

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

Project Type: <u>Safety</u>	P.I. Number: <u>0008314</u>	
GDOT District: <u>6</u>	County: <u>Pickens</u>	
Federal Route Number: <u>N/A</u>	State Route Number: <u>136</u>	
Project Number: <u>CSSFT-0008-00(314)</u>		

SR 136 from SR 136 Connector to SR 515

Submitted for approval:

Sarah Worachek, Gresham Smith & Partners	Date
State Program Delivery Engineer	Date
GDOT Project Manager	Date

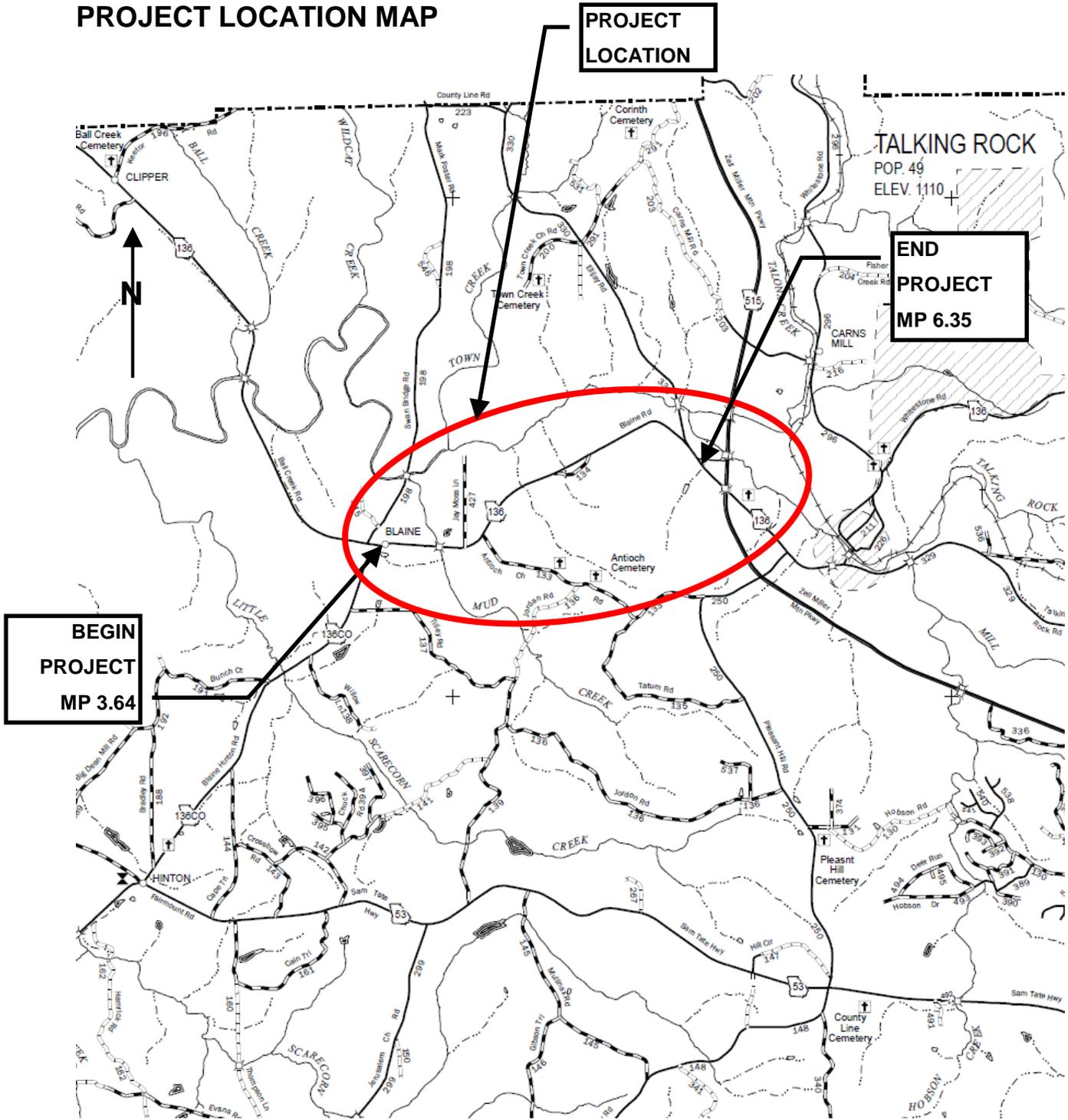
Recommendation for approval:

State Environmental Administrator	Date
State Traffic Engineer	Date
Project Review Engineer	Date
State Utilities Engineer	Date
District Engineer	Date
State Bridge Engineer	Date

- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

State Transportation Planning Administrator	Date
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PROJECT LOCATION MAP



PLANNING AND BACKGROUND

Project Justification Statement: In Georgia, nearly a third of fatal crashes occur at intersections. Therefore, intersection safety is a focus area for the Georgia Department of Transportation. Nationally intersection crashes account for 40% of all reported crashes and approximately 20% of traffic fatalities. Of those crashes, almost half are the result of angle collisions. Angle collisions are often high speed, high impact crashes which often result in serious injuries or fatalities. Roundabouts have been identified as one of nine proven safety countermeasures by the Federal Highway Administration (FHWA). Roundabouts decrease total crashes at an intersection by approximately 80% by reducing the speeds and conflict points of vehicles, only leaving the potential for lower impact, less severe crashes. This proposed project will reduce crash frequency and severity on SR 136 by installing roundabouts at the intersections of SR 136 at SR 136 Conn. and SR 136 at SR 515. The project will also improve the horizontal alignment along SR 136, from the SR 136 Conn to SR 515, and adds bikeable shoulders throughout this stretch of roadway.

Existing conditions:

The SR 136 and SR 136 Connector in the Blaine Community has a stop sign controlled intersection and a left turn from SR 136 Connector to SR 136 at an acute angle with no turn lanes that has conflicting turn movements and has had a number of severe crashes. SR136 has two lanes at 12 ft widths with a 2 ft paved shoulder with no turn lanes. The SR 136 and Antioch Church Road intersections horizontal curve and lack of turn lanes doesn't meet AASHTO guidance resulting in single and angle crashes. Both of legs of Priest Circle to SR 136 have inadequate site distance and is not compliant with the Design Policy Manual-Version 4.6. The SR 136 SB and Ellijay Road NB intersection has significant single vehicle crashes and angle crashes at the intersection due to the left turn from SR 136 to Ellijay Road being an acute angle and no turn lanes. The existing roadway is entirely within Pickens County. Only other stop controlled intersections on this project are at both arms of Priest Circle and Antioch Church Rd with no turn lanes on either of them. The project begins at MP 3.64 and ends at MP 6.35 on the existing alignment for a length of 2.7 miles. The only turn lanes on the project are between the SR 136 / SR 515 Connector and SR 136 and a small one at one leg of Priest Circle.

Other projects in the area:

0008290	SR 515 at CR 203/Carns Mill Rd turn lane addition	Long Range
0008043	SR 515/SR 5 at CR 250/Antioch Church Road Installation of Restricted Crossing U-turn intersection	Construction Work Program
M005314	SR 136 from SR 61/US 411/Gordon to SR 16 Conn/Pickens Maintenance	Maintenance

MPO: N/A - Project not in MPO

TIP #: N/A

TIA Regional Commission: Northwest Georgia RC

Congressional District(s): 14

Federal Oversight: PoDI Exempt State Funded Other

- The shoulders on both sides of SR 136 throughout the project (except at the roundabouts) will be widened to a 10 ft width with a 6.5 ft paved width to accommodate bicyclists on a rural roadway as per the GDOT Design Policy Manual-Version 4.6 and AASHTO Publication Guide for the Development of Bicycle Facilities. A rumble strip will also be embedded into the paved shoulder to alert straying motorists and should help to decrease the number the number of single vehicle crashes. The foreslopes, ditches, and drainage structures affected by the shoulder widening will be upgraded to comply with clear zone requirements in the AASHTO Roadside Design Guide. The existing pavement between the new, widened shoulders will be overlaid and restriped. SR 136/SR 515 Connector will retain four 12 ft travel lanes and existing shoulder width and have a design speed limit of 25 mph. SR 136 Connector width will be extended from 12 ft to 16 ft and have a 5' sidewalk on the approach to the roundabout.

Major Structures:

Structure	Existing	Proposed
Double barrel	10 ft x 10 ft bridge culvert, ID # 227-0020-0, over Mud Creek	10 ft x 10 ft bridge culvert, ID # 227-0020-0, to be lengthened over Mud Creek
Retaining Wall	N/A	A 0-10' cut wall will be needed for approximately 300'.

Mainline Design Features: SR 136 (Rural Major Collector)

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2		2
- Lane Width(s)	12ft	11-12 ft	12 ft
- Turn Lane Width(s)		11-12 ft	12 ft
- Median Width & Type			
- Outside Shoulder or Border Area Width		10 ft	10 ft
- Outside Shoulder Slope	2:1/4:1	2:1/4:1	2:1/4:1
- Inside Shoulder Width		6 ft	N/A
- Paved Shoulder	2ft	6.5 ft	6.5 ft
- Sidewalks			
- Auxiliary Lanes			
- Bike Lanes			
Posted Speed	55mph		55 mph
Design Speed	55mph		55 mph
Min Horizontal Curve Radius	662ft	1060 ft	1060 ft
Maximum Superelevation Rate	10.0%	6.0%	6.0%
Maximum Grade	7.11%	7.0%	7.0%
Access Control			Full
Design Vehicle		SU	SU
Pavement Type		HMA & PCC	HMA & PCC

*According to current GDOT design policy if applicable

Mainline Design Features: SR 136 Roundabouts

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes			1
- Lane Width(s)			18 ft
- Turn Lane Width(s)			
- Median Width & Type			Splitter Islands 4 – 55 ft
- Outside Shoulder or Border Area Width			14 ft
- Outside Shoulder Slope			2:1/4:1
- Inside Shoulder Width			14 ft
- Paved Shoulder			
- Sidewalks		5 ft	5 ft
- Auxiliary Lanes			
- Bike Lanes			
Posted Speed			15 mph Advisory
Design Speed			15 mph
Min Horizontal Curve Radius			
Maximum Superelevation Rate			2.0 %
Maximum Grade			2.0 %
Access Control			Full
Design Vehicle		WB-67	WB-67
Pavement Type		HMA & PCC	HMA & PCC
Inscribed Diameter			170 ft

*According to current GDOT design policy if applicable

Major Interchanges/Intersections:

- SR 136 at SR 136 Connector
- SR 136 at SR 515 Connector road
- SR 136 at Ellijay Road

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	<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"/>	
7. Vertical Alignment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10/17/2012
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"/>	

There are design parameters associated with the proposed design profile which will require exception:

1. The proposed broken back sag vertical curves on SR 136 between the SR 136 Connector intersection and the Antioch Church Road intersection have K values that are 78.96 and 74.70 respectively. These values match the existing profile and are both lower than the minimum (K value of 115) sag vertical curve as required by AASHTO.
2. The proposed crest vertical curve on SR 136 at the Antioch Church Road intersection has a K value of 69.76. This value matches the existing profile and is lower than the minimum (K value of 114) crest vertical curve as required by AASHTO.
3. The proposed sag vertical curve on SR 136 between the intersections of Antioch Church Road and the Priest Circle has a K value of 96.73. This value matches the existing profile and is lower than the minimum (K value of 115) sag vertical curve as required by AASHTO.
4. The proposed crest vertical curve on SR 136 at the western Priest Circle intersection leg has a K value of 90.59. This value matches the existing profile and is lower than the minimum (K value of 114) crest vertical curve as required by AASHTO.
5. The proposed sag vertical curve on SR 136 between the western intersection and eastern intersection of Priest Circle has a K value of 80.63. This value matches the existing profile and is lower than the minimum (K value of 115) sag vertical curve as required by AASHTO.
6. The proposed crest vertical curve on SR 136 at the eastern intersection Priest Circle has a K value of 86.54. This value matches the existing profile and is lower than the minimum (K value of 114) crest vertical curve as required by AASHTO.
7. The proposed sag vertical curve on SR 136 just east of the eastern intersection with Priest Circle has a K value of 94.43. This value matches the existing profile and is lower than the minimum (K value of 115) sag vertical curve as required by AASHTO.

Design exceptions for the above items have been submitted to the GDOT Office of Design Policy and Support for review and approval.

ROUNABOUTS

Roundabout Lighting Agreement/Commitment Letter received: No Yes

Roundabout Planning Level Assessment: N/A

Roundabout Feasibility Study: N/A

Roundabout Peer Review Required: No Yes Completed – Date:

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: Local opposition to project

Context Sensitive Solutions Proposed: Citizen’s Advisory Committee (CAC)

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			Remarks
	No	Yes	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	
4. 33 USC 408 Decision	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. NPDES	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Trail of Tears Association, Georgia Chapter

Is a PAR required? No Yes Completed – Date:

Environmental Comments and Information:

NEPA/GEPA:

- An Environmental Assessment will be required.

Waters of the US:

- US Army Corps of Engineers Nationwide Permit 14 is anticipated
- Waters of the US that would be impacted are not a suitable habitat for protected species

Ecology:

- Streams
- Wetlands
- Federally protected aquatic species
- Seasonal clearing restrictions are anticipated for bat surveys
- Protected plan surveys are anticipated

History:

- SHPO concurrence is required.
- Old Federal Road
- Blaine Community
- Low House
- Residence on 55 Priest Circle
- Trail of Tears

Archeology:

- Possible cemetery site
- Trail of Tears
- Blaine Masonic Lodge
- Possible cemetery site

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

Noise Effects:

- To be completed in design

Public Involvement:

- Meeting with Marble Valley Historical Society December 14, 2009
- Meeting with Northwest Georgia Regional Commission December 14, 2009
- Meeting with Georgia Chapter of Trail of Tears Association December 16, 2009
- Citizen Advisory Committee Meeting #1 February 24, 2010
- Citizen Advisory Committee Meeting #2 May 26, 2010
- Citizen Advisory Committee Meeting #3 September 2, 2010
- PIOH November 9, 2010
- City of Talking Rock and Pickens County December 14, 2009

Major stakeholders:

- Marble Valley Historical Society
- Northwest Georgia Regional Commission
- City of Talking Rocks
- Georgia Chapter of Trail of Tears Association

CONSTRUCTION

Issues potentially affecting constructability/construction schedule:

- Underground storage tank at SR 136 and SR 136 Conn. intersection

Early Completion Incentives recommended for consideration: No Yes

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Initial Concept Meeting: August 19, 2008 - See attached minutes

Concept Meeting: N/A

Other coordination to date:

- Stakeholder Meeting With Northwest Georgia Regional Commission - 12/14/2009
- Stakeholder Meeting With Marble Valley Historical Society - 12/14/2009
- Stakeholder Meeting With City of Talking Rock and Pickens County - 12/14/2009
- Georgia Chapter of Trail of Tears Association - 12/16/2009
- Stakeholder Meeting With Marble Valley Historical Society - 01/11/2010
- SR 136 Safety Project Citizens Advisory Committee Meeting #1 - 02/24/2010
- SR 136 Safety Project Citizens Advisory Committee Meeting #2 - 05/26/2010
- SR 136 Safety Project Citizens Advisory Committee Meeting #3 - 11/02/2010

Project Activity	Party Responsible for Performing Task(s)
Concept Development	GDOT Office of Program Delivery, GS&P
Design	Gresham Smith and Partners with GDOT review
Right-of-Way Acquisition	GDOT
Utility Coordination (Preconstruction)	GDOT
Utility Relocation (Construction)	Georgia Power Company, Amicalola EMC, Ellijay Telephone, Pickens County Water
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	GDOT/ Contractor
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Edwards-Pitman with GDOT review
Environmental Mitigation	GDOT
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	GDOT	GDOT	GDOT	GDOT	GDOT	
\$ Amount	\$703,523.00	\$2,538,000.00	\$1,533,000.00	\$5,572,989.04		\$10,347,512.04
Date of Estimate	9-13	9-14	4-15	5-15	TBD	

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

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: The preferred alternative consists of corridor improvements including a replacement for the existing tee intersection at SR 136 and SR 136 Connector in the Blaine community with a roundabout. This will entail realigning the horizontal curve on SR 136 to meet AASHTO guidance and adding dedicated left and right turn lanes to SR 136 and Antioch Church Road. The intersection of SR 136 and Antioch Church Road will also be improved. The intersections of SR 136 with both legs of Priest Circle will be modified to increase the intersection skew angle from 40 degree to 90 degrees. SR 136 will be realigned on the new location to perpendicularly intersect Ellijay Road at a roundabout intersection. SR 136 would then follow the short portion of Ellijay Road back to the present intersection and realign back unto its present alignment. The intersection of SR 136 and the SR 515 Connector Road will also be adjusted to achieve a perpendicular skew angle.			
Estimated Property Impacts:	715,767 SQFT	Estimated Total Cost:	\$10,347,512.04
Estimated ROW Cost:	\$2,538,000.00	Estimated CST Time:	18 months
Rationale: A roundabout intersection was chosen by the project’s Citizen Advisory Committee (CAC) as the preferred alternative since it will provide traffic calming, have fewer conflicting turn movements while keeping SR 136 traffic moving (i.e., no stopping in left or right turn lanes), minimize impacts to adjacent environmental resources, not conflict with nearby left turn movements to other side roads, and lessen right of way impacts. This enhancement is anticipated to reduce both the number of single vehicles crashes at the curve and angle crashes at the intersection. The improved intersection of SR 136 and Antioch Church Road are anticipated to reduce the number of single and angle crashes by improving the intersection’s lane configuration as well as the horizontal sight distance and geometry/superelevation of SR 136. The intersections of SR 136 and both legs of Priest Circle modifications will improve the sight distance and make both intersections compliant with the GDOT Design Policy Manual-Version 4.6. The roundabout of SR 136 and Ellijay Road intersection will allow for the removal of the nearby existing tee intersection at SR 136 and Ellijay Road and will remove the existing deficient horizontal curve on SR 136. A roundabout intersection was chosen by the project’s Citizen Advisory Committee (CAC-see attached minutes) as the preferred alternative since it will provide traffic calming, have fewer conflicting turn movements while keeping SR 136 traffic moving (i.e., no stopping in left or right turn lanes), minimize impacts to adjacent environmental resources, and lessen right of way impacts. This enhancement is anticipated to reduce both the number of single vehicles crashes at the curve and angle crashes at the intersection.			

No-Build Alternative: No changes			
Estimated Property Impacts:	0 SQFT	Estimated Total Cost:	0
Estimated ROW Cost:	\$0.00	Estimated CST Time:	0
Rationale: The SR 136 and SR 136 Connector has had conflicting turn movements and has had a number of severe crashes. The SR 136 and Antioch Church Road doesn’t meet AASHTO guidance resulting in single and angle crashes. Both of legs of Priest Circle to SR 136 have inadequate site distance and is not compliant with the Design Policy Manual-Version 4.6. The SR 136 and Ellijay Road intersection has significant single vehicle crashes and angle crashes at the intersection. The no-build alternative does not address any of the safety concerns along with corridor and was therefore not chosen as the preferred alternative.			

Alternative 1: One corridor improvements alternative considered included making SR 136 Connector the through movement and adjusting SR 136 to intersect perpendicularly with the realigned SR 136 Connector, adjusting SR 136 at Antioch Church Road by adding an alignment shift and increasing the radius along SR 136, adding a full realignment of both legs of Priest Circle to be fully perpendicular to SR 136, increasing the radius of the curve with a realignment of SR 136 before the intersection with Ellijay Rd and adding a three legged roundabout between the two approaches of SR 136 and the SR 515 Connector Road.			
Estimated Property Impacts:	662,468 SQFT	Estimated Total Cost:	\$8,396,790.67
Estimated ROW Cost:	\$1,757,814.66	Estimated CST Time:	18 months
Rationale: The SR 136 / SR 136 Connector intersection was ruled unacceptable because it would have only minimally improved the safety of the intersection and it would also have had significant historic impacts. The SR 136/Antioch Church Road intersection ultimately had higher right of way costs, higher environmental impacts, and was anticipated to be less safe than the preferred alternative and was removed from consideration. SR 136 at Priest Circle was a marginally safer design but the moderate environmental impacts and considerably higher right of way cost made it less desirable than the alternative most preferred by the CAC. The larger radius curve added at SR 136 before Ellijay Rd curve was determined to have high monetary costs, high environmental impacts and offered only minimal safety improvement. The SR 136 / SR 515 Connector Road roundabout with the SR 136 was removed from consideration due to the high directional distribution of turning movements between SR 515 and SR 136, GDOT District Six's desire to keep SR 136 as the through movement, a roundabout costing more than a traditional "T" intersection, and additional potential impacts to adjacent historic resources and streams. The CAC's top preference was to have a single through movement for SR 136 travelling into Talking Rock.			

Alternative 2: Another corridor improvements alternative considered included reconfiguring the intersection of SR 136/SR 136 Connector with Swan Bridge Road creating a 4-way signalized intersection, realigning on leg of Priest Circle with SR 136 and closing off the other leg with a cul-de-sac, realigning the road from Ellijay Rd so that SR 515 Connector Road becomes the primary through movement, adjusting the intersection of SR 136 with Ellijay Rd to create a "T" intersection with SR 136/515 Connector Road, and also creating a "T" intersection with SR 136 from Talking Rock to SR 515 Connector Road thus making the SR 515 Connector Road the primary through movement onto Ellijay Road/SR 136.			
Estimated Property Impacts:	655,574 SQFT	Estimated Total Cost:	\$8,309,409.13
Estimated ROW Cost:	\$1,739,521.89	Estimated CST Time:	18 months
Rationale: The 4-way signalized intersection between SR 136, SR 136 Connector, and Swan Bridge Road had significant monetary cost and high environmental impacts and was therefore removed from consideration. The SR 136 at Priest Circle was removed from consideration because while it was a moderately safer design than the preferred alternative, it had much higher environmental impact, higher monetary costs, poor corridor preservation and was least preferred by the CAC. The SR 136 / SR 515 Connector Road intersection alternative was comparable to the preferred alternative in terms of performance measures, however it did a poor job of preserving the original corridor, and it was believed by the GDOT District Office that it was better to have SR 136 as the primary through movement leading into Talking Rock.			

Alternative 3: The SR 136 / SR 136 Connector intersection had an alternative where it retained the existing intersection configuration, but adding enhanced signing and marking. An alternative for the SR 136 horizontal curve before Ellijay Road entailed retaining the existing deficient horizontal curve, but adding enhanced signing and marking.			
Estimated Property Impacts:	0 SQFT	Estimated Total Cost:	\$158,910.27
Estimated ROW Cost:	\$0.00	Estimated CST Time:	3 months
Rationale: This alternative was dismissed as inadequately addressing the safety concern but the SR 136 / SR 136 Connector intersection alternative was determined during the CAC process that enhanced signing and marking could be a component of the proposed roundabout. The same was true for the SR 136 horizontal curve before Ellijay Road.			

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection and Contingencies
 - b. Completed Liquid AC Cost Adjustment forms
 - c. Right-of-Way
 - d. Utilities
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary
7. Roundabout Data (To be completed by others)
 - a. Planning Level Assesment
 - b. Roundabout Feasibility Study
 - c. Lighting Agreement or Commitment Letter
 - d. Peer Review and Reponses
8. S I & A Report(s)
9. Minutes of Concept meetings
10. Minutes of any meetings that shows support or objection to the concept
11. Other Attachments
 - a. Design Exceptions

APPROVALS

Concur: _____
 Director of Engineering

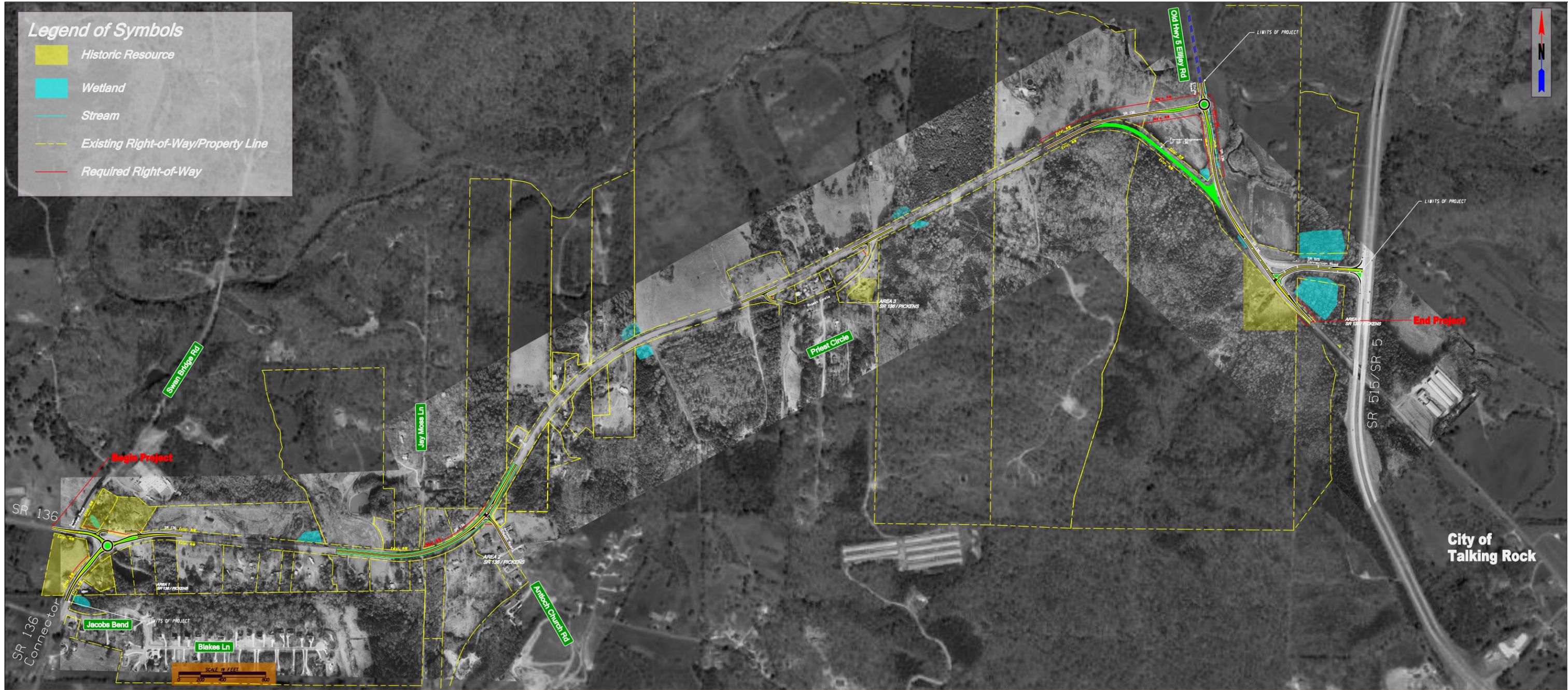
Approve: _____
 Chief Engineer

 Date

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Legend of Symbols

-  Historic Resource
-  Wetland
-  Stream
-  Existing Right-of-Way/Property Line
-  Required Right-of-Way



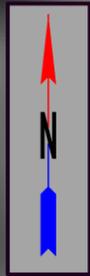
**SR 136 from SR 136 Connector to SR 515
Safety Improvement Project**

CSSFT-0008-00(314)

P.I. Number: 0008314



GRESHAM
SMITH AND
PARTNERS



SR 136

Swan Bridge Road

Exist. R/W

SR 136 Exist. R/W

Exist. R/W

Begin Project

Exist. R/W

SR 136 Connector
Exist. R/W

Exist. R/W

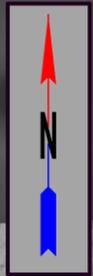
LIMITS OF PROJECT

AREA 1
SR 136 / PICKENS



GRESHAM
SMITH AND
PARTNERS

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT DRAWING
PROJECT - CSSFT-008-00(314)
COUNTY - PICKENS
DATE - 4/08/11



Req'd. R/W

Exist. R/W

SR 136

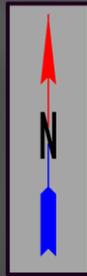
Antioch Church Road

AREA 2
SR 136 / PICKENS



G R E S H A M
S M I T H A N D
P A R T N E R S

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT DRAWING
PROJECT - CSSFT-008-00(314)
COUNTY - PICKENS
DATE - 4/08/11



SR 136

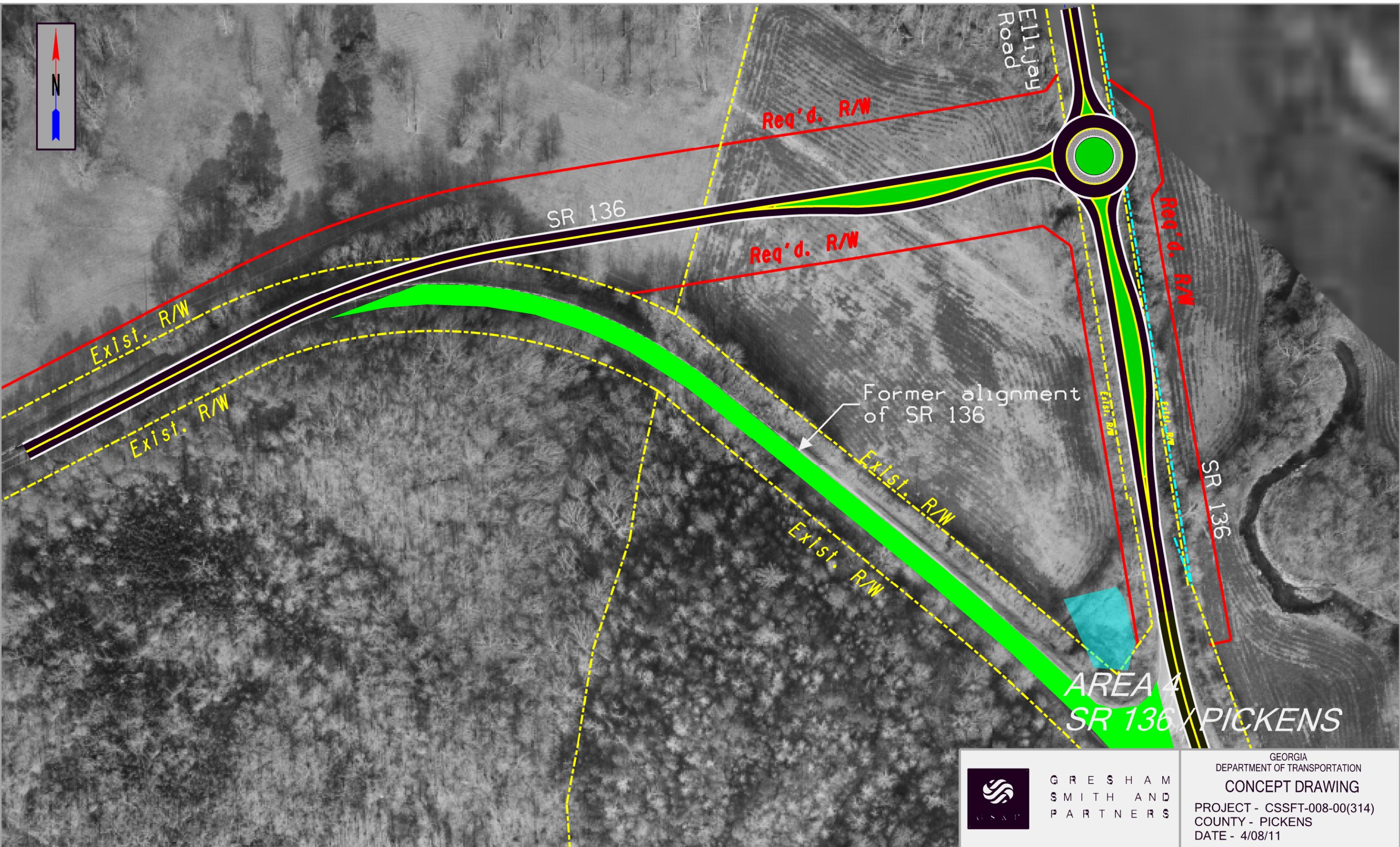
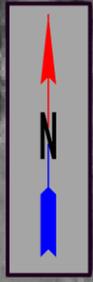
Priest Circle

