STD,4:1	26.000	914.45	23775.94
0160	550-3330		EA	SAFETY END SECTION 30,STD,4:1	18.000	1250.00	22500.00
0165	550-3336		EA	SAFETY END SECTION 36,STD,4:1	8.000	1574.02	12592.19
0170	550-3618		EA	SAFETY END SECTION 18,SD,6:1	90.000	516.00	46440.11
0175	550-3624		EA	SAFETY END SECTION 24,SD,6:1	30.000	733.00	21990.05

JOB ESTIMATE REPORT

0180	163-0232	AC	TEMPORARY GRASSING	15.000	552.11	8281.67
0185	163-0240	TN	MULCH	2449.000	145.27	355773.26
0190	163-0300	EA	CONSTRUCTION EXIT	6.000	1544.34	9266.06
0195	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	1000.000	16.53	16539.66
0200	163-0529	LF	CNST/REM TEMP SED BAR OR BLD STRW CK DM	12000.000	3.45	41448.00
0205	163-0542	EA	CONSTR & REM STONE FILTER RING	50.000	582.61	29130.88
0210	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	20000.000	0.34	6941.80
0215	165-0071	LF	MAINT OF SEDIMENT BARRIER - BALED STRAW	6000.000	0.29	1777.68
0220	165-0101	EA	MAINT OF CONST EXIT	6.000	447.53	2685.23
0225	165-0111	EA	MAINT OF STONE FILTER RING	50.000	135.51	6775.86
0230	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	8.000	311.73	2493.90
0235	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	577.71	13865.23
0240	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	40000.000	3.51	140432.00
0245	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	30.000	583.29	17498.90
0250	165-0110	EA	MAINT OF ROCK FILTER DAM	30.000	154.16	4624.94
0255	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24	645.000	73.17	47199.22
0260	603-2180	SY	STN DUMPED RIP RAP, TP 3, 12	365.000	49.72	18151.33
0265	603-7000	SY	PLASTIC FILTER FABRIC	1010.000	4.23	4275.07
0270	700-6910	AC	PERMANENT GRASSING	30.000	1271.84	38155.48
0275	700-7000	TN	AGRICULTURAL LIME	101.000	64.89	6554.60
0280	700-8000	TN	FERTILIZER MIXED GRADE	23.000	635.28	14611.49
0285	700-8100	LB	FERTILIZER NITROGEN CONTENT	1675.000	2.74	4598.91
0290	716-2000	SY	EROSION CONTROL MATS, SLOPES	8000.000	1.35	10865.04
0295	711-0100	SY	TURF REINFORCING MATTING, TP 1	25000.000	1.90	47500.00
0300	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	110.000	15.28	1681.48
0305	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	30.000	16.29	488.80
0310	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	400.000	16.00	6401.49
0315	636-1041	SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	25.000	38.73	968.36
0320	636-1036	SF	HWY SGN,TP1MAT,REFL SH TP 11	200.000	20.00	4000.00
0325	636-2070	LF	GALV STEEL POSTS, TP 7	1600.000	6.13	9815.25
0330	636-2080	LF	GALV STEEL POSTS, TP 8	300.000	9.86	2960.23
0335	636-2090	LF	GALV STEEL POSTS, TP 9	50.000	8.11	405.64
0340	636-3010	EA	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	10.000	472.65	4726.55
0345	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	46.000	70.07	3223.28
0350	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	57024.000	0.35	20165.97
0355	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	57024.000	0.37	21523.14
0360	653-1704	LF	THERM SOLID TRAF STRIPE,24,WH	800.000	5.92	4738.67
0365	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	2000.000	0.26	528.90
0370	653-3502	GLF	THERMO SKIP TRAF ST, 5 IN, YEL	5000.000	0.24	1205.65
0375	653-6004	SY	THERM TRAF STRIPING, WHITE	1000.000	3.32	3326.76
0380	653-6006	SY	THERM TRAF STRIPING, YELLOW	1000.000	2.82	2820.95
0385	654-1001	EA	RAISED PVMT MARKERS TP 1	2200.000	2.84	6263.99
0390	654-1003	EA	RAISED PVMT MARKERS TP 3	300.000	3.54	1062.64

ITEM TOTAL 6273764.58
INFLATED ITEM TOTAL 6273764.58

TOTALS FOR JOB 0011439

JOB ESTIMATE REPORT

ESTIMATED COST:	6273764.61
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	6273764.61

Preliminary ROW Cost Estimate

TRANSPORTATION INVESTMENT ACT
TIA PROGRAM MANAGEMENT

PI No. 0011439
Project Name: District Line Road
Date: 5/12/2016

Land and Improvements	Agriculture	Residential	Commercial	Industrial	Notes
Estimate ($/ac)	$2,000	$11,600		$0	Enter Cost / Acre
Fee Simple Area (ac)	14.38	4.79	0.00	0.00	Enter Acreage
Fee Simple Estimate	$28,760	$55,564	$0	$0	CALCULATED FIELD
Perm Easement Area (ac)	0.00	0.00	0.00	0.00	Enter Acreage
Perm Easement Factor	0%	50%	50%	0%	Adjust Percentage as Appropriate
Perm Easement Estimate	$0	$0	$0	$0	CALCULATED FIELD
Temp Easement Area (ac)	0.00	0.00	0.00	0.00	Enter Acreage
Temp Easement Factor	0%	25%	25%	0%	Adjust Percentage as Appropriate
Temp Easement Estimate	$0	$0	$0	$0	CALCULATED FIELD
City Land Available for Swap (ac)	0.00	0.00	0.00	0.00	Enter Acreage (If required)
City Land Available for Swap Estimat	$0	$0	$0	$0	Enter Estimated Value (If required)
Proximity Damages	$0	$0	$0	$0	Enter Fees and Provide Notes as Appropriate
Consequential Damages	$0	$0	$0	$0	Enter Fees and Provide Notes as Appropriate
Cost to Cures	$0	$0	$0	$0	Enter Fees and Provide Notes as Appropriate
Improvements	$0	$0	$0	$0	Enter Fees and Provide Notes as Appropriate
Trade Fixtures	$0	$0	$0	$0	Enter Fees and Provide Notes as Appropriate
PROPERTY TYPE TOTALS	**$28,760**	**$55,564**	**$0**	**$0**	CALCULATED FIELD
	Land and Improvements Sub Total		**$84,324**		CALCULATED FIELD

Relocation	Quantity	Estimated Cost		Totals	
Residential Tenant (Qty of Tenants)	0	$30,000		$0	Adjust Qty / Costs as required
Residential Owner	0	$50,000		$0	Adjust Qty / Costs as required
Business Displacement (Qty)	0	$45,000		$0	Adjust Qty / Costs as required
Pro Rata Taxes	0	$1,000		$0	Adjust Qty / Costs as required
Prop Pin Replacement	0	$1,250		$0	Adjust Qty / Costs as required
PROPERTY TYPE TOTALS	**0**			**$0**	CALCULATED FIELD
	Relocation Sub Total		**$0**		CALCULATED FIELD

Valuation Services	Agriculture	Residential	Commercial	Industrial	
Appraisals (# of Parcels)	22	41	0	0	Adjust Parcels as required
Estimated Fee (per Parcel)	$1,200	$1,500	$0	$0	Enter Estimated Fee per Parcel
Total Appraisals	$26,400	$61,500	$0	$0	CALCULATED FIELD
Specialty Reports	$0	$0	$0	$0	Enter Estimated Costs and Provide Notes
Estimated Fees	$0	$0	$0	$0	Enter Estimated Fees and Provide Notes
PROPERTY TYPE TOTALS	**$26,400**	**$61,500**	**$0**	**$0**	CALCULATED FIELD
	Valuation Services Sub Total		**$87,900**		CALCULATED FIELD

Legal Services	Parcels	Estimated Fees		Totals	
Meeting with Attorney	63	$125		$7,875	Adjust Parcels / Fees as required (using best judgement)
Preliminary Titles	63	$200		$12,600	Adjust Parcels / Fees as required
Closing and Final Title	63	$300		$18,900	Adjust Parcels / Fees as required
Recording Fees	63	$50		$3,150	Adjust Parcels / Fees as required
Condemnation	10	$30,000		$300,000	Adjust Parcels / Fees as required
	Legal Services Sub Total		**$342,525**		CALCULATED FIELD

Administrative	Parcels	Man Hours/Parcel		Totals	
Pre-Acquisition	63	40		$126,000	Adjust Parcels / Fees as required
Acquisition	63	100		$315,000	Adjust Parcels / Fees as required
Administrative Appeals	10	50		$25,000	Calculates as 15% of Acq Parcel Count (Adjust if Necessary)
	Administrative Sub Total		**$466,000**		CALCULATED FIELD

Contingency				
Overall Contingency	20%	$196,150		Enter Percentage for Contingency (Default = 20%)

Total Estimated Costs **$1,176,899** CALCULATED FIELD

Updated 23Jan2015

Preliminary Utility Cost Estimate

PI No. 0011439
Project Name: District Line Road
Date of Estimate 2/25/2016

Facility Owner	Non-Reimbursable	Reimbursable
AT&T Telephone	$0	$25,000
Citizens Telephone	$0	$25,000
Sumter EMC	$0	$400,000
Mediacom	$0	$25,000
Totals	$0	$475,000
Total Non-Reimbursable Cost	$0	
Total Reimbursable Cost		$475,000

Environmental Mitigation Cost Estimate
PI 0011439 Sumter County
District Line Road Improvements
February 4, 2016

Wetlands and Open Waters
Required Credits: 14.0
Cost per Credit: $5,000
Wetland Mitigation Cost: $70,000

Stream Mitigation
Required Credits: 6,762
Cost per Credit: $25
Stream Mitigation Cost: $169,050

Total Mitigation Cost: $239,050

WETLANDS AND OPEN WATERS MITIGATION WORKSHEET

ADVERSE IMPACT FACTORS

Factor	Options						
Dominant Effect	Fill 2.0	Dredge 1.8	Impound 1.6	Drain 1.4	Flood 1.2	Clear 1.0	Shade 0.5
Duration of Effects	7+ years 2.0	5-7 years 1.5	3-5 years 1.0	1-3 years 0.5	< 1 year 0.1		
Existing Condition	Class 1 2.0	Class 2 1.5	Class 3 1.0	Class 4 0.5	Class 5 0.1		
Lost Kind	Kind A 2.0	Kind B 1.5	Kind C 1.0	Kind D 0.5	Kind E 0.1		
Preventability	High 2.0	Moderate 1.0	Low 0.5	None 0			
Rarity Ranking	Rare 2.0	Uncommon 0.5	Common 0.1				

† These factors are determined on a case-by-case basis.

REQUIRED MITIGATION CREDITS WORKSHEET

Factor	Straight Alt	Re-Align Alt	Roundabout Alt			
Dominant Effect	2.0	2.0	2.0			
Duration of Effect	2.0	2.0	2.0			
Existing Condition	1.0	1.0	1.0			
Lost Kind	1.0	1.0	1.0			
Preventability	0.5	0.5	0.5			
Rarity Ranking	0.1	0.1	0.1			
Sum of r Factors	$R_1 = 6.6$	$R_2 = 6.6$	$R_3 = 6.6$	$R_4 =$	$R_5 =$	$R_6 =$
Impacted Area	$AA_1 = 2.07$	$AA_2 = 2.12$	$AA_3 = 2.07$	$AA_4 =$	$AA_5 =$	$AA_6 =$
$R \times AA =$	13.7	14.0	13.7			