AREA 3
SR 136 / PICKENS



GRESHAM
SMITH AND
PARTNERS

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT DRAWING
PROJECT - CSSFT-008-00(314)
COUNTY - PICKENS
DATE - 4/08/11



SR 136

E111 Jay Road

Req'd. R/W

Req'd. R/W

Req'd. R/W

Exist. R/W

Exist. R/W

Former alignment of SR 136

Exist. R/W

Exist. R/W

Exist. R/W

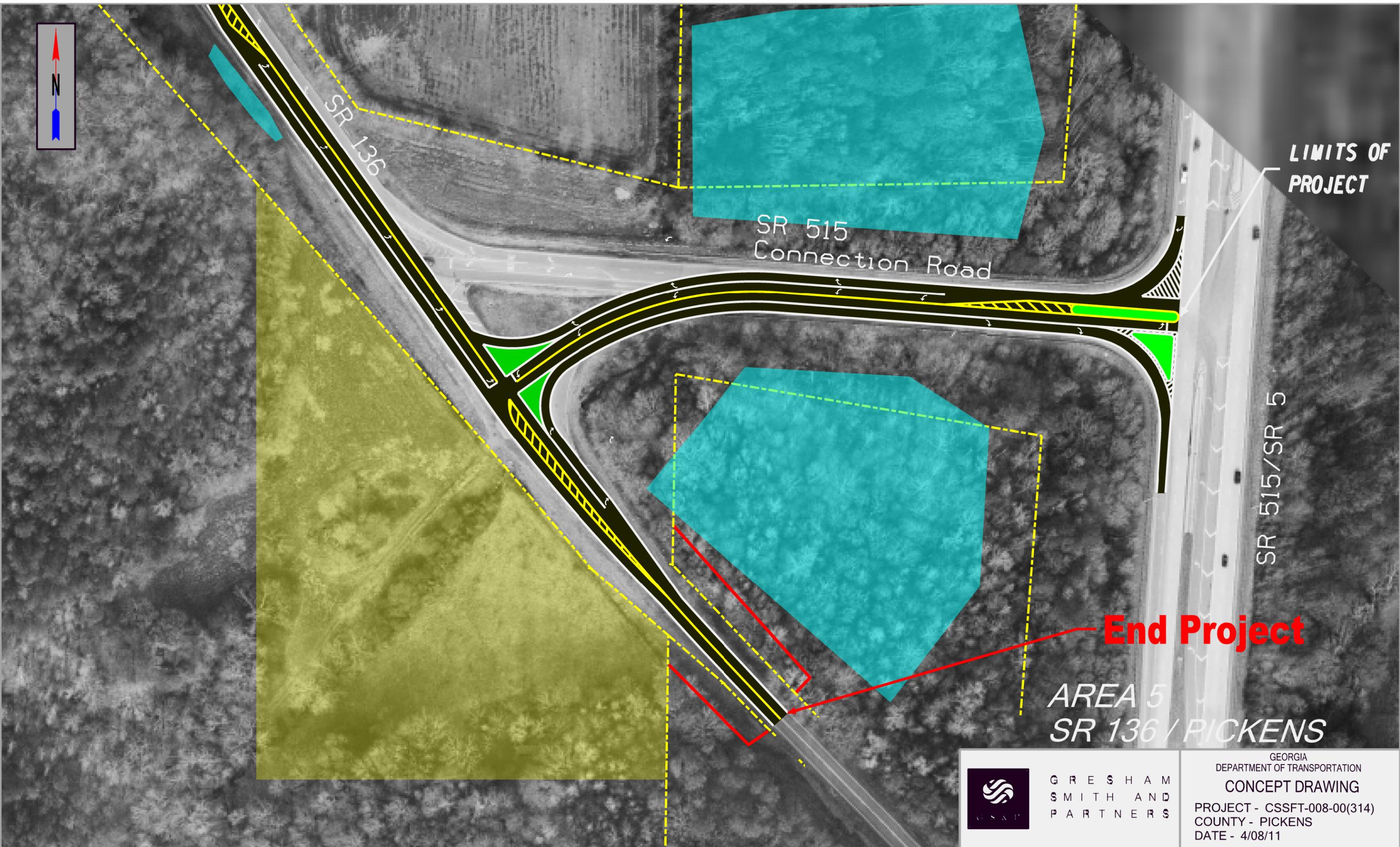
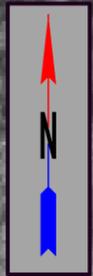
SR 136

AREA 4
SR 136 PICKENS



G R E S H A M
S M I T H
A N D
P A R T N E R S

GEORGIA
DEPARTMENT OF TRANSPORTATION
CONCEPT DRAWING
PROJECT - CSSFT-008-00(314)
COUNTY - PICKENS
DATE - 4/08/11



LIMITS OF PROJECT

SR 136

SR 515
Connection Road

SR 515/SR 5

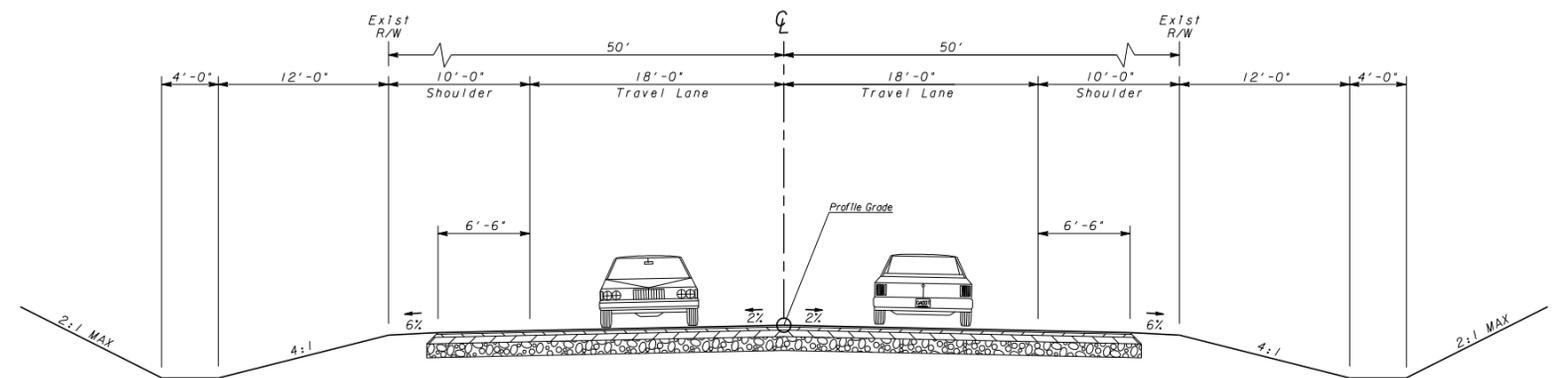
End Project

AREA 5
SR 136 / PICKENS

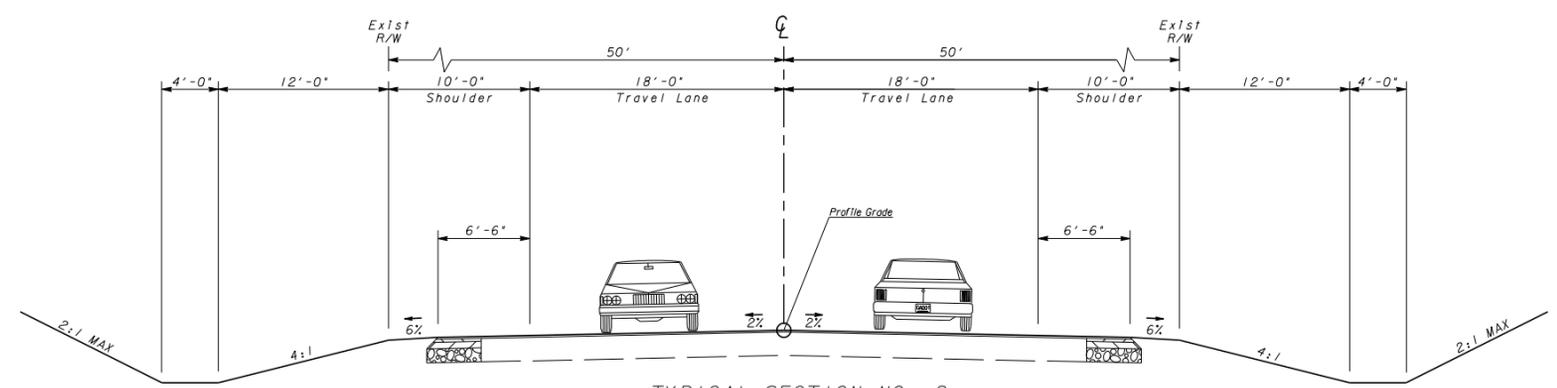


G R E S H A M
S M I T H A N D
P A R T N E R S

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CONCEPT DRAWING
PROJECT - CSSFT-008-00(314)
COUNTY - PICKENS
DATE - 4/08/11



TYPICAL SECTION NO. 1
SR 136
STA 24+75 TO STA 130+75



TYPICAL SECTION NO. 2
SR 136
STA 24+75 TO STA 130+75
OUTSIDE AREAS OF GEOMETRIC AND
INTERSECTION IMPROVEMENTS

SECTION FOR
 INTERSECTION
 INTERSECTION
 INTERSECTION
 INTERSECTION

PROPERTY AND EXISTING R/W LINE	— P —
REQUIRED R/W LINE	—
CONSTRUCTION LIMITS	— C — F —
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	[Hatched Box]
EASEMENT FOR CONSTR OF SLOPES	[Hatched Box]
EASEMENT FOR CONSTR OF DRIVES	[Hatched Box]

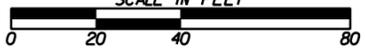
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 END LIMIT OF ACCESS.....ELA
 LIMIT OF ACCESS
 REQ'D R/W & LIMIT OF ACCESS

GEORGIA
DEPARTMENT
OF
TRANSPORTATION



GRESHAM
SMITH AND
PARTNERS

SCALE IN FEET



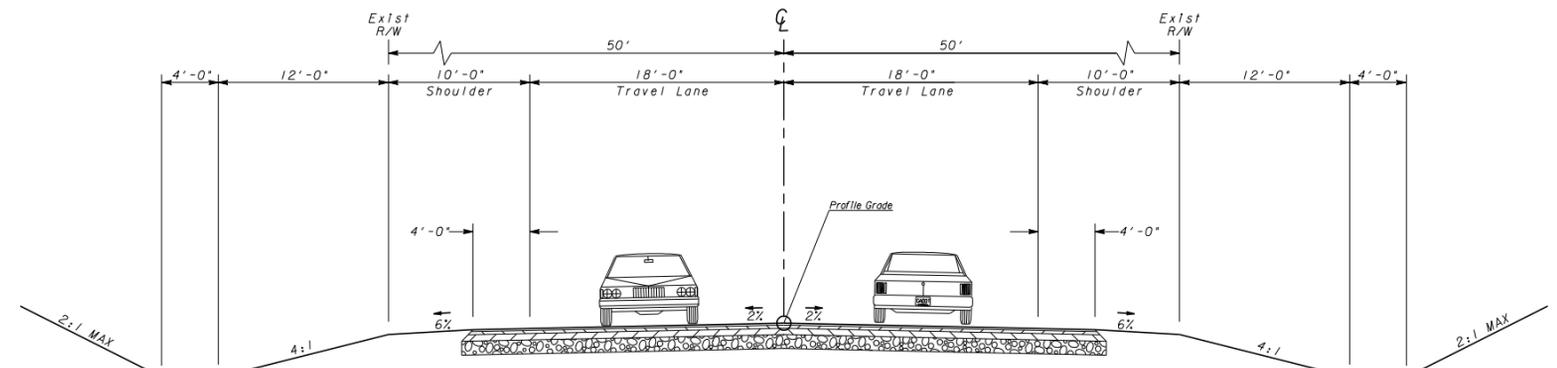
REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

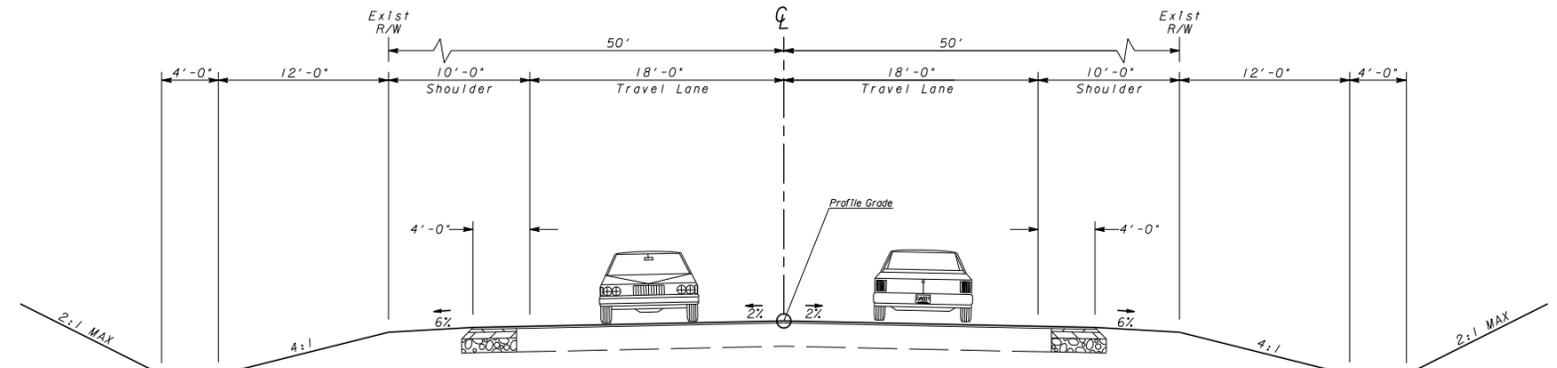
TYPICAL SECTIONS

PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS

DRAWING No.
5-001



TYPICAL SECTION NO. 3
 ANTIOCH CHURCH ROAD
 STA 300+00 TO STA 301+50



TYPICAL SECTION NO. 4
 ANTIOCH CHURCH ROAD
 STA 300+00 TO STA 301+50
 OUTSIDE AREAS OF GEOMETRIC AND
 INTERSECTION IMPROVEMENTS

INSERT FOR
 INTERSECTION
 IMPROVEMENTS
 INSERT FOR
 INTERSECTION
 IMPROVEMENTS

PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA
 END LIMIT OF ACCESS.....ELA
 LIMIT OF ACCESS
 REQ'D R/W & LIMIT OF ACCESS

GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION

GRESHAM
 SMITH AND
 PARTNERS

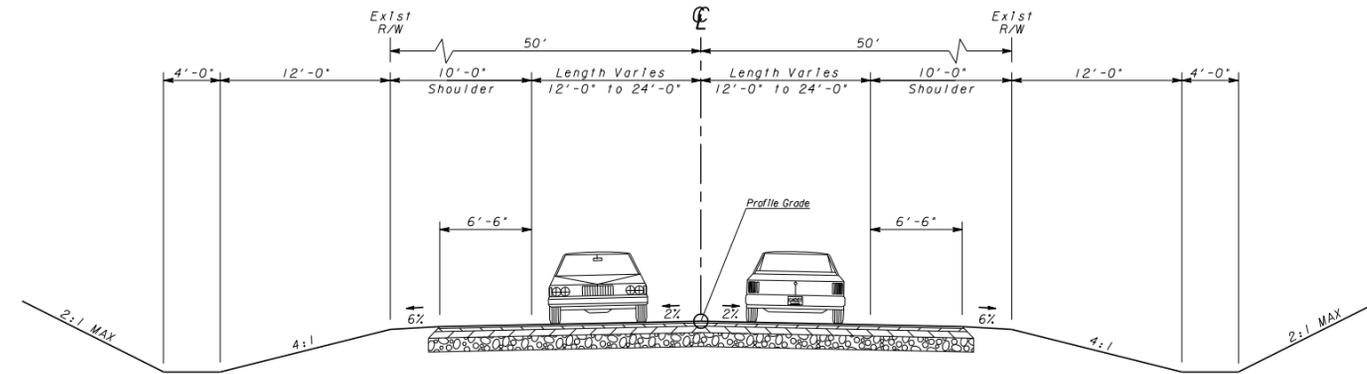
SCALE IN FEET

REVISION DATES	

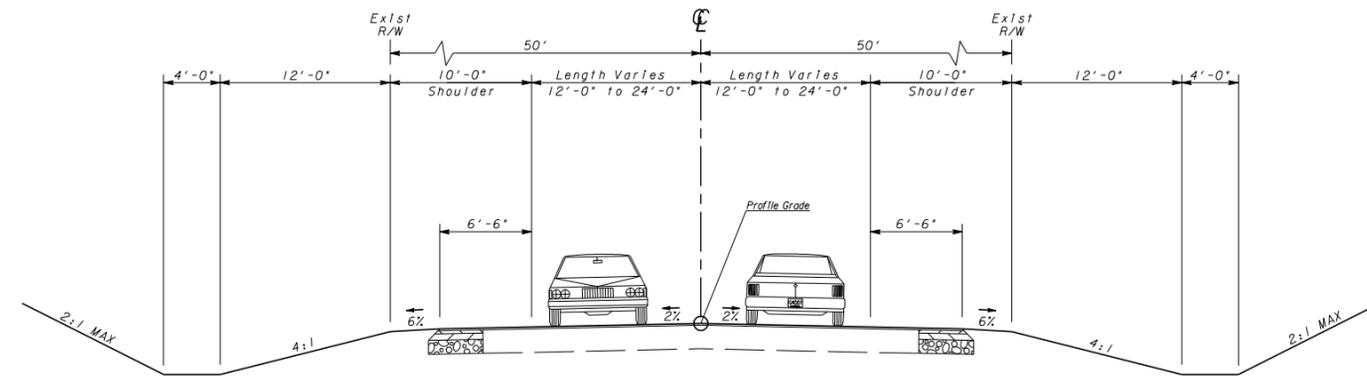
STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
TYPICAL SECTIONS

PROJECT: CSSFT-0008-00(314) COUNTY: PICKENS

DRAWING No.
 5-002



TYPICAL SECTION NO. 5
SR 136
STA 139+60 TO STA 157+80



TYPICAL SECTION NO. 6
SR 136
STA 139+60 TO STA 157+80
OUTSIDE AREAS OF GEOMETRIC AND
INTERSECTION IMPROVEMENTS

SECTION FOR
 INTERSECTION
 INTERSECTION
 INTERSECTION
 INTERSECTION

PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA	
END LIMIT OF ACCESS.....ELA	
LIMIT OF ACCESS	
REQ'D R/W & LIMIT OF ACCESS	

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

GRESHAM
SMITH AND
PARTNERS

SCALE IN FEET

REVISION DATES	

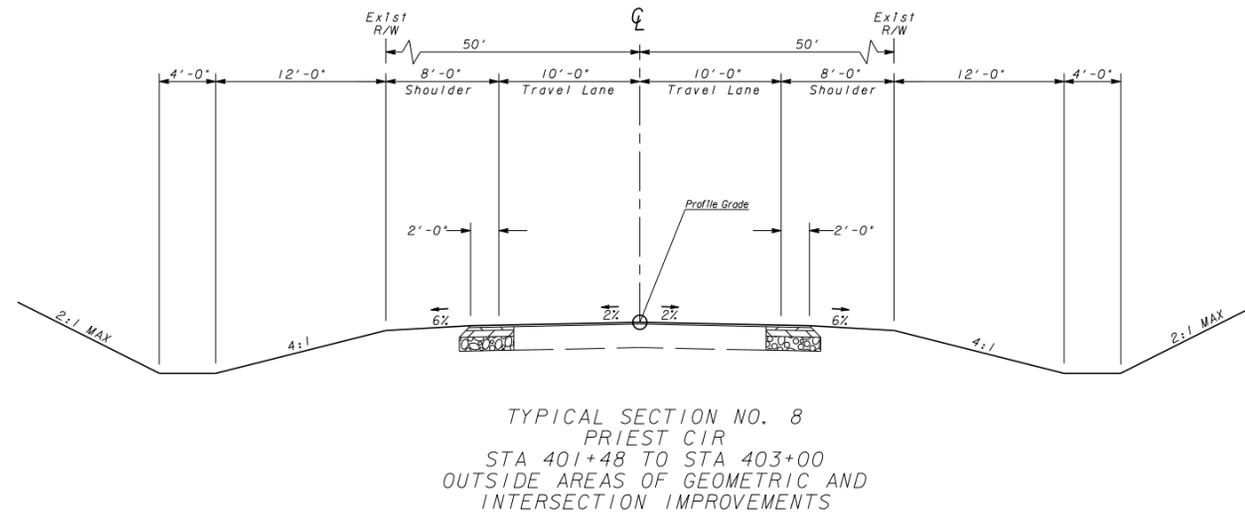
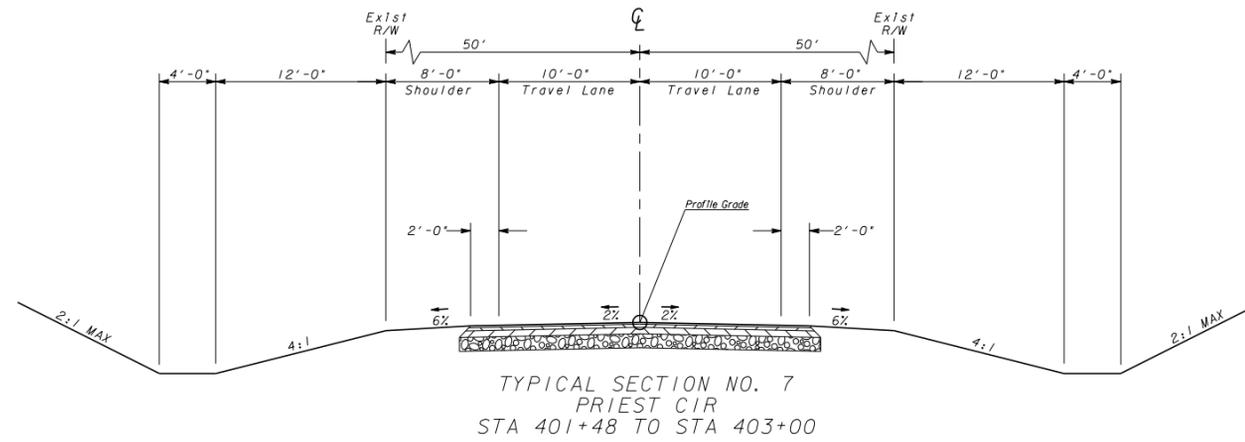
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

TYPICAL SECTIONS

PROJECT: CSSFT-0008-00(314) COUNTY: PICKENS

DRAWING No.

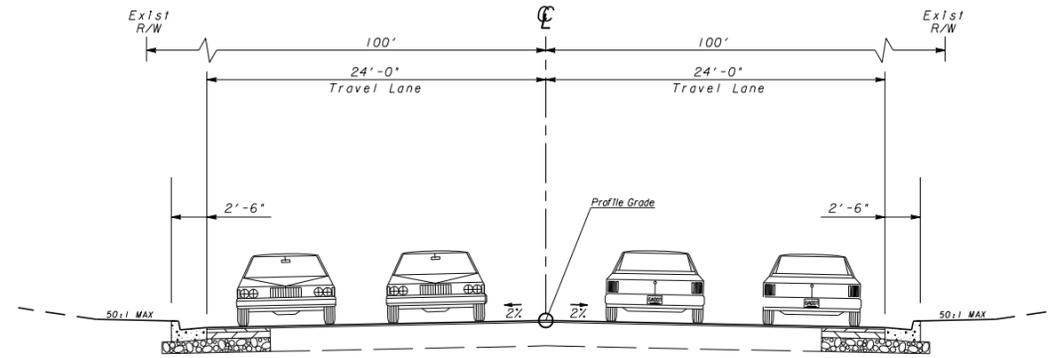
5-003



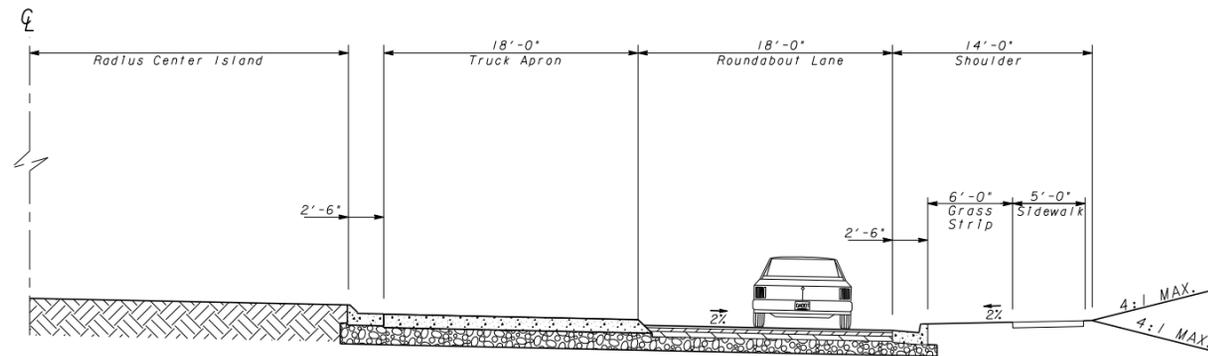
SECTION 501

SECTION 502

<p>PROPERTY AND EXISTING R/W LINE ——— P ———</p> <p>REQUIRED R/W LINE ———</p> <p>CONSTRUCTION LIMITS ——— C ——— F ———</p> <p>EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES </p> <p>EASEMENT FOR CONSTR OF SLOPES </p> <p>EASEMENT FOR CONSTR OF DRIVES </p>	<p>BEGIN LIMIT OF ACCESS.....BLA</p> <p>END LIMIT OF ACCESS.....ELA</p> <p>LIMIT OF ACCESS ———</p> <p>REQ'D R/W & LIMIT OF ACCESS ———</p>	<p>GEORGIA</p> <p>DEPARTMENT</p> <p>OF</p> <p>TRANSPORTATION</p>	<p>GRESHAM SMITH AND PARTNERS</p>	<p>REVISION DATES</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> </table>																<p>STATE OF GEORGIA</p> <p>DEPARTMENT OF TRANSPORTATION</p> <p>OFFICE: PROGRAM DELIVERY</p> <p>TYPICAL SECTIONS</p> <p>PROJECT: CSSFT-0008-00(314)</p> <p>COUNTY: PICKENS</p>	<p>SCALE IN FEET</p>	<p>DRAWING No.</p> <p>5-004</p>



TYPICAL SECTION NO. 11
 SR 136/SR 515 CONNECTOR
 STA 503+00 TO STA 507+50



TYPICAL SECTION NO. 12
 SR 136
 INSIDE AREAS OF GEOMETRIC AND
 INTERSECTION IMPROVEMENTS AT
 SR 136 CONNECTOR AND OLD ELLIJAY
 ROAD ROUNDABOUTS

SECTION FOR INTERSECTION

SECTION FOR INTERSECTION

PROPERTY AND EXISTING R/W LINE	
REQUIRED R/W LINE	
CONSTRUCTION LIMITS	
EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES	
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESS.....BLA
 END LIMIT OF ACCESS.....ELA
 LIMIT OF ACCESS
 REQ'D R/W & LIMIT OF ACCESS

GEORGIA
 DEPARTMENT
 OF
 TRANSPORTATION



GRESHAM
 SMITH AND
 PARTNERS



REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY

TYPICAL SECTIONS

PROJECT: CSSFT-0008-00(314)
 COUNTY: PICKENS

DRAWING No.
5-006

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. CSSFT-0008-00(314), Pickens
SR 136 Intersection and Shoulder
Improvements
P.I. No. 0008314-

OFFICE Program Delivery

DATE 5/13/2015

FROM Albert V. Shelby, State Program Delivery Engineer

TO Lisa Myers, Sate Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Michael Word

MNGT LET DATE N/A

MNGT R/W DATE N/A

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$5,572,989

DATE N/A

RIGHT OF WAY \$2,538,000

DATE N/A

UTILITIES \$1,530,000

DATE N/A

REVISED COST ESTIMATES

CONSTRUCTION* \$5,572,989

RIGHT OF WAY \$2,538,000

UTILITIES** \$1,530,000

** Costs contain 0% contingency.

REASON FOR COST INCREASE Revised concept based upon further design refinement and public input

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$5,010,746.98	(Base Estimate)
Engineering and Inspection:	\$250,537.35	(Base Estimate x 5 %)
Construction Contingency:	\$0.00	(Base Estimate x 0 %) (The Construction Contingency is based on the Project Improvement Type in TPro.)
Total Fuel Adjustment	\$ 0.00	(From attached worksheet)
Total Liquid AC Adjustment	\$ 311,704.71	(From attached worksheet)
Construction Total:	\$5,572,989	
Utility Cost Estimate:	\$1,530,000	
Utility Contingency:	\$0.00	
Utility Total:	\$1,530,000	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Costs
Georgia Power Company – Dist.	\$1,530,000.00

Attachments

1. PI#0008314 CES Database Output
2. PI #0008314 Fuel Price Adjustment Spreadsheet

**GEORGIA DEPARTMENT OF TRANSPORTATION
JOB ESTIMATE REPORT**

JOB NUMBER : 0008314 SPEC YEAR: 13
DESCRIPTION: SR136 FROM SR 136 CONNECTOR TO SR 515

ITEMS FOR PROJECT CSSFT-0008-00(314)

LINE	ITEM	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
ROADWAY ITEMS						
3	153-1300	EA	FIELD ENGINEERS OFFICE TP 3	1	\$ 83,375.69	\$83,375.69
4	402-1812	TN	RECYL AC LEVELING, INC BM&HL	1500	\$ 79.52	\$119,280.00
5	402-3141	TN	RECYL AC 12.5 MM SP,GP 1 OR 2,INCL BM	6000	\$ 78.00	\$468,000.00
10	402-3190	TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	6075	\$ 70.40	\$427,680.00
15	402-3121	TN	RECYL AC 25MM SP,GP1/2,BM&HL	8450	\$ 67.89	\$573,670.50
25	310-1101	TN	GR AGGR BASE CRS, INCL MATL	23900	\$ 30.00	\$717,000.00
26	441-0016	SY	DRIVEWAY CONCRETE, 6 IN TK	2400	\$ 32.65	\$78,360.00
30	441-0748	SY	CONC MEDIAN, 6 IN	1150	\$ 45.00	\$51,750.00
35	441-6022	LF	CONC CURB & GUTTER, 6X30TP2	3970	\$ 30.00	\$119,100.00
40	413-1000	GL	BITUM TACK COAT	1500	\$ 2.49	\$3,735.00
45	641-1200	LF	GUARDRAIL, TP W	4400	\$ 17.18	\$75,592.00
50	641-1100	LF	GUARDRAIL, TP T	42	\$ 54.31	\$2,281.02
55	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	8	\$ 587.38	\$4,699.04
60	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	8	\$ 1,809.55	\$14,476.40
65	150-1000	LS	TRAFFIC CONTROL - CSSFT-0008-00(314)	1	\$ 200,000.00	\$200,000.00
70	205-0001	CY	UNCLASS EXCAV	138130	\$ 3.62	\$500,030.60
75	201-1500	LS	CLEARING & GRUBBING - CSSFT-0008-00(314)	1	\$ 800,000.00	\$800,000.00
80	668-2100	EA	DROP INLET, GP 1	6	\$ 1,790.56	\$10,743.36
85	668-1100	EA	CATCH BASIN, GP 1	24	\$ 2,043.28	\$49,038.72
90	550-1180	LF	STM DR PIPE 18,H 1-10	400	\$ 41.03	\$16,412.00
95	550-1240	LF	STM DR PIPE 24,H 1-10	350	\$ 42.30	\$14,805.00
96	550-2180	LF	SIDE DR PIPE 18,H 1-10	600	\$ 31.27	\$18,762.00
97	550-2240	LF	SIDE DR PIPE 24,H 1-10	600	\$ 35.34	\$21,204.00
100	550-1300	LF	STM DR PIPE 30,H 1-10	100	\$ 58.00	\$5,800.00
105	550-1360	LF	STM DR PIPE 36,H 1-10	100	\$ 65.73	\$6,573.00
110	500-3101	CY	CLASS A CONCRETE	300	\$ 443.22	\$132,966.00
111	550-3618	EA	SAFETY END SECTION 18,SD,6:1	38	\$ 521.09	\$19,801.42
112	550-3624	EA	SAFETY END SECTION 24,SD,6:1	38	\$ 676.32	\$25,700.16
115	511-1000	LB	BAR REINF STEEL	34000	\$ 0.82	\$27,880.00
120	550-4224	EA	FLARED END SECT 24 IN, ST DR	12	\$ 561.64	\$6,739.68
125	456-2015	GLM	INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP)	6	\$ 1,788.08	\$10,728.48
PERMANENT EROSION CONTROL ITEMS						
130	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18	300	\$ 38.75	\$11,625.00
135	603-7000	SY	PLASTIC FILTER FABRIC	300	\$ 3.53	\$1,059.00
140	700-6910	AC	PERMANENT GRASSING	17	\$ 724.63	\$12,318.71
141	700-9300	SY	SOD	1200	\$ 5.10	\$6,120.00
142	702-0212	EA	CRATAEGUS VIRIDIS - WINTER KING HAWTHORN 3" DIA.	6	\$ 160.00	\$960.00
143	702-0470	EA	ILEX VOMITORIA NANA - 3 GALLON	410	\$ 30.00	\$12,300.00
144	702-9025	SY	LANDSCAPE MULCH	800	\$ 5.71	\$4,568.00
145	716-2000	SY	EROSION CONTROL MATS, SLOPES	6700	\$ 1.09	\$7,303.00
TEMPORARY EROSION CONTROL ITEMS						
150	163-0232	AC	TEMPORARY GRASSING	9	\$ 277.63	\$2,498.67
155	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	21000	\$ 1.90	\$39,900.00
160	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	4000	\$ 3.24	\$12,960.00
161	163-0240	TN	MULCH	138	\$ 218.69	\$30,179.22
165	163-0300	EA	CONSTRUCTION EXIT	10	\$ 1,091.61	\$10,916.10
166	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	30	\$ 123.02	\$3,690.60
167	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	30	\$ 40.31	\$1,209.30
170	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	11000	\$ 1.22	\$13,420.00
175	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	2000	\$ 0.74	\$1,480.00

180	165-0101	EA	MAINT OF CONST EXIT	10	\$ 458.18	\$4,581.80
181	700-8000	TN	FERTILIZER MIXED GRADE	12	\$ 518.18	\$6,218.16
182	700-8100	LB	FERTILIZER NITROGEN CONTENT	850	\$ 2.33	\$1,980.50
183	701-0030	TN	AGRICULTURAL LIME	51	\$ 47.37	\$2,415.87
SIGNING AND MARKING ITEMS						
184	632-0003	EA	CHANGEABLE MESS SIGN,PORT,TP 3	6	\$ 9,800.83	\$58,804.98
185	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	270	\$ 15.02	\$4,055.40
190	636-2080	LF	GALV STEEL POSTS, TP 8	510	\$ 9.49	\$4,839.90
195	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	30000	\$ 0.57	\$17,100.00
200	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	30000	\$ 0.50	\$15,000.00
205	654-1003	EA	RAISED PVMT MARKERS TP 3	850	\$ 3.84	\$3,264.00
LIGHTING ITEMS						
210	500-3101	CY	CLASS A CONCRETE	22	\$ 723.49	\$15,916.78
215	511-1000	LB	BAR REINF STEEL	4000	\$ 1.12	\$4,480.00
220	681-6320	EA	LUMINAIRE,TP 3, 150W,HP SODIUM	22	\$ 1,000.00	\$22,000.00
225	681-4210	EA	LT STD, 30' MH, POST TOP	22	\$ 3,245.36	\$71,397.92

ITEM TOTAL **\$5,010,746.98**
INFLATED ITEM TOTAL **\$5,010,746.98**

TOTALS FOR JOB CSSFT-0008-00(314)

ESTIMATED COST:	\$5,010,746.98
CONTINGENCY PERCENT (0.0):	\$0.00
ESTIMATED TOTAL:	\$5,010,746.98

PROJ. NO.	CSSFT-0008-00(314)
P.I. NO.	0008314
DATE	5/13/2015

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	May-15	\$ 2.503
DIESEL		\$ 2.809
LIQUID AC		\$ 469.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/PartnerSmart/Materials/Pages/asphaltfuelindex.aspx>

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)		309891.75		\$ 309,891.75
Monthly Asphalt Cement Price month placed (APM)	Max. Cap 60%	\$ 750.40		
Monthly Asphalt Cement Price month project let (APL)		\$ 469.00		
Total Monthly Tonnage of asphalt cement (TMT)		1101.25		

ASPHALT	Tons	%AC	AC ton
Leveling	1500	5.0%	75
12.5 OGFC		5.0%	0
12.5 mm	6000	5.0%	300
9.5 mm SP		5.0%	0
25 mm SP	8450	5.0%	422.5
19 mm SP	6075	5.0%	303.75
	22025		1101.25

BITUMINOUS TACK COAT

Price Adjustment (PA)		\$ 1,812.96		\$ 1,812.96
Monthly Asphalt Cement Price month placed (APM)	Max. Cap 60%	\$ 750.40		
Monthly Asphalt Cement Price month project let (APL)		\$ 469.00		
Total Monthly Tonnage of asphalt cement (TMT)		6.442651383		

Bitum Tack

Gals	gals/ton	tons
1500	232.8234	6.442651383

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)		0		\$ -
Monthly Asphalt Cement Price month placed (APM)	Max. Cap 60%	\$ 750.40		
Monthly Asphalt Cement Price month project let (APL)		\$ 469.00		
Total Monthly Tonnage of asphalt cement (TMT)		0		

Bitum Tack

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

TOTAL LIQUID AC ADJUSTMENT **\$ 311,704.71**

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 9/22/2014 Project: CSSFT-0008-00(314)
 Revised: County: Pickens
 PI: 0008314

Description: SR 136 Conn to SR 515
 Project Termini: SR 136 Conn to SR 515

Existing ROW: varies
 Required ROW: 74' to 190'
 Parcels: 61

Land and Improvements _____ \$1,160,850.00

Proximity Damage	\$0.00
Consequential Damage	\$50,000.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$405,000.00

Valuation Services _____ \$266,250.00

Legal Services _____ \$416,175.00

Relocation _____ \$162,000.00

Demolition _____ \$15,000.00

Administrative _____ \$517,000.00

TOTAL ESTIMATED COSTS _____ \$2,537,275.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$2,538,000.00

Preparation Credits	Hours	Signature

Prepared By: Jashone Alexander CG#: 286999 09/22/2014 (DATE)
 Approved By: Jashone Alexander CG#: 286999 09/22/2014 (DATE)

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

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

CSSFT-0008-00(314) Pickens

0008314

	A	B	C	D
Land and Improvements	Agriculture	Residential	Commercial	Industrial
1 Estimate Low (ac)	\$0.00	\$0.00	\$55,000.00	\$0.00
2 Estimate High (ac)	\$0.00	\$0.00	\$150,000.00	\$0.00
3 Estimate Used (ac)	\$7,000.00	\$19,000.00	\$95,000.00	\$0.00
4 Fee Simple Area (ac)	13.23	7.46	0.89	0.00
5 Fee Simple Estimate	\$92,610.00	\$141,740.00	\$84,550.00	\$0.00
6 Perm Esmt Area (ac)	0.00	0.00	0.00	0.00
7 Perm Esmt Factor	0%	0%	50%	0%
8 Perm Esmt Estimate	\$0.00	\$0.00	\$0.00	\$0.00
9 Temp Esmt Area (ac)	0.00	0.00	0.00	0.00
10 Temp Esmt Factor	0%	0%	0%	0%
11 Temp Esmt Estimate	\$0.00	\$0.00	\$0.00	\$0.00
12 Proximity Damages	\$0.00	\$0.00	\$0.00	\$0.00
13 Consequential Damages	\$0.00	\$50,000.00	\$0.00	\$0.00
14 Cost to Cures	\$0.00	\$0.00	\$0.00	\$0.00
15 Improvements	\$45,000.00	\$250,000.00	\$110,000.00	\$0.00
16 Trade Fixtures	\$0.00	\$0.00	\$0.00	\$0.00
17				
18 PROPERTY TYPE TOTALS	\$137,610.00	\$441,740.00	\$194,550.00	\$0.00
19	SUB TOTAL PROPERTY TYPES			\$773,900.00
20	Counter Offers and Condemnation Increases			\$386,950.00
21				
22	GRAND TOTAL LANDS AND IMPROVEMENTS			\$1,160,850.00

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI

CSSFT-0008-00(314) Pickens

0008314

	A	B	C	D
Valuation Services	Agriculture	Residential	Commercial	Industrial
1 Appraisals (# of Parcels)	11	35	15	0
2 Estimated Fees (per Parcel)	\$3,000.00	\$3,000.00	\$5,000.00	\$0.00
3 TOTAL APPRAISALS	\$33,000.00	\$105,000.00	\$75,000.00	\$0.00
4 Sign Estimates	0	0	0	0
5 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
6 TOTAL SIGN ESTIMATES	\$0.00	\$0.00	\$0.00	\$0.00
7 Specialty Reports	0	0	0	0
8 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
9 TOTAL SPECIALTY REPORTS	\$0.00	\$0.00	\$0.00	\$0.00
10 Septic/Well Reports	0	0	0	0
11 Estimated Fees	\$0.00	\$0.00	\$0.00	\$0.00
12 TOTAL SEPTIC/WELL REPORTS	\$0.00	\$0.00	\$0.00	\$0.00
13				
14				
15				
16 TOTAL VALUATION FEES	\$33,000.00	\$105,000.00	\$75,000.00	\$0.00
17	SUB TOTAL VALUATION SERVICES			\$213,000.00
18	Updates and Incidentals (Min \$2,500 or 25%)			\$53,250.00
19	GRAND TOTAL VALUATION SERVICES			\$266,250.00

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI CSSFT-0008-00(314) Pickens 0008314

	A	B	C	D
	Parcels	Estimated Fees		TOTALS
1	Meeting with Attorney	61	\$125.00	\$7,625.00
2	Preliminary Titles	61	\$200.00	\$12,200.00
3	Closing and Final Title	61	\$300.00	\$18,300.00
4	Recording Fees	61	\$50.00	\$3,050.00
5	Condemnation Filing	10	\$5,000.00	\$50,000.00
6	Litigation Costs	10	\$25,000.00	\$250,000.00
7	Updates and Incidentals	10	\$7,500.00	\$75,000.00
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	GRAND TOTAL LEGAL SERVICES			\$416,175.00

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI CSSFT-0008-00(314) Pickens 0008314

	A	B	C	D
	Relocation	Displacements	Estimated Costs	TOTALS
1	Business Displacement	0	\$15,000.00	\$0.00
2	Residential Tenant		\$20,000.00	\$0.00
3	Residential Owner	1	\$40,000.00	\$40,000.00
4	Pro-Rata Taxes	61	\$1,000.00	\$61,000.00
5	Property Pin Replacement	61	\$1,000.00	\$61,000.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17			GRAND TOTAL RELOCATION	\$162,000.00

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI CSSFT-0008-00(314) Pickens 0008314

	A	B	C	D
	Demolition	Items/Improvements	Estimated Costs	TOTALS
1	Residential Structures	1	\$15,000.00	\$15,000.00
2	Commercial Structures	0	\$25,000.00	\$0.00
3	Hotels/Apartments		\$60,000.00	\$0.00
4	UST's - Dispensers		\$50,000.00	\$0.00
5	Billboards		\$8,000.00	\$0.00
6	Signs - Light Standards		\$1,500.00	\$0.00
7	Water Vaults		\$15,000.00	\$0.00
8	Gas/Water Service Separation		\$2,500.00	\$0.00
9				
10				
11				
12				
13				
14				
15				
16				
17	GRAND TOTAL DEMOLITION			\$15,000.00

Georgia Department of Transportation
Preliminary ROW Cost Estimate Worksheet

Project/County/PI CSSFT-0008-00(314) Pickens 0008314

	A	B	C	D
	Parcels	Man hours per Parcel		TOTALS
1	61	40		\$122,000.00
2	61	100		\$305,000.00
3		50		\$0.00
4	16	50		\$40,000.00
5	10	100		\$50,000.00
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17	GRAND TOTAL INHOUSE			\$517,000.00

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: CSSFT-0008-00(314), Pickens Co.
P.I. No. 0008314
SR 136 from SR 136 Conn to SR 515

OFFICE: Cartersville

FROM:  Kerry D. Bonner, District Utilities Engineer

DATE: April 10, 2015

TO: Albert V. Shelby, P.E., State Program Delivery Engineer
ATTN: Micheal Word

SUBJECT: PRELIMINARY UTILITY COST ESTIMATE

We are furnishing you with a Preliminary Utility Cost estimate for each utility with facilities potentially located within the project limits.

FACILITY OWNER	NON REIMBURSABLE	REIMBURSABLE
Amicalola EMC	No Conflict	
Elijay Telephone	\$ 120,000.00	
Georgia Power Company – Dist.		\$ 1,533,000.00
Pickens County Water*	\$ 840,000.00	
Totals	\$ 960,000.00	\$ 1,530,000.00

Total cost for the above project is \$2,490,000.00.

*The reimbursable amount could increase to \$2,370,000.00 if Pickens County Water was to apply for utility assistance for the relocation of their facilities.

If you have any questions, please contact Stanley McCarley at 678-721-5324.

KDB/sm

C: Mike Bolden, State Utilities Engineer;
File/Estimating Book

CRASH SUMMARY

Executive Summary

SR 136, between the intersections of SR 136 Connector and SR 515 in Pickens County, has had 117 total crashes from 2007 to 2014. 54 of those crashes were injury crashes and three were fatal crashes. The injury crash rate for this section of SR 136 exceeds the statewide average rate for rural major collectors by 1.6 times. Of the total crashes, the majority (44%) were single vehicle crashes.

This portion of SR 136 is also listed as a proposed bicycle route in the North Georgia Regional Bicycle and Pedestrian Plan 2005. The need therefore exists to improve the SR 136 corridor to address the crashes and accommodate bicyclists.

Background

SR 136 is currently a rural two-lane roadway with grassed shoulders and turn lanes at some intersections. The land use along the project is predominately residential and agricultural. SR 136 is functionally classified as a rural major collector. Intersecting SR 136 is SR 515, classified as rural principal arterial, and SR 136 Connector, a rural major collector. The remaining roads that intersect the project are classified as local rural roadways.

Project Description

The purpose of this project is to reduce the crash frequency and severity at select locations on the SR 136 corridor and enlarge the shoulders to comply with AASHTO guidance as well as provide additional room for bicyclists along the corridor.

Safety

Crash data along the section of SR 136 within the project limits was obtained from GDOT for the period between January 1, 2007 and December 31, 2014. The crash data summarized by severity and by the manner of collisions are provided in Tables 1 and 2.

The crash rates for this section of SR 136 were calculated and compared to statewide crash averages for rural major collectors. Table 1 shows that the total crash rates and injury crash rates calculated for this section of SR 136 are considerably higher than the corresponding statewide averages for rural major collectors.

There were three fatal crashes during the time period analyzed, two in 2007 and one in 2014. The first fatal crash was a single vehicle run-off-the-road crash on a curve, during daylight hours and wet roadway conditions. The second fatal crash involved two vehicles in a head-on collision, where one vehicle crossed the centerline while negotiating a curve and struck an oncoming vehicle during pre-dawn hours and with wet roadway conditions. The third fatal crash occurred at the t-intersection of SR 136 and GA 5, where a vehicle failed to yield when turning left from the stop controlled leg of the intersection (traveling from GA 5 onto SR 136), and was t-boned by a vehicle traveling on SR 136.

A detailed analysis of the crashes was completed to determine the type of crashes along this section of roadway. The number of each type of crash was summarized to determine crash patterns. As shown in Table 2, there were 117 total crashes in this section of roadway over the eight year period (2007 - 2014). A majority of the crashes recorded were "Other (Single-Vehicle)" type, which accounted for about 44% of the total number of crashes. Of the total number of crashes, about 23% were "Rear End" crashes, about 19% were "Angle" crashes, 6% were "Head-On" crashes, and the remaining 5% were "Sideswipe" crashes.

Table 1. Summary of Traffic Crash History by Severity along SR 136¹

Year	Crashes			Crashes Per 100 Million Vehicle Miles ²		
	Total	Injury	Fatal	Total	Injury	Fatal
2007	13	4	2	322 (203)	99 (72)	49.50 (3.24)
2008	10	6	0	247 (194)	148 (68)	0.00 (3.03)
2009	7	5	0	173 (191)	124 (67)	0.00 (2.57)
2010	15	4	0	371 (194)	99 (68)	0.00 (2.69)
2011	11	6	0	272 (202)	148 (66)	0.00 (2.86)
2012	22	11	0	544 (230)	272 (73)	0.00 (2.82)
2013	18	10	0	445 (268)	247 (81)	0.00 (3.02)
2014	21	8	1	520 (- ³)	198 (- ³)	24.75 (- ³)
Total	117	54	3			

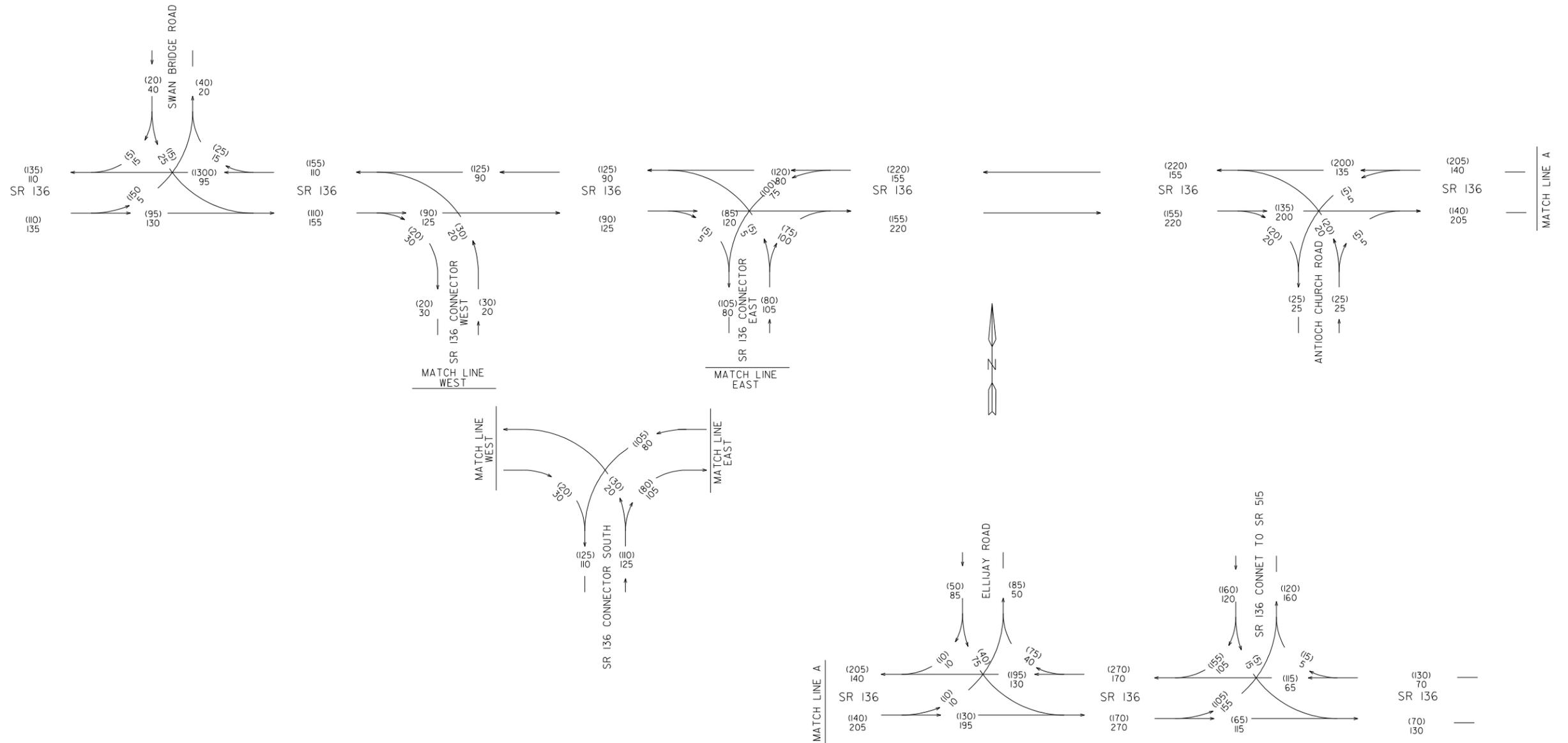
Note: ¹ The crash data provided is for the section of SR 136 between MP 3.60 to MP 6.30.

² The number in parentheses represents the statewide average crash rates for rural major collectors.

³ Statewide average crash rates were not available for 2014.

Table 2. Summary of Traffic Crash History by Manner of Collision along SR 136

Year	Manner of Collision						Total
	Angle	Head On	Rear End	Sideswipe - Same Direction	Sideswipe - Opposite Direction	Other (Single-Vehicle)	
2007	2	1	1	1	1	7	13
2008	2	1	3	0	0	4	10
2009	4	0	1	0	0	2	7
2010	1	1	2	0	0	11	15
2011	1	0	1	1	0	8	11
2012	5	1	6	0	1	9	22
2013	0	3	3	1	0	11	18
2014	7	0	10	0	0	0	21
Total	22	7	27	3	2	52	117
% of Total Crashes	19%	6%	23%	3%	2%	44%	



2011 EXISTING YEAR
PEAK HR TRAFFIC AND
AADT VOLUMES

LEGEND
2011 AM DHV = 000
2011 PM DHV = (000)
T = 16%



G R E S H A M
S M I T H A N D
P A R T N E R S

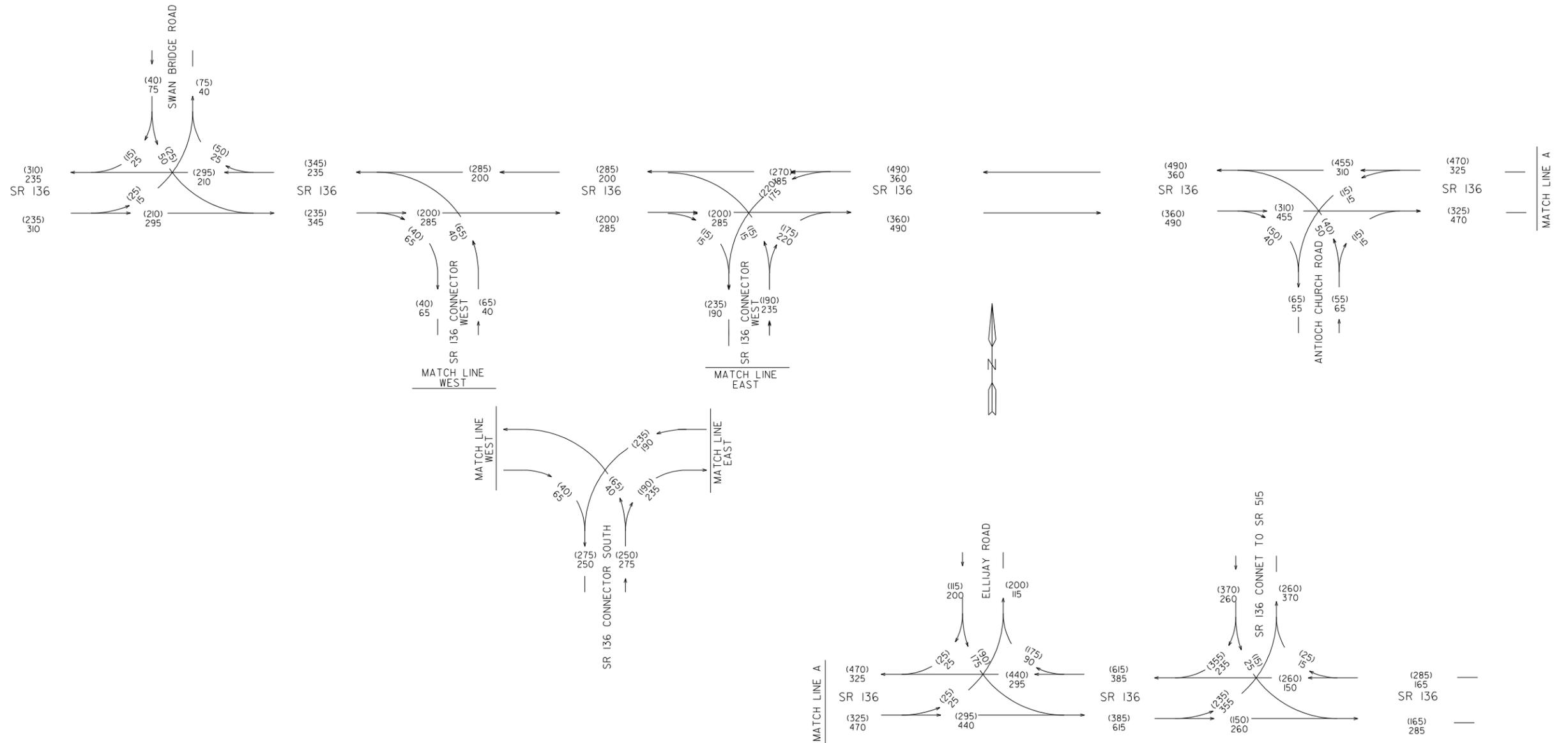
NOT TO SCALE

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
TRAFFIC DIAGRAM

PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS

DRAWING No.
10-01



2034 DESIGN YEAR NO BUILD
PEAK HR TRAFFIC

LEGEND

2034 AM DHV = 000
2034 PM DHV = (000)

T = 16%



GRESHAM
SMITH AND
PARTNERS

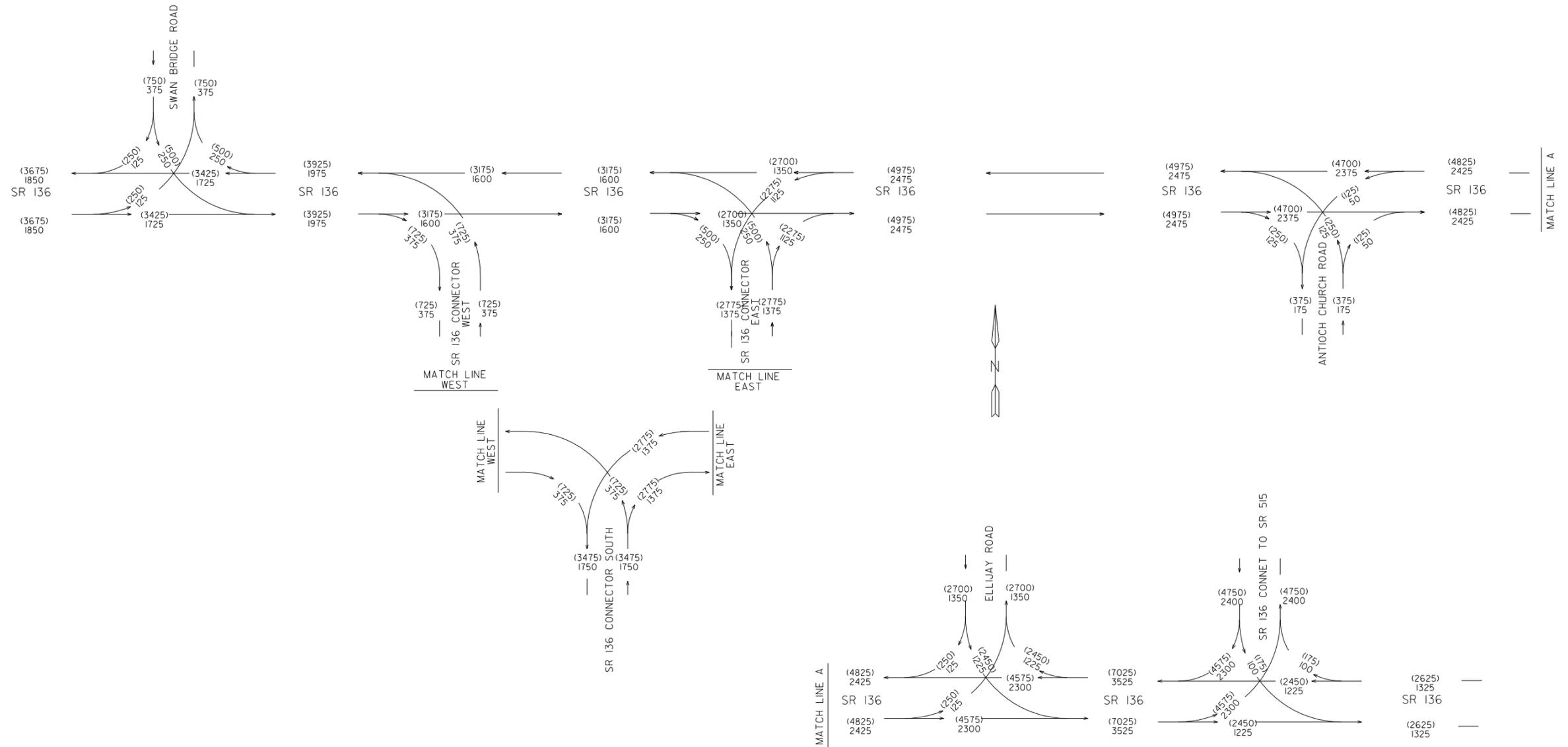
NOT TO SCALE

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
TRAFFIC DIAGRAM

PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS

DRAWING No.
10-03



2014 OPENING YEAR AND
2034 DESIGN YEAR NO BUILD
AADT VOLUMES

LEGEND
2014 AADT = 000
2034 AADT = (000)
24 HR. T = 16%
S. U. = 12%, COMB. = 4%

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

NOT TO SCALE

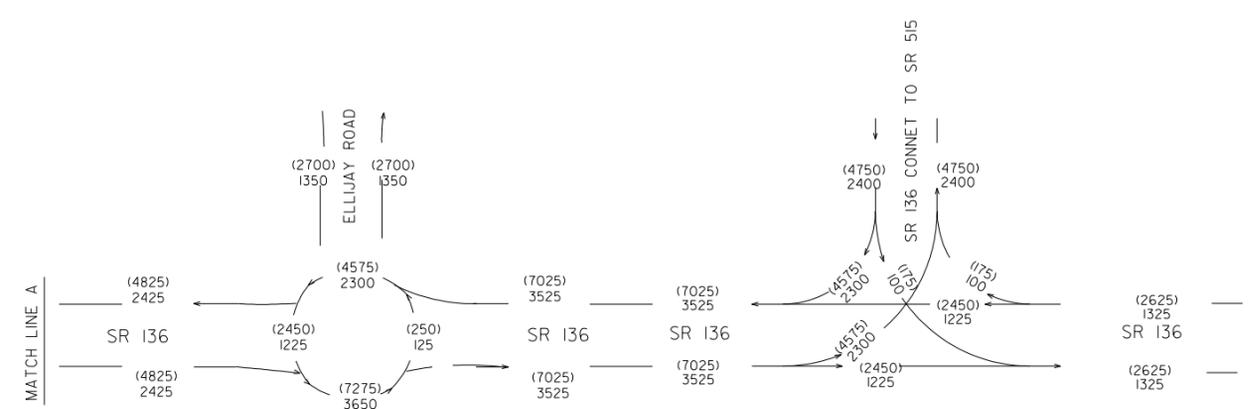
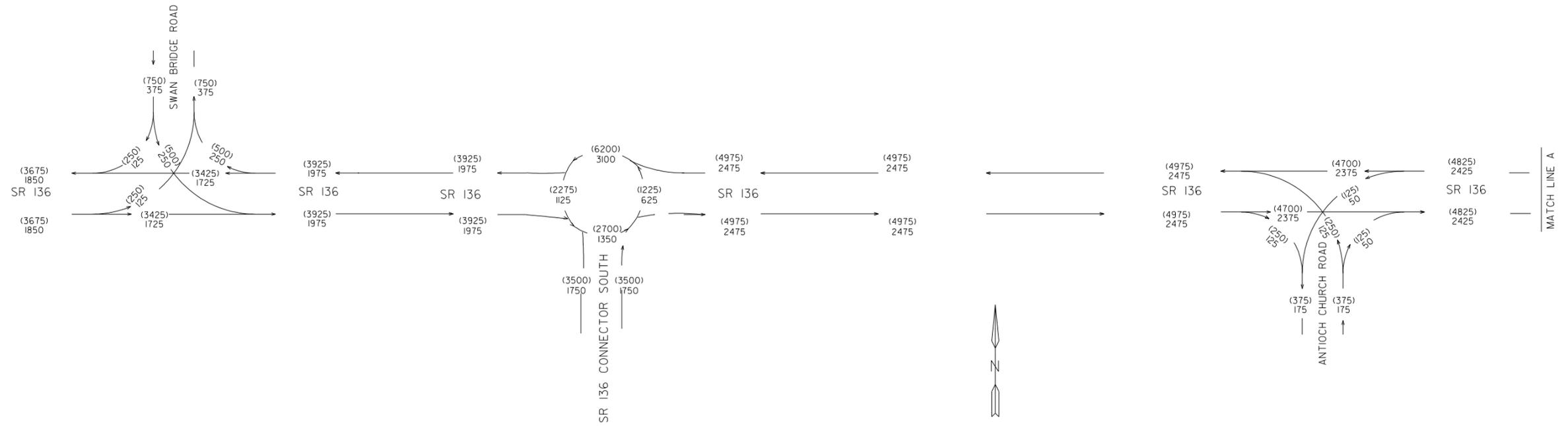
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY