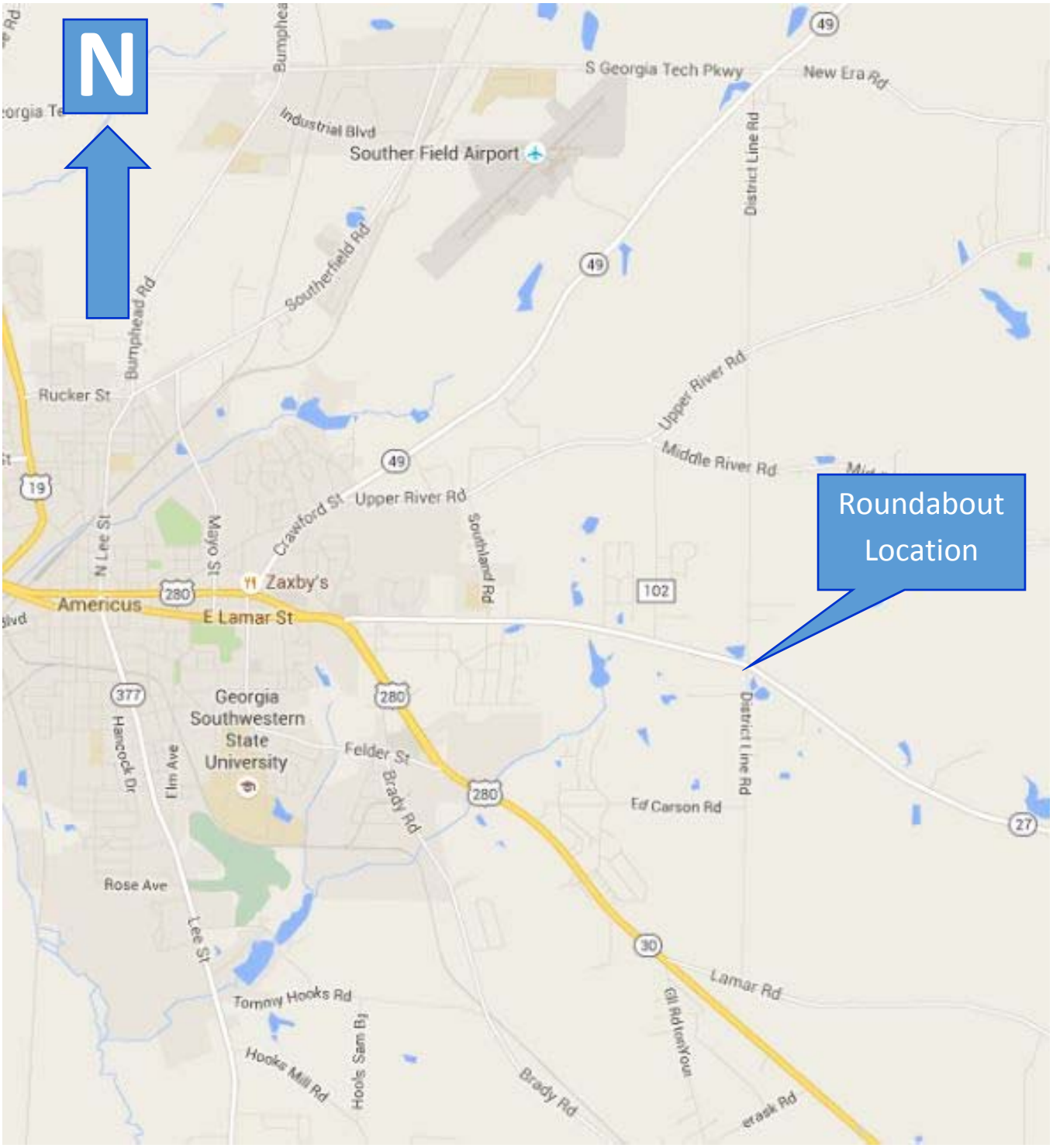
TABLE 4
ADVERSE IMPACT FACTORS FOR RIVERINE SYSTEMS WORKSHEET

Stream Type Impacted	Intermittent 0.1			Perennial Stream > 15' in width 0.4			Perennial Stream ≤ 15' in width 0.8		
Priority Area	Tertiary 0.5			Secondary 0.8			Primary 1.5		
Existing Condition	Fully Impaired 0.25			Somewhat Impaired 0.5			Fully Functional 1.0		
Duration	Temporary 0.05			Recurrent 0.1			Permanent 0.2		
Dominant Impact	Shade/ Clear 0.05	Utility X-ing 0.4	Bank Armor 0.7	Deten-tion 1.5	Stream Crossing (≤ 100') 1.7	Impound 2.7	Morpho-logic Change 2.7	Pipe >100' 3.0	Fill 3.0
Scaling Factor (Based on # linear feet impacted)	< 100' impact 0	100-200' impact 0.05	201-500' impact 0.1	501-1000' impact 0.2	> 1000' impact 0.4 for each 1000' feet of impact (round impacts to the nearest 1000') (example: 2,200' of impact – scaling factor = 0.8; 2,800' of impact – scaling factor – 1.2)				

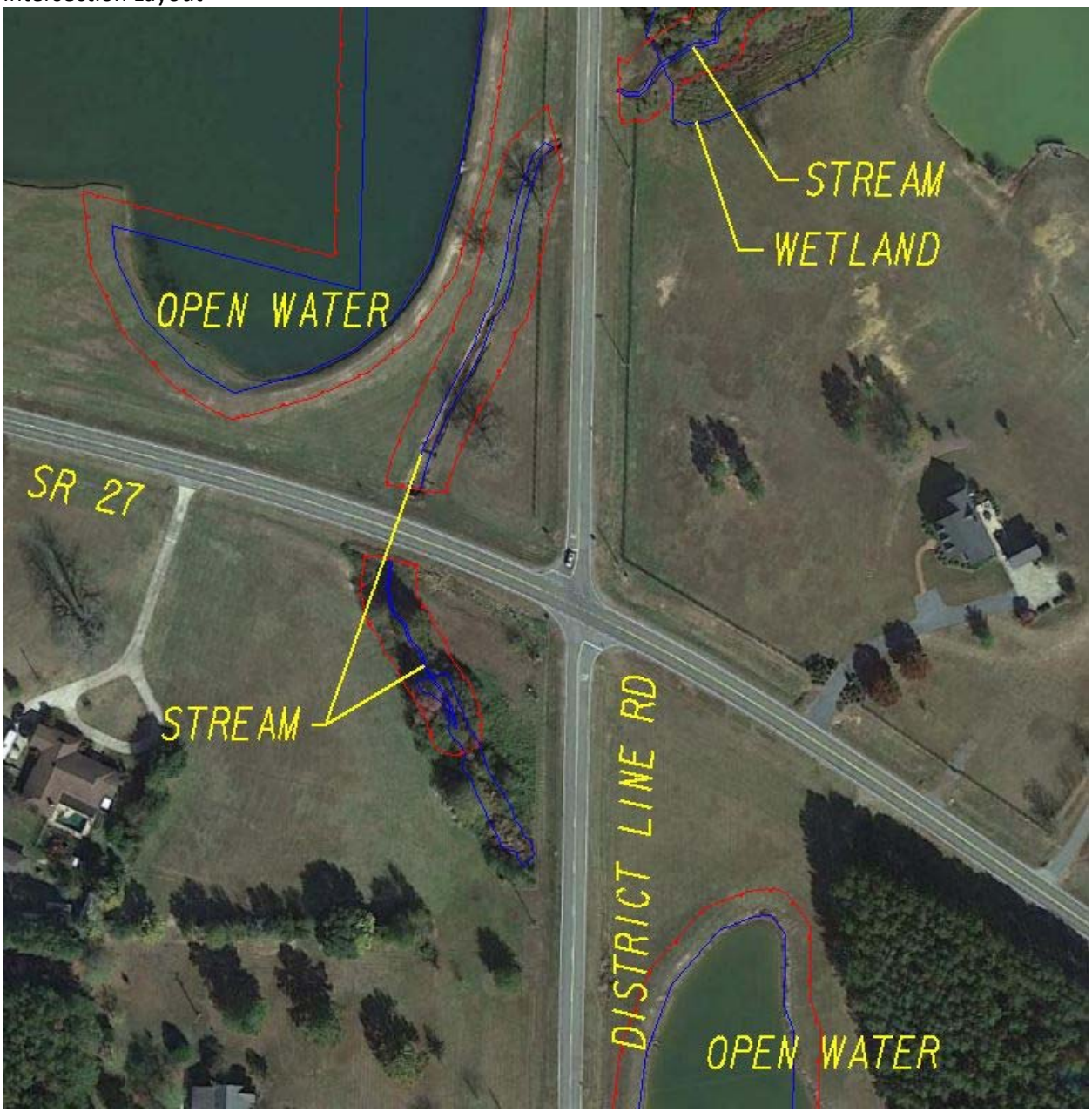
Reaches to Be Impacted				
	Complete the Following for Each Reach to Be Impacted			
Simon Channel Evolution Stage				
Rosgen Stream Type/D50				
Criteria for Selecting Existing Condition for Each Reach				
Bankfull Width and Depth	Width: Depth:	Width: Depth:	Width: Depth:	Width: Depth:
Bankfull Indicators (photos in report)				
Factors	**Straight**	**Re-Align**	**Roundabout**	
Stream Type Impacted	0.8	0.8	0.8	
Priority Area	0.5	0.5	0.5	
Existing Condition	0.5	0.5	0.5	
Duration	0.2	0.2	0.2	
Dominant Impact	3.0	3.0	3.0	
Scaling Factor	0.05	0.05	0.05	
Sum of Factors M =	5.05	5.05	5.05	
Feet Stream in Reach Impacted LF =	1301	1339	1290	
M X LF =	6,570	6,762	6,515	

Roundabout Planning Level Assessment
PI 0011439 Sumter County
District Line Road Improvements
District Line Road at SR 27

1. Vicinity Map



2. Intersection Layout



3. Letter of Support from Local Government
   No yet obtained

4. Crash History
   Per information available on GeoTraqs there were eight (8) accidents at this intersection between May 2011 and June 2015. Of these, five (5) were injury crashes. All of the crashes involved two vehicles.

5. Pedestrian and Bike Activity
   There is no evidence of significant bike or pedestrian activity at this intersection.

6. Estimate Current Traffic Volumes
   SR 27 – 2,620 (AADT) (2013) (GDOT Traffic Counter)
   District Line Road – 2,840 (2016) (Assumed)

7. Estimate Design Traffic Volumes
   SR 27 – N/A
   District Line Road – 3,930 (2040)

8. Percent Traffic on Major Roads
   48%

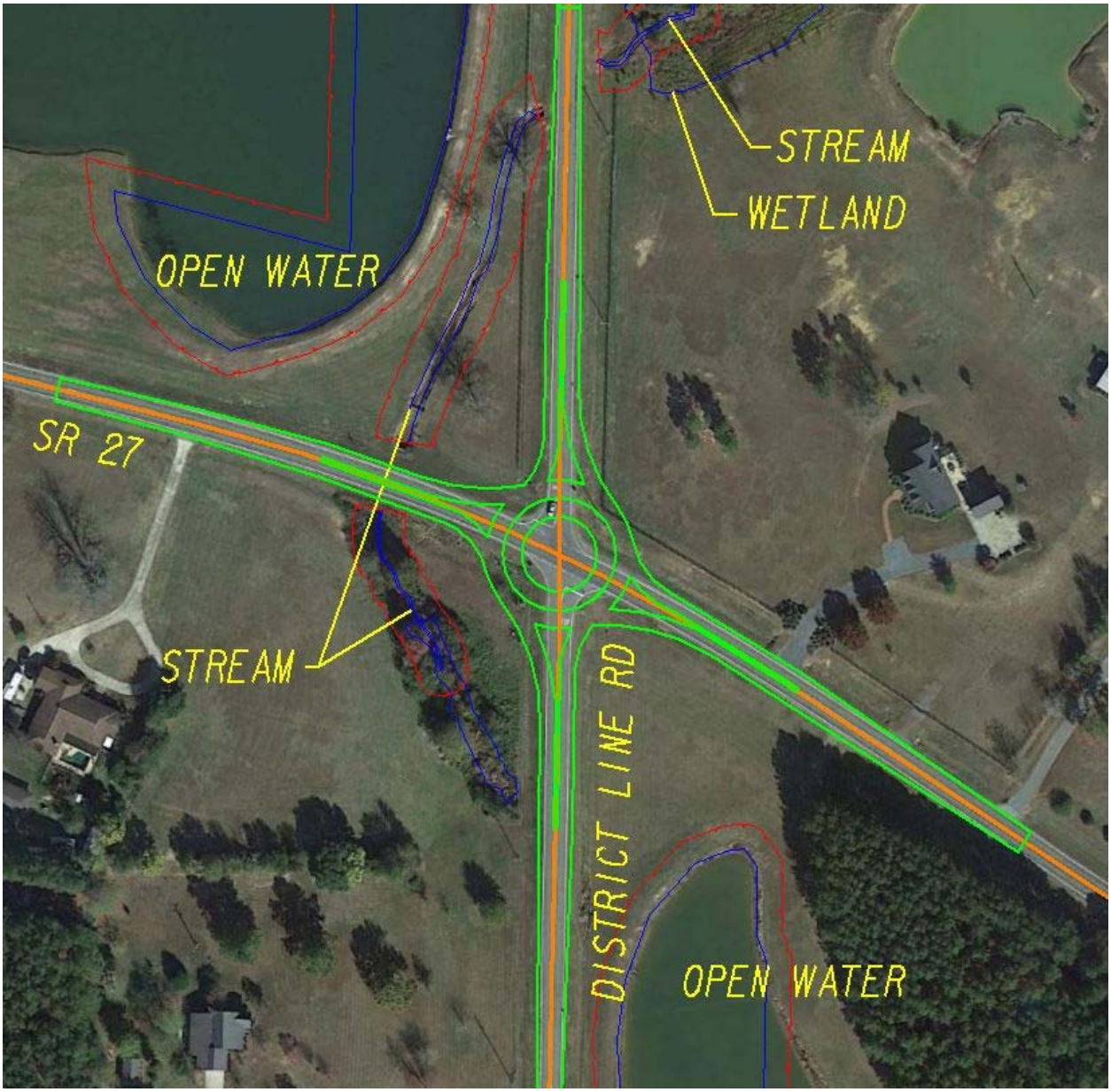
9. Number of Circulatory Lanes
   Total traffic is less than 25,000 ADT, so a single lane is appropriate

10. Favorable Conditions
    The conditions that make this intersection favorable for a roundabout include:
    a. Existing skew of less than 70 degrees
    b. Construction of turn lanes would have a greater impact on nearby ecological resources
    c. Future traffic on District Line Road is extremely uncertain. Current traffic is observed to be light, but the route is planned as a truck bypass of downtown Americus in the Sumter Long Range Plan.

11. Unfavorable Conditions
    No unfavorable conditions are noted at this intersection

12. Purpose of Roundabout
    The purpose of a roundabout at the location would be to provide better access for truck traffic using District Line Road as a bypass around the City of Americus. A two way stop controlled intersection with SR 27 would create a difficult movement for truck traffic and reduce the effectiveness of the bypass.

13. Roundabout Sketch



WILLMER ENGINEERING INC. | WE

Existing Pavement Evaluation Report
Improvements to District Line Road

GDOT PI No. 0011439

Sumter County, Georgia

March 16, 2015

Geotechnical Engineering ✦ Environmental Engineering ✦ Construction Services

71.4076

EXISTING PAVEMENT EVALUATION REPORT
Improvements to District Line Road
PI No. 0011439
Sumter County, Georgia

WILLMER ENGINEERING INC.
Willmer Project No. 71.4076

Prepared For

Michael Baker International, Inc.
Norcross, Georgia

Prepared By

WILLMER ENGINEERING INC.
3772 Pleasantdale Road
Suite 165
Atlanta, Georgia 30340-4270
770.939.0089

WILLMER ENGINEERING INC. | WE

March 16, 2016

VIA EMAIL/U.S. MAIL

Ben Clopper, P.E.
Project Manager
Michael Baker International, Inc.
420 Technology Parkway, Suite 150
Norcross, Georgia 30092

SUBJECT: **Existing Pavement Evaluation Report**
Improvements to District Line Road
PI No. 0011439
Sumter County, Georgia
Willmer Project No. 71.4076

Dear Mr. Clopper:

Willmer Engineering Inc. (Willmer) is pleased to provide this Existing Pavement Evaluation report for the proposed improvements to District Line Road in Sumter County, Georgia. The Existing Pavement Evaluation was performed based on project information provided to us by Michael Baker International, Inc. (Baker) in October 2015 and January 2016, and in general accordance with our subcontract with Baker dated September 25, 2015 and the Georgia Department of Transportation (GDOT) guidance documents for existing pavement evaluation.

The attached Report 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 via emails on January 6, 2016. The GDOT Pavement Design Tool Version 2.0 computer program was used for the pavement design.

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.

Adam P. Sugrue
Project Geotechnical Engineer

Sujit K. Bhowmik, PhD, PE
Chief Engineer

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

P:\4076 District Line Road Pavement Evaluation\Reports\71.4076 Pavement Evaluation Report.docx

Attachments: **Existing Pavement Evaluation Report**

Tables

Table 1A Summary of Pavement Conditions
Table 1B Summary of Pavement Conditions
Table 2 Summary of Pavement Core and Crack Depth Information

Figures

Figure 1 Project Location Map
Figure 2 Project Alignment Plan

Appendices

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

Existing Pavement Evaluation Report
Improvements to District Line Road
Sumter County, Georgia

1. Location / Description

This project consists of improvements to District Line Road in Sumter County, Georgia. The proposed improvements consist of:

- Shoulder widening/reconstruction along District Line Road from Lamar Road/Lower River Road (Station 100+00) to 500 feet south of the intersection of District Line Road and SR 49 (Station 377+50).
- Intersection improvements at US 280/SR 30, Lamar Road/Lower River Road, SR 27, Middle River Road, and Upper River Road.

In addition, District Line Road will be extended approximately 1,450 feet to the south to intersect with US 280/SR 30.

The project is located east of the City of Americus, Georgia. The length of the project is about 5.4 miles. A project location map is presented in Figure 1, and a project alignment plan is presented in Figure 2.

This existing pavement evaluation involves the entire project length of the existing District Line Road, 2,000-foot segments of US 280/SR 30 and SR 27 and 1,000-foot segments of Lamar Road/Lower River Road, Middle River Road, and Upper River Road at their intersections with District Line Road. For the purpose of this evaluation, the project length along District Line Road was divided into the following five rating segments:

- District Line Road:
    - Station 100+00 to 152+80
    - Station 152+80 to 205+60
    - Station 205+60 to 258+40
    - Station 258+40 to 311+20
    - Station 311+20 to 377+50

Pavement evaluation for side roads was performed for the following six segments:

- US 280/SR 30 – 1000 feet in each direction from future intersection with District Line Road
- Lamar Road/Lower River Road – 500 feet in each direction from the intersection with District Line Road
- SR 27 – 1000 feet in each direction from the intersection with District Line Road
- Middle River Road – 500 feet east of the intersection with District Line Road
- Middle River Road – 500 feet west of the intersection with District Line Road
- Upper River Road – 500 feet in each direction from the intersection with District Line Road

Middle River Road was split into two sections for purposes of the pavement evaluation because of the drastic difference in pavement conditions on either side of the intersection.

The existing District Line Road, US 280/SR30, Lamar Road/Lower River Road, SR 27, Middle River Road, and Upper River Road are two-lane undivided highways with rural shoulders.

Subsequent to our pavement coring and evaluation, a pavement overlay was constructed on Middle River Road at its intersection with District Line Road (see photos in Appendix I). The overlay extends approximately 100 feet to the west of the intersection and 250 feet east of the intersection.

2. Historical Data

A historical data search was performed during this study. The GDOT TransPI website was searched for available existing pavement data for District Line Road. No pavement as-built or maintenance data was found in this search.

3. Traffic Data

Traffic data for District Line Road was provided to us by Baker in an email and is summarized below:

Design Period	2018 to 2038
One-Way AADT in 2018	2,840 vpd
One-Way AADT in 2038	3,930 vpd
Lane Distribution Factor	1.0
24-hour Truck Percentage	30% (27% SU and 3% MU)

4. Field Photographs

Photographs were taken during the time period that this study was conducted (October 2015 to March 2016) to record the existing pavement conditions. These photographs are included in Appendix I.

5. Drainage Survey

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

6. Non-destructive Field Testing

No non-destructive tests were performed.

7. Rutting

Rutting was observed along District Line Road, Lamar Road/Lower River Road and Upper River Road. Rut depths observed within each rating segment are presented in Table 1B.

8. Load Cracking

As indicated earlier, the project is divided into eleven rating segments (five on District Line Road and six on side roads) for the purpose of conducting the pavement condition survey. Level 1, 2, 3, and 4 load cracking was observed along District Line Road. Level 2 and 3 load cracking was observed on Middle River Road. Level 1 and 2 load cracking was observed on Upper River Road. Level 1 load cracking was observed along Lamar Road/Lower River Road and SR 27. The load cracking percentages for each rating segment are presented in Table 1A.

9. Block/ Transverse Cracking

Level 1 block/transverse cracking was observed along District Line Road and Middle River Road. The location and block/transverse cracking percentage is presented in Table 1A.

10. Reflection Cracking

Reflection cracking was observed on US 280/SR 30. The reflection cracking percentage is presented in Table 1A.

11. Raveling

No raveling was observed.

12. Edge Distress

Level 3 edge distress was observed on District Line Road, Lamar Road/Lower River Road and Upper River Road. The edge distress locations and percentages are summarized in Table 1B.

13. Bleeding or Flushing

No bleeding or flushing was observed.

14. Corrugation or Pushing

No corrugation or pushing was observed.

15. Loss of Section

No loss of section was observed.

16. Patches, Potholes, and Local Base Failures

Patches and potholes were observed on District Line Road, Lamar Road/Lower River Road and Upper River Road. The locations and number of patches/potholes observed are presented in Table 1B.

17. Pavement Cores

The existing pavement was cored at ten locations along the existing District Line Road and at eleven locations on side roads near their intersections with District Line Road. The type and thickness of existing pavement and base materials were determined at each location.

The thickness of asphaltic concrete on District Line Road ranged from 2 to 5.5 inches with an average of 3.3 inches and a standard deviation of 1.3 inches. The thickness of asphaltic concrete on side roads considered in this study is summarized in Table 2.

No base course was encountered on District Line Road or any side road except US 280/SR 30, where a 6-inch concrete base was encountered. The core information is summarized in Table 2 and core sample photographs are included in Appendix II.

18. 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 in the following tables.

Rating Segment (District Line Road)	Lane Evaluated	Surface Condition Rating (PACES-based)
100+00 to 152+80	Northbound	73
152+80 to 205+60	Southbound	47
205+60 to 258+40	Northbound	38
258+40 to 311+20	Northbound	52
311+20 to 377+50	Northbound	60

Rating Segment (Side Roads)	Lane Evaluated	Surface Condition Rating (PACES-based)
US 280/SR 30 (1000' feet in each direction)	Westbound	92
Lamar Road/Lower River Road (500' in each direction)	Westbound	73
SR 27 (1000' feet in each direction)	Westbound	85
Middle River Road (500' east of intersection)	Westbound	41
Middle River Road (500' west of intersection)	Westbound	73
Upper River Road (500' in each direction)	Eastbound	72

Based on the above surface condition ratings, the existing pavement on District Line Road is in fair condition from Station 100+00 to 152+80, in poor condition from Station 311+20 to 377+50, and in bad condition from Station 152+80 to 311+20. The existing pavement is in excellent condition on US 280/SR 30, in good condition on SR 27, and in fair condition on Lamar Road/Lower River Road and Upper River Road. The pavement on Middle River Road was in fair condition and bad condition west and east of the intersection with District Line Road, respectively, prior to the recent the asphalt pavement overlay.

19. Asphalt Pavement Design

Based on our evaluation of the existing pavement surface conditions and pavement core data, the existing pavement on District Line Road is not suitable for overlay because of poor to bad surface conditions along most of the project segment with significant load/block cracking, inadequate pavement thickness, and the absence of any base course material. Full-depth reconstruction will be required to provide an adequate pavement thickness for the design traffic load. Lamar Road/Lower River Road, SR 27, Middle River Road, and Upper River Road will also require full-depth reconstruction to provide an adequate pavement thickness for the design traffic load. The asphalt from the existing pavement may be recycled and reused in overlay or new construction.

The existing pavement section at US 280/SR 30 is suitable for direct overlay. Prior to performing overlay construction, all visible cracks and construction joints in the existing pavement should be filled with Type M crack sealant. This work should be performed in accordance with Section 407 of the GDOT Standard Specifications.

The recommended pavement designs are provided in the following tables. The GDOT Pavement Design Tool Version 2.0 computer program was used in the pavement design calculations. The output from the computer program is included in Appendix III.

District Line Road: Full-Depth Asphalt Pavement Design			
Pay Item	**Course**	**Material**	**Thickness (inches)**
402-3130	Asphalt Surface	12.5 mm Superpave	1.5
402-3190	Asphalt Intermediate	19 mm Superpave	2
402-3121	Asphalt Base	25 mm Superpave	4
--	Base	Graded Aggregate Base	10

Overlay Asphalt Pavement: US 280/SR 30 (1000 feet each direction from intersection with District Line Road)			
Pay Item	**Course**	**Material**	**Thickness (inches)**
402-3103	Asphalt Surface	12.5 mm Superpave	1.5
--	Base	Asphalt Pavement	9
--	Base	Concrete Pavement	6

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

Reported By: **Adam Sugrue / Sujit K. Bhowmik, PhD, PE**

Reviewed By: **James L. Willmer, PE**

TABLES

Table 1A
Summary of Pavement Conditions
Improvements to District Line Road
Sumter County, Georgia
GDOT PI No. 0011439
Willmer Project No. 71.4076

Rating Segment (District Line Road)	Sample Section	Load Cracking (%)				Block/Transverse Cracking (%)			Reflection Cracking
		Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	
100+00 to 152+80	138+40 to 139+40 (Northbound)	5	15	0	0	10	0	0	0
152+80 to 205+60	157+75 to 158+75 (Southbound)	0	20	25	5	0	0	0	0
205+60 to 258+40	248+60 to 249+60 (Northbound)	0	20	30	0	0	0	0	0
258+40 to 311+20	287+10 to 288+10 (Northbound)	0	10	15	0	0	0	0	0
311+20 to 377+50	346+15 to 347+15 (Northbound)	10	5	10	0	0	0	0	0

Table 1A (Continued)
Summary of Pavement Conditions
Improvements to District Line Road
Sumter County, Georgia
GDOT PI No. 0011439
Willmer Project No. 71.4076

Rating Segment (Distance from Intersection)	Sample Section	Load Cracking (%)				Block/Transverse Cracking (%)			Reflection Cracking
		Level 1	Level 2	Level 3	Level 4	Level 1	Level 2	Level 3	
US 280/SR 30 (1000' feet in each direction)	30' SE to 130' SE of future intersection with District Line Road	0	0	0	0	0	0	0	40
Lamar Road/Lower River Road (500' in each direction)	Intersection with District Line Road to 100' W of District Line Road	50	0	0	0	0	0	0	0
SR 27 (1000' feet in each direction)	30' E to 130' E of District Line Road	45	0	0	0	0	0	0	0
Middle River Road (500' east of intersection)	65' E to 165' E of District Line Road	20	25	5	0	0	0	0	0
Middle River Road (500' west of intersection)	135' W to 35' W of District Line Road	0	0	0	0	40	0	0	0
Upper River Road (500' in each direction)	380' E to 480' E of District Line Road	5	25	0	0	0	0	0	0

Table 1B
Summary of Pavement Conditions
Improvements to District Line Road
GDOT PI No. 0011439
Sumter County, Georgia
Willmer Project No. 71.4076

Rating Segment (District Line Road)	Rut Depth (inches)	Raveling (%)	Edge Distress (%)	Bleeding & Flushing (%)	Corrugation & Pushing (%)	Loss of Section (%)	Patches & Potholes
100+00 to 152+80	< ⅛	None	None	None	None	None	3
152+80 to 205+60	⅛	None	5 (Level 1)	None	None	None	2
205+60 to 258+40	¼	None	5 (Level 1)	None	None	None	6
258+40 to 311+20	⅛	None	5 (Level 1)	None	None	None	10
311+20 to 377+50	⅛	None	None	None	None	None	5

Table 1B (Continued)
Summary of Pavement Conditions
Improvements to District Line Road
GDOT PI No. 0011439
Sumter County, Georgia
Willmer Project No. 71.4076

Rating Segment (Distance from Intersection)	Rut Depth (inches)	Raveling (%)	Edge Distress (%)	Bleeding & Flushing (%)	Corrugation & Pushing (%)	Loss of Section (%)	Patches & Potholes
US 280/SR 30 (1000 feet in each direction)	< ⅛	None	None	None	None	None	0
Lamar Road/Lower River Road (500 feet in each direction)	⅛	None	75 (Level 3)	None	None	None	1
SR 27 (1000 feet in each direction)	< ⅛	None	None	None	None	None	0
Middle River Road (500' east of intersection)	¼	None	15 (Level 3)	None	None	None	1
Middle River Road (500' west of intersection)	< ⅛	None	15 (Level 3)	None	None	None	1
Upper River Road (500 feet in each direction)	⅛	None	15 (Level 3)	None	None	None	1

Table 2
Summary of Pavement Core and Crack Depth Information
Improvements to District Line Road
Sumter County, Georgia
GDOT PI No. 0011439
Willmer Project No. 71.4076