TRAFFIC DIAGRAM

PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS

DRAWING No.
10-004



2014 OPENING YEAR AND
2034 DESIGN YEAR BUILD
AADT VOLUMES

LEGEND
2014 AADT = 000
2034 AADT = (000)
24 HR. T = 16%
S. U. = 12%, COMB. = 4%

GEORGIA
DEPARTMENT
OF
TRANSPORTATION

NOT TO SCALE

REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
TRAFFIC DIAGRAM
PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS

DRAWING No.
10-06

County: Pickens

PROJECT CAPACITY ANALYSIS

Capacity Analysis and Intersection Levels of Service

Capacity analysis was conducted at the intersections with proposed safety improvements to determine the operational characteristics based on the existing and future conditions. The capacity analysis was undertaken using the methodologies outlined in the Highway Capacity manual (HCM) and the Synchro 7.0 software program. There are six levels of service (LOS) in the HCM by which the operational performance of an intersection may be described. These levels of service range between LOS "A", which indicates a free-flowing condition, and LOS "F", which indicates a forced/breakdown flow condition.

A LOS for all the minor movements at an unsignalized two-way-stop-controlled (TWSC) intersection is determined by computing their respective control delays. The LOS for the worst approach is reported below although the HCM computes LOS for all movements. A capacity analysis was conducted for the existing condition and the future anticipated no-build and build conditions. The HCM determines LOS for the side street approaches by computing the control delay for these approaches for the existing and no-build conditions. The results of the capacity analysis for the no-build existing and anticipated future conditions are summarized in Table 3.

The capacity analysis for proposed roundabouts at the SR 136 at SR 136 Connector intersection (the SR 136 at SR 136 Connector East, SR 136 at SR 136 Connector South and SR 136 at SR 136 Connector West intersections were combined) and the relocated SR 136 at Ellijay Road intersection and were conducted using the SIDRA software package. The SIDRA software is based on methodology developed in Australia and also uses a gap-acceptance approach to model roundabout operations. The SIDRA software calculates capacity, delay, queue and LOS for each roundabout approach leg and the entire roundabout. The proposed roundabouts' capacity analysis results for the future build and design years are summarized in Table 5.

Traffic signals are not warranted on this project based upon the peak hour volumes, so traditional stop-sign intersections with turn lanes were analyzed as an alternative instead. A traditional stop-sign controlled intersection with turn lanes would have a 2014 LOS of approximately B/B and a 2034 LOS of approximately C/B for the AM and PM peak, respectively. The traditional stop-sign intersections with turn lanes alternative capacity analysis results for the future build and design years are summarized in Table 4.

County: Pickens

Table 1. No-Build Existing and Anticipated Future Level of Service

Intersection	Traffic Control	Approach	Level of Service (AM/PM)		
			2010	2014 No-Build	2034 No-Build
SR 136/Swan Bridge Road	Stop Control on Swan Bridge Road	SB	A/A	B/B	B/B
SR 136@ SR 136 Connector West	Stop Control on SR 136 West	NB	B/B	B/B	B/B
SR 136@ SR 136 Connector South	Stop Control on SR 136 South	EB	A/A	A/A	A/A
SR 136@ SR 136 Connector East	Stop Control on SR 136 Connector East	EB	B/B	B/B	D/C
SR 136 @ Antioch Church Road	Stop Control on Antioch Church Road	NB	B/B	B/B	C/C
SR 136 @ Ellijay Road	Stop Control on Ellijay Road	SB	B/B	B/B	D/C
SR 136 @ SR 515 connector road	Stop Control on SR 515 connector road	SB	A/A	A/B	B/C

Table 2. Traditional Stop-Sign & Turn Lane Anticipated Future Intersection Level of Service

Intersection	Traffic Control	Approach	2014 Build	2034 Build
SR 136/Swan Bridge Road	Stop Control on Swan Bridge Road	SB	B/B	B/B
SR 136@ SR 136 Connector Combined	Stop Control on SR 136 Connector	EB	B/B	C/C
SR 136 @ Antioch Church Road	Stop Control on Antioch Church Road	NB	B/B	C/C
SR 136 @ Ellijay Road Relocated	Stop Control on SR 136 (West Leg)	EB	B/A	C/B
SR 136 @ SR 515 connector road	Stop Control on SR 515 connector road	SB	A/B	B/C

Table 3. Roundabout Anticipated Future Intersection Level of Service

Intersection	LOS (AM/PM)	
	2014 Build	2034 Build
SR 136@ SR 136 Connector Combined	B/B	B/B
SR 136 @ Ellijay Road Relocated	B/B	B/B

County: Pickens

Operational Analysis

A.M. and P.M. peak hour turning movement counts and 24-hour bi-directional counts were obtained at the major study area intersections and roadways by All Traffic Data, Inc. on September 10th, 2008. These “short-term” traffic counts were adjusted using day of the week, month of the year and axle adjustment factors (obtained from GDOT) to develop annual average daily traffic (AADT) volumes. The opening year for this project was assumed to be 2014 and the design year to be 2034. The 2014 “Opening Year” and the 2034 “Design Year” AADT for the roadways with the proposed safety improvements are presented on Page 7.

The existing AM and PM peak hour turning movement volumes, existing AADT volumes, the design year AM and PM peak hour turning movement volumes and the opening year and design year AADT volumes are provided as an attachment (See Crash Summary and Traffic Diagrams attachment) with this report.

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 227-0020-0

Pickens

SUFF. RATING

100.00

Location & Geography

* Structure I.D.No: 227-0020-0
 200 Bridge Information 07
 * 6A Feature Int: MUD CREEK
 * 6B Critical Bridge: 0
 * 7A Route Number Carried: SR00136
 * 7B Facility Carried: SR 136
 * 9 Location: 2.5 MI W OF TALKING ROCK
 2 DOT District: 6
 207 Year Photo: 2011
 * 91 Inspection Frequency: 24 Date: 05/10/2011
 92A Fract Crit Insp Freq: 00 Date: 02/01/1901
 92B Underwater Insp Freq: 00 Date: 02/01/1901
 92C Other Spc. Insp Freq: 00 Date: 02/01/1901
 * 4 Place Code: 00000
 * 5 Inventory Route (O/U): 1
 Type: 3
 Designation: 1
 Number: 00136
 Direction: 0
 * 16 Latitude: 34-30.6402 MMS Prefix: SR
 * 17 Longitude: 84-33.0412 MMS Suffix: 00 MP: 4.07
 98 Border Bridge: 000 %Shared: 00
 99 ID Number: 0000000000000000
 * 100 STRAHNET: 0
 12 Base Highway Network: 1
 13A LRS Inventory Route: 2271013600
 13B Sub Inventory Route: 0
 * 101 Parallel Structure: N
 * 102 Direction of Traffic: 2
 * 264 Road Inventory Mile Post: 004.07
 * 208 Inspection Area: 06 Initials: DEM
 Engineer's Initial: sgm
 * Location I.D. No.: 227-00136D-004.07E

* 104 Highway System: 0
 * 26 Functional Classification: 07
 * 204 Federal Route Type: S No.: 01012
 105 Federal Lands Highway: 0
 * 110 Truck Route: 0
 206 School Bus Route: 1
 217 Benchmark Elevation: 0000.00
 218 Datum: 0
 * 19 Bypass Length: 00
 * 20 Toll: 3
 * 21 Maintenance: 01
 * 22 Owner: 01
 * 31 Design Load: 6
 37 Historical Significance: 5
 205 Congressional District: 09
 27 Year Constructed: 1974
 106 Year Reconstructed: 0000
 33 Bridge Median: 0
 34 Skew: 24
 35 Structure Flared: 0
 38 Navigation Control: 0
 213 Special Steel Design: 0
 267 Type of Paint: 0
 * 42 Type of Service on: 1
 5
 214 Movable Bridge: 0
 203 Type Bridge: Q
 259 Pile Encasement: 3
 * 43 Structure Type Main: 1 19
 45 No. Spans Main: 002
 44 Structure Type Appr: 0 00
 46 No. Spans Appr: 0000
 226 Bridge Curve Horz: 0 Vert: 0
 111 Pier Protection: 0
 107 Deck Structure Type: N
 108 Wearing Surface Type: N
 M N
 F N

Signs & Attachments

225 Expansion Joint Type: 00
 242 Deck Drains: 0
 243 Parapet Location: 0
 Height: 0.00
 Width: 0.00
 238 Curb: 0.00 0
 239 Handrail: 0 0
 * 240 Median Barrier Rail: 0
 241 Bridge Median Height: 0.00
 Width: 0.00
 * 230 Guardrail Loc Dir Rear: 0
 Fwr: 0
 Oppo Dir Rear: 0
 Fwr: 0
 244 Approach Slab: 0
 224 Retaining Wall: 0
 233 Posted Speed Limit: 55
 236 Warning Sign: 0
 234 Delineator: 0
 235 Hazard Boards: 0
 237 Utilities Gas: 00
 W 00
 Ele 00
 Telephone: 00
 Se 00
 247 Lighting Street: 0
 Navigtion: 0
 Aerial: 0
 * 248 County Continuity No.: 00

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 227-0020-0

Pickens

SUFF. RATING

100.00

Programming Data

201 Project No.: RAB (4) 136 (4)
 202 Plans Available: 1
 249 Prop. Proj. No. 0000000000000000
 250 Approval Status: 0000
 251 P.I. No.: 0000000
 252 Contract Date: 02/01/1901
 260 Seismic No.: 00000
 75 Type Work: 00 0
 94 Bridge Imp. Cost: \$ 0
 95 Roadway Imp. Cost: \$ 0
 96 Total Imp Cost: \$ 0
 76 Imp. Length: 000000
 97 Imp. Year: 0000
 114 Future ADT: 006180 Year: 2027

Measurements

* 29 ADT: 004120 Year: 2007
 109 % Trucks: 0
 * 28 Lanes On: 02 Under: 00
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length: 0011
 * 49 Structure Length: 23
 51 Br. Rwdy. Width: 0.00
 52 Deck Width: 0.00
 * 47 Tot. Horz. Cl: 32.00
 50 Curb/Sdewlk Width: 0.00/0.00
 32 Approach Rdwy Width: 028
 * 229 Shoulder Width:
 Rear Lt: 2.00 Type: 2 Rt: 2.00
 Fwrd Lt: 2.00 Type: 2 Rt: 2.00
 Pavement Width:
 Rear: 24.00 Type: 2
 Fwrd: 24.00 Type: 2
 Intersection Rear: 0 Fwrd: 0
 36 Safety Features Br. Rail: N
 Transition: N
 App. G. Rail: N
 App. Rail End: N
 53 Minimum Cl.Over: 99 ' 99 "
 Under: N 00 ' 00 "
 * 228 Min. Vertical Cl
 Act. Odm Dir: 99 ' 99 "
 Oppo. Dir: 99 ' 99 "
 Posted Odm. Dir: 00 ' 00 "
 Oppo. Dir: 00 ' 00 "
 55 Lateral Undercl. Rt: N 0.00
 56 Lateral Undercl. Lt: 0.00
 * 10 Max Min Vert Cl: 99 ' 99 " Dir: 0
 39 Nav Vert Cl: 000 Horz: 0000
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main: 0.00
 Deck Thick Approach: 0.00
 246 Overlay Thickness: 0.00
 212 Year Last Painted: Sup: 0000 Sub: 0000

Ratings

65 Inventory Rating Method: 5
 63 Inventory Rating Method: 5
 66 Inventory Type: 2 Rating: 36
 64 Operating Type: 2 Rating: 61
 231 Calculated Loads
 H-Modified: 00 0
 HS-Modified: 00 0
 Type 3: 00 0
 Type 3s2: 00 0
 Timber: 00 0
 Piggyback: 00 0
 261 H Inventory Rating: 20
 262 H Operating Rating: 34
 67 Structural Evaluation: 7
 58 Deck Condition: N
 59 Superstructure Condition: N
 * 227 Collision Damage: 0
 60A Substructure Condition: N
 60B Scour Condition: 7
 60C Underwater Condition: N
 71 Waterway Adequacy: 9
 61 Channel Protection Cond: 7
 68 Deck Geometry: N
 69 UnderClr. Horz/Vert: N
 72 Appr. Alignment: 8
 62 Culvert: 7

Hydraulic Data

215 Waterway Data
 Highwater Elev.: 0000.0 Year: 1900
 Avg. Streambed Elev.: 0000.0 Freq.: 00
 Drainage Area: 00000
 Area Of Opening: 000200
 113 Scour Critical: 8
 216 Water Depth: 00.8 Br. Height: 10.2
 222 Slope Protection: 0
 221 Spur Dikes Rear: 0 Fwrd: 0
 219 Fender System: 0
 220 Dolphin: 0
 223 Culvert Cover: 3
 Type: 1
 No. Barrels: 2
 Width: 10.00 Height: 10.00
 Length: 57 Apron: 1
 * 265 U/W Insp. Area: 0 Diver: ZZZ
 * Location I.D. No.: 227-00136D-004.07E

Posting Data

70 Bridge Posting Required: 5
 41 Struct Open, Posted, Cl: A
 * 103 Temporary Structure: 0
 232 Posted Loads H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type3s2: 00
 Timber: 00
 Piggyback: 00
 253 Notification Date 02/01/1901
 253 Fed Notify Date: 02/01/1901 0



G R E S H A M
S M I T H A N D
P A R T N E R S

Memorandum

To: Meeting Attendees (see page 4)

From: Scott Shelton - Gresham, Smith & Partners
Jill Brown - Edwards-Pitman, Environmental, Inc.

Meeting Date: August 19, 2008

Subject: CSSFT-0008-00(314), Pickens County, PI No. 0008314
SR 136 Safety Improvement Project

General Information

A meeting was held on August 19, 2008 at the GDOT Office of Environment/Location (OEL) to discuss the cultural resources and public involvement requirements for the SR 136 Safety Improvement Project.

Jody Braswell began the meeting with an introduction to the project. SR 136 within the project area is a designated bike route with the rural shoulders. The crash rates within the project area are almost double the statewide average crash rates for this type of facility. Additionally, from 2000 through 2005 there were 55 accidents that did not involve collisions with another vehicle. The main purpose and need for the project is to improve safety. The concept for the project would involve increasing the shoulder widths to match current standards but would not involve increasing capacity. The majority of the preliminary concept alignment follows the existing alignment except at one curve.

The project is currently scheduled for April 2009 right-of-way and April 2011 let to construction, but this schedule will change. Derrick Cameron needs information about the anticipated project schedule so he can update it in the GDOT system.

Cultural Resources

On June 10, 2008, Lisa Crawford and Garrett Silliman met with the Marble Valley Historical Society (MVHS) to discuss cultural resources in the project area based upon the MVHS response to the Section 106 Notification. The purpose of this meeting had been to get information from and to partner with the MVHS. The MVHS advertised the meeting in the *Pickens County Progress*, a local newspaper. Approximately 40 persons were present including 28 members of the MVHS. As a result of the presence of individuals not involved in the historical society, the meeting discussion shifted to project design,

concept, right-of-way, and survey issues. Public attendees raised concerns about private property rights, all GDOT projects, and the purpose for the project being to help developers. The purpose of the meeting was not accomplished.

No archaeological fieldwork has been done. The specialists wanted to meet with GDOT and FHWA to discuss how to proceed before continuing the structural resource survey or beginning the archaeology survey.

The approach preferred by GDOT would be for the archaeology and history surveys to look at a wider area for the alignment. This will give a better picture of what resources are in the project area. This is also beneficial for the preliminary engineering.

There is potential for Native American involvement. Early tribal notification has been sent out.

Public Involvement and Notification

GDOT is trying to get input and to involve local residents, but based upon the June 10, 2008 meeting described above in "Cultural Resources," the public is opposed to the project. There seems to be a misconception that the project would involve widening the roadway to benefit developers. The project would not add capacity, with widening limited to improving shoulders to meet current standards. GDOT will need to investigate where the private developments are prior to the public involvement efforts. Public opposition was also expressed about bicycle lanes. The corridor is a bicycle route, but the rural shoulders address this route designation without requiring separate bicycle lanes.

Some education efforts should be done before a Public Information Open House (PIOH). GDOT needs to talk to the media about what the actual project is. The media should also be informed about the number of fatalities that have occurred. Emmanuella Mythril suggested coordinating with the *Pickens County Progress* for an article rather than just providing a press release.

The press release and article would include a reference to the GDOT website. The website would be updated to provide information about the project and to include a graphic showing where accidents have occurred within the project area.

Katy Allen recommended that a stakeholders group should be formed after the media coordination, prior to a PIOH. GDOT could then meet with the core group, discuss the project Purpose and Need, the survey area, the project concept, mitigation measures, and other projects such as the Old Federal Road or New Echota. Coordination with the stakeholders would also include an explanation of how the project development process works. The stakeholders then could act as liaisons at the PIOH. Without holding the stakeholders meeting before the PIOH, the PIOH may just result in the same out come as the June 10, 2008 meeting. Eric Duff will provide a list of potential stakeholders that will include the MVHS, the Chamber of Commerce, the local government planning and transportation personnel, the Trail of Tears Association, and a local resident. Katy Allen would like to be involved in the stakeholders meetings.

GDOT District 6 would also need to be involved in the public involvement process because they are often the first point of contact for local residents.

There would likely need to be at least two stakeholders meetings. If the results of the first stakeholders meeting are favorable, then the project should move to a PIOH. If the results of the stakeholders meeting are not favorable, then information from the stakeholders meeting should be incorporated into the project and surveys, and the results taken back to the stakeholders. The stakeholders should be shown the project constraints and how the concerns were addressed.

The PIOH would help address the public concerns. Showing just a corridor at the PIOH was discussed, but the decision was that it would be OK to show a concept as a starting point. Letters should be sent to the land owners notifying them about the PIOH. The property owners within the project corridor were also previously sent notification about the project from the surveyors.

Katy Allen recommended that the PIOH include a presentation to reduce misinformation rather than following the standard informal PIOH format. The presentation should discuss the Purpose and Need for the project and the project concept (that the project would not add capacity). GDOT should consider how to communicate with those who are opposed to the project.

Garrett Silliman suggested inviting the public to comment on what is there. Getting input could be very valuable on this project. Garrett will send a copy of a questionnaire that was used on another project to Eric Duff for review and comment.

A public hearing open house (PHOH) would also be required for this project.

NEPA Documentation

Katy Allen said that the appropriate level of environmental documentation would be an Environmental Assessment to be prepared for possible litigation. The project may also require a full Section 4(f) Evaluation.

Edwards-Pitman will provide Gresham Smith with a scope and cost estimate. These are to include the stakeholders meetings. A full Section 4(f) Evaluation should also be included in the cost estimate and schedule. Archaeology will survey 100 feet beyond the corridor.

Action Items:

Gresham, Smith and Partners

- Provide Purpose and Need information to GDOT for the press release.
- Create graphic showing accident locations on an aerial background.
- Notify property owners before surveys occur.

Edwards-Pitman Environmental

- Prepare a schedule, scope and budget to include a wider archaeology survey area and preparation of an Environmental Assessment with a Section 4(f) Evaluation.

Georgia Department of Transportation

- Prepare a press release.
- Determine if an article should be prepared with the *Pickens County Progress*.
- Identify stakeholders.
- Determine where the private development in the area is located.
- Set up a stakeholders meeting.
- Schedule a PIOH after the stakeholders meeting.
- Review the scope and budget prepared by Gresham, Smith and Partners and Edwards-Pitman to determine responsibilities for the stakeholders meetings.
- Prepare information on other GDOT projects to showcase during public involvement.

MEETING ATTENDEES

Name	Office	Phone	Email
Katy Allen	FHWA	404-699-3657	katy.allen@fhwa.dot.gov
Jody Braswell	Gresham Smith	678-518-3655	jody_braswell@gspnet.com
Jill Brown	Edwards-Pitman	770-333-9484	jbrown@edwards-pitman.com
Derrick Cameron	GDOT TO	404-635-8153	dcameron@dot.ga.gov
Jonathan Cox	GDOT OEL	404-699-3475	jocox@dot.ga.gov
Lisa Crawford	Edwards-Pitman	770-333-9484	lcrawford@edwards-pitman.com
Eric Anthony Duff	GDOT OEL	404-699-4406	eduff@dot.ga.gov
Emmanuella Myrthil	GDOT OEL	404-699-6967	emyrthil@dot.ga.gov
Scott Shelton	Gresham Smith	678-518-3684	scott_shelton@gspnet.com
Garrett Silliman	Edwards-Pitman	770-333-9484	gsilliman@edwards-pitman.com



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SR 136 Safety Project Citizens Advisory Committee Meeting #1

March 16, 2010

MEETING NOTES

P.I. NO.: 0008314
CSSFT-0008-00(314)
GS&P Project No. 26340.09

MEETING DATE: FEBRUARY 24, 2010
MEETING TIME: 10:30 AM – 12:00 PM
MEETING LOCATION: PICKENS COUNTY BOARD OF COMMISSIONERS

PARTICIPANTS:

Community Work Group

Mimi Jo Butler, Marble Valley Historical Society
Tammy Bell, Marble Valley Historical Society
Linda Geiger, GA Chapter Trail of Tears
Honorable Rodney Gibson, Blaine Masonic Lodge
Buddy Callahan, Business Owner
Wendell Aenchbacher, Property Owner
Edsel Dean, Property Owner

Staff Work Group

Chetna Dixon, FHWA – Georgia Division
Joey Low, Pickens County Land Development
Kevin McAuliff, Northwest Georgia Regional
Norman Pope, Pickens County
Greg Callus, Pickens County Public Works Director
Commissioner Robert Jones, Pickens County

Project Team

Kent Black, Gresham, Smith and Partners
Jody Braswell, Gresham, Smith and Partners
Scott Shelton, Gresham, Smith and Partners
Ronda Coyle, Gresham, Smith and Partners
Derrick Cameron, GDOT Traffic Operations (PM)
Michael Nash, GDOT Traffic Operations
Wes King, GDOT District Six
Jill Brown, Edwards-Pitman Environmental
Lisa Crawford, Edwards-Pitman Environmental
Garrett Silliman, Edwards-Pitman Environmental
David Adair, Edwards-Pitman Environmental

DISCUSSION: CITIZENS' ADVISORY COMMITTEE (CAC) #1

A. Introductions

Kent Black opened the meeting and asked the meeting participants to introduce themselves. Kent then briefly reviewed the meeting agenda, the CAC notebook, and the expectations for the committee.

B. Organization and Purpose

Kent Black provided a general overview of the project team. Kent discussed the roles and responsibilities document contained in the CAC members' notebooks and noted the role of the CAC committee was to gather and share information on critical issues, assist in development of alternatives, and support the project team. Kent shared the commitment and pledge for the CAC: build consensus, respect and constructive input. Kent asked the CAC members to review the commitment and pledge provided in each notebook and requested the CAC sign the document.

C. Project Development

The project development process includes a historical and roadway story. These stories, plus crash data, traffic data, geometrics and environmental data will assist the CAC to develop a recommendation for the corridor.

D. Environmental Resources

Jill Brown with Edwards-Pitman Environmental (EP) explained how the project will be reviewed for environmental impacts. EP will review the social environment (schools, churches) and the physical environment (air quality, noise). EP is in the process of identifying the potential archeological footprint for the project. SR 136 is believed to be part of the Old Federal Road and the route of the Trail of Tears. Fort Newnan, built as part of the removal of the Cherokee Indians, may be within the project footprint, but may not be part of the impacted area. The cemetery identified on SR 136 is not included in the project footprint and therefore is not being studied. There are several historic homes in the area as well as the Masonic Lodge. However, SHPO has not approved any of the historic resources. To date, no endangered species or protected aquatic species have been identified.

E. Roadway History

In 2002, GDOT recommended a safety improvement project for the corridor and in 2005 a Pickens County study recommended improvements to SR 136. In 2007, GDOT hired GS&P and Edwards-Pitman to begin preliminary evaluations of the corridor. In 2008 the Federal Highway Administration directed GDOT to coordinate with the stake holders on the corridor and develop a Citizens' Advisory Committee.

GDOT's primary goal is the safety of motorists. On SR 136, several safety deficiencies have been identified by GDOT and Pickens County. Contrary to previous perception, only safety improvements are proposed on SR 136 and not widening per a new residential development.

Kent Black highlighted that 46% of all crashes on SR 136 were either injury or fatal and not a collision with another vehicle. Kent Black stated that this corridor has 3.5 times more fatal crashes than the statewide average for similar type roadways and has a crash rate 2.5 times higher than sections just west of the proposed project. During a meeting with Pickens County, the Fire Chief confirmed SR 136 had many crashes over the last eight years. Traffic studies, along SR 136, show traffic volume doubling in the next 20 years potentially meaning more crashes. It was noted that motorists' speed was not a major factor for accidents.

F. Roadway Geometrics

Jody Braswell identified three (3) horizontal curves on the corridor (General Store, Antioch Church Road and Old Ellijay/Hwy. 5 Road) that do not meet current standards. Jody also highlighted four (4) vertical curves with erroneous sight distance on SR 136: SR 136 connector east of SR 136, Antioch Church Road, and two on Priest Circle that need to be improved. Lack of shoulders on SR 136 prevents motorists from correcting over steer movements in horizontal curves. Kent Black interjected that some of the fatalities along SR 136 could be attributed to the vertical curves.

G. Facilitated Discussion

Kent Black stated he would like the CAC members to utilize the black and white aerial layout of the corridor to identify additional accidents and concerns not shown.

Buddy Callahan noted that a fatality (Ms. Moon) was not captured on the layout in front of his business.

Joey Low noted he was surprised about the accidents in the middle of the corridor and thought more accidents occurred at the end of SR 136 at Hwy. 515.

Wendell Aenchbacher noted there had been three fatalities in front of his property (Corey Dean, Ms. Mulkey, Bartow County man) and theorized that the fatalities occurred due to speed or driver unfamiliarity with the area. Mr. Aenchbacher noted the supply trucks are very familiar with the area and know when to slow their vehicles down.

Kent Black stated GS&P investigated accidents over the last ten (10) years, but would research the additional names given to make sure all accidents are recorded.

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Buddy Callahan surmised that all the crashes in front of his business were due to driver error except for Ms. Mulkey.

Kent Black stated that the accidents shown were the end point of the accident. The accident may have begun in one area but ended several hundred feet away.

Linda Geiger inquired if any of the crashes were speed or alcohol related. Based on the accident reports, neither alcohol nor high rates of speed were major indicators for the crashes. The major contributors of accidents were over corrections, flipping of vehicle, losing control, and hitting an object (tree, etc.).

Joey Low inquired if any of the accidents might be attributed to local or regional motorists. Kent Black noted GS&P was unsure and would research further. Kent Black stated that regional motorists would certainly have different familiarity with SR 136 than local residents.

The CAC noted that police enforcement is not adequate enough to slow motorists and speed often contributed to accidents along the corridor.