Core No.	Location			Asphalt Pavement Thickness (inches)	Base Thickness (inches)	Crack Depth (inches)	Comments
	Station	Traffic Direction	Lane/ Shoulder				
District Line Road (Station 100+00 to 377+50)							
C-3	105+25	SB	Lane	3¼	0	0	--
C-4	138+45	NB	Lane	2¼	0	2¼	--
C-6	165+00	SB	Lane	2½	0	0	--
C-9	201+80	NB	Lane	5½	0	0	--
C-11	216+35	NB	Lane	2¼	0	2¼	Broken into two horizontal pieces.
C-11A	216+35	NB	Lane	2	0	0	Cored next to C-11 since C-11 broke.
C-13	237+90	SB	Lane	3	0	0	--
C-15	267+65	NB	Lane	2¾	0	0	--
C-17	310+45	SB	Lane	3¾	0	0	--
C-18	343+75	NB	Lane	4½	0	0	--
C-20	358+80	SB	Lane	3½	0	3½	--

NB = Southbound
SB = Northbound

Table 2 (Continued)
Summary of Pavement Core and Crack Depth Information
Improvements to District Line Road
Sumter County, Georgia
GDOT PI No. 0011439
Willmer Project No. 71.4076

Core No.	Location			Asphalt Pavement Thickness (in)	Base Thickness (in)	Crack Depth (in)	Comments
	Station	Traffic Direction	Lane/ Shoulder				
US 280/SR 30							
C-1	17’ E of Future District Line Road	WB	Lane	9	6	0	Concrete base
Lamar Road/Lower River Road							
C-2	70’ W of District Line Road	WB	Lane	3½	0	3½	--
Ed Carson Road							
C-5	70’ W of District Line Road	EB	Lane	2¾	0	0	--
SR 27							
C-8	110’ E of District Line Road	EB	Lane	6½	0	6½	Average thickness
Page Drive							
C-10	37’ E of District Line Road	WB	Lane	2	0	0	--
Pearl Drive							
C-12	39’ E of District Line Road	EB	Lane	1½	0	1½	--

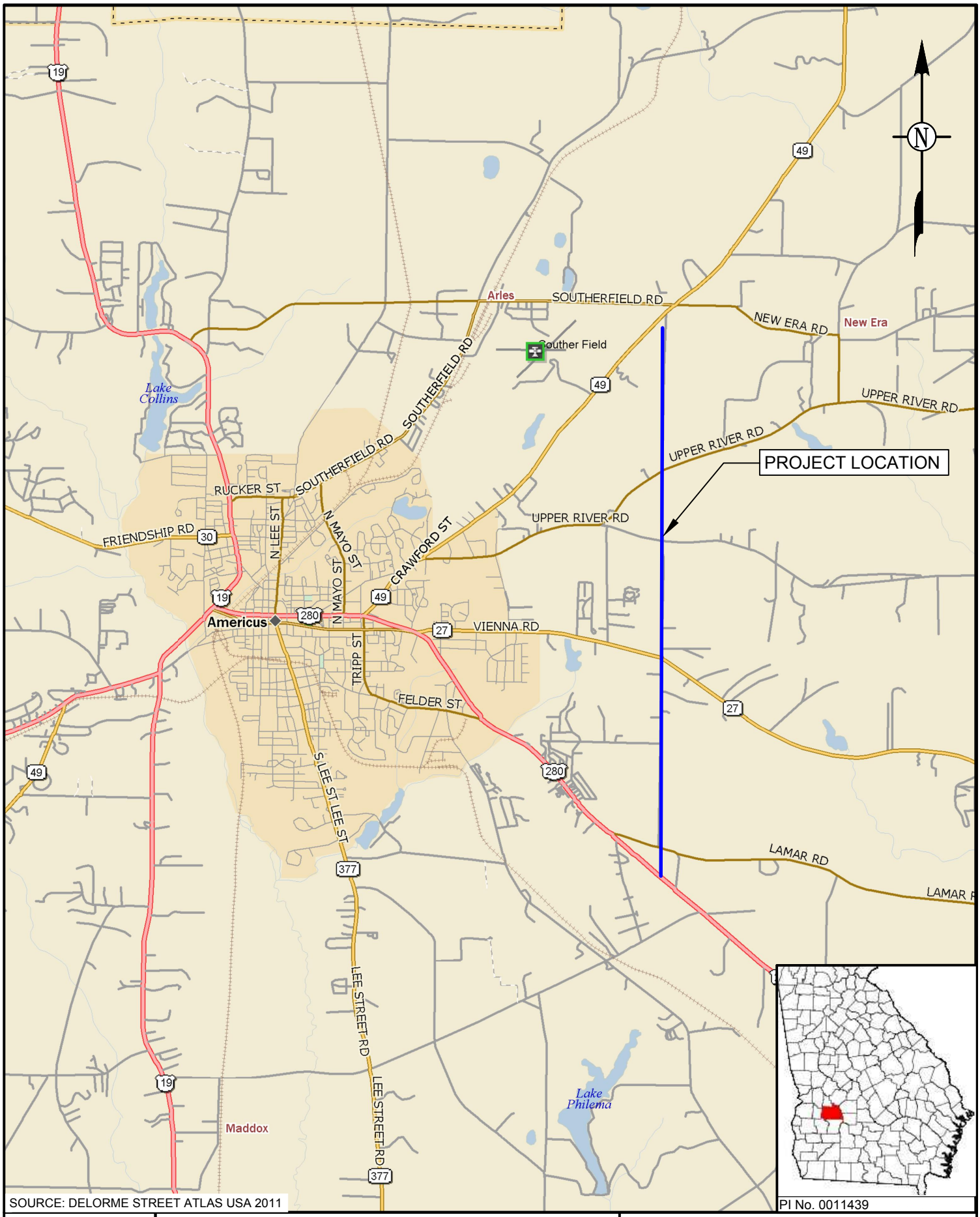
WB = Westbound
EB = Eastbound

Table 2 (Continued)
Summary of Pavement Core and Crack Depth Information
Improvements to District Line Road
Sumter County, Georgia
GDOT PI No. 0011439
Willmer Project No. 71.4076

Core No.	Location			Asphalt Pavement Thickness (in)	Base Thickness (in)	Crack Depth (in)	Comments
	Station	Traffic Direction	Lane/ Shoulder				
Middle River Road							
C-14	80' W of District Line Road	EB	Lane	2	0	2	--
Upper River Road							
C-16	140' W of District Line Road	EB	Lane	4	0	4	--
Havencrest Drive							
C-21	75' E of District Line Road	EB	Lane	2¼	0	0	--
North Pointe Road at South Intersection							
C-22	65' E of District Line Road	EB	Lane	2½	0	0	--
North Pointe Road at North Intersection							
C-23	55' E of District Line Road	WB	Lane	1½	0	0	--

EB = Eastbound

FIGURES



SOURCE: DELORME STREET ATLAS USA 2011

PI No. 0011439

SCALE: 1" = 8000'	
DATE: 3/4/2016	
DRAWN BY: CO	
REVIEWED BY: AS	

WILLMER ENGINEERING INC. WE

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

FIGURE 1
PROJECT LOCATION MAP
EXISTING PAVEMENT EVALUATION
DISTRICT LINE ROADS IMPROVEMENTS
SUMTER COUNTY, GEORGIA
WILLMER PROJECT No. 71.4076

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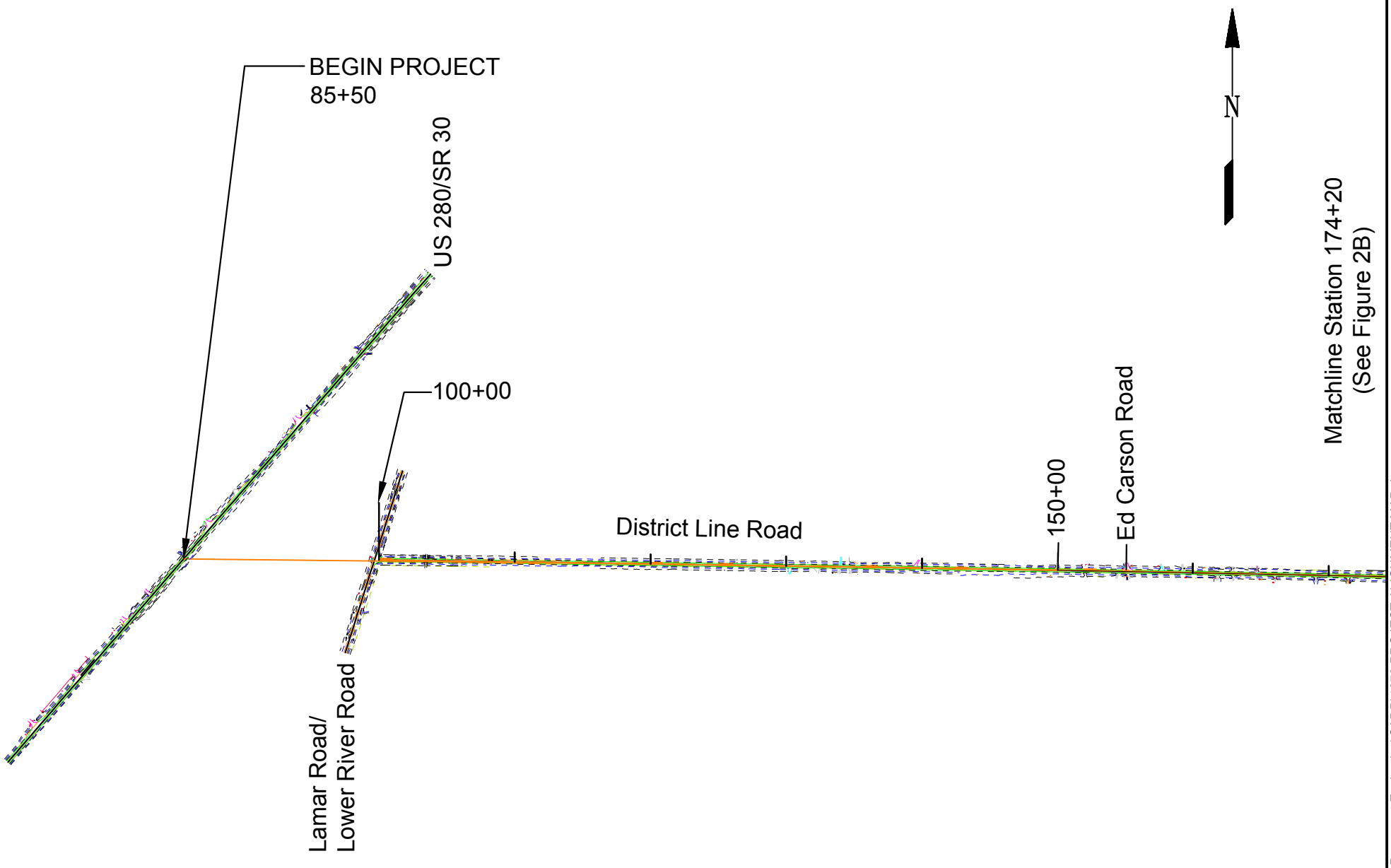

SCALE: 1" = 1000'	WILLMER ENGINEERING INC. WE	GEOTECHNICAL ENGINEERING ¤ CONSTRUCTION SERVICES ENVIRONMENTAL SERVICES AND ENGINEERING 3772 PLEASANTDALE ROAD - SUITE 165 ATLANTA, GA 30340-4270	FIGURE 2A PROJECT ALIGNMENT PLAN EXISTING PAVEMENT EVALUATION DISTRICT LINE ROAD IMPROVEMENTS SUMTER COUNTY, GEORGIA WILLMER PROJECT No. 71.4076
DATE: 3/04/2016			
DRAWN BY: CO			
REVIEWED BY: AS			

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SCALE: 1" = 1000'	WILLMER ENGINEERING INC. WE	GEOTECHNICAL ENGINEERING ¤ CONSTRUCTION SERVICES ENVIRONMENTAL SERVICES AND ENGINEERING 3772 PLEASANTDALE ROAD - SUITE 165 ATLANTA, GA 30340-4270	FIGURE 2B PROJECT ALIGNMENT PLAN EXISTING PAVEMENT EVALUATION DISTRICT LINE ROAD IMPROVEMENTS SUMTER COUNTY, GEORGIA WILLMER PROJECT No. 71.4076
DATE: 3/04/2016			
DRAWN BY: CO			
REVIEWED BY: AS			

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SCALE: 1" = 1000'	
DATE: 3/04/2016	
DRAWN BY: CO	
REVIEWED BY: AS	

WILLMER ENGINEERING INC.

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

FIGURE 2C
PROJECT ALIGNMENT PLAN
EXISTING PAVEMENT EVALUATION
DISTRICT LINE ROAD IMPROVEMENTS
SUMTER COUNTY, GEORGIA
WILLMER PROJECT No. 71.4076

P:\4076 District Line Road Pavement Evaluation\CADD\4076 PROJECT ALIGNMENT MAP.dwg

APPENDIX I

District Line Road; Station 138+40; Looking North

District Line Road; Station 139+40; Looking South

District Line Road; Station 157+55; Looking North

District Line Road; Station 158+55; Looking South

District Line Road; Station 248+60; Looking North

District Line Road; Station 249+60; Looking South

District Line Road; Station 287+10; Looking North

District Line Road; Station 288+10; Looking South

District Line Road – level 4 load cracking; Station 275+25; Looking North
(not in 100' sample section)

District Line Road – level 4 load cracking; Station 275+35; Looking South
(not in 100' sample section)

District Line Road; Station 346+15; Looking North

District Line Road; Station 347+15; Looking South

District Line Road – level 3 load cracking, rutting, patch; Station 336+50; Looking North
(local pavement distress - not within rated the 100' sample section)

District Line Road - level 3 load cracking, rutting, patches; Station 337+00; Looking South
(local pavement distress - not within rated the 100' sample section)

US 280/SR 30 (Westbound); 130 feet southeast of future intersection with District Line Road; Looking Northwest

US 280/SR 30; 30 feet southeast of future intersection with District Line Road; Looking Southeast

Lamar Road/Lower River Road (Westbound); 100 feet west of District Line Road; Looking East

Lamar Road/Lower River Road (Westbound) at intersection with District Line Road; Looking West

SR 27 (Westbound); 30 feet east of District Line Road; Looking East

SR 27 (Westbound); 130 feet east of District Line Road; Looking West

Middle River Road (Westbound) before overlay; 65 feet east of District Line Road; Looking East

Middle River Road (Westbound) before overlay; 165 feet east of District Line Road; Looking West

Middle River Road (Westbound) before overlay; 135 feet west of District Line Road; Looking East

Middle River Road (Westbound) before overlay; 35 feet east of District Line Road; Looking West

Middle River Road at District Line Road (Westbound) after overlay; Looking East

Middle River Road at District Line Road (Westbound) after overlay; Looking West

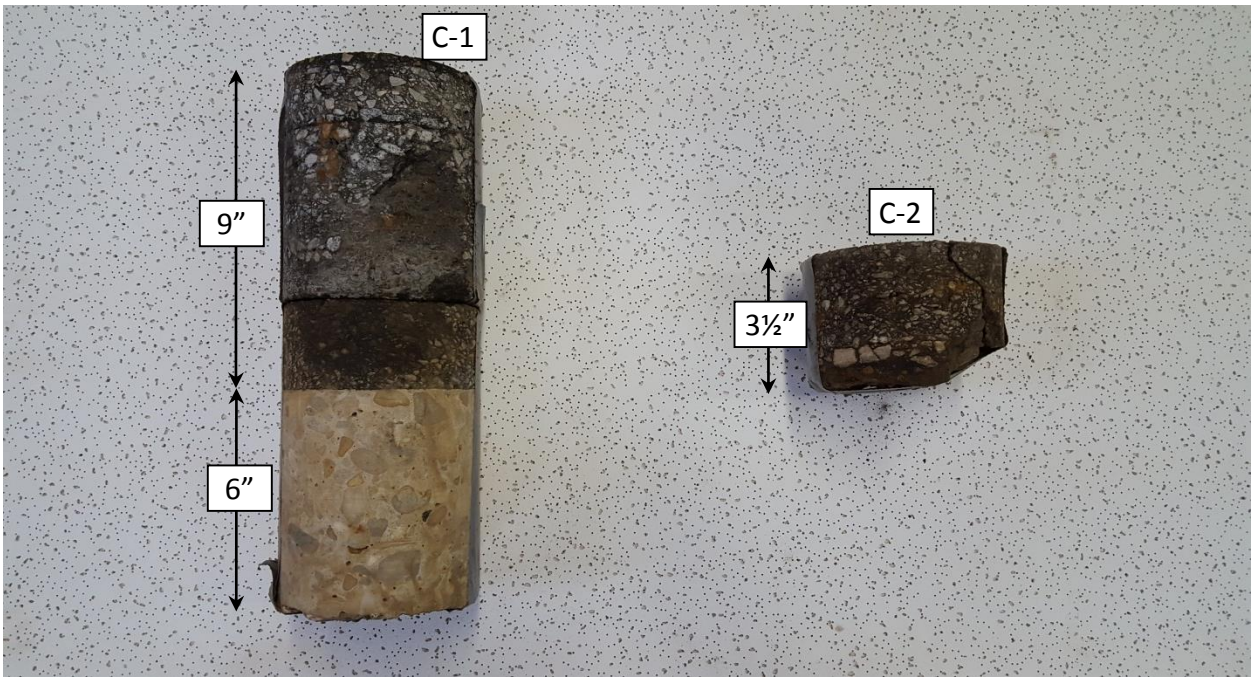
Upper River Road (Eastbound); 380 feet east of District Line Road; Looking East

Upper River Road (Eastbound); 480 feet east of District Line Road; Looking West

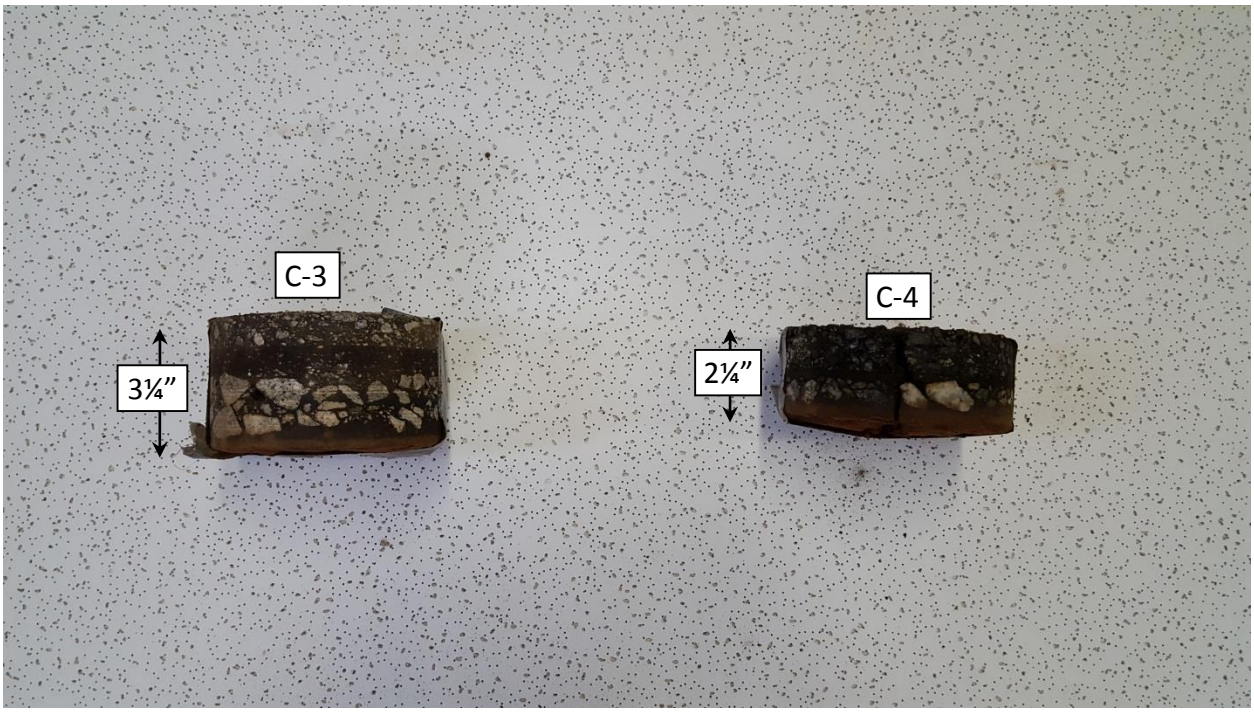
Upper River Road Edge Distress (Westbound); 200 feet east of District Line Road; Looking West
(local pavement distress - not within rated the 100' sample section)

Upper River Road Edge Distress (Eastbound); 200 feet east of District Line Road; Looking East
(local pavement distress - not within rated the 100' sample section)

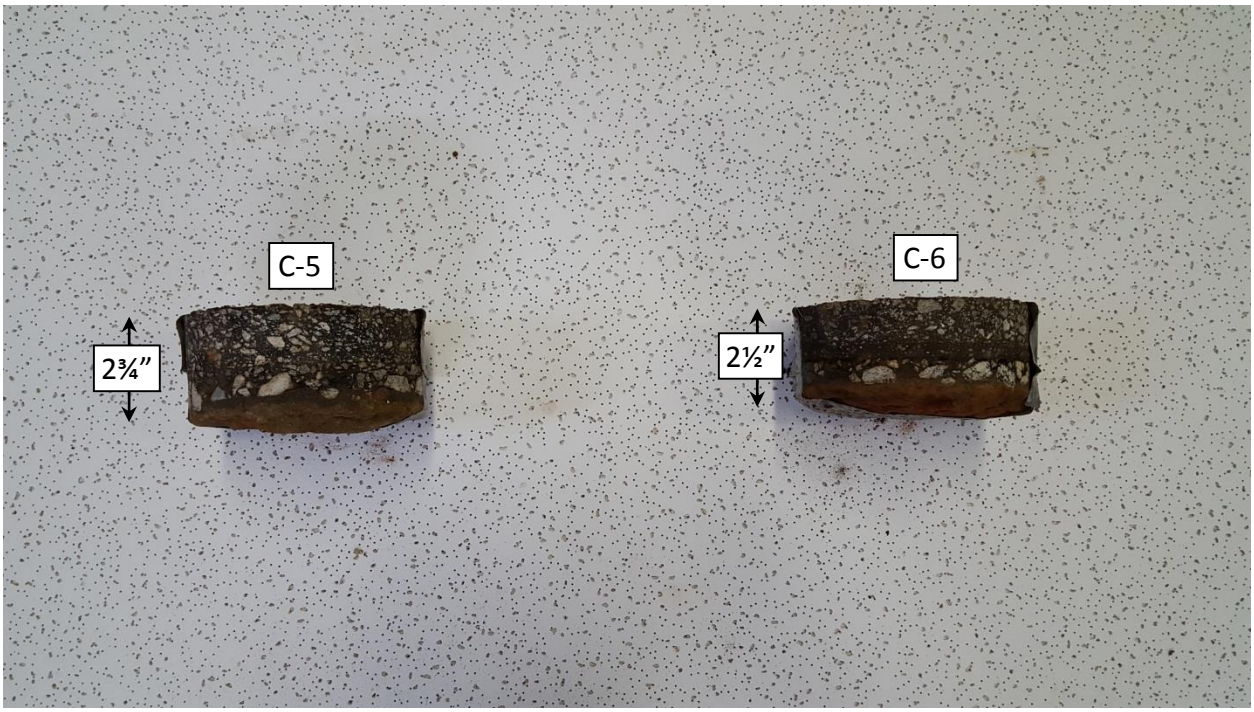
APPENDIX II



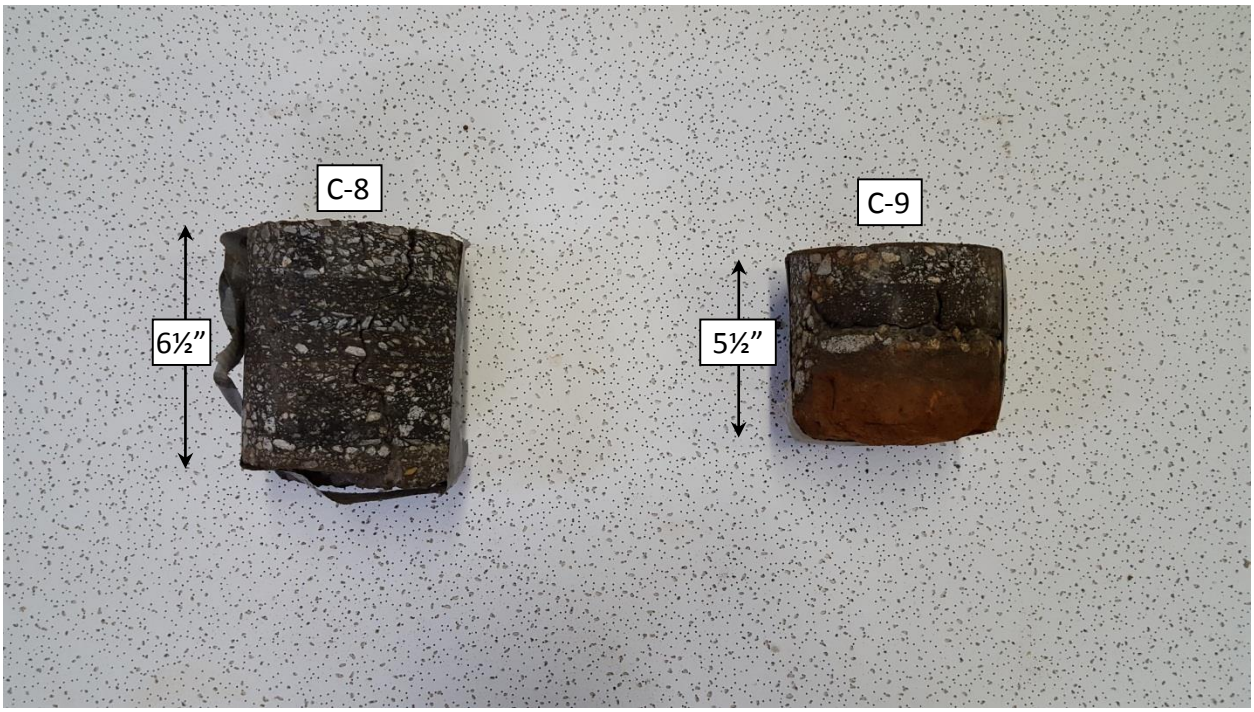
Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-1	US 280/SR 30	17’ W of Future District Line Road	Westbound	Lane
C-2	Lamar Road (Lower River Road)	70’ W of District Line Road	Westbound	Lane