The CAC believes there is a lack of signage along SR 136 and signage needs to be a higher quality and more prominent. The CAC noted that regional motorists traveling to Carters Lake often find themselves in Talking Rock due to the inadequacy of the signage exiting SR 515.

The CAC inquired if GS&P would be discussing any alignment options today. Kent Black stated alignments would be discussed at the May CAC meeting and committee members will have the opportunity to give input on the potential alternatives.

The CAC expressed concern that parts of the original Federal Road are still visible and did not want those areas destroyed by the project. EP is in the process of identifying the Federal Road remnants that would need to be maintained and protected.

The CAC inquired if assistance was needed in locating archeological resources. To identify the archeological resources, EP had to sign a liability release form with GDOT and GDOT would require the same documentation for other individuals to identify archeological resources. EP recommended not adding additional staff to identify the archeological resources.

The CAC noted that they believe the cemetery extends beyond the fenced area. EP noted that the project may not come in contact with the cemetery, but the outlying area might be mentioned in the environmental findings.

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However, the cemetery will not be researched since it is not in GDOT's scope.

The committee stated that a study had been completed at Talking Rock Creek (west of SR 515) and identified endangered mussels in the area. EP will be completing aquatic surveys in the spring and summer to determine if endangered species exist along the corridor. The committee noted there was a water study completed recently or soon to be completed by Brown and Caldwell and EP may want to contact them to include their findings. Jill inquired if the study completed was in regards to water quality or species. The committee responded that the study was for both.

A CAC participant noted two potentially historical residences, but the committee was unsure of their age.

H. Project Process/Criteria

GS&P has held several stakeholder meetings prior to the CAC meeting to better understand and identify resources along the corridor and explain the project. At the 2nd CAC meeting in May, alternatives will be discussed. At the 3rd CAC meeting a preferred alternative will be presented and if selected by GDOT, the preferred alternative will be shown at the Public Information Open House (PIOH). The PIOH will be for the general public to review the preferred alternative and provide comments. As CAC members, GDOT would request the CAC be ambassadors to describe the CAC process and the project to the public. After approval of the environmental document, a Public Hearing Open House (PHOH) will be held similar to the PIOH.

I. Project Objectives

The project's primary objective for the corridor is to reduce the number of crashes by improving the horizontal curves, vertical curves, sight distance, shoulders and intersection configurations along SR 136. Any roadway improvements would follow the American Association of Highway and Transportation Officials (AASHTO) guidelines for road design. Per AASHTO the minimum radius for a horizontal curve is 1,060 feet and the minimum vertical site distance is 500 feet. Currently, the horizontal radii along SR 136 are: 967 feet at SR 136 connector, 954 feet at Antioch Church Road and 578 feet at Elijah Road. Vertical curves would need to be flattened as the driver's height and distance on the curves does not meet AASHTO standards.

J. Environmental Requirements

For this project, EP would be bound by Section 106 of the National Historic Preservation Act, the National Environmental Policy Act and Section 4(f) of the USDOT Act. Additional findings along the project might require the following to be obeyed:

- Surface Transportation and Uniform Relocation Assistance Act
- Environmental Justice

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- Abandoned Cemeteries and Burial Grounds
- Farmland Protection Act
- Endangered Species Act
- Clean Water Act
- Others

K. Tentative Schedule

- CAC #2 May 26, 2010
- CAC #3 Fall 2010
- PIOH Winter 2010
- PHOH Fall 2011
- Environmental Approval Winter 2011
- Construction 2014

The project schedule length allows adequate time to evaluate the environment and to ensure the environment is protected prior to construction.

L. Closing

GS&P requested the CAC members review the information in their notebooks and to contact GS&P, EP or GDOT with any questions or concerns. In addition, a CAC member contact list is provided so that members may coordinate amongst themselves. For the next CAC meeting, the project team will review the information from today and begin developing alternatives to present to the CAC for review and comment.

The committee inquired if there was funding available for the project and GDOT replied that safety money had been allocated for the project.

This represents our understanding of the items discussed at CAC Meeting #1 on February 24, 2010. If you have any questions or comments concerning any of the information contained here, please contact Scott Shelton.

Prepared by: Ronda J. Coyle

RJC



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SR 136 Safety Project Citizens Advisory Committee Meeting #2

June 10, 2010

MEETING NOTES

P.I. NO.: 0008314
CSSFT-0008-00(314)
GS&P Project No. 26340.09

MEETING DATE: MAY 26, 2010
MEETING TIME: 10:30 AM – 12:00 PM
MEETING LOCATION: PICKENS COUNTY BOARD OF COMMISSIONERS

PARTICIPANTS: Community Work Group
Mimi Jo Butler, Marble Valley Historical Society
Tammy Bell, Marble Valley Historical Society
Linda Geiger, GA Chapter Trail of Tears
Honorable Rodney Gibson, Blaine Masonic Lodge
Buddy Callahan, Business Owner
Edsel Dean, Property Owner

Staff Work Group
Chetna Dixon, FHWA – Georgia Division
Kelly Whitson, FHWA – Georgia Division
Joey Low, Pickens County Land Development
Kevin McAuliff, Northwest Georgia Regional
Norman Pope, Pickens County
Larry Coleman, Pickens County Water
Commissioner Robert Jones, Pickens County

Project Team
Kent Black, Gresham, Smith and Partners
Jody Braswell, Gresham, Smith and Partners
Scott Shelton, Gresham, Smith and Partners
Ronda Coyle, Gresham, Smith and Partners
Derrick Cameron, GDOT Traffic Operations (PM)
Michael Nash, GDOT Traffic Operations
Wes King, GDOT District Six
Jill Brown, Edwards-Pitman Environmental
Lisa Crawford, Edwards-Pitman Environmental

DISCUSSION: CITIZENS' ADVISORY COMMITTEE (CAC) #2

A. Introductions

Kent Black opened the meeting and asked the meeting participants to introduce themselves. Kent then briefly summarized the meeting agenda and advised the committee that they would be receiving alternatives to review and score as part of the CAC process.

Kent Black recapped the action items that had been identified from the first CAC meeting which included the technical work needed to develop preliminary alternatives for presentation today at CAC #2. Kent commented that additional technical work would be completed after CAC #2 based upon the comments and suggestions of the CAC. A preferred alternative for each critical area will be combined into a proposed conceptual improvement for the entire length of the corridor to present to the general public at a Public Information Open House (PIOH). The PIOH display will be shown to the CAC in the fall prior to the PIOH.

B. Comments from CAC #1

Kent Black shared with the committee the critical comments made by the committee members during CAC #1. These comments included high rates of speed along the corridor, motorist confusion or unfamiliarity with the corridor, potentially endangered species and historical resources. Per comments from CAC #1, GS&P re-verified and refined the locations of all the fatal crashes on the corridor and plotted the beginning and ending points of each crash. Kent noted these crashes were primarily mapped out along the horizontal curve areas.

C. Environmental Resources

Since the last meeting, Edwards-Pitman's (EP) historian and archeologist visited the corridor with CAC members to capture the historical and cultural significance of the area. Fort Newnan and the Caramel Mission were not contained in the study area so they were not evaluated for historical significance. The Kelly House has now been included as part of the Blaine Community and the boundary at the Blaine House has been reduced. Segments of the Old Federal Road highlighted in blue on the display board were identified and will be protected or mitigated if impacted.

EP's next phase of work will include identifying the natural areas and protected species in the area. This process can only be done once the preferred alignment is determined. EP will work with GDOT and GS&P to fine tune the preferred alignment to minimize impacts.

EP will also evaluate the noise and air pollution for the preferred alignment. The State Historic Preservation Officer (SHPO) has not concurred with EP's findings to date.

D. Alternatives Development

Five (5) critical areas were identified along the corridor. These areas include SR 136 Connector, Antioch Church Road, Priest Circle, the sharp horizontal curve, Ellijay Road and SR 515 Access Road. The alternatives were designed per the American Association of State Highway and Transportation Officials (AASHTO) design criteria. The alternatives improve safety and operations while minimizing potential impacts to historical and environmental resources. The design team evaluated each alternative for impacts or improvements to the environment, corridor preservation, design, safety and cost and presented their findings graphically on each alternative. Each alternative provided to the CAC members contained a table of the key design, cost, environmental and corridor preservation information needed to evaluate the alternative.

Base improvements were presented that would be appropriate to use with any of the alternatives such as advance warning signs, center line and shoulder rumble strips, shoulder widening, and curve delineation. Kent advised that on their own, these base improvements would not be sufficient enough to reduce crashes, but included with a preferred alternative, should enhance the safety aspect of the corridor.

Commissioner Rob Jones inquired if the raised pavement markers would be removed from the road. GDOT stated that the center line raised pavement markers would be re-installed after construction.

Kent instructed the CAC to review and consider each alternative for the five (5) critical areas appropriately and rank each alternative and/or provide an additional alternative, and provide feedback for each alternative.

E. Open Discussion

Buddy Callahan asked Kent if the preferred alternative had been decided. Kent assured Buddy and the other CAC members that neither GS&P nor GDOT had made any decisions on the preferred alignment for the corridor. Kent stressed that a number of data points have to be evaluated and considered in order for the engineers to make a recommendation to GDOT. Data points include consensus of the property owners, property access, and historical preservation.

Buddy Callahan commented that roundabouts cause too much confusion for people trying to access his property and departing his property and he is concerned that people will not stop at his store if a roundabout is built. Kent

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assured Buddy that if a roundabout has any merit in this corridor; GS&P will work with Buddy to maintain property access.

GS&P has designed and GDOT has built numerous roundabouts throughout Georgia and each time GDOT coordinated with businesses to maintain access after completion of the roundabout.

A CAC member expressed concern that a roundabout would put Buddy out of business. Kent Black reiterated that the intent of a roundabout is to address safety and traffic concerns and not put anyone out of business. Kent advised the CAC that GS&P would provide members with a traffic simulation of some roundabouts including a roundabout located in the rural area of Douglas County. The roundabout traffic simulation would assist the CAC in understanding the operation and how to navigate through a roundabout. Kent reiterated GS&P and GDOT were not in Pickens County to sell roundabouts.

This represents our understanding of the items discussed at CAC Meeting #2 on May 26, 2010. If you have any questions or comments concerning any of the information contained here, please contact Scott Shelton.

Prepared by: Ronda J. Coyle

RJC



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SR 136 Safety Project Citizens Advisory Committee Meeting #3

September 15, 2010

MEETING NOTES

P.I. NO.: 0008314
CSSFT-0008-00(314)
GS&P Project No. 26340.09

MEETING DATE: September 2, 2010

TIME: 10:30 am – 12:00 pm

PARTICIPANTS: Community Work Group
Mimi Jo Butler, Marble Valley Historical Society
Tammy Bell, Marble Valley Historical Society
Linda Geiger, GA Chapter Trail of Tears
Buddy Callahan, Business Owner
Edsel Dean, Property Owner
Wendell Aenchbacher, Property Owner

Staff Work Group
Joey Low, Pickens County Land Development
Kevin McAuliff, Northwest Georgia Regional
Norman Pope, Pickens County

Project Team
Derrick Cameron, GDOT Traffic Operations (PM)
Michael Nash, GDOT Traffic Operations
Michael Hester, GDOT
Wes King, GDOT District Six
Greg Hood, GDOT District Six
Kent Black, Gresham, Smith and Partners
Jody Braswell, Gresham, Smith and Partners
Scott Shelton, Gresham, Smith and Partners
Ronda Coyle, Gresham, Smith and Partners
Jill Brown, Edwards-Pitman Environmental
Lisa Crawford, Edwards-Pitman Environmental

DISCUSSION: CITIZEN'S ADVISORY COMMITTEE MEETING #3

A. Introductions

Kent Black opened the Citizen's Advisory Committee (CAC) meeting and asked the participants to introduce themselves. Kent noted the Public Information Open House (PIOH) would be held later this fall and noted the display board on display would be at the PIOH. Kent also stated each CAC member had an 11 x 17 copy of the display in their packet of information today for their use. Kent stated GS&P and GDOT were excited to present to the CAC a preferred alternative and hoped the CAC would find the alternative addressed the improvements to safety while preserving the corridor's historic and cultural stories.

B. Recap of CAC Meetings

Kent Black summarized the CAC process to date:

1. CAC #1 – February 25, 2010 – Identified historical and roadway stories, identified environmental resources, and discussed crashes and concerns
2. CAC #2 – May 26, 2010 – Identified the five critical areas on the corridor, CAC evaluated and ranked alternatives within the five critical areas and provided feedback

C. Scoring Results

1. Kent Black stated part of GS&P's objectives when designing the alternative was to reduce the number and severity of crashes, address the horizontal and vertical curves, repair the sight distance issues and shoulder deficiencies and reconfigure a substandard intersection.
2. In Area 1, Buddy Callahan suggested an alternative to those presented by GS&P. Mr. Callahan's alternative ranked #1 with the CAC, so GS&P carried forward Buddy's suggestion. GS&P completed a technical evaluation of Mr. Callahan's suggestion to compare to the others.
3. In Area 2, the CAC chose the inside realignment as opposed to the outside realignment as the inside realignment would not affect the Old Federal Road.
4. In Area 3, the CAC chose the 90 degree intersection over a 70 degree intersection and 90 degree intersection with a cul-de-sac. The chosen alternative would alleviate the sight distance issues at Priest Circle and provide for a conventional intersection.
5. In Area 4, the CAC chose the inside realignment over a new alignment with a roundabout. Upon technical evaluation, it was discovered an inside realignment had several fatal flaws, so GS&P merged Area 4 and 5 to create an alignment with a roundabout at the end of the corridor to correspond to the CAC's selection of a roundabout.

D. Technical Evaluation

1. Jody Braswell explained for Area 1 both Mr. Callahan's suggestion and the roundabout improved safety on the corridor, although the technical evaluation showed the roundabout would increase safety and lower speed level and both alternatives would provide access to Mr. Callahan's store. Jody Braswell noted Mr. Callahan's suggestion also impacted historical resources as well as adjacent properties. The roundabout had no impacts to either properties or historical resources. Buddy Callahan stated numerous people in the community had voiced a concern over a roundabout and potential number of crashes. Mr. Callahan noted several crashes had been witnessed at a roundabout on Cove Road due to people traveling in the wrong direction on the roundabout. Edsel Dean noted that good signage would control this. Kent Black stated educational material would be distributed to Pickens County at the PIOH on how to maneuver in a roundabout. Jody Braswell noted crashes are possible in a roundabout, but fatal crashes should be reduced since all movements are much slower in a roundabout. Derrick Cameron stated there would be signage as well as additional lighting in the proposed roundabout. Derrick Cameron noted that splitting traffic is not viable in this area and does not provide the safety needed per Mr. Callahan's suggestion.
2. Jody Braswell noted CAC members ranked #1 an inside realignment in Area 4. Upon further technical evaluation an inside realignment would be too costly and the curve would remain sharp. Jody Braswell stated another solution would be to straighten the curve and re-align to Old Hwy. 5, thus combining Areas 4 and 5. Jody Braswell noted by realigning the entire movement to Hwy. 515 it would create a continuous movement and reduces the conflicts to Hwy. 515. Plus, the roundabout built mid-stream would slow down traffic. Jody Braswell stated both Area 4 and 5 alternates improved safety, but a new alignment with a roundabout improved safety significantly while enhancing the corridor and preserving historic resources.
3. Mimi Jo Butler inquired if there would be a stop sign at Hwy. 5 going north coming from Talking Rock and if this would become a potentially hazardous area with the other solutions. Kent Black stated traffic volumes at this location are low and GS&P does not believe it to pose a threat to safety. Mimi Jo Butler stated those that utilize the corridor traveling to Ellijay stay on Hwy. 5 and not Hwy. 515. Kent Black noted there would be static signage in the area and perhaps some dynamic signage during construction to direct travelers on how to proceed.

E. Environmental Update

Jill Brown with Edwards-Pitman Environmental (EP) stated information regarding the historical and environmental resources on the corridor has been provided to SHPO. SHPO requested an investigation of the cemetery to be completed by GDOT to verify if it is a cemetery or not. The Priest Farm on Priest Circle has been identified as a potential historic resource. However, it is not impacted by the project design. EP is not anticipating any problems with SHPO approval of the proposed alternative.

F. CAC Commitment and Pledge

Kent Black reminded the CAC about their agreement to commit to build consensus among the members and assist with public coordination at the PIOH. Kent Black stated the CAC for Pickens County was a pleasure to work with and was a model of the CAC process. Kent Black thanked the members of the CAC and encouraged the members to attend the PIOH and promote the CAC process and share with the public how that GS&P and GDOT worked with the CAC and others to build consensus on an alternative.

G. Open Discussion

1. Kent Black was asked what would be the format of the PIOH. Kent Black replied the PIOH is an open house style for approximately two (2) hours with handouts, display boards and sample CAC notebooks.
2. Kent Black was asked how the PIOH would be advertised to the community. Kent Black replied notification would occur by signage on SR 136, legal ads in the local newspaper, CAC member and flyers.
3. Kent Black was asked if the community had to give their comments regarding the project during the PIOH only. Kent Black replied the community would be able to provide feedback with comment cards or they could parlay their comments to a court reporter at the open house. The public also has the option to take the comment card with them and send it in within 10 days of the PIOH or provide comments online through the GDOT website.
4. District 6 stated preference for not altering the state route as currently shown. GS&P will review the layout and revise areas to keep the state route as the through movement.
5. District 6 inquired if the project at Antioch Church Road was still active and GDOT confirmed it was active at the current time.
6. Mimi Jo Butler advised that while the roundabout simulation was very helpful, more people in the community would benefit from a video of an actual roundabout in the area. Mimi Jo Butler noted it would dispel the old wives tales of dangerous roundabouts. Buddy Callahan noted the roundabouts would cause confusion in the beginning and signage would be very important. The CAC recommended GS&P and GDOT video tape the roundabout at Steve Tate Hwy. and Cove Road.
7. Kent Black was asked if a location for the PIOH had been determined. GDOT stated the process of identifying a location for the PIOH had

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not begun and knows the area is limited in meeting space. The CAC suggested holding the PIOH at the technical college or the chamber of commerce.

This represents our understanding of the items discussed at CAC Meeting #3 on September 2, 2010. If you have any questions or comments concerning any of the information contained here, please contact Scott Shelton.

Prepared by: Ronda J. Coyle

RJC



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January 11, 2010

MEETING NOTES

STAKEHOLDER MEETING WITH MARBLE VALLEY HISTORICAL SOCIETY PICKENS COUNTY, GEORGIA GS&P Project No. 26340.09

MEETING DATE: December 14, 2009

PARTICIPANTS: Scott Shelton — Gresham, Smith and Partners (GS&P)
 Kent Black – Gresham, Smith and Partners (GS&P)
 Jody Braswell – Gresham, Smith and Partners (GS&P)
 Mimi Jo Butler – Marble Valley Historical Society (MVHS)
 Bob Perdue – Marble Valley Historical Society (MVHS)
 Gloria Beaudet – Marble Valley Historical Society (MVHS)
 Linda Geiger – Marble Valley Historical Society (MVHS)
 Tammy Bell – Marble Valley Historical Society (MVHS)
 James Hefner – Marble Valley Historical Society (MVHS)
 Lisa Crawford – Edwards-Pitman (EP)

DISCUSSION: SR 136 SAFETY PROJECT

1. GS&P began the meeting by highlighting GDOT's primary purpose for all roadways in the state is to provide safety and accessibility for the traveling public. GS&P briefly described the history of the project per the attached agenda.
2. GS&P highlighted the various locations of the crashes along the SR 136 corridor as shown on the aerial map, and GS&P noted that there has been one fatality per year for the last eight years for this corridor. Therefore, GDOT identified SR 136 as a safety project.
3. GS&P stated that a majority of the accidents were not a collision with another motor vehicle. Such accidents are often attributed to potential roadway alignment issues (i.e. horizontal and vertical design issues). In addition, this section of SR 136 has 2.5 times more accidents than other sections of SR 136, and this section of SR 136 has 7 times more accidents than similar types of roadways throughout the state.
4. GS&P was tasked by GDOT to evaluate SR 136 to determine what changes might be made to the horizontal and vertical design to help reduce the number of

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MEETING NOTES

SR 136 TO SR 515 PUBLIC INVOLVEMENT

GS&P Project No. 26340.09

January 11, 2010

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- crashes on SR 136, and GS&P noted that the roadway will not be widened to four lanes as part of this project.
5. Linda Greiger and James Hefner did not believe the road to be hazardous. However, Gloria Beaudet noted some areas that were hazardous.
 6. MVHS noted that high speeds on SR 136 lead to accidents on the sharp curves. MVHS recommended enforcement and signage to help slow speeders down along SR 136. GS&P noted that signing and striping could be completed to address safety concerns. However, GS&P stated these measures on their own probably will not address the safety concerns along the roadway.
 7. MVHS suggested widening the shoulders at the two sharp horizontal curves on SR 136 to help reduce accidents.
 8. GS&P noted that the proposed project would include upgrading the shoulder to 10' wide with 6'6" paved and 3'6" grass, and the 6'6" paved section would be adequate to accommodate bicycles per the North Georgia Regional Bicycle and Pedestrian Plan.
 9. MVHS inquired if alcohol was a contributing factor to the accidents. GS&P will investigate further to see if accidents were attributed to alcohol or roadway conditions.
 10. GS&P described that a Citizen Advisory Committee (CAC) would be formed from stakeholders along the corridor. The purpose of the CAC is to gather information about the corridor and to build consensus for an alternative that improves the safety of SR 136 and preserves cultural and historical resources. The CAC will meet 2-3 times and the first meeting will be held in February 2010.
 11. GS&P highlighted previous misunderstandings including the DRI which gave the perception the GDOT project would widen the roadway. GS&P reminded MVHS the proposed project is for safety issues, not capacity. It was MVHS understanding that the business that applied for the DRI are now in foreclosure.
 12. GS&P noted that historical and cultural resources exist along the SR 136 corridor. To determine potential historical resources, Edwards-Pitman will start with the tax assessor's office. Edwards-Pitman noted the various locations tentatively identified as potential historic resources on the aerial map.
 13. GS&P inquired from MVHS on the location of any known resources along SR 136, and requested any maps or other data be sent to EP.



MEETING NOTES

SR 136 TO SR 515 PUBLIC INVOLVEMENT

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14. MVHS has old maps showing Cherokee structures and MVHS noted that Mrs. Duckett was knowledgeable about the area. MVHS will coordinate with EP to get them the information.
15. In February 2009, the Federal government identified parts of the Trail of Tears in northwest Georgia, north Alabama and North Carolina as part of the National Registry (WAMP Bill). MVHS stated they will look at more segments of the Old Federal Road/Trail of Tears to be added to the registry in Georgia.
16. MVHS believes the National Park is considering a park for the Trail of Tears possibly along SR 136. Eric Marz or Mahr is the representative for the National Parks and MVHS discussed this 4 years ago with him.
17. MVHS stated that parts of Old Federal Road are located on private property and you can see sections of the Old Federal Road bed as you drive along SR 136.
18. MVHS believes that many of the houses and pasture around the Blaine Masonic lodge are potential resources. MVHS has requested a state archaeologist meet on site near the Blaine Masonic Lodge and to date has not met on site.
19. MVHS recommended Section 2 of previous study as a good resource to start with. Edwards-Pitman will verify if they have Section 2 of the previous study and contact MVHS if not.
20. MVHS noted the property owner of the cemetery would like to rezone property for redevelopment, but the property owner is concerned the significance of the cemetery might prevent redevelopment. MVHS noted Marie Hyde is the daughter of Bonnie Hyde, the cemetery and property owner.
21. MVHS stated that many of the artifacts go back to Woodland, MS and are older than the Cherokee Indians.
22. MVHS stated that Saunders Village Town was the former name of the village along SR 136.
23. MVHS noted that the Carmel Historical sign points in the wrong direction and requests GS&P work coordinate with GDOT to correct. MVHS submitted a picture of the sign and GS&P forwarded to GDOT on 12/16/09.
24. MVHS stated that any dirt moved along SR 136 would probably be an archeological site since it is part of the Old Federal Road.



MEETING NOTES

SR 136 TO SR 515 PUBLIC INVOLVEMENT

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25. GS&P's goal is to balance safety improvements to the roadway while preserving the cultural and historical resources.
26. MVHS agrees safety is important for SR 136 corridor. MVHS desire is to maintain the integrity of Federal Road wherever possible. If the Federal Road has to be impacted, MVHS would request research and documentation be completed to capture and memorialize the Federal Road/Trail of Tears route.
27. GS&P shared how a CAC would be formed for the safety project on SR 136 for stakeholders along the corridor. The purpose of the CAC would be to gain information about the corridor and to develop consensus for a preferred alternative that improves the safety of SR 136 while preserving the natural and historical resources.
28. MVHS stated there was a farm close to SR 515 and suggested GS&P might want to include the landowner on the CAC. His property comes up to SR 136 project on the outside of the curve.
29. MVHS suggested some other potential contacts to be included as Dr. Robert Keller with the Mountain Conservation Trust and Don Wells with Mountain Stewards. MVHS will check with Don. MVHS recommended checking their respective websites for additional information.
30. GS&P will follow up with MVHS to determine who their two representatives will be for the CAC in January 2010.

This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.

Prepared by: Scott Shelton, P. E.
Project Engineer



MEETING NOTES

SR 136 AT SR 515 PUBLIC INVOLVEMENT

GS&P Project No. 26340.09

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5. GS&P noted that the injury and fatal crash rate is higher than the statewide average and is higher than similar roadway facilities in close proximity to SR 136.
6. GS&P has been tasked by GDOT to form a Citizen Advisory Committee (CAC) for the project to gather information about SR 136 and build consensus for an alternative that will improve safety and preserve the cultural and historical resources.
7. NWGRC stated that the alleged cemetery on SR 136 originally had no organizational grave stones, but now the cemetery has organized head stones. In addition, some people believe their ancestors are buried in the cemetery and they hold ceremonies at the cemetery to honor their ancestors with out permission from the property owner.
8. To support the cemetery exists; a local dowser was hired and investigated the site. The dowser claims to have located the old fort site and identified the people buried at the cemetery. Reverend Walker has documented many of the cultural and historical resources, but NWGRC does not believe the data to be accurate and would not recommend coordinating with him.
9. To protect the property and prevent trespassing, the property owner built a fence around the cemetery. The property owner is concerned the cemetery could be labeled a cultural/historical resource and prevents the property from being redeveloped. NWGRC recommended GS&P meet with the property owner about the SR 136 safety project.
10. NWGRC is certain the Fort was an Indian removal site, but does not believe there are any Indians buried at the cemetery since the Fort was in existence for a short time. EP also does not believe the cemetery is culturally significant. The location of the Fort is unknown. Also, the Cherokee Indians do not recognize the cemetery as part of their ancestry.
11. NWGRC noted that the Trail of Tears follows the Old Federal Road and part of the Old Federal Road is underneath existing SR 136. Traces of Old Federal Road are on both sides of SR 136
12. GS&P stated that to facilitate public involvement a Citizen Advisory Committee (CAC) would be formed from stakeholders in the area and would meet 2-3 times to gather information and build consensus for an alternative to address safety issues and preserve cultural and historical resources.



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SR 136 AT SR 515 PUBLIC INVOLVEMENT

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13. NWGRC recommended Kevin McAuliff represent them on the CAC and asked that David Howerin be updated on stakeholder and CAC meetings.

This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.

Prepared by: Scott Shelton, P.E.
Project Manager

rjc



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January 8, 2010

MEETING NOTES

**SR 136 STAKEHOLDERS MEETING WITH CITY OF TALKING ROCK AND PICKENS COUNTY
PICKENS COUNTY, GEORGIA
GS&P Project No. 26340.09**

MEETING DATE: December 14, 2009

PARTICIPANTS: Scott Shelton — Gresham, Smith and Partners (GS&P)
 Jody Braswell – Gresham, Smith and Partners (GS&P)
 Kent Black – Gresham, Smith and Partners (GS&P)
 Jill Brown – Edwards-Pitman (EP)
 Bob Howard – Fire Chief, Pickens County
 Pete Cagle – Mayor, City of Talking Rock
 Robert Jones – Commissioner, Pickens County
 Joey Low – Director Planning and Development, Pickens County

DISCUSSION: SR 136 SAFETY PROJECT

1. The City and County stated that over 103 accidents had occurred along SR 136 over the last eight years. The Fire Chief noted that eight of the accidents included fatalities. Also, the County confirmed that SR 136 is one of the most dangerous sections of roadway in the County.
2. The County stated that many of the accidents on SR 136 are related to deer crossing the roadway. However, the County noted this is a county-wide issue.
3. The City and County stated that most of the accidents occurred at the sharp horizontal curve on SR 136 and due to the sharp horizontal curve caused vehicles to overturn.
4. GS&P stated the purpose of the project is to address the safety concerns along SR 136 by making horizontal and vertical improvements to the roadway.
5. GS&P stated that to facilitate public involvement a Citizen Advisory Committee (CAC) would be formed from stakeholders in the area and would meet 2-3 times

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MEETING NOTES
SR 136 AND SR 515 PUBLIC INVOLVEMENT

GS&P Project No. 26340.09

January 8, 2010 December 23, 2009

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- to gather information and build consensus for an alternative to address safety issues and preserve cultural and historical resources.
6. The City and County requested GS&P recommend GDOT consider a safety project for Antioch and SR 515.
 7. The County stated that Marie Hyde owns the presumed cemetery for Fort Newnan on SR 136, but Ms. Hyde prefers for the cemetery not to be considered significant so that her property might be redeveloped.
 8. GS&P highlighted the history of the project as outlined in the attached agenda. The County recalled receiving phone calls in 2007 about the project because the local residents thought it would widen SR 136.
 9. Chief Howard recommended the Pickens County Administrative Building as a potential location to hold the CAC meetings. The county recommended contacting Debra Watson at 253-8817 regarding the space. To represent the County on the CAC, the County recommended the Fire Chief.
 10. The City and County recommended GS&P coordinate with Sloan Elrod with County Emergency Services for more information about crashes on SR 136.
 11. In regards to coordination with the Masonic Lodge on SR 136, the County recommended contacting the Honorable Rodney Gibson, Probate Judge of Pickens County.
 12. The County stated that flood maps were being updated and preliminary flood maps are available by contacting Joey Low with Pickens County Land Development. The County also recommended Joey Low as a potential CAC member since he owns property along SR 136.
 13. The County mentioned a farmer owned a large piece of land on SR 136 and recommended GS&P coordinate and meet with him about the project.

This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.

Prepared by: Scott Shelton, P.E.
Project Engineer

rjc



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January 8, 2010

MEETING NOTES

**GDOT STAKEHOLDER MEETING WITH GEORGIA CHAPTER OF TRAIL OF TEARS
ASSOCIATION
PICKENS COUNTY, GEORGIA
GS&P Project No. 26340.09**

MEETING DATE: December 16, 2009

PARTICIPANTS: Scott Shelton — Gresham, Smith and Partners (GS&P)
 Kent Black – Gresham, Smith and Partners (GS&P)
 Jody Braswell – Gresham, Smith and Partners (GS&P)
 Jill Brown – Edwards–Pitman Environmental (EP)
 Garrett Silliman – Edwards-Pitman Environmental (EP)
 Linda Geiger – GA Trail of Tears Association (TOTA)
 Jeff Bishop – GA Trail of Tears Association (TOTA)

DISCUSSION: SR 136 SAFETY PROJECT

1. GS&P highlighted the history of the project
 - a. 2002 – GDOT District Six identified need for safety project
 - b. 2005 – Consultant recommends operation and safety improvements as part of county wide plan
 - c. 2007 – GS&P is hired by GDOT to complete safety project along SR 136 and Edwards-Pitman begins environmental study
 - d. 2008 – FHWA directs GDOT to coordinate with stakeholders and from Citizen Advisory Committee (CAC).
 - e. 2009 – GDOT coordinates with GS&P to coordinate with stakeholders and form CAC.