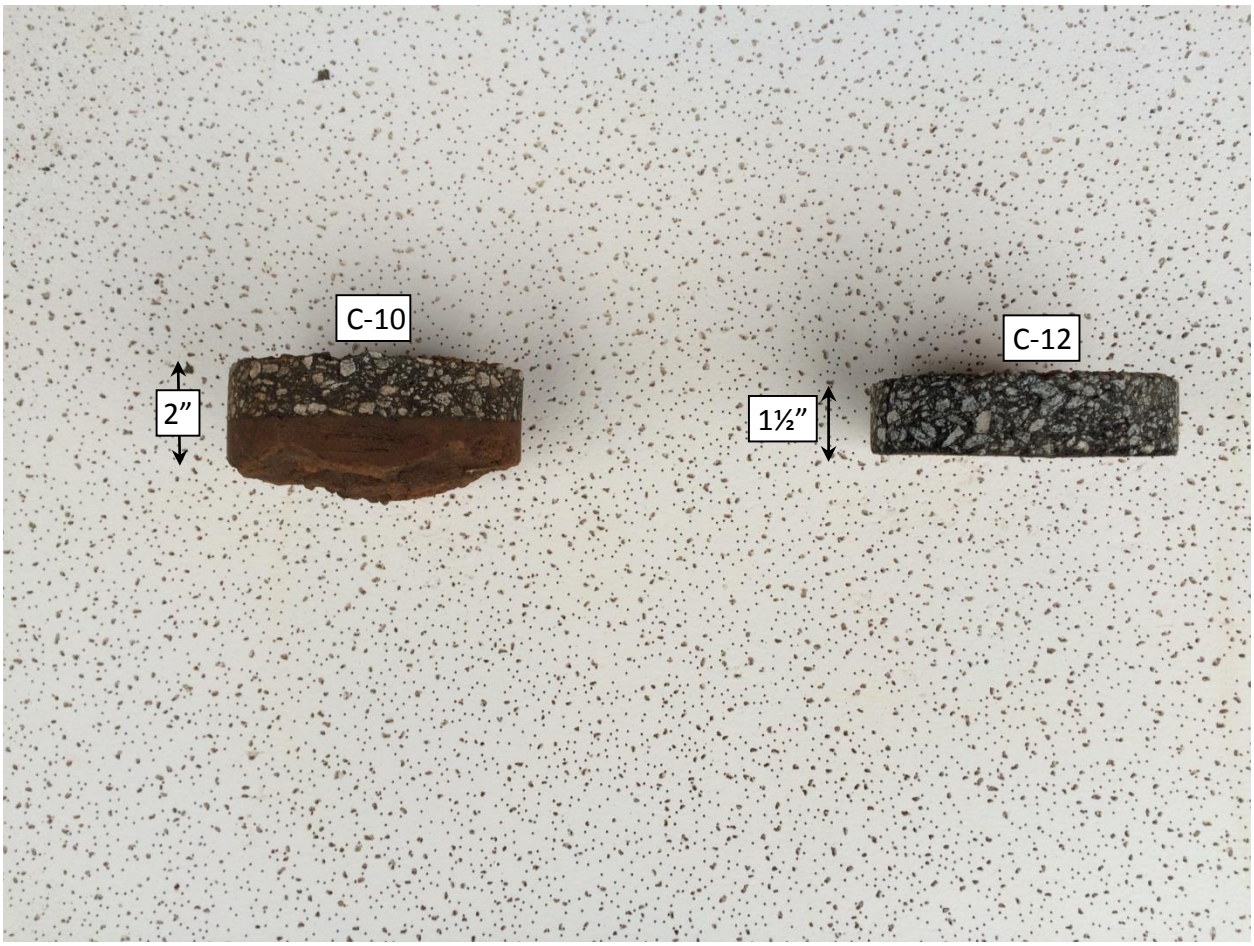
Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-3	District Line Road	105+25	Southbound	Lane
C-4	District Line Road	138+45	Northbound	Lane



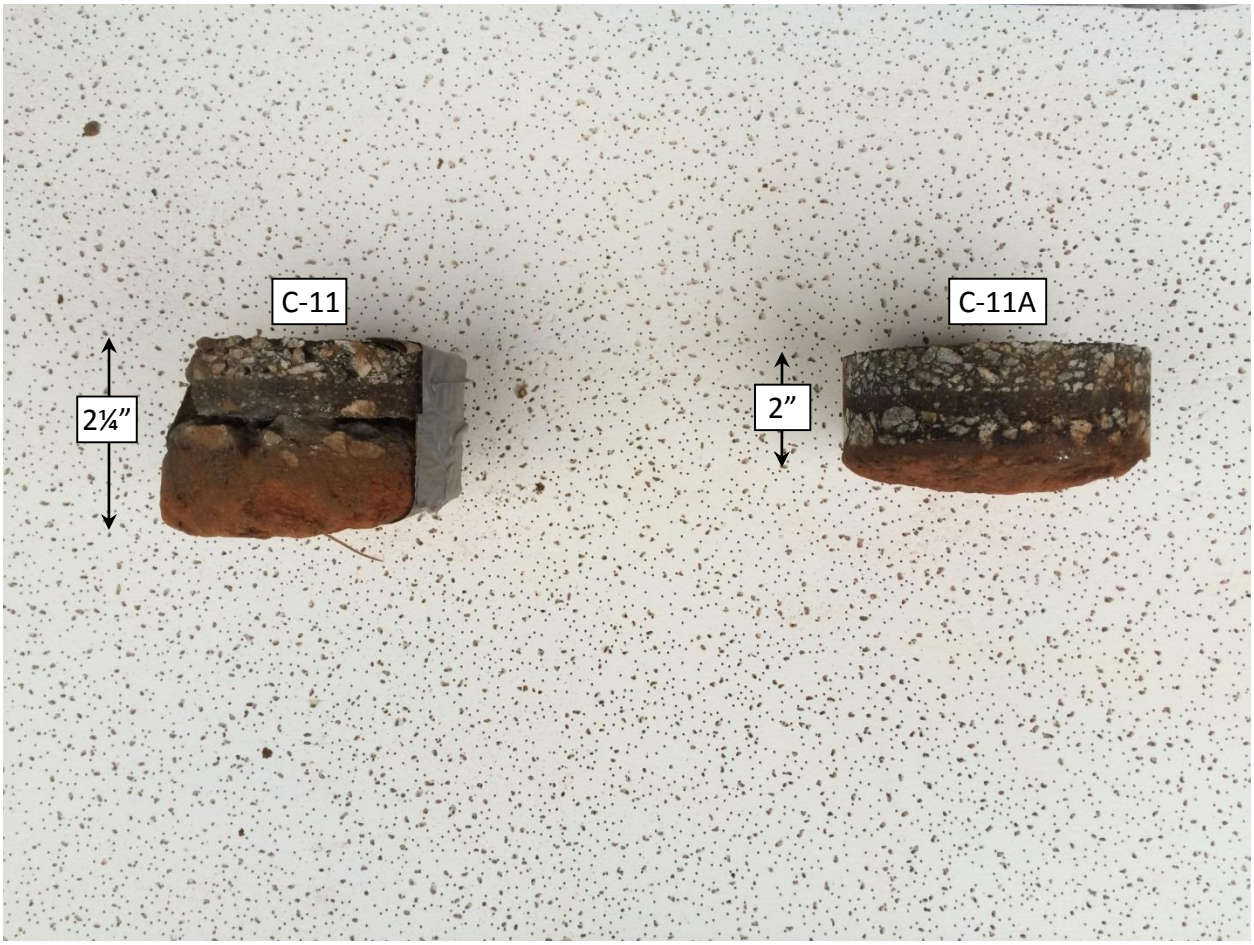
Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-5	Ed Carson Road	70’ W of District Line Road	Eastbound	Lane
C-6	District Line Road	165+00	Southbound	Lane



Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-8	SR 27	110’ E of District Line Road	Eastbound	Lane
C-9	District Line Road	201+80	Northbound	Lane

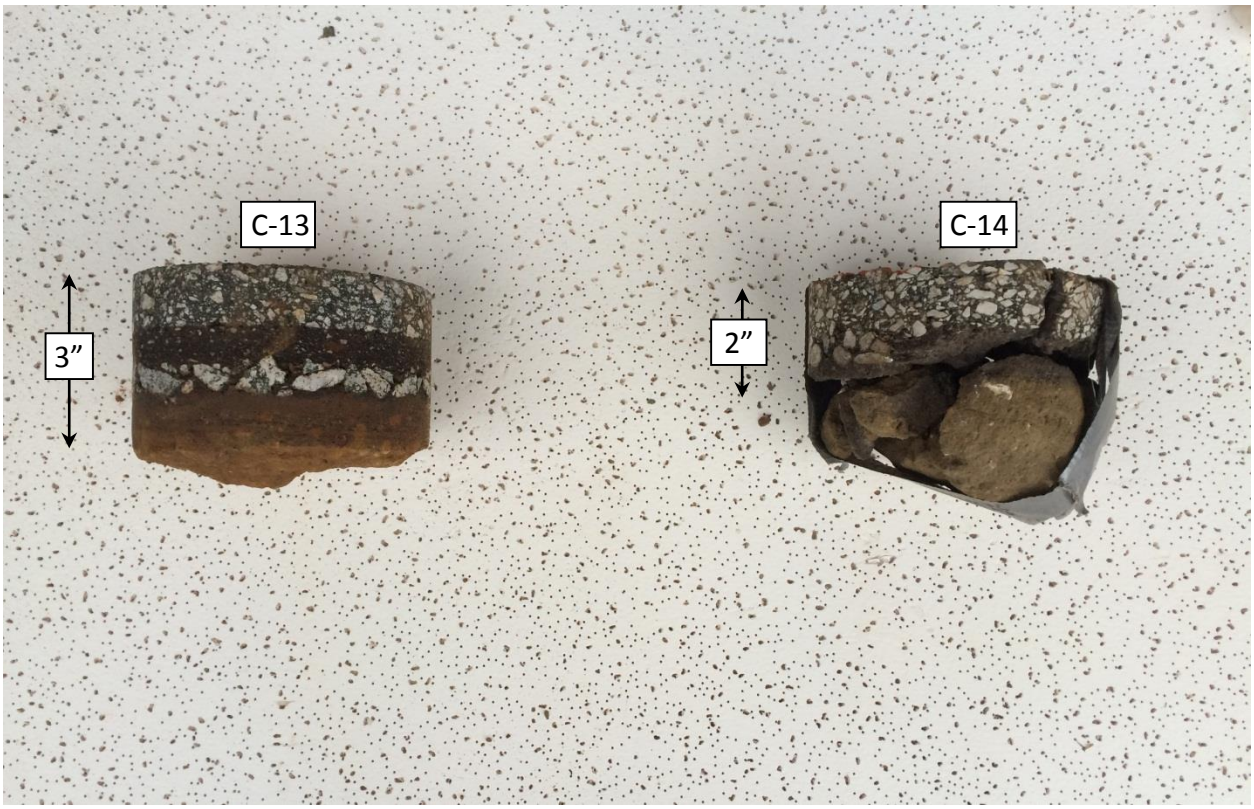


Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-10	Page Drive	37’ E of District Line Road	Westbound	Lane
C-12	Pearl Drive	39’ E of District Line Road	Eastbound	Lane

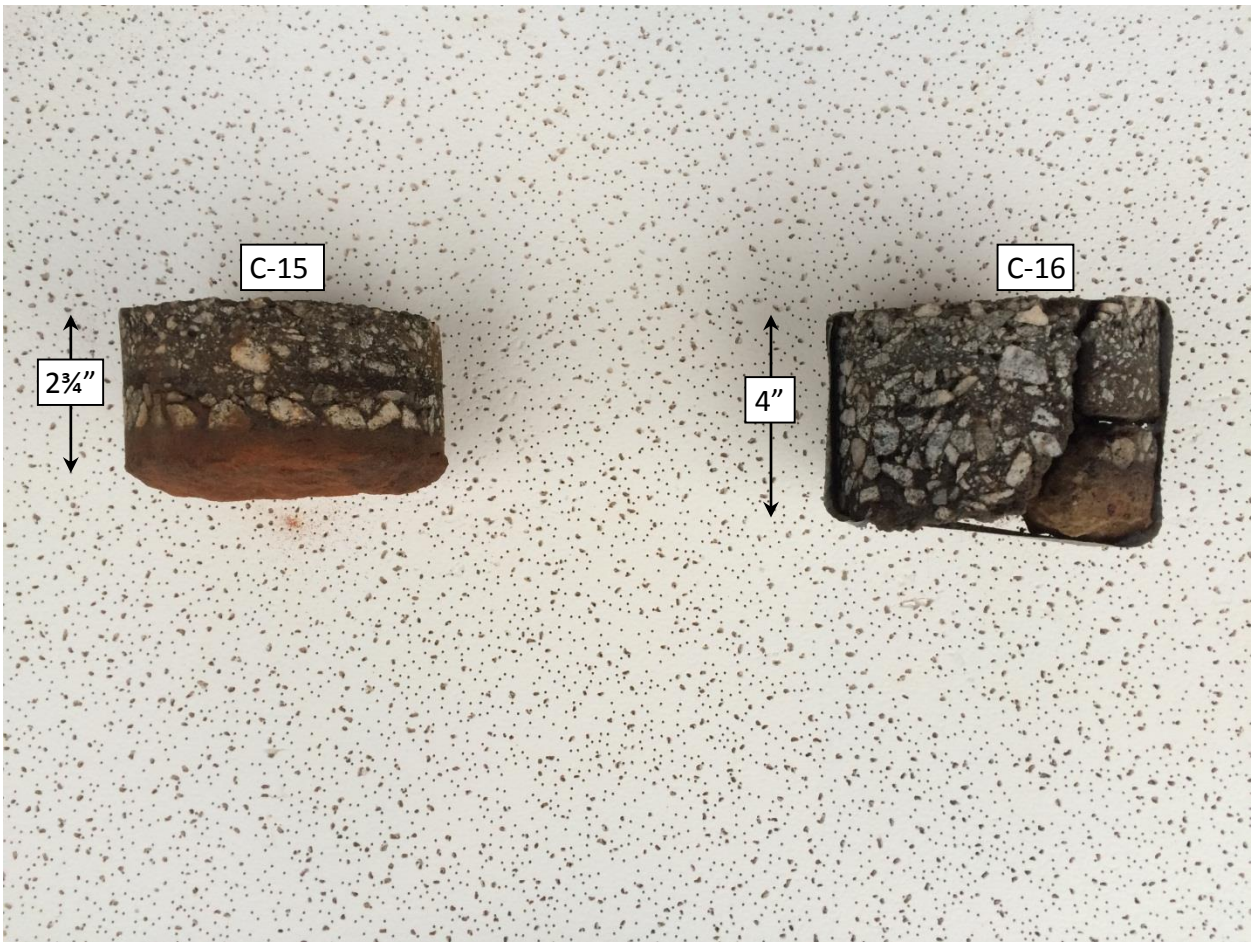


Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-11	District Line Road	216+35	Northbound	Lane
C-11A	District Line Road	216+35	Northbound	Lane