2. GS&P noted the numerous fatalities and accidents along SR 136 as shown on the aerial display that prompted GDOT to create a safety project for the corridor.

3. Based on the fact that the alignment of the roadway has not changed since the 1890's, TOTA noted it was self evident why so many accidents had occurred.

4. TOTA concerned about preserving Trail of Tears / Old Federal Road since it helps tell the story of the Trail of Tears to the public.

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MEETING NOTES

SR 136 AT SR 515 PUBLIC INVOLVEMENT

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5. TOTA requested GDOT preserve the Federal Road-Trail of Tears route along SR 136 as much as possible, but the TOTA recognized that some impacts to the Federal Road-Trail of Tears route might be necessary to improve the safety of SR 136. TOTA would prefer view sheds be created along SR 136 to view the Federal Road-Trail of Tears route. TOTA requested the Mission site be preserved and a view shed developed. The TOTA also requested a view shed for the Fort Newnan site be provided though not as a high priority as the Mission site.
6. GS&P requested TOTA bring data and maps to first CAC meeting to help GS&P and GDOT identify potential view sheds that need to be preserved.
7. TOTA has coordinated with GDOT on other projects, and TOTA sees GDOT as a partner in preserving the Trail of Tears.
8. TOTA is working with the National Park Service to establish a national park. The purpose of the park would be to mark the trail and maintain as many view sheds of the trail as possible. TOTA has not heard if a park has been discussed or considered for the Trail of Tears in Pickens County. TOTA recommends coordinating with Steve Barnes at National Park Service in Arizona.
9. TOTA is developing plan to sign the Trail of Tears along SR 136 and is coordinating with FHWA for an approved sign. TOTA will provide any signage concepts to GS&P to consider placement as part of the safety project.
10. TOTA will email all information they have on the Federal Road-Trail of Tears locations to Edwards-Pitman and Gresham, Smith and Partners.
11. GS&P emphasized that the proposed project's purpose is to address safety concerns. Any proposed improvements would still utilize a two lane roadway section with corrections to the horizontal and vertical curves along SR 136.
12. GS&P anticipates and will strive to ensure the proposed safety improvements on SR 136 can be balanced with the preservation of the cultural and the historical resources along SR 136.
13. GS&P noted that currently early stakeholder coordination is underway. To date, GS&P has met with NWGRC, Marble Valley Historical Society and the City of Talking Rock and Pickens County in addition to TOTA.
14. GS&P stated that to facilitate public involvement a Citizen Advisory Committee (CAC) would be formed from stakeholders in the area and would meet 2-3 times



MEETING NOTES
SR 136 AT SR 515 PUBLIC INVOLVEMENT
GS&P Project No. 26340.09
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to gather information and build consensus for an alternative to address safety issues and preserve cultural and historical resources. The CAC would meet 2-3 times to gather information about the corridor and build consensus.

15. TOTA recommended Linda Grieger be the CAC representative and Jeff Bishop be a part of any communications.
16. In regard to the cemetery on SR 136, the TOTA noted that no records have been found of Cherokee burials at Fort Newnan. TOTA doubtful any Cherokee burials occurred since Fort was in place for only 2 to 3 weeks. TOTA stated potential for more Cherokee Indian settlements along Old Hwy. 5.
17. In January 2010, EP will begin Phase 1 Archeology resource survey and will look for specific archeological findings by performing shovel tests along the corridor. EP will use ground penetrating radar and metal detection at various shovel testing sites to further identify archeological resources in the field.

This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.

Prepared by: Scott Shelton, P.E.
Project Engineer

rjc

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. No. 0008314 OFFICE: Environmental Services
DATE: November 10, 2010

FROM Glenn Bowman, P.E., State Environmental Administrator

TO Distribution Below

SUBJECT PUBLIC INFORMATION OPEN HOUSE SYNOPSIS

PROJECT No. & COUNTY: CSSFT-0008-00(314), Pickens

PROJECT DESCRIPTION: The proposed improvements to SR 136 from the SR 136 Connector to SR 515

DATE: November 9, 2010

NUMBER IN ATTENDANCE: 42

FOR: 9

CONDITIONAL: 3

UNCOMMITTED: 1

AGAINST: 2

OFFICIALS IN ATTENDANCE: Robert Jones, Pickens County Commissioner; Norman Pope, Pickens County

ADDITIONAL COMMENTS: Verbal concerns expressed to GDOT representatives were that the project should be completed quickly, that roundabouts are difficult to learn, that roundabouts would help slow down truck traffic, that measures to protect the historic resources are appreciated, that property owner names need to be updated on the displays, that property owners would like to change their existing driveway access points, that the median dividers in the roundabout approaches should be shortened, that noise needs to be studied for the roundabouts and rumble strips, and that the curve on SR 136 to the west of the project corridor also needs to be fixed. Written comments included that the project should be completed quickly, that noise needs to be studied, that something needs to be done to slow down traffic, that other projects are needed, that property owner names need to be corrected, that the roadway needs to accommodate large trucks, that roundabouts are difficult, that a turn lane is needed at Antioch Church Road, and that the project is too expensive.

PREPARED BY: Jill Brown, Edwards-Pitman for Alexis John, GDOT

TELEPHONE No.: Jill Brown, (770) 333-9484; Alexis John (404) 631-1407

cc: Gerald M. Ross, P.E.
Ben Buchan, P.E.
Kent Sager
Derrick D. Cameron
Kathy Zahul, P.E.
David Moore
Mohamed Arafa



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September 12, 2012

Mr. Brent Story, P.E.
State Design Policy Engineer
Georgia Department of Transportation
600 West Peachtree Street, 26th Floor
Atlanta, Georgia 30308

**Subject: Responses to Comments to Request for Approval of Design Exception
CSSFT-0008-00(314) Pickens County
P.I. Number: 0008314
SR 136 from SR 136 Connector to SR 515
GS&P Project No. 24643.05**

Dear Mr. Story,

Gresham, Smith and Partners has prepared an updated request for approval of design exception that addresses each of the comments and questions from FHWA in their letter to the Department on March 20, 2012. The following is a summary of how each comment has been addressed.

1. *Please verify if there are any differences in the vertical and horizontal alignment requirements in the 2004 AASHTO Policy on Geometric Design of Highways and Streets (Green Book) and the 2010 Green Book.*

Verified and noted on page 5 in the first paragraph of section titled "Features Requiring Design Exception".

2. *In the Mitigating Factors section of the request, it is noted that the crash frequency and severity along SR 136 should potentially be reduced. The information presented seems to suggest uncertainty in the assessment of the proposed project benefits. Please provide information on the types of assessments conducted that resulted in potential accomplishment of the proposed project's need and purpose.*

Previous wording has been revised and several proposed types of mitigation strategies are described.

3. *In the Mitigating Factors section of the request, it is noted that lighting is not recommended due to the uncertainty of obtaining a lighting agreement with Pickens County. With unsubstantiated information provided in the request, supplemental information should be provided. Please provide complete and supported assessments and determinations for review of the design exception.*

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Injury and fatal crash data has been included on page 10 that shows the lighting environment during each event. A discussion of lighting as a mitigation strategy has been included.

- 4. The crash history information provided in the design exception request shows that there have consistently been crashes resulting in non-fatal injuries and/or fatal injuries over a consecutive nine year period along the proposed project corridor. Furthermore, in the comparison to similar roadway facilities, SR 136 is reported to have rates significantly higher than the statewide averages. Please provide additional information to demonstrate the infeasibility of the increasing the project cost by \$2,860,000.00 to construct SR 136 vertical alignment to AASHTO standards.*

Additional information to support the design exception has been added to the request. A summary is included on pages 10 and 11.

- 5. In the Recommendations section it is concluded that an adjusted profile per AASHTO guidance would have little to no potential in reducing crashes or frequency of crashes. Please provide explanation and supporting documentation for the noted conclusion.*

This discussion has been removed from the revised request. A drawing has been included that conveys the seven vertical alignment areas and the documented crashes in each area.

- 6. The proposed project layout provided on the last page of the design exception request supplements the crash data (Table 1) by providing the location of the fatalities that occurred along the project corridor. Please also provide information on the time of day and type of crash that resulted in injury and/or fatality for the locations identified.*

Injury and fatal crash data has been included on page 10.

- 7. On the proposed project layout, it is noted that unfamiliar regional drivers along the proposed project corridor contribute to the accidents experienced along SR 136. Furthermore, it is noted that trucks travel along the corridor at speeds greater than 55mph. The proposed project layout shows flags for the following geometric deficiencies along the proposed project corridor: sight distance, intersection angle, and horizontal curve. With the combination of unfamiliar drivers, trucks traveling at high speeds (55+mph), inadequate sight distance, and substandard horizontal alignment; it is recommended that the proposed improvements and mitigation strategies be re-evaluated. Please provide information on how the deficiencies will be addressed and what can be implemented in an effort to improve safety along the corridor.*

In addition to the specific other improvements associated with the project, ten types of mitigation strategies are proposed and described on page 9.

- 8. Page 13-01, the drive located near STA 130+00 seems to present the opportunity to cause adverse impact to the roundabout intersection located west of the location. As shown on the*



Mr. Brent Story, P.E.
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construction layout, the permissible left turn movement by eastbound drivers can influence the free flow operations of the roundabout. Furthermore, the left turning movement at the noted location could also increase the occurrence of rear-end crashes. Please ensure that the proposed design provides adequate operations throughout.

This suggestion will be considered during the design phase of the project, however is unrelated to the design exception being requested, and therefore has not been included in the revised request.

9. *Page 15-01, the profile sheet does not show the profile tie to existing on the west side of STA 126+00. Please provide the related profile sheet to show how the entire extent of the proposed project profile ties to existing.*

The extended profile sheets for all three legs of the proposed roundabout at SR 136 and SR 136 Connector has been included in the revised request. Please see sheet 16-01.

Please do not hesitate to contact us if you have any questions concerning these responses.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric J. Rickert", with a long horizontal flourish extending to the right.

Eric J. Rickert, P.E.
Gresham, Smith and Partners

Copy File
Derrick Cameron, GDOT Office of Program Delivery
Charity Belford, GDOT Office of Program Delivery
Jody Braswell, P.E., GS&P



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Rec'd
from
FHWA

September 12, 2012



Mr. Brent Story, P.E.
State Design Policy Engineer
Georgia Department of Transportation
600 West Peachtree Street, 26th Floor
Atlanta, Georgia 30308

Subject: Revised Request for Approval of Design Exception
CSSFT-0008-00(314) Pickens County
P.I. Number: 0008314
SR 136 from SR 136 Connector to SR 515
GS&P Project No. 24643.05

Dear Mr. Story,

Gresham, Smith and Partners is assisting the department with the design of P.I. No. 0008314 in Pickens County. The project consists of improvements to SR 136 between SR 136 Connector and SR 515 (see attached). The existing SR 136 vertical profile has several vertical alignments with K-values not typically desirable for the current posted 55 mph speed limit.

Unfortunately, adjusting the profile to adhere to AASHTO guidance would increase impacts to the environmental, cultural, and historic resources in the area, require off site detours that would be disruptive to the community, contradict desires of the Citizens Advisory Committee created for the project, and would increase construction and right of way costs. For these reasons, we recommend approval of a design exception.

We have identified several mitigation strategies that are appropriate to the exception. The following letter describes the development of the project, details of this request, and those mitigating strategies.

Project Description

SR 136 currently consists of one 12 ft wide travel lanes in each direction with rural shoulders (of which 2 ft are paved). GDOT Project CSSFT-0008-00(314) on SR 136 is proposed to address the crash frequency and severity at select locations and widen the shoulders to comply with AASHTO guidance. The proposed project begins at the intersection with SR 136 Connector (MP 3.64) in the Blaine community and ends at the intersection with the SR 515 connector road (MP 6.35) approximately one mile west from Talking Rock city limits. The widened shoulders along SR 136 will be designed to accommodate bicyclists along SR 136 as recommended in the (2005) North Georgia Regional Bicycle and Pedestrian Plan. The speed design on SR 136 is 55 mph throughout the project. The proposed project has an overall length of 2.7 miles, all within Pickens County.

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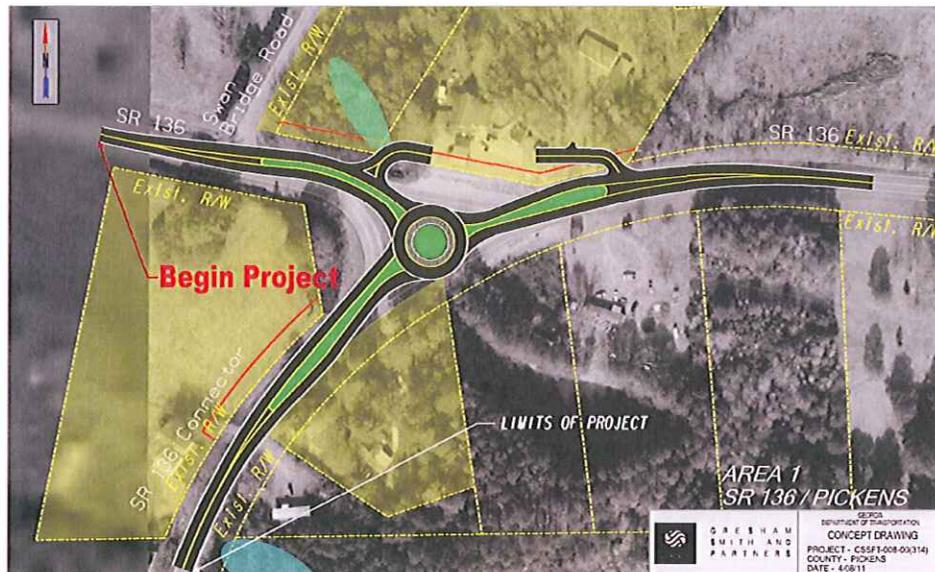


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A Citizen Advisory Committee (CAC) public involvement process was used to develop the project concept. The CAC was created in response to local concerns during initial project data gathering and as recommended by FHWA. The Citizen Advisory Committee was made up of the Project Team, Staff Work Group and a Community Work Group. The committee members and participants included local stakeholders and residents, City of Talking Rock officials, Pickens County's sole commissioner, Northwest Georgia Regional Commission (MPO), Georgia Chapter of the Trail of Tears Association, the Marble Valley Historical Society, and FHWA. The CAC was assembled for three meetings, each progressing in design detail. This process allowed GDOT to work in an iterative design process ensuring proper design principles while also receiving public input. The CAC process produced consensus from the public and GDOT for the proposed project while satisfying the need and purpose established by GDOT.

Through the CAC process, the proposed project consists of the following improvements:

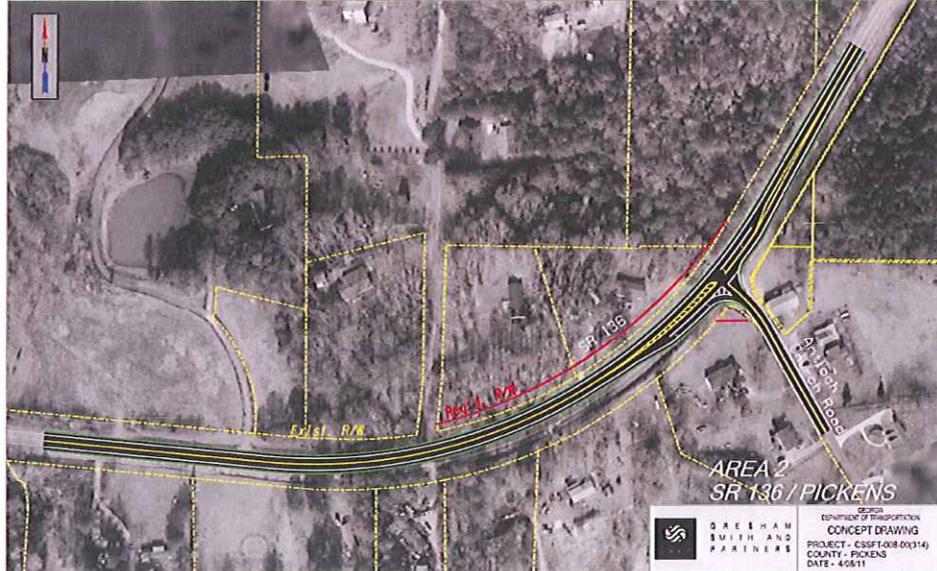
- Replace the existing 'T' intersection at SR 136 and SR 136 Connector in the Blaine community with a roundabout. A roundabout at this location is anticipated to reduce the number and severity of crashes by reducing the number of conflicting turn movements and by reducing the speed of vehicles through the intersection.



- A horizontal curve on SR 136 is proposed to be improved to meet AASHTO guidance and left and right turn lanes would be added on SR 136 at Antioch Church Road. The improved horizontal geometry, intersection angle and additional storage lanes would increase the intersection sight distance and provide queue storage for turning vehicles. These improvements are anticipated to reduce the number of single vehicle, rear end, and angle type crashes.



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- The two intersection angles at Priest Circle with SR 136 are proposed to be modified from 40 degrees to 70 degrees. The improved intersection angles would increase the intersection sight distance thereby reducing angle type crashes.



- The existing sharp horizontal curve on SR 136 (at Sta 135+00 RT) is proposed to be modified to meet the updated AASHTO guidance. This would be accomplished by



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realigning SR 136 onto new location roadway to intersect with Ellijay Road at 90 degrees. A roundabout is proposed for the realigned SR 136 and Ellijay Road intersection and the existing 'T' intersection will be removed. The reduced number of conflict points in the roundabout is anticipated to reduce the number of angle type crashes. Also, the elimination of the horizontal curve and widened shoulder on SR 136 would reduce the potential for single vehicle run off and head-on crashes.

- The intersection angle of SR 136 and the SR 515 connector road is proposed to be adjusted to improve intersection sight distance and it anticipated to reduce the number of angle type crashes.





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The shoulders along both sides of SR 136 (except at the roundabouts) would be widened to 10 ft with 6.5 ft paved to accommodate bicyclists per the *GDOT Design Policy Manual-Version 2.0* and AASHTO Publication *Guide for the Development of Bicycle Facilities*. Rumble strips would be embedded into the paved shoulder to help decrease the potential of single vehicle run off crashes. The foreslopes, ditches, and drainage structures affected by the shoulder widening will be upgraded to comply with clear zone requirements per the *AASHTO Roadside Design Guide*. The existing pavement between the five improvement areas would be overlaid and restriped.

Features Requiring Design Exception

There are design parameters associated with the proposed roadway profile which will require exception based upon the 55 mph design speed (please note all references to the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, also apply to the 2010 edition):

1. The proposed broken back sag vertical curves on SR 136 between the SR 136 Connector intersection and the Antioch Church Road intersection have K values that are 78.96 (PVC Sta. 143+34.92 to PVT Sta. 146+34.92) and 74.70 (PVC Sta. 148+41.80 to PVT Sta. 153+41.80), respectively. These values match the existing profile and correspond to a 45 mph design speed that is lower than the minimum (K value of 115) sag vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-75 Design Controls for Sag Vertical Curves, page 277.
2. The proposed crest vertical curve on SR 136 at the Antioch Church Road intersection has a K value of 69.76 (PVC Sta. 159+08.79 to PVT Sta. 167+08.79). This value matches the existing profile and correspond to a 45 mph design speed that is lower the minimum (K value of 114) crest vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-72 Design Controls for Sag Vertical Curves, page 272.
3. The proposed sag vertical curve on SR 136 between the intersections of Antioch Church Road and the Priest Circle has a K value of 96.73 (PVC Sta. 182+32.19 to PVT Sta 186+92.19). This value matches the existing profile and correspond to a 50 mph design speed that is lower than the minimum (K value of 115) sag vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-75 Design Controls for Sag Vertical Curves, page 277.
4. The proposed crest vertical curve on SR 136 at the western Priest Circle intersection leg has a K value of 90.59 (PVC Sta. 192+98.35 to PVT Sta. 196+98.35). This value matches the existing profile and correspond to a 50 mph design speed that is lower than the minimum (K value of 114) crest vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-72 Design Controls for Sag Vertical Curves, page 272.



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5. The proposed sag vertical curve on SR 136 between the western intersection and eastern intersection of Priest Circle has a K value of 80.63 (PVC Sta. 198+02.98 to PVT Sta 201+02.98). This value matches the existing profile and correspond to a 45 mph design speed that is lower than the minimum (K value of 115) sag vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-75 Design Controls for Sag Vertical Curves, page 277.
6. The proposed crest vertical curve on SR 136 at the eastern intersection Priest Circle has a K value of 86.54 (PVC Sta. 207+44.34 to PVT Sta. 211+44.34). This value matches the existing profile and correspond to a 50 mph design speed that is lower than the minimum (K value of 114) crest vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-72 Design Controls for Sag Vertical Curves, page 272.
7. The proposed sag vertical curve on SR 136 just east of the eastern intersection with Priest Circle has a K value of 94.43 (PVC Sta. 211+79.89 to PVT Sta 214+79.89). This value matches the existing profile and correspond to a 50 mph design speed that is lower than the minimum (K value of 115) sag vertical curve as required by the AASHTO Publication, *A Policy on Geometric Design of Highways and Streets 2004*, Exhibits 3-75 Design Controls for Sag Vertical Curves, page 277.

Attached to this request is a drawing showing the seven vertical alignment areas described above. Each area has been identified and located in proximity to the documented crashes during the study period.



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Traffic / Crash Data

Roadway Segment	2010 Existing Year AADT	2014 Opening Year AADT	2034 Design Year AADT
SR 136 from SR 136 Conn. to SR 515	6,150	7,050	14,050

This project has a 24 hour truck percentage of 16%.

Table 1. Summary of Traffic Crash History by Severity along SR 136¹

Year	Crashes			Crashes Per 100 Million Vehicle Miles ²		
	Total	Injury	Fatal	Total	Injury	Fatal
2000	16	5	3	394 (188)	123 (62)	73.89 (2.28)
2001	13	3	2	320 (185)	74 (62)	49.26 (2.02)
2002	11	6	1	271 (195)	148 (68)	24.63 (2.20)
2003	9	5	0	222 (211)	123 (70)	0.00 (2.65)
2004	13	6	0	320 (273)	148 (94)	0.00 (2.93)
2005	14	6	0	345 (197)	148 (74)	0.00 (3.00)
2006	11	4	0	271 (203)	99 (73)	0.00 (3.28)
2007	11	3	2	271 (203)	74 (72)	49.26 (3.24)
2008	6	2	0	148 (194)	49 (68)	0.00 (3.03)
Total	104	40	8			

Note: (1) The crash data provided is for the section of SR 136 between MP 3.60 to MP 6.30.
 (2) The number in parentheses represents the statewide average crash rates for rural major collectors

Table 2. Summary of Traffic Crash History by Manner of Collision along SR 136

Year	Manner of Collision						Total
	Angle	Head On	Rear End	Sideswipe - Same Direction	Sideswipe - Opposite Direction	Other (Single-Vehicle)	
2000	2	0	0	2	0	12	16
2001	3	1	3	0	0	6	13
2002	4	0	1	0	0	6	11
2003	4	0	2	0	0	3	9
2004	3	0	0	2	0	8	13
2005	3	0	2	0	0	9	14
2006	2	0	2	1	0	6	11
2007	2	1	1	0	1	6	11
2008	0	1	3	0	0	2	6
Total	23	3	14	5	1	58	104



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Why Current Guidelines Cannot be Met

A profile with AASHTO compliant vertical curves would raise SR 136 as much as 2.9 ft between the intersections of the SR 136 Connector and Antioch Church Road and undercut the roadway 7.1 ft at the Antioch Church Road intersection. It would also raise SR136 approximately one foot at the other locations (see attached profile). This profile would increase the construction limits, require additional right of way, and require an on-site detour. There is not a nearby parallel state route to accomplish an efficient off site detour.

A profile with AASHTO compliant vertical curves would increase the potential for adverse impacts to the many historical, cultural, and wetland resources along the corridor. SR 136 is bordered throughout much of the project on the north side by the Old Federal Road, a Section 4(f) historical resource, and on the south side by two community resources, a Masonic Lodge and a potential cemetery (currently under investigation). Additionally, wetlands are present in the aforementioned sag vertical curves and would be impacted by profile changes.

Profiles changes were discussed at length during the Citizen Advisory Committee meetings. The citizens and stakeholders in the CAC were strongly opposed to additional impacts to the character and environmental resources of the SR 136 corridor. The profile changes described in this request would further impact those areas. The GDOT design team committed to avoiding these impacts if possible.

The summary of crash history from the years 2000 to 2008 (see attachment) show that the vast majority of crashes within the project are angle or other types of single vehicle crashes. Such crashes are typically attributed to design features such as horizontal or intersection geometry than stopping sight distance or roadway profile features. In addition, most of the crashes do not correlate with the locations of the aforementioned deficient vertical curves and none of the fatal crashes originated in these areas.

Cost to Meet the Current Guidelines

Changes to the vertical alignments is anticipated to increase the construction costs by the following amounts:

- \$1,000,000 in earthwork and site preparation
- \$200,000 in maintenance of traffic costs
- \$200,000 in asphalt leveling

Total construction:	\$1,400,000
Right of way:	\$ 60,000
Total:	\$2,860,000

The overall construction cost with an approved design exception and without the above amounts is estimated at \$5,400,000. At least one residential displacement is anticipated if



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vertical alignments were included in the design, however value of such has not been determined at this time and are not included in the reported estimates.

Additional, immeasurable costs also associated with the vertical alignment changes include impacts to the environmental features along the corridor including the Old Federal Road, a Section 4(f) historic resource, ecology features, and local community features, along with negating a commitment to the CAC team to limit impacts as much as possible, which would further erode the goodwill and trust developed by GDOT and the community.

Mitigating Strategies

Several features and benefits to the project have been identified including improved shoulders along the entire project length of SR 136, bicycle lanes, intersection improvements and horizontal geometric improvements. All of these are anticipated to reduce the crash frequency and severity along SR 136.

For the features requiring a design exception, we have identified the following mitigation strategies:

Objective	Proposed Mitigation Strategies
Improve ability to stay within the lane	Enhanced pavement markings with paved shoulders to be included
	Delineators to be included
	Centerline rumble strips to be included
	Shoulder rumble strips to be included
	Painted edgeline rumble strips to be included
Improve ability to recover if driver leaves the lane	Paved shoulders to be included
	Safety edge to be included
Mitigate sight distance restrictions	Signing and speed advisory plaques to be included
Improve ability to avoid crashes	10' wide shoulders to be included
Improve driver awareness on approach to intersections	Advanced warning signs to be included

Lighting

The placement of lighting as a mitigating strategy was analyzed and a summary of injury and fatal crashes are summarized on the following page. During the study year of 2000-2007, 12 of the 48 injury or fatal crashes (25%) occurred at dark, non-lighted conditions. Additional study would be required to determine whether lighting would have prevented or lessen the severity of those crashes. If lighting was determined to be an appropriate mitigating strategy, acceptance of future operation and maintenance costs by the local government would be required.



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Injury and Fatal Crashes along SR 136 in Pickens County (Milelogs: 3.6 to 6.3)						
Accident No	Date	Time	Severity	Type	Light	
'00540004	Sunday, January 02, 2000	3:33 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'00560778	Sunday, February 13, 2000	9:44 PM	Injury	Angle	Dark-Not Lighted	
'02190024	Sunday, July 09, 2000	2:53 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'02460365	Sunday, August 27, 2000	7:17 PM	Injury	Sideswipe - Same Direction	Dusk	
'02460382	Sunday, August 27, 2000	7:17 PM	Injury	Sideswipe - Same Direction	Dusk	
'10210476	Monday, January 29, 2001	12:30 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'11150349	Wednesday, June 13, 2001	1:14 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'14160508	Saturday, December 01, 2001	5:10 PM	Injury	Rear End	Dusk	
'20800023	Thursday, February 21, 2002	3:41 PM	Injury	Angle	Daylight	
'20800024	Friday, February 22, 2002	11:01 PM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'22280214	Sunday, April 14, 2002	1:40 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'22280218	Thursday, April 18, 2002	2:06 PM	Injury	Angle	Daylight	
'22390113	Wednesday, July 31, 2002	8:07 AM	Injury	Rear End	Daylight	
'24280357	Monday, December 09, 2002	12:25 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'31620551	Friday, August 15, 2003	6:40 PM	Injury	Rear End	Daylight	
'32040310	Saturday, September 20, 2003	9:12 AM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'32450390	Thursday, October 16, 2003	9:27 AM	Injury	Angle	Daylight	
'32860445	Friday, November 07, 2003	6:02 PM	Injury	Angle	Dark-Not Lighted	
'32860462	Sunday, November 23, 2003	5:06 PM	Injury	Angle	Daylight	
'41210052	Monday, February 09, 2004	3:32 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'41210055	Wednesday, February 11, 2004	11:01 AM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'42300527	Sunday, April 04, 2004	3:48 PM	Injury	Angle	Daylight	
'43160370	Sunday, July 11, 2004	2:26 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'43560135	Thursday, September 16, 2004	1:53 PM	Injury	Angle	Daylight	
'44840659	Friday, December 24, 2004	4:55 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'51170655	Monday, March 07, 2005	6:45 PM	Injury	Not A Collision With A Motor Vehicle	Dusk	
'51170671	Friday, March 18, 2005	7:10 AM	Injury	Angle	Daylight	
'52100680	Thursday, May 26, 2005	3:17 PM	Injury	Angle	Daylight	
'53560059	Wednesday, September 14, 2005	4:13 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'53930454	Monday, September 26, 2005	7:00 AM	Injury	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'54820162	Friday, December 02, 2005	5:12 PM	Injury	Angle	Daylight	
'60950216	Wednesday, March 29, 2006	12:33 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'64100618	Wednesday, October 04, 2006	5:42 PM	Injury	Angle	Daylight	
'65110126	Wednesday, December 27, 2006	5:50 PM	Injury	Rear End	Dark-Not Lighted	
'65170140	Friday, December 22, 2006	7:49 AM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'72090027	Sunday, May 27, 2007	1:25 PM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'75230342	Friday, November 02, 2007	8:26 PM	Injury	Angle	Dark-Lighted	
'75580389	Monday, December 17, 2007	7:59 AM	Injury	Not A Collision With A Motor Vehicle	Daylight	
'83340441	Thursday, July 31, 2008	1:53 PM	Injury	Rear End	Daylight	
'83670391	Monday, September 22, 2008	7:19 AM	Injury	Head On	Dawn	
'03180064	Tuesday, November 07, 2000	4:30 PM	Fatal	Angle	Daylight	
'03180065	Tuesday, November 07, 2000	7:15 PM	Fatal	Not A Collision With A Motor Vehicle	Dark-Not Lighted	
'03180158	Thursday, July 13, 2000	4:57 PM	Fatal	Not A Collision With A Motor Vehicle	Daylight	
'12430173	Monday, August 13, 2001	6:48 AM	Fatal	Head On	Dawn	
'13950211	Monday, December 17, 2001	3:35 PM	Fatal	Angle	Daylight	
'22840115	Thursday, October 17, 2002	10:00 AM	Fatal	Angle	Daylight	
'73170106	Monday, July 16, 2007	2:40 PM	Fatal	Not A Collision With A Motor Vehicle	Daylight	
'75130046	Friday, October 19, 2007	5:30 AM	Fatal	Head On	Dark-Not Lighted	

Recommendation

The existing SR 136 vertical profile has several vertical curve with K-values not typically desirable for a 55 mph design speed. However, adjusting the profile to adhere to AASHTO guidance is not recommended for the following reasons:

- Vertical alignment changes would increase impacts to the environmental, cultural, and historical resources of the corridor
- Vertical alignment changes would require off-site detours, disruptive to the residents and stakeholders in the area



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- Vertical alignment changes would contradict the desires of the CAC to limit impacts of improvements to character and environmental resources of the corridor
- Vertical alignment changes would increase the proposed project construction costs
- Vertical alignment changes would increase right of way costs

If approved, a commitment from GDOT is recommended to include all of the mitigating strategies listed in this request into the project. Gresham, Smith and Partners in conjunction with the Office of Program Delivery recommends the approval of these exceptions.

Sincerely,

Eric J. Rickert, P.E.
Gresham, Smith and Partners

Derrick Cameron
Project Manager,
GDOT Office of Program Delivery

Concur:

Director of Engineering

Approved: 10/17/12
Chief Engineer

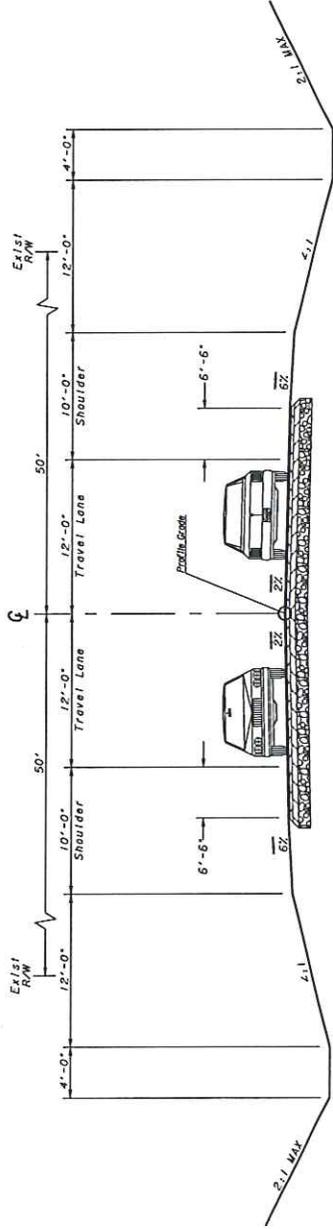
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for FHWA Division Administrator

10/10/12
Date

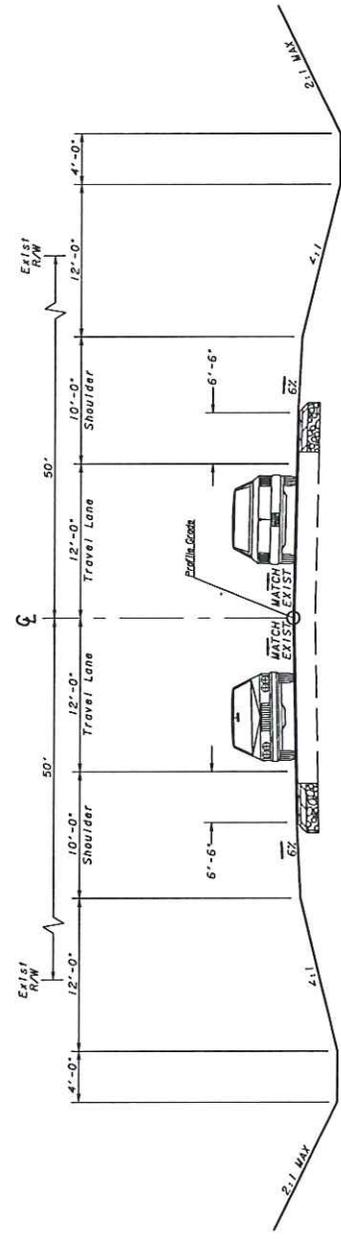
Attachments:

- Crash data map
- SR 136 plan
- SR 136 profile
- Typical Section
- Traffic Diagrams

Copy File
Derrick Cameron, GDOT Office of Program Delivery
Charity Belford, GDOT Office of Program Delivery
Jody Braswell, P.E., GS&P

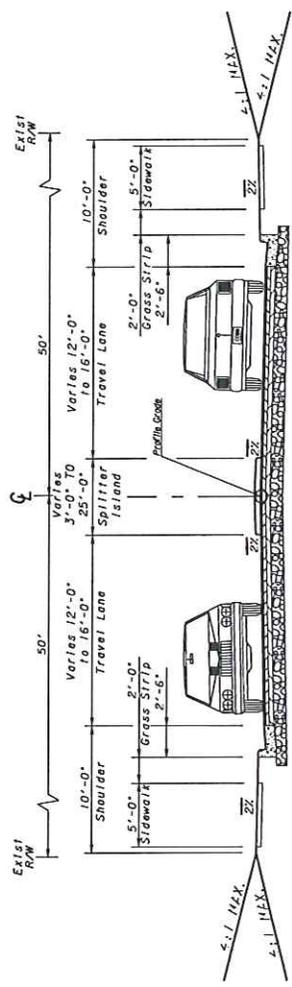


TYPICAL SECTION NO. 1
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ANTIOCH CHURCH ROAD AND SR 515 CONNECTION
ROAD INTERSECTIONS

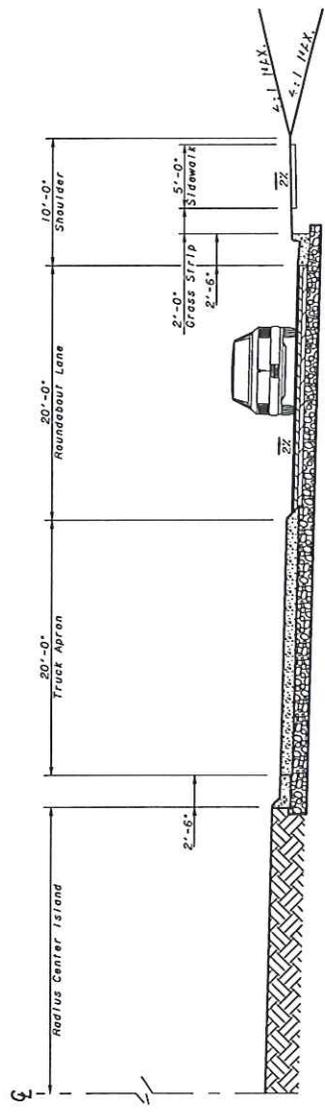


TYPICAL SECTION NO. 2
OUTSIDE AREAS OF GEOMETRIC AND
INTERSECTION IMPROVEMENTS

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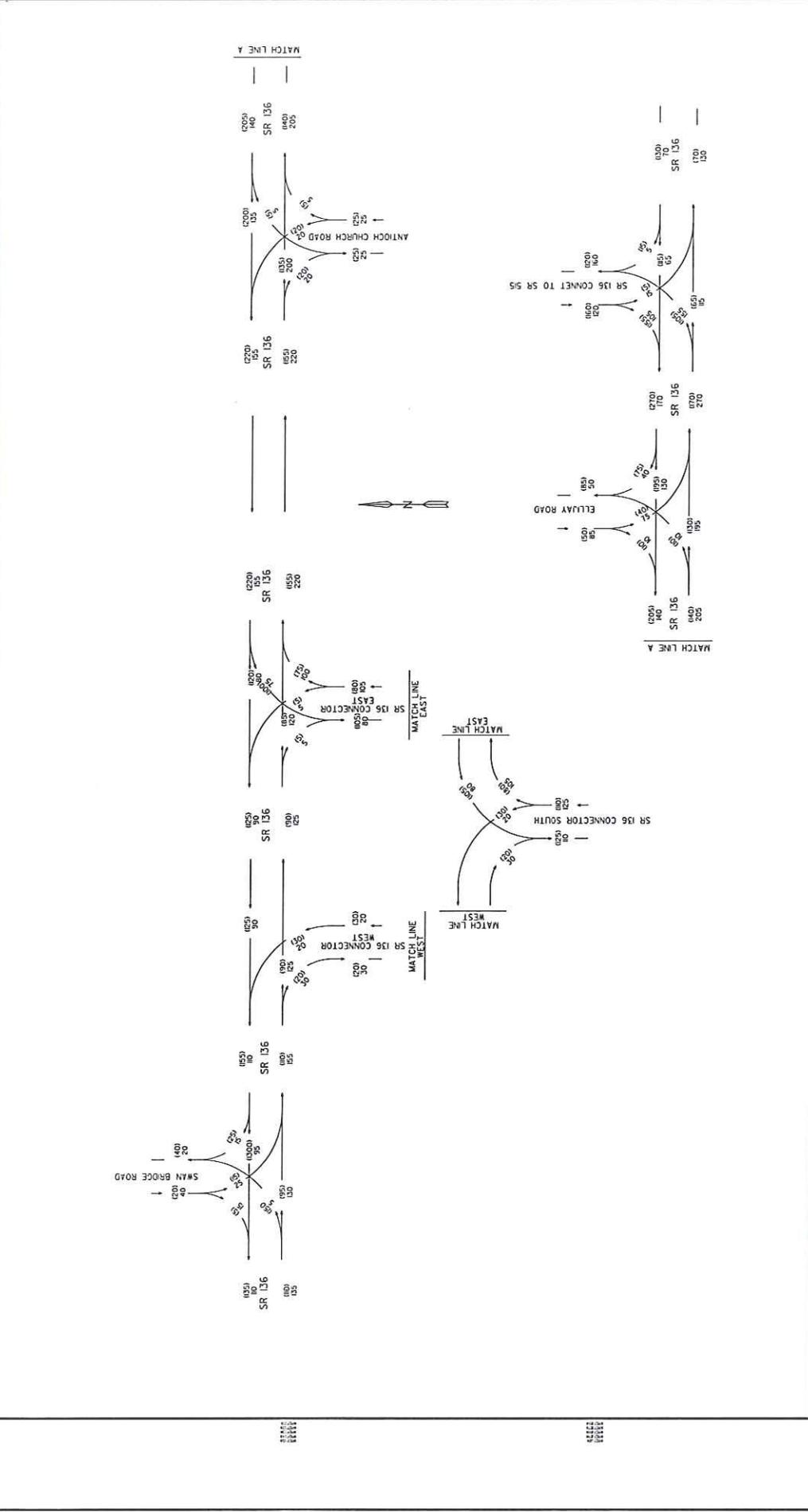


TYPICAL SECTION NO. 3
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 SR 136 CONNECTOR AND OLD ELLIJAY
 ROAD ROUNDABOUT INTERSECTION APPROACHES

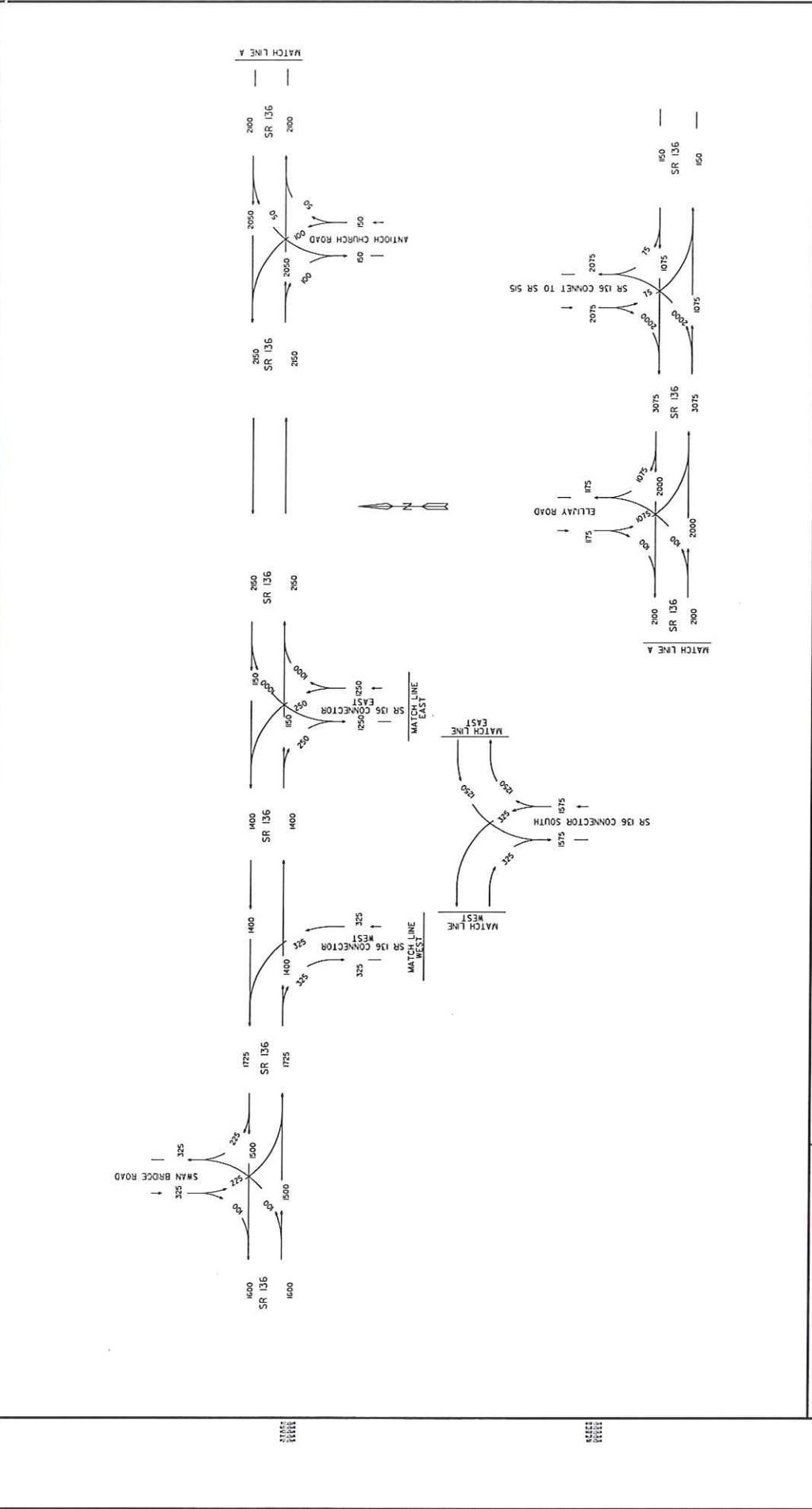


TYPICAL SECTION NO. 4
 INSIDE AREAS OF GEOMETRIC AND
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 SR 136 CONNECTOR AND OLD ELLIJAY
 ROAD ROUNDABOUTS

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<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: PROGRAM DELIVERY</p>	REVISION DATES	<p>NOT TO SCALE</p>	<p>GRESHAM SMITH AND PARTNERS</p> 	<p>LEGEND 2011 AM DHV - 000 2011 PM DHV - (000) T- 16%</p>	<p>PROJECT: CSST-0008-00(314) COUNTY: PICKENS</p>
	<p>TRAFFIC DIAGRAM</p>				



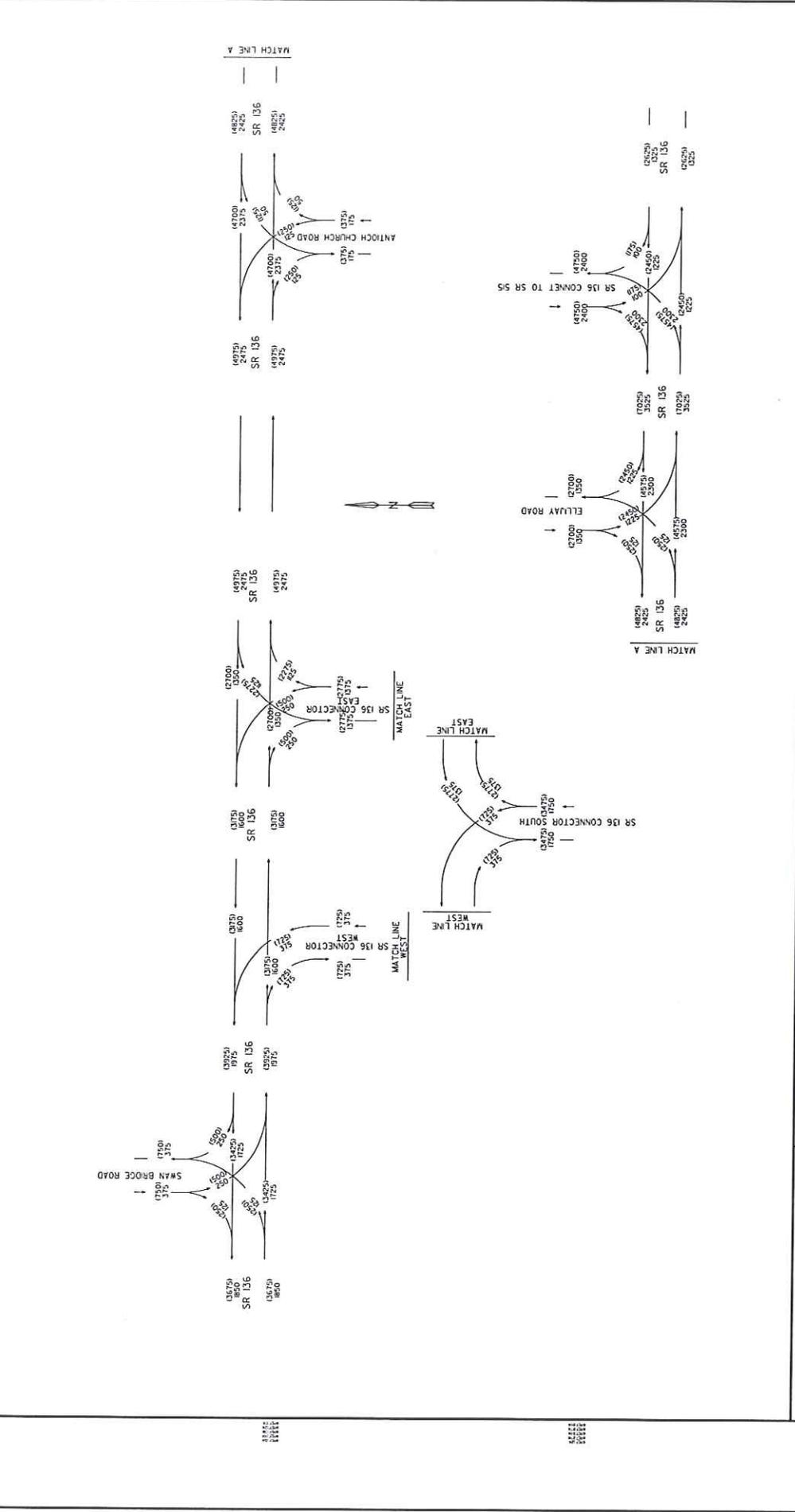
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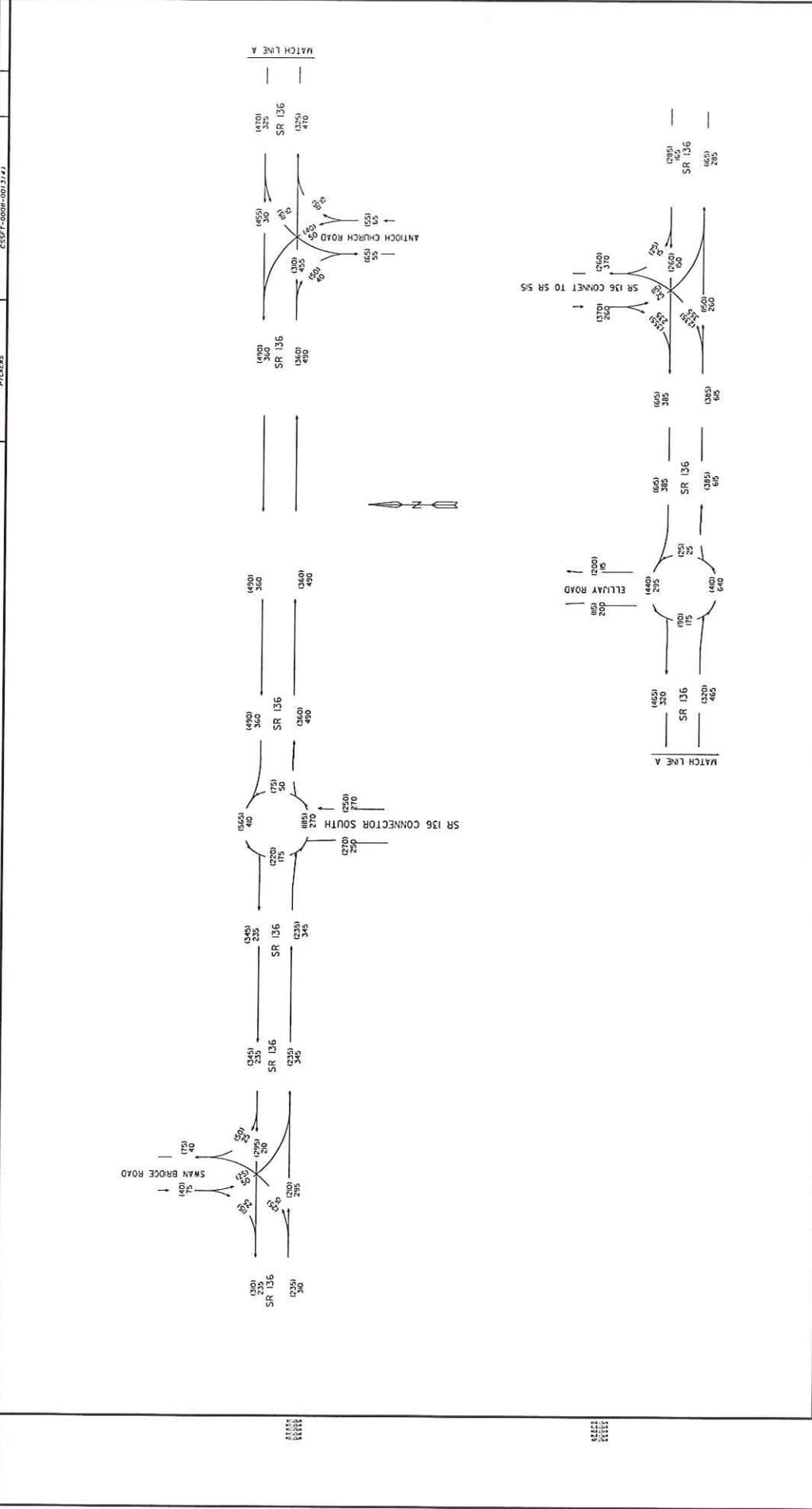
GRESHAM SMITH AND PARTNERS

LEGEND
 2011 EXISTING YEAR AADT VOLUMES
 2011 AADT - 000
 24 HR, T-16X
 S.U. - 12X, COMB. - 4X

PROJECT: CSSFT-0008-001(314)
 COUNTY: PICKENS
 DRAWING NO. **10-02**



<p>2014 OPENING YEAR AND 2034 DESIGN YEAR NO BUILD AADT VOLUMES</p>	<p>LEGEND</p> <p>2014 AADT * 000 2034 AADT * 000 24 HR, T * 16% S. U. * 12% COMB. * 4%</p>	 <p>GRESHAM SMITH AND PARTNERS</p>	<p>NOT TO SCALE</p>	<p>REVISION DATES</p> <table border="1"> <tr><td> </td><td> </td></tr> </table>																				
<p>STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: PROGRAM DELIVERY TRAFFIC DIAGRAM</p>		<p>PROJECT: CSST-0008-00(314) COUNTY: PICKENS</p>																						



LEGEND
 2034 AM DRY - 000
 2034 PM DRY - (000)
 T - 16%

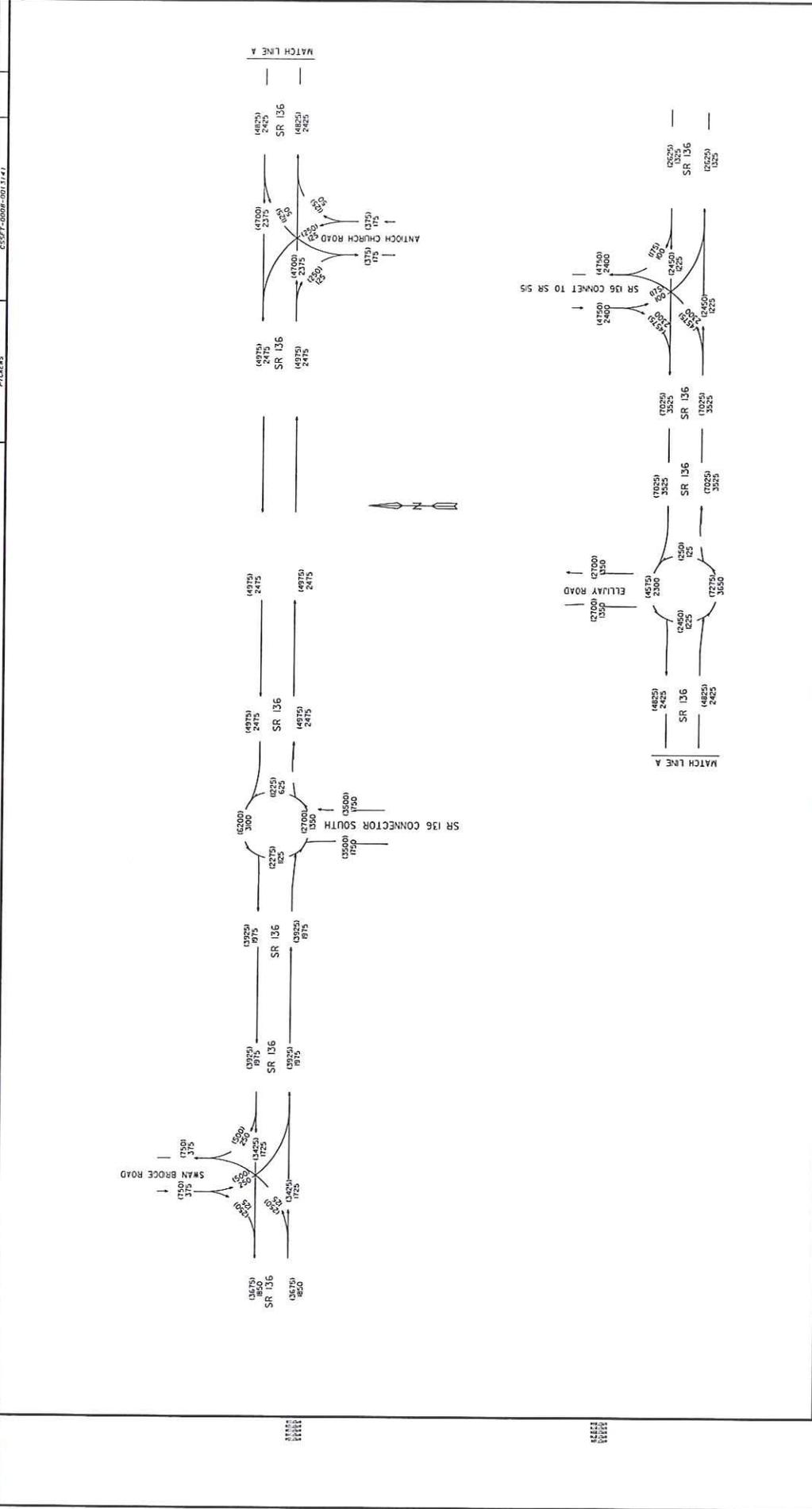
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STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
TRAFFIC DIAGRAM

PROJECT: CSSFT-0008-00(314)
 COUNTY: PICKENS

10-05

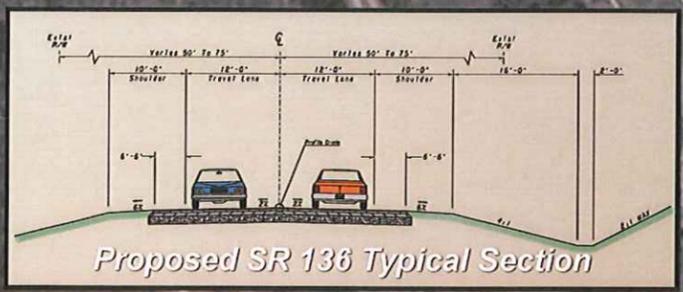


REVISION DATES		NOT TO SCALE	 GRESHAM SMITH AND PARTNERS

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
TRAFFIC DIAGRAM
 PROJECT: CSST-0008-00(314)
 COUNTY: PICKENS
 UNIVERSITY, INC.
 10-06

Legend of Symbols

- Property Damage Only (PDO) Crash
- Injury Crash
- ▲ Fatal Crash
- ③ Multiple PDO Crashes at Same Location (# Denotes Quantity)
- ⑤ Multiple Injury Crashes at Same Location (# Denotes Quantity)
- ⬇ Geometric Deficiency
- CAC Comment
- ➔ Accident Path