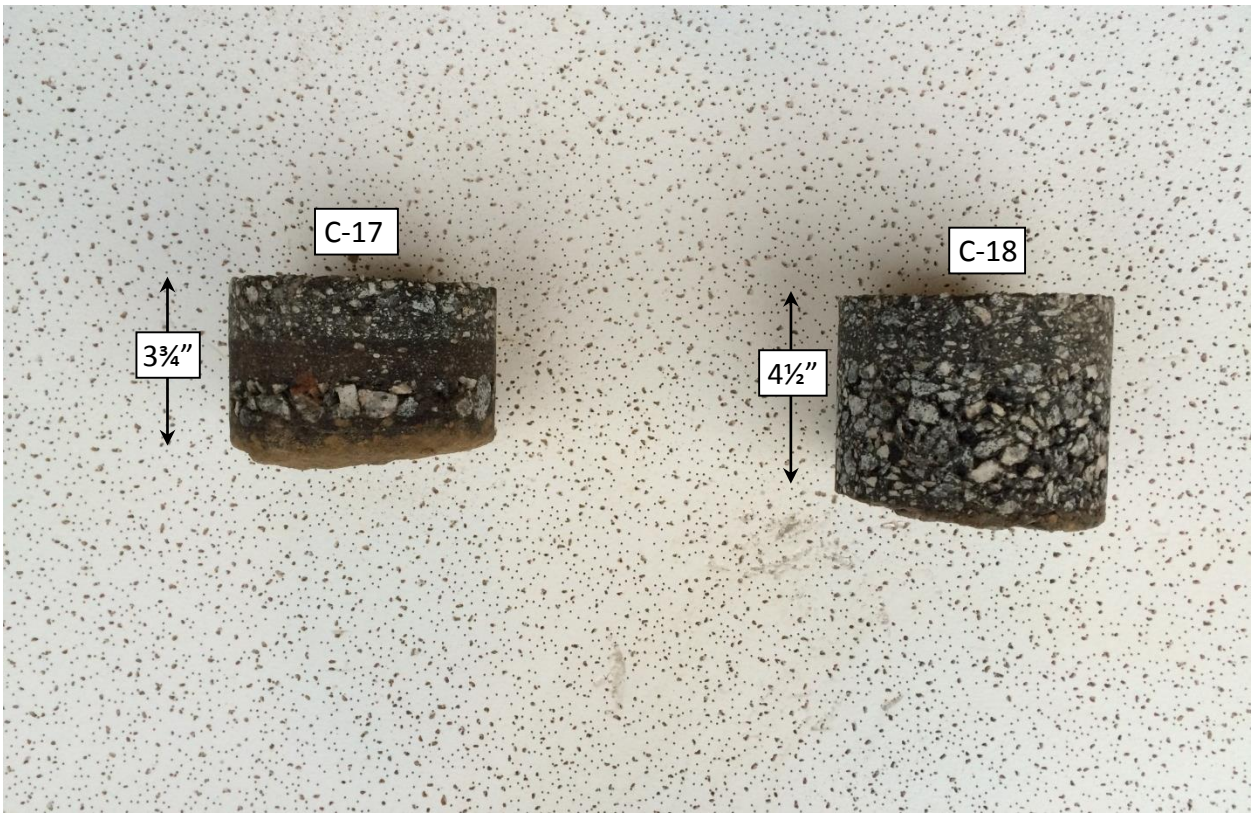
Note: C-11A was cored due to the split in core C-11.



Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-13	District Line Road	237+90	Southbound	Lane
C-14	Middle River Road	80’ W of District Line Road	Eastbound	Lane

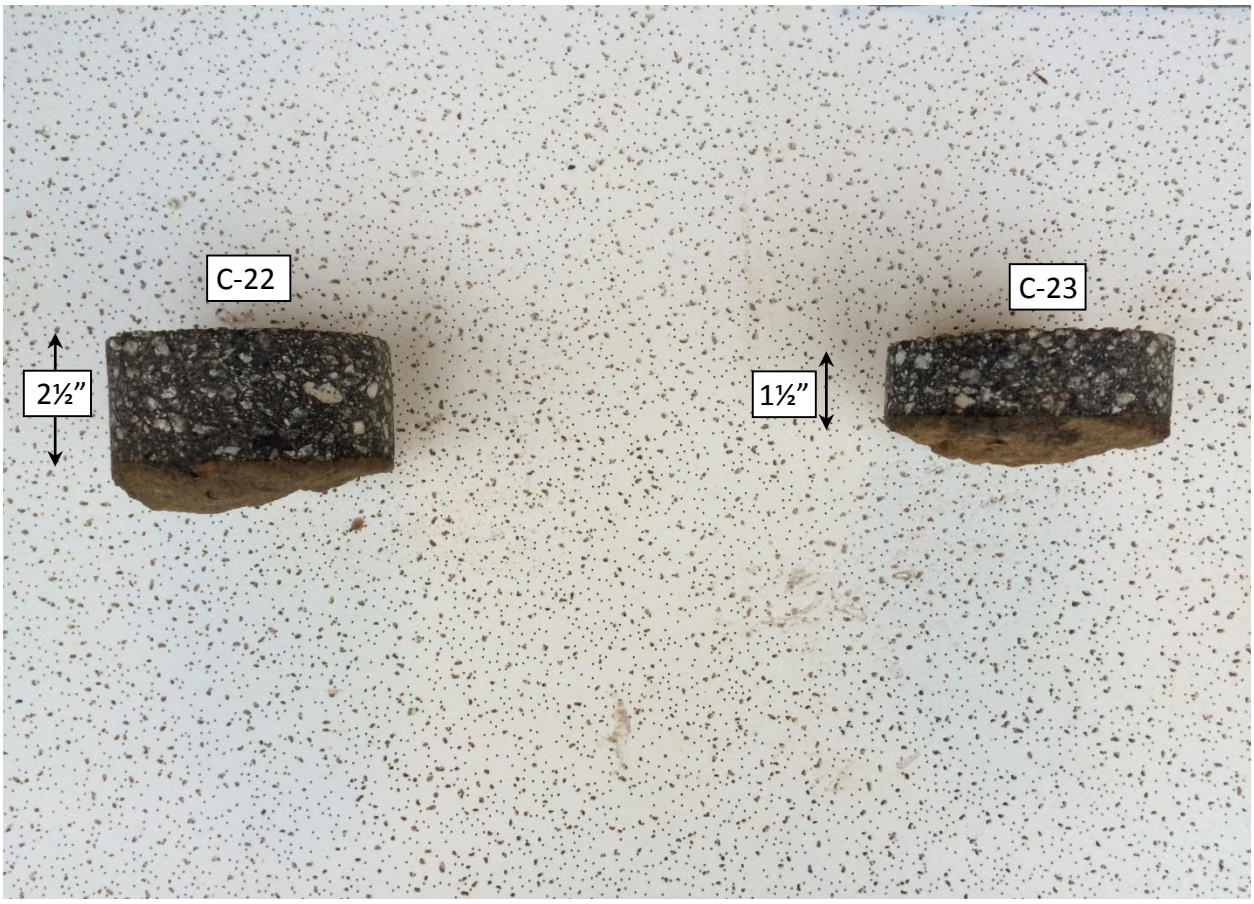


Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-15	District Line Road	267+65	Northbound	Lane
C-16	Upper River Road	140’ W of District Line Road	Eastbound	Lane



Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-17	District Line Road	310+45	Southbound	Lane
C-18	District Line Road	343+75	Northbound	Lane

Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-20	District Line Road	358+80	Southbound	Lane
C-21	Havencrest Drive	75’ E of District Line Road	Eastbound	Lane



Core No.	Location	Station	Traffic Direction	Lane/Shoulder
C-22	North Pointe Road (South Intersection)	65’ E of District Line Road	Eastbound	Lane
C-23	North Pointe Road (North Intersection)	55’ E of District Line Road	Eastbound	Lane

APPENDIX III

Flexible Pavement Design Analysis

PI Number	0011439	**County(s)**	Sumter
Project Number		**Design Name**	District Line Road
Project Description	Improvements to District Line Road		

Traffic Data (AADTs are one-way)						**Miscellaneous Data**	
Initial Design Year	2018	**Initial AADT, VPD**	2,840	**24 Hour Truck %**	30.00	**Lanes in one direction**	1
Final Design Year	2038	**Final AADT, VPD**	3,930	**SU Truck %**	27.00	**Curb & Gutter/Barrier**	No
		Mean AADT, VPD	3,385	**MU Truck %**	3.00		

Design Data					
Lane Distribution Factor (%)	100.00	**Soil Support Value**	3.50	**Single Unit ESAL**	0.40
Terminal Serviceability Index	2.50	**Regional Factor**	1.50	**Multiple Unit ESAL**	1.50
		User Defined 18-KIP ESAL	0.00	**Calculated 18-KIP ESAL**	0.51
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	**LDF (%)**	**Vehicle Type**	**Volume (%)**	**ESAL Factor**	**Daily ESAL**
3,385	100.00	Single Unit Truck	27.00	0.40	366
		Multi Unit Truck	3.00	1.50	153
				Total Daily ESALs	519
				Total Design Period ESALs	3,788,700

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
		3.00	0.3000	0.90
Course 4	Graded Aggregate Base	10.00	0.1600	1.60

Required SN	4.82	**Proposed pavement is 7.02% Underdesigned**	**Proposed SN**	4.48

Design Remarks	Use for District Line Road, Lamar Road/Lower River Road, SR 27, Middle River Road, and Upper River Road

Prepared By 3/8/2016 4:49 PM

Adam Sugrue/Sujit Bhowmik, PhD, PE **Date**

Recommended By

Consultant Design Phase Leader **Date**

Approved By

State Pavement Engineer **Date**

Filename: P:\4076 District Line Road Pavement Evaluation\Working Data\Analyses and Design\Pavement Analysis\GDOT Pavement Design Tool v2.0.xlsm
GDOT Pavement Design Tool - Version 2.0

Flexible Pavement Design Analysis

PI Number	0011439	**County(s)**	Sumter
Project Number		**Design Name**	US 280/SR 30
Project Description	Improvements to District Line Road		

Traffic Data (AADTs are one-way)						**Miscellaneous Data**	
Initial Design Year	2018	**Initial AADT, VPD**	2,840	**24 Hour Truck %**	30.00	**Lanes in one direction**	1
Final Design Year	2038	**Final AADT, VPD**	3,930	**SU Truck %**	27.00	**Curb & Gutter/Barrier**	No
		Mean AADT, VPD	3,385	**MU Truck %**	3.00	**Milling Depth (inches)**	

Design Data					
Lane Distribution Factor (%)	100.00	**Soil Support Value**	3.50	**Single Unit ESAL**	0.40
Terminal Serviceability Index	2.50	**Regional Factor**	1.80	**Multiple Unit ESAL**	1.50
		User Defined 18-KIP ESAL	0.00	**Calculated 18-KIP ESAL**	0.51
Non-Standard Value Comment					

Design Loading (Calculated 18-KIP ESAL)					
Mean AADT, VPD	**LDF (%)**	**Vehicle Type**	**Volume (%)**	**ESAL Factor**	**Daily ESAL**
3,385	100.00	Single Unit Truck	27.00	0.40	366
		Multi Unit Truck	3.00	1.50	153
				Total Daily ESALs	519
				Total Design Period ESALs	3,788,700

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
Existing 1	Asphaltic Concrete	9.00	0.3000	2.70
Existing 2	Portland Cement Concrete (fair)	6.00	0.3000	1.80
Required SN	4.95	**Proposed pavement is 4.28% Overdesigned**	**Proposed SN**	5.16

Design Remarks	US 280/SR 30 overlay design

Prepared By 3/16/2016 11:00 AM

Adam Sugrue/Sujit Bhowmik, PhD, PE **Date**

Recommended By

Consultant Design Phase Leader **Date**

Approved By

State Pavement Engineer **Date**

Filename: P:\4076 District Line Road Pavement Evaluation\Working Data\Analyses and Design\Pavement Analysis\GDOT Pavement Design Tool v2.0.xlsm
GDOT Pavement Design Tool - Version 2.0

Meeting Minutes

Subject: **District Line Road Stakeholder's Meeting - PI 0011439**

Date: June 8, 2016

Location: Sumter County Attorney Office – Conference Room

Attendees: Dan Bodycomb, TIA Project Manager, GDOT
Kenneth Franks, TIA Regional Coordinator, GDOT
Al Bowman, Design Consultant, Michael Baker International
Ben Clopper, Design Consultant, Michael Baker International
Randy Howard, Chairman, Sumter County Board of Commissioners
Patti Cullen, River Valley Regional Commission
Bill Twomey, County Administrator, Sumter County Board of Commissioners
Mary Beth Bass, One Sumter
Barbara Grogan, Payroll Development Authority

Discussion:

1. Dan Bodycomb opened the meeting with introductions

2. Dan Bodycomb reviewed the project Concept Report
    - The project consists of improvements to District Line Road from Lamar Rd to SR 49. The road is expected to act as part of a future truck bypass of downtown Americus so the improvements are focused on improving truck mobility and operation.
    - The existing roadway is two 11'-12' lanes with graded shoulders.
    - There was a brief discussion relating to how the traffic counts were obtained. Historical counts available along District Line Rd were projected along with an additional factor to account for the use of the roadway as a truck bypass.
    - District Line Road is classified as a Rural Minor Collector.
    - District Line Rd is currently signed for a bicycle route from Lamar Road to Middle River Road.
    - The proposed improvements include an extension of District Line Road from Lamar Rd to US 280, shoulder improvements along the length of District Line Road and intersection improvements at SR 27, Middle River Road and Upper River Road.
    - The Design Features of District Line Road were reviewed. They include two 11 foot lanes with ten foot graded shoulders of which two feet will be paved. The design speed is 55 mph and the design vehicle is a WB-67 to account for the projected truck traffic. There is a preference to include wider paved shoulders, either 4' or 6.5', to accommodate bicycle traffic, but the project budget will not currently accommodate this.
    - Lighting will be required at the proposed roundabout at SR 27. The TIA Office is preparing a lighting agreement for Sumter County.
    - Some offsite detours may be included in the project. Staging will be more fully developed during design and detours may allow the contractor to build the project more quickly.
    - No Design Exceptions or Design Variances are anticipated for this project.
    - Utility owners will be contacted during the design process to determine the location of their facilities.