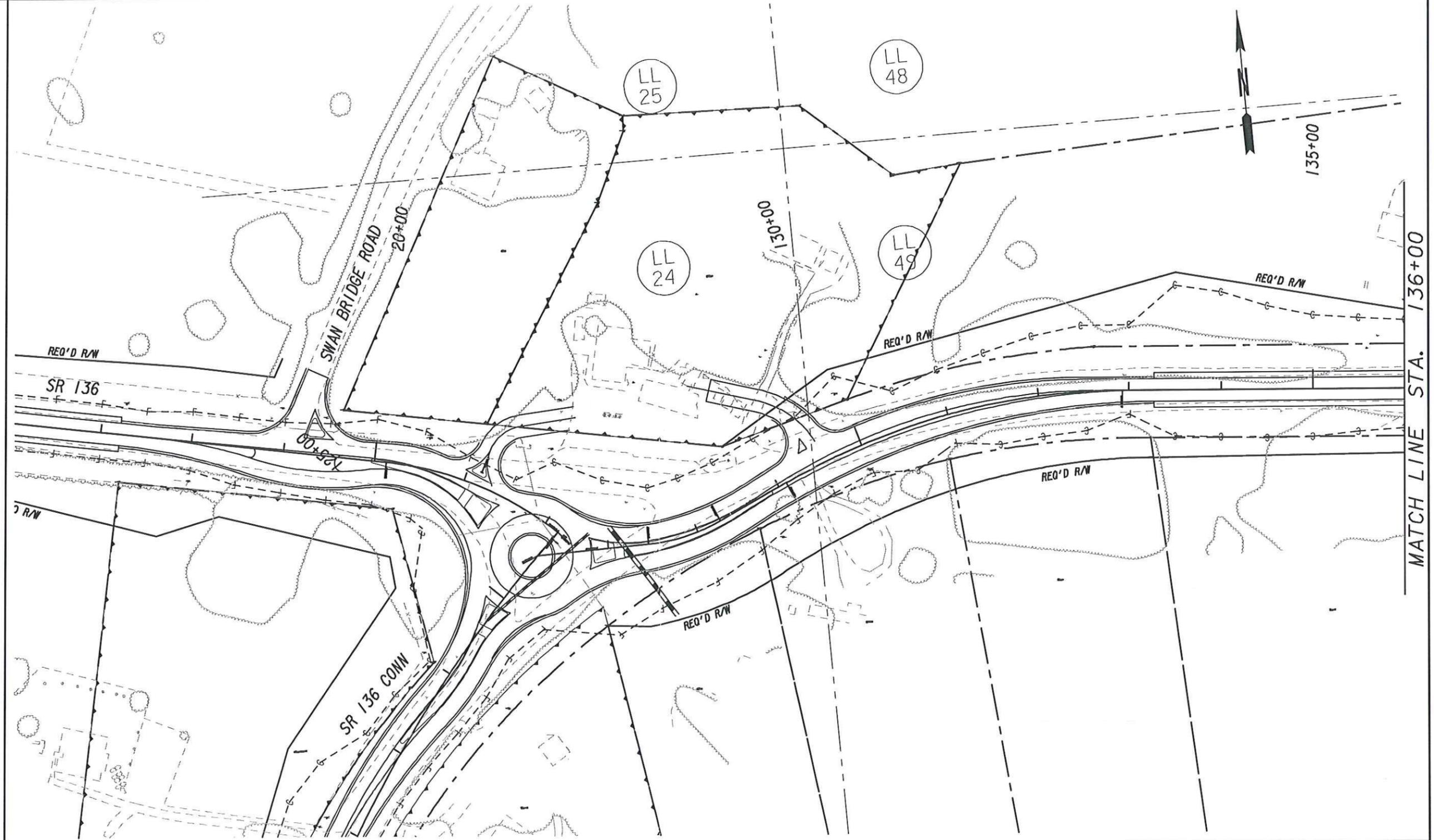


PRELIMINARY



**SR 136 from SR 136 Connector to SR 515
Safety Improvement Project**
CSSFT-0008-00(314) P.I. Number: 0008314





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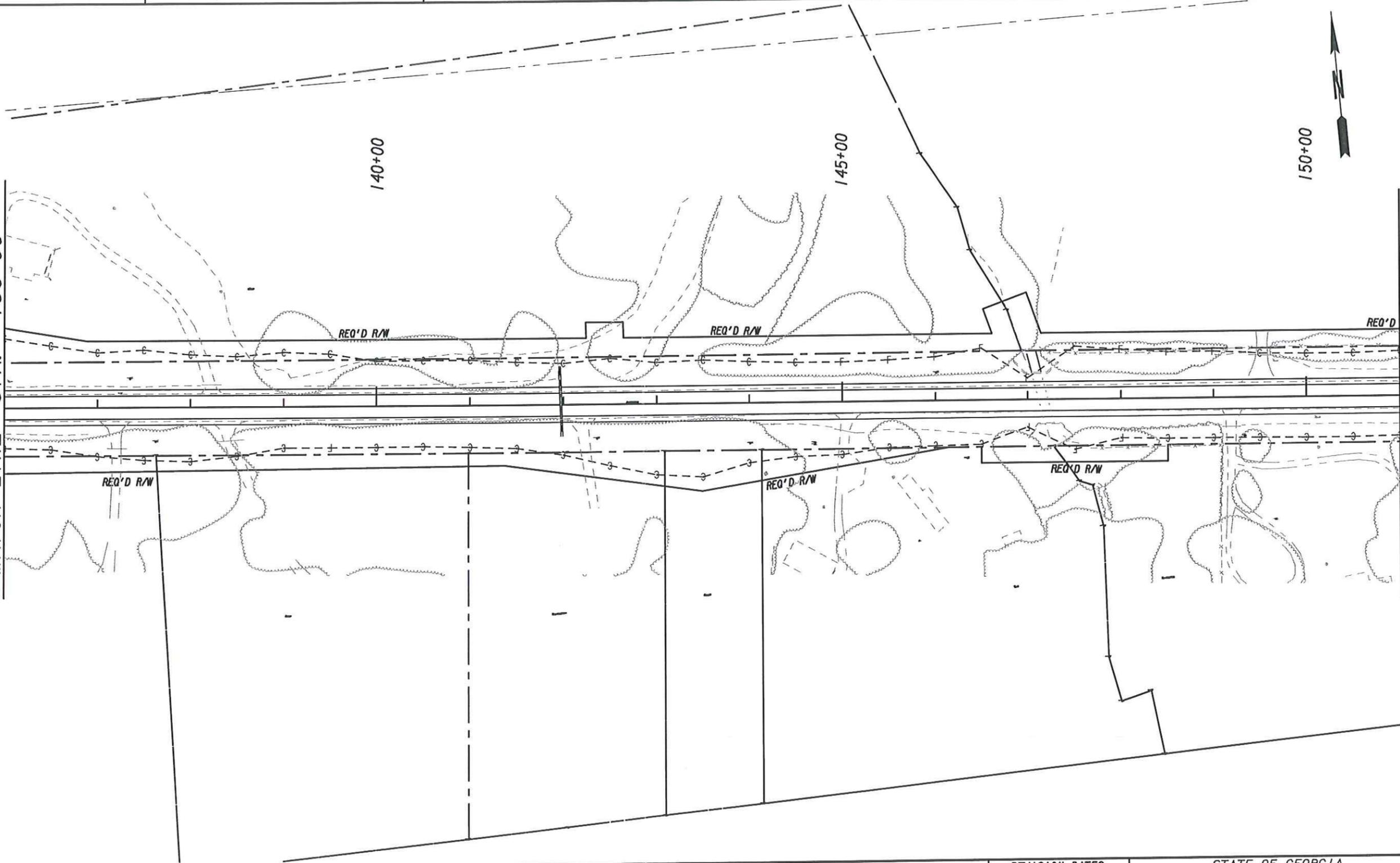
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COUNTY: PICKENS

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13-01

MATCH LINE STA. 136+00

MATCH LINE STA. 151+00



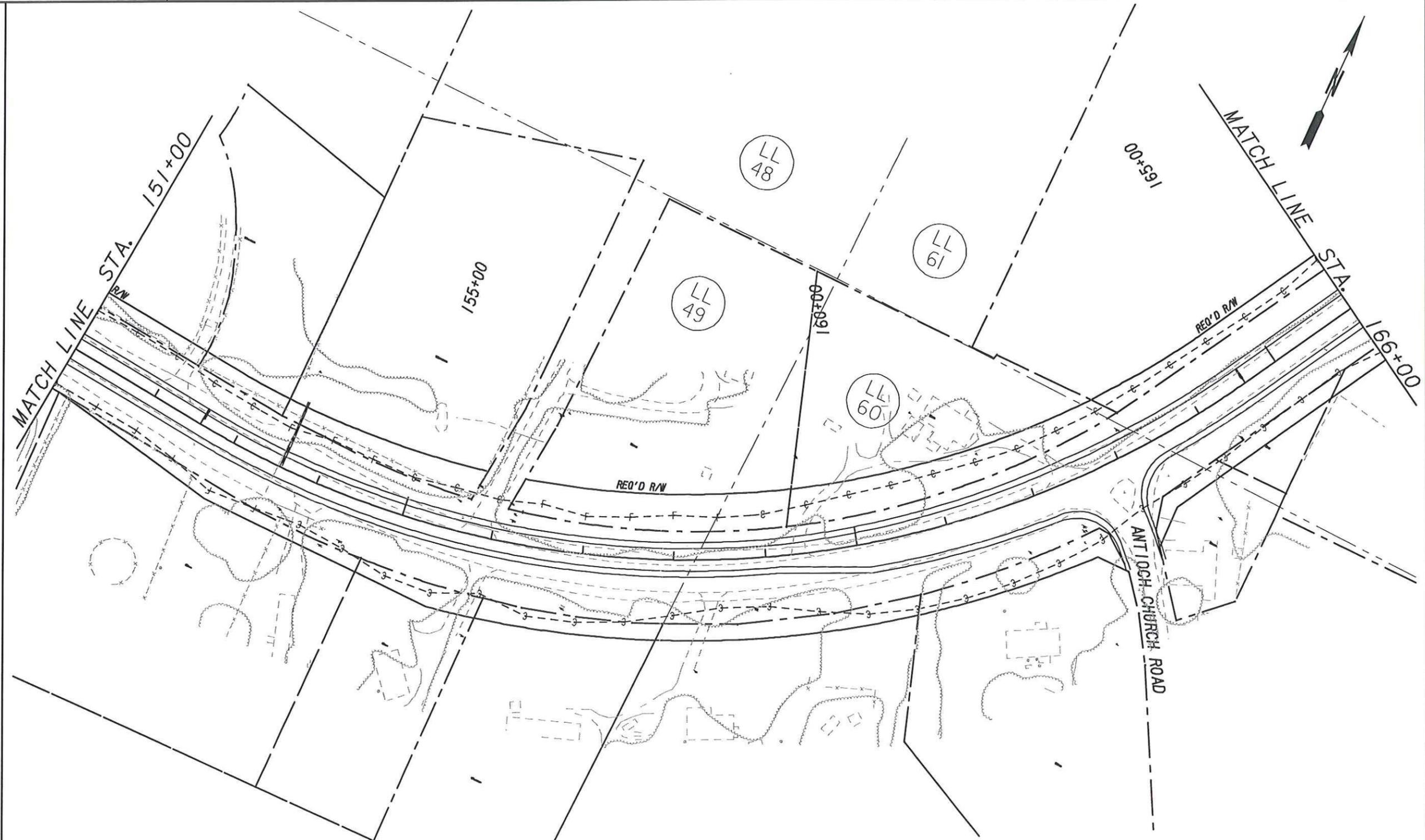
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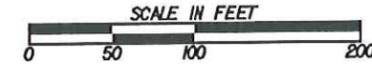
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13-02



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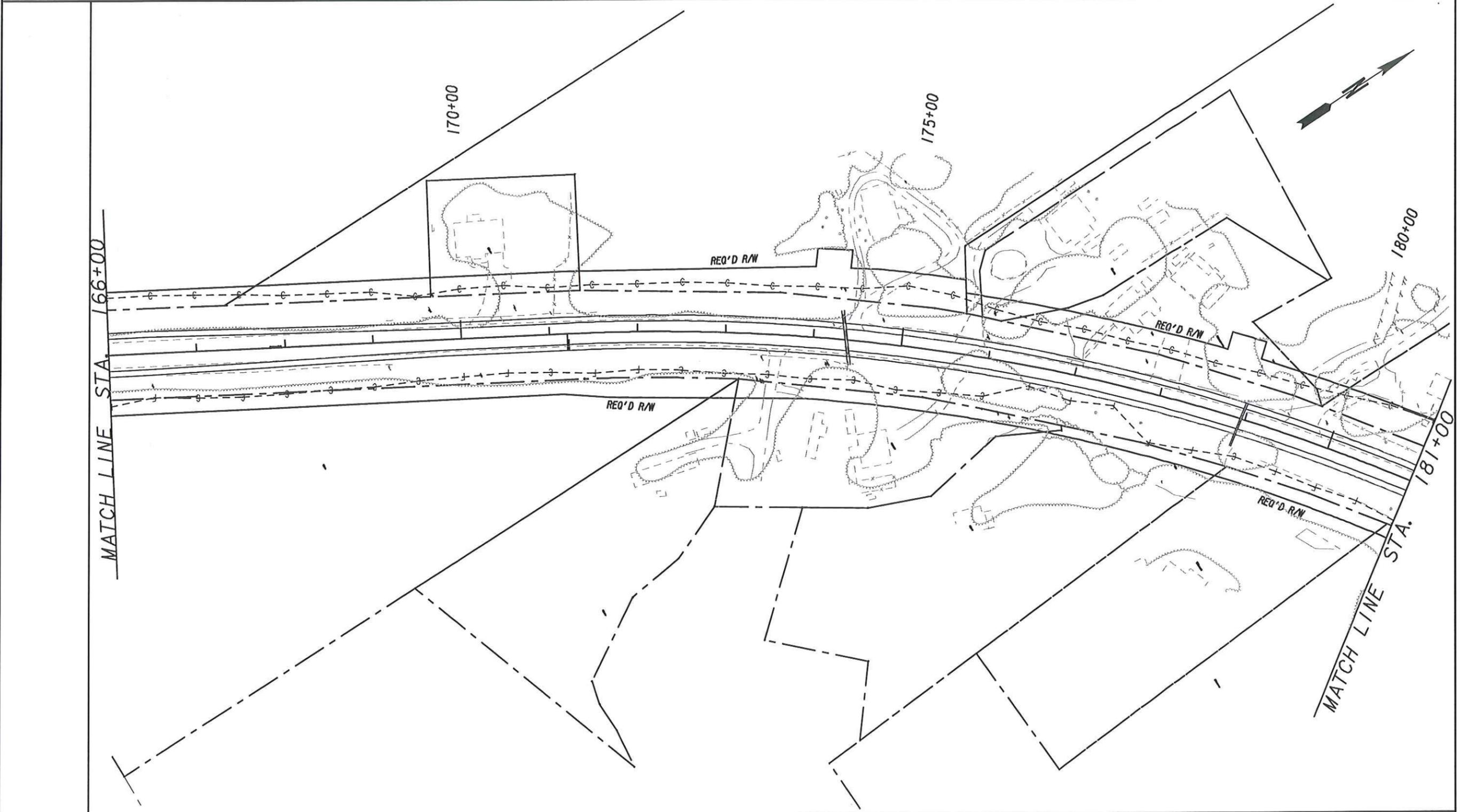


REVISION DATES

STATE OF GEORGIA
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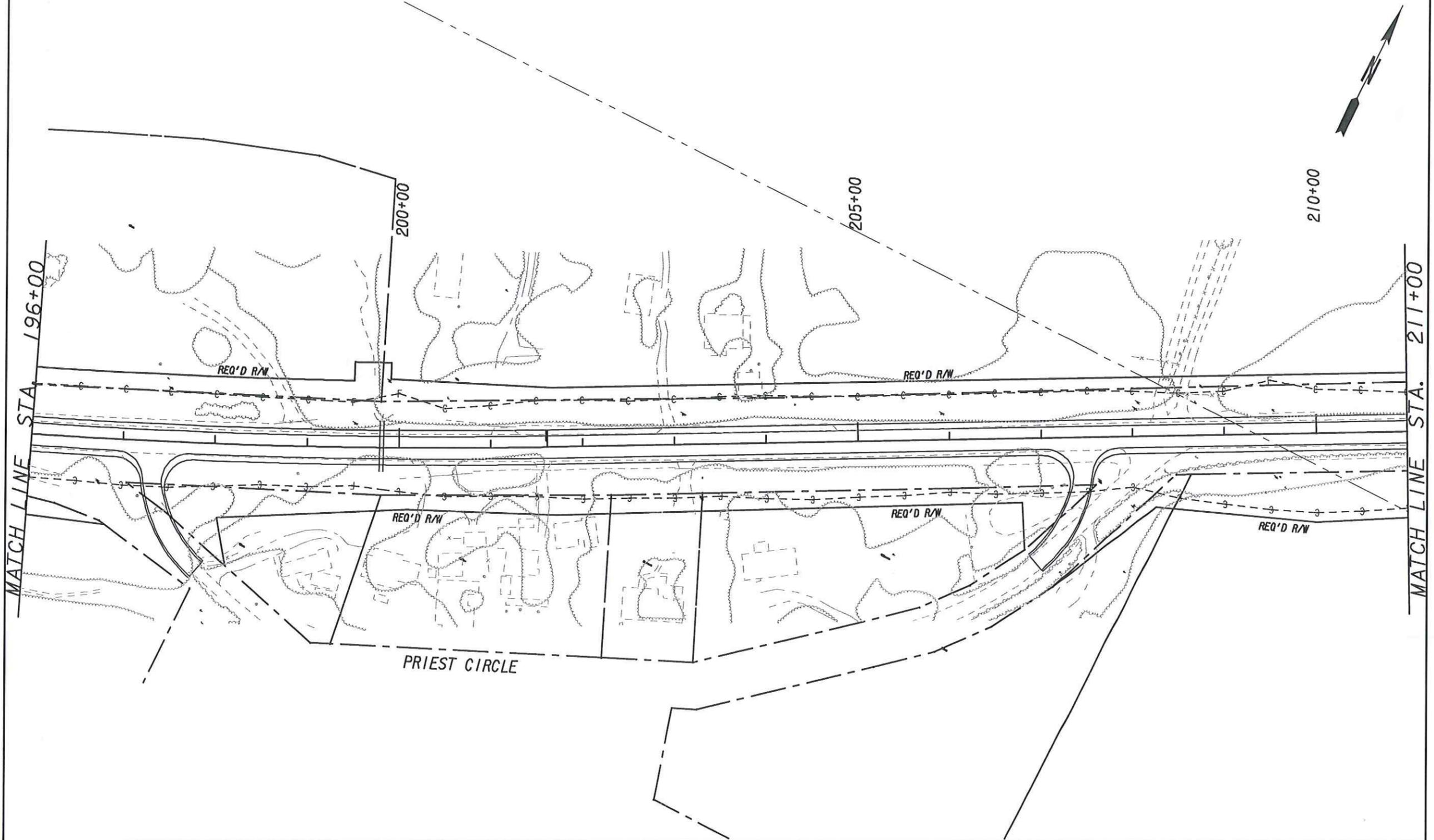
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COUNTY: PICKENS

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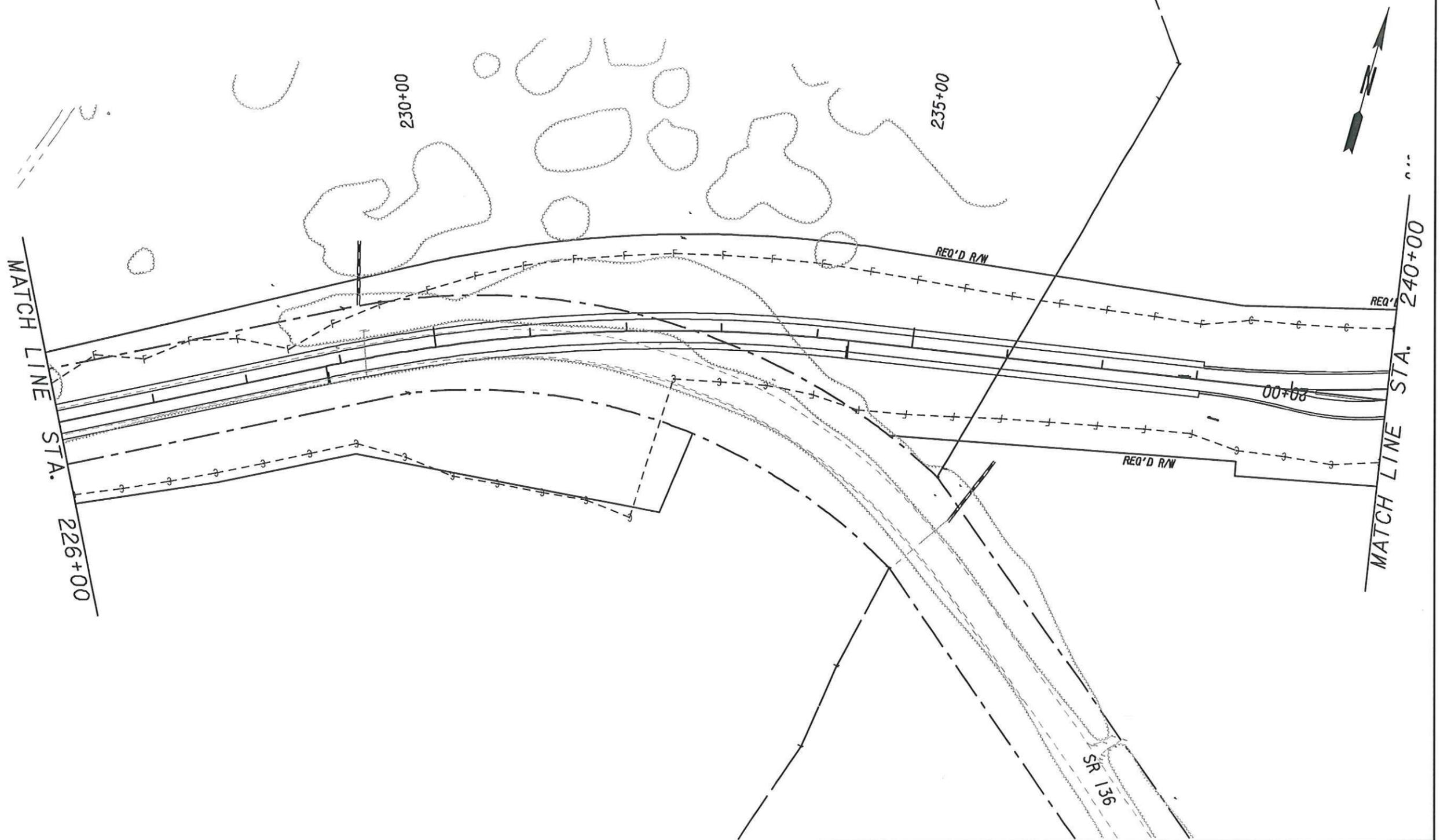
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REVISION DATES

STATE OF GEORGIA
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COUNTY: PICKENS

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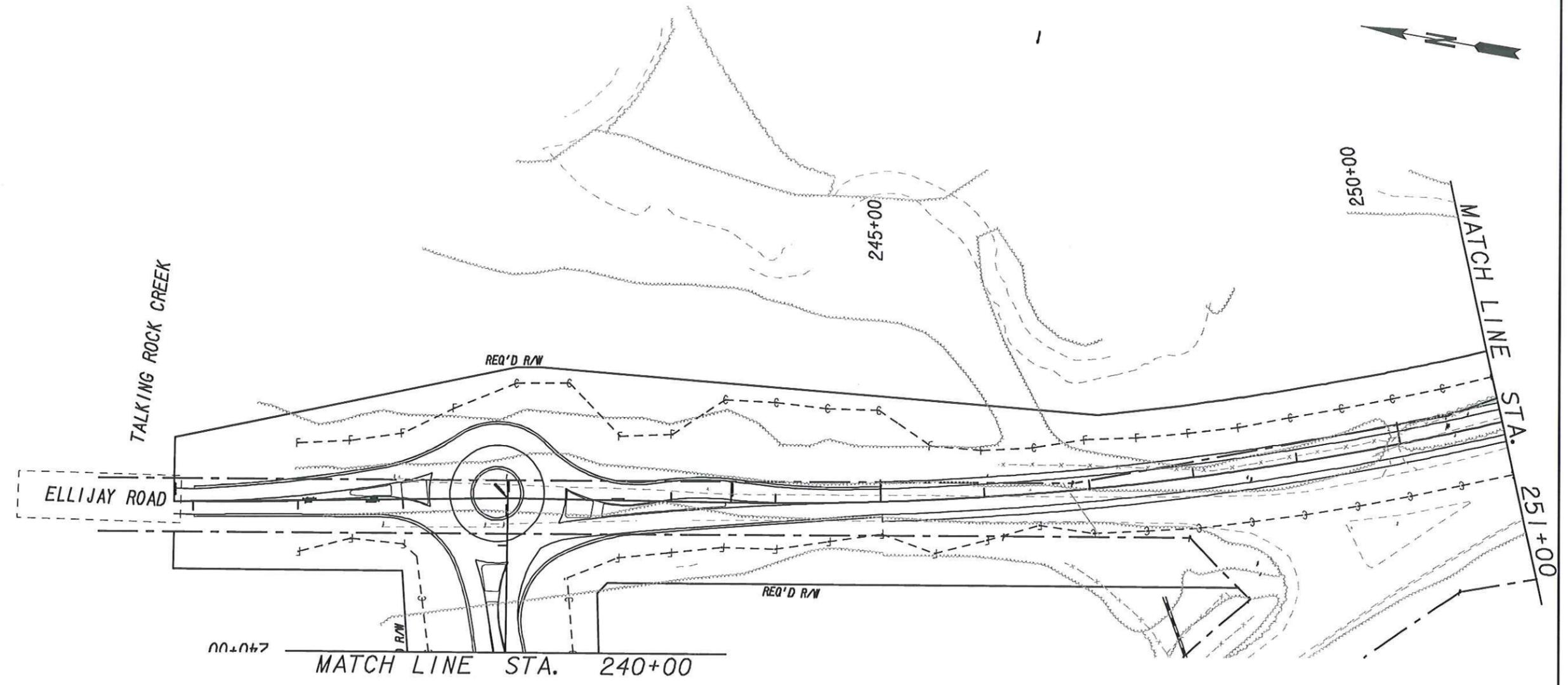


GRESHAM
SMITH AND
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REVISION DATES	

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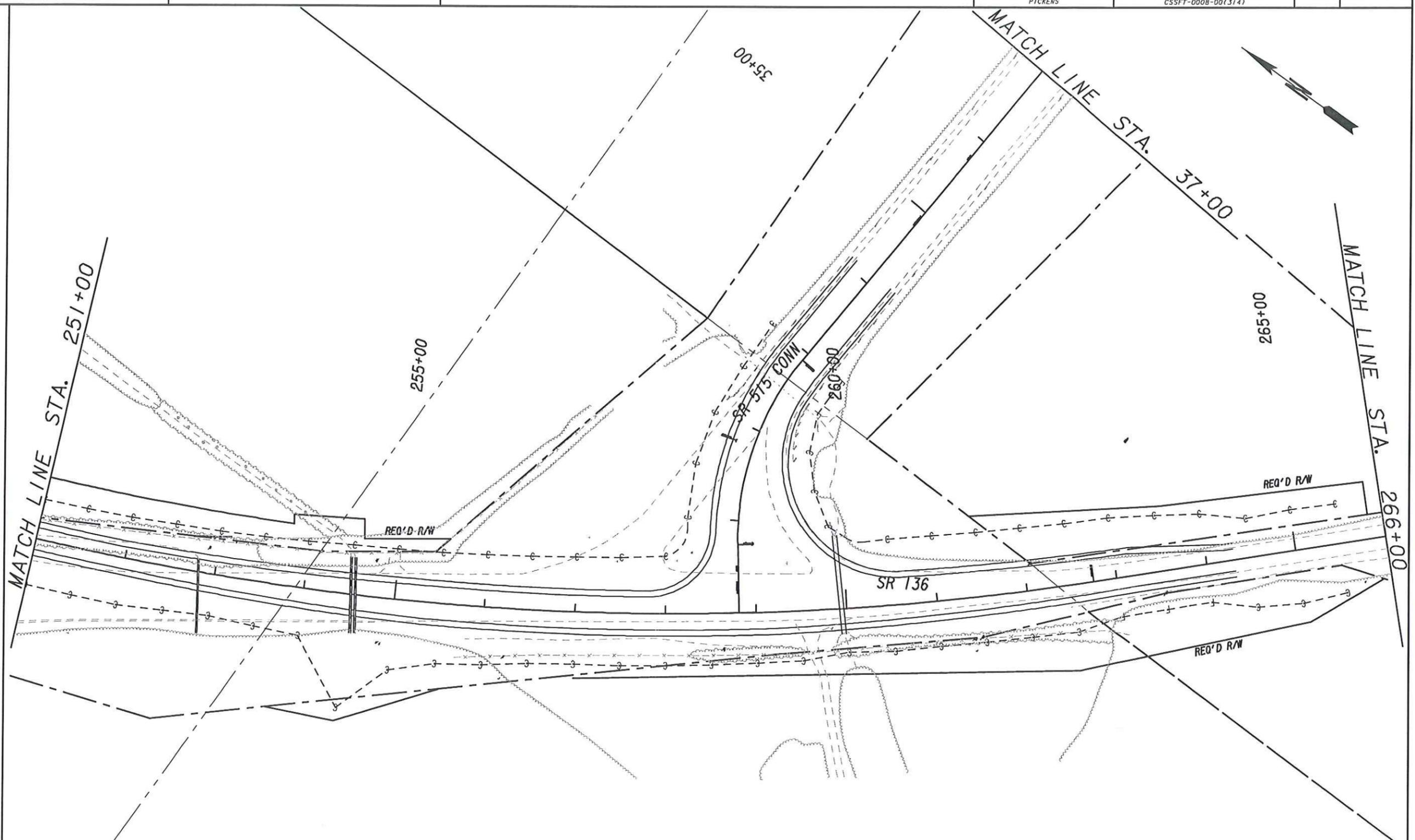


REVISION DATES	

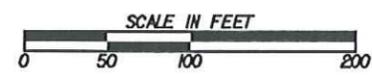
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DRAWING NO.
13-09

COUNTY PICKENS	PROJECT NUMBER CSSFT-0008-00(314)	SHEET NO.	TOTAL SHEETS
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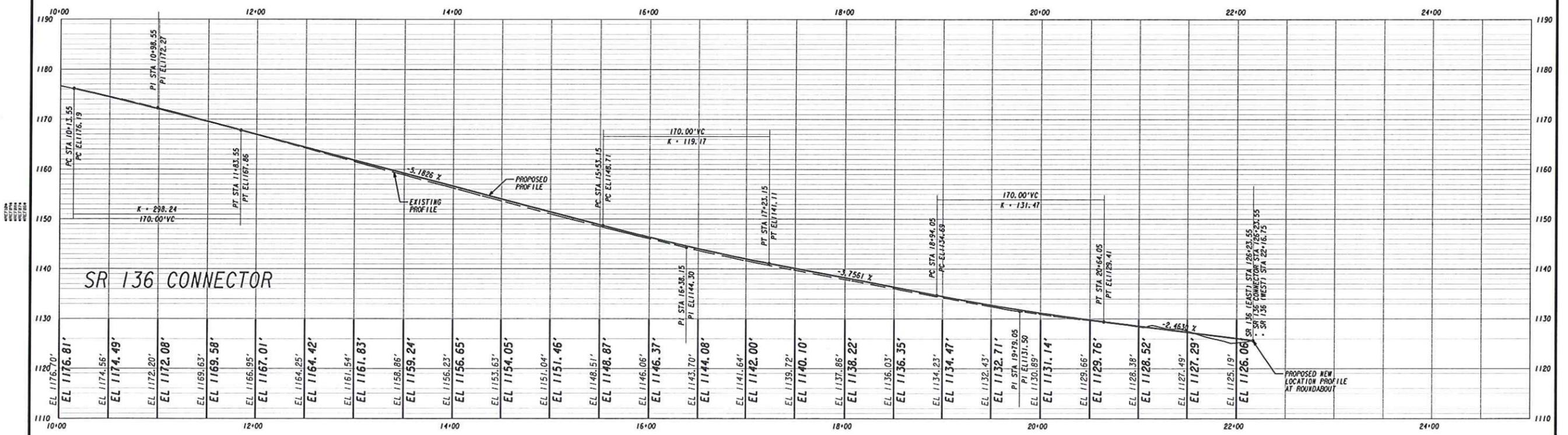