Meeting Minutes

- The existing roadway has a 60-90 foot right-of-way width. This will be widened as necessary to accommodate the improvements. It is anticipated that there will be impacts to 63 parcels, with no displacements. The per parcel administrative costs are the controlling factor for R/W acquisition, not the actual land cost so the design team will attempt to minimize the number of parcels required.
- There was a discussion regarding the roundabout at SR 27. This is the preferred alternate for the design team and was viewed favorably at the stakeholder meeting in March. A signal is not warranted at this intersection and the roundabout will allow trucks to pass through the intersection without having to stop.
- The project will follow the GEPA process since only TIA funding will be used. A Regional 404 Permit is expected for impacts to US Waters and wetlands, as well as a stream buffer variance. There are several large historic parcels along the project but no adverse effect is expected due to the nature of the project which is mainly shoulder improvements along the parcel frontages.
- The overall project budget was reviewed and discussed. The total budget is $10,000,000. Currently the breakdown is about $800,000 for PE, $1,425,000 for R/W, $475,000 for Utilities and $7,125,000 for Construction.
- Other cost alternatives considered in the concept were discussed including 12 foot lanes, wider paved shoulders and intersection improvement options. The current cost is driven mainly by asphalt costs. The proposed pavement section was designed based on an evaluation of the existing pavement, which is relatively thin, and the need to accommodate future truck traffic. The next highest cost is R/W and this was reduced through adjustments to the typical sections.

3. Further Discussion
    - The topic of bike lanes was discussed and how to include them in the project while staying within the budget. The bike route is currently only signed from Lamar Rd to Middle River Rd, so future lanes could only include this section, which would reduce costs. A decision was made that wide paved shoulders should be included as a bid alternate and included if budget allows.
    - The project is scheduled for Let in March 2018 with a construction period of 18 months.
    - Public involvement was discussed. It was noted that no further formal public involvement is required, but the concept layouts will be available for view at the County offices and press releases may be prepared. Kenneth will coordinate with Karen Judd, the TIA Communications Specialist, to initiate any potential press releases. Additionally the concept layouts may be posted on the TIA website for public viewing.

TRANSPORTATION INVESTMENT ACT

SIGN-IN SHEET

CONCEPT TEAM MEETING

PI 0011439- District Line Road, Sumter County

PLEASE PRINT CLEARLY

June 8, 2016

Name	Organization	Email	Phone
Dan Bodycomb	GDOT TIA Office	dbodycomb@dot.ga.gov	404-631-1715
Kenneth Frank	GDOT TIA Office	kfranks@dot.ga.gov	404-631-1568
Al Bowman	Michael Baker Intl	ABowman@MBakerIntl.com	678-642-0455
Ben Clopper	Michael Baker Intl	ben.clopper@mbakerintl.com	678-966-6607
Randy Howard	Sumter Co BOC	rhoward@sumtercountyga.gov	229 591-4077
Patti Cullen	River Valley RC	pcullen@rivervalleyrc.org	(706) 256-2910
Bill Twomey	Sumter Co BOC	btwomey@sumtercountyga.us	(229) 928-4500
Mary Beth Bess	One Sumter	marybeth@onesumter.org	(229) 815-1669
Barbara Grogan	Payroll Dev. Authority	bgrogan@sumtercountychamber.com	229-591-9809

Meeting Minutes

Subject: **District Line Road Stakeholder's Meeting - PI 0011439**

Date: March 16, 2016

Location: South Georgia Technical College, Weyerhaeuser Room - Pope Center

Attendees: Ben Clopper, Design Consultant, Michael Baker Inernational
Christopher Sheahan, TIA Project Manager, GDOT
Kenneth Franks, TIA Regional Coordinator, GDOT
Dan Bodycomb, TIA Project Manager, GDOT
Bill Twomey, County Administrator, Sumter County Board of Commissioners
Randy Howard, Chairman, Sumter County Board of Commissioners
Barbara Grogan, Sumter County Chamber of Commerce
James Morris, Georgia Power Company
Jim Dean, AT&T
Gerald Mixon, River Valley Regional Commissioner
Milton Foster, Citizens Telephone
Felder Daniels, Daniel Grove Baptist Church
Frank Whitaker, Public Works Director, Sumter County
Rene Smith, Sumter EMC

Discussion:

1. Kenneth Franks gives a brief description of the TIA program and goes over the project's stated benefits to the public.

2. Ben Clopper discusses the District Line Road Project facts
    - The project has a budget of $10,000,000
    - The project is 5.4 miles long
    - District Line Road is classified as a Rural Minor Collector with a 55 MPH speed limit
    - Right of Way Authorization Date of November 16, 2016
    - Scheduled begin construction date of May 01, 2018
    - Anticipated finished construction date of December 01, 2019
    - Existing right of way width varies 60'-90'
    - The minimum proposed right of way width is 90'
    - There are 84 parcels that could be impacted with no anticipated displacements
    - A GEPA - B environmental documents is anticipated
    - 34 waters have been identified , a 404 permit along with stream buffer variances are expected
    - There are three historical properties with no anticipated adverse impacts
    - A phase one archaeological study will be completed
    - This is a suitable habitat for state protected Spotted Turtle, which will require a species study
    - An air assessment will be required, no noise analysis is required
    - Utility companies in the project vicinity are AT&T, Citizens Telephone Company, Georgia Power, Southern Natural Gas, Sumter EMC, and Mediacom

Meeting Minutes

3. Ben Clopper goes over the possible corridor improvement options for District Line Road
    - Extend District Line Road from Lamar Road to US 280/SR 30 to provide a truck bypass of the city of Americus
    - Widen District Line Road to twelve foot lanes in each direction
    - Close the substandard intersection of Lamar Road at US 280 and cul de sac Lamar Road west of District Line Road
    - Construct shoulders in both directions along District Line Road (2', 4' or 6.5')
    - Pavement design options include overlaying, full depth reconstruction, and pavement reclamation
    - Construct a roundabout at the intersection of SR 24 and District Line Road
    - Realign District Line Road at the intersections of US 27 and Upper River Road to eliminate substandard skews
    - Provide turn lanes at intersections where warranted

4. The GDOT TIA group opens the floor to questions and suggestions
    - Frank Whitaker suggests extending U.S. 280 road construction to Lamar Road in order to tie into another long range GDOT project.
    - Frank Whitaker recommends using full depth reclamation following GDOT standards.
    - Frank Whitaker recommends including 4' paved shoulders as a minimum in order to accommodate bike traffic.
    - Gerald Mixon states that the road should be built to GDOT standards. Ben Clopper replies that all the current design options meet GDOT standards.
    - Frank Whitaker recommends changing the stop control at Middle River Rd and Upper River Road so that traffic on District Line Rd will not have to stop.
    - Gerald Mixon recommends constructing a roundabout at the intersection of District Line Road and SR 27 as part of the long range county plan.
    - Barbara Grogan states a recent development will create high truck volumes along District Line Road.
    - Frank Whitaker recommends using eleven foot lanes instead of twelve foot lanes for additional cost savings.
    - Gerald Mixon has concerns that the trucks will avoid District Line Road if the current stop conditions remain in place after construction.
    - Randy Howard says there have been accidents at the intersection of District Line Road and Upper River Road due to cars on District Line Road not coming to a full stop. He recommends changing stop control to Upper River Road. Site distance is better for cars when stop condition is on Upper River Road.
    - Frank Whitaker suggests reducing turn lanes where possible for additional cost savings.
    - James Morris states that pole relocation will range from $1500 to $2500 per power pole.
    - Felder Daniels had questions about the Daniel Grove Baptist Church's driveway access to District Line Road. It was assured to him that the Church's driveway would

be extended to District Line Road, and that this was part of the South Georgia Tech Parkway project that is currently under construction.

5. Action Items
    - Do a more in depth investigation on pavement reclamation and come up with a cost estimate for it
    - Take into account the feedback from the stakeholder's meeting and finalize the project options utilizing the budget as efficiently as possible

Project Sheet

Project Number: RC08-000091 ***Project Name:*** District Line Road Improvements

GDOT ID: 0011439

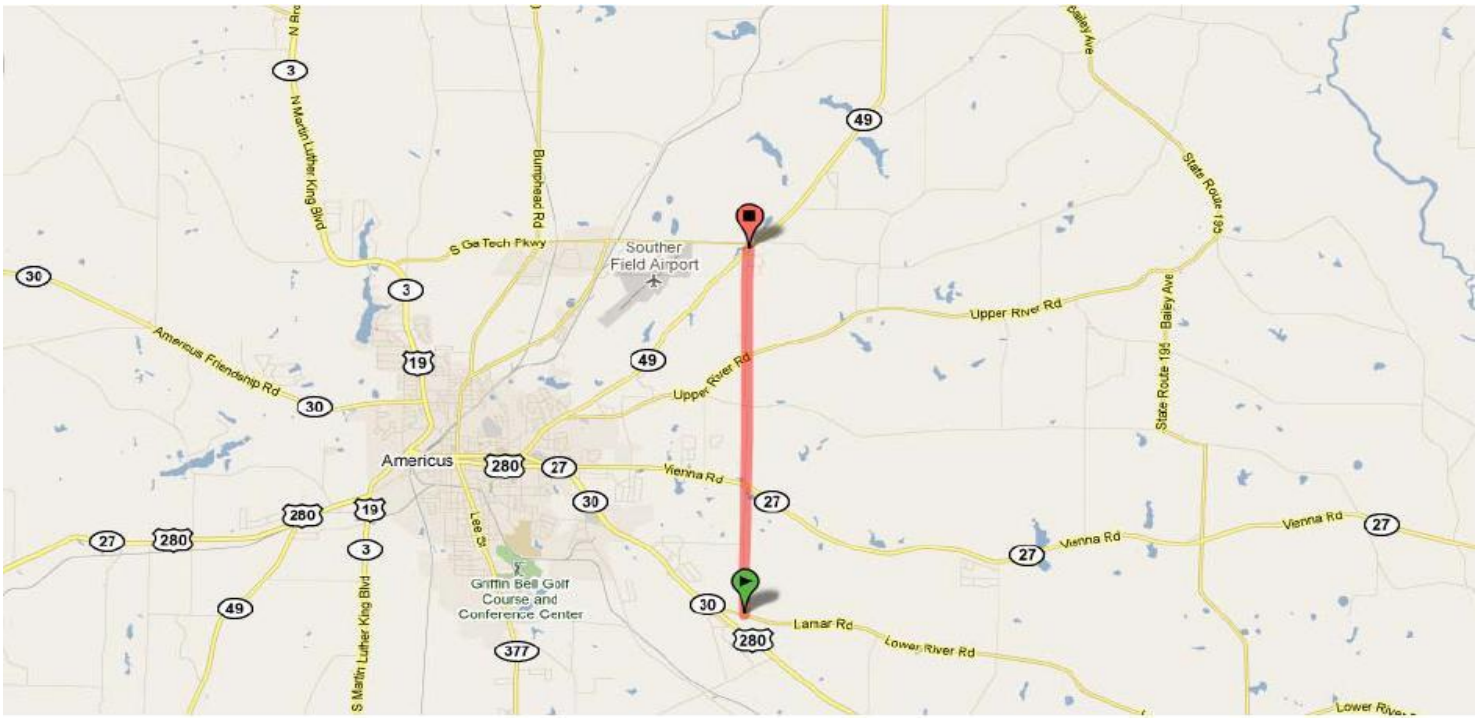
Project Description: Improvements to District Line Road from U.S. 280 to SR 49.

Regional Commission: River Valley

County: Sumter County

Phase	Total Project Cost	Total TIA Amount
PE	$400,000	$400,000
ROW	$4,500,000	$4,500,000
CST	$5,100,000	$5,100,000
Total	**$10,000,000**	**$10,000,000**

Comments (Please note all cost estimates are in 2011 dollars and actual costs for all phases at year of expenditure will be higher):

Public Benefit	Notes
Ensuring Safety and Security	This project would benefit the public by potentially reducing the incidence of crashes along this roadway segment, corridor, and/or intersection.
Maximizing the value of Georgia's Assets	This project could potentially maximize the full utility of an existing transportation facility(s). In some cases, bypasses will be necessary. Example benefits could be: mitigating congestion (e.g. operational improvements) and optimizing capital asset management (e.g. resurfacing, rehabilitation). The impacts would apply to this roadway segment, corridor, and/or intersection.
Additional Benefits	This project would benefit the traveling public by making it much safer for vehicular, pedestrian, bicycle and truck traffic. These improvements will provide areas lagging in growth with greater opportunities to attract industry, business and jobs as by facilitating rail traffic from Inland Port to Cordele. Additional benefits would potentially decrease the frequency and severity of traffic accidents.

Project Location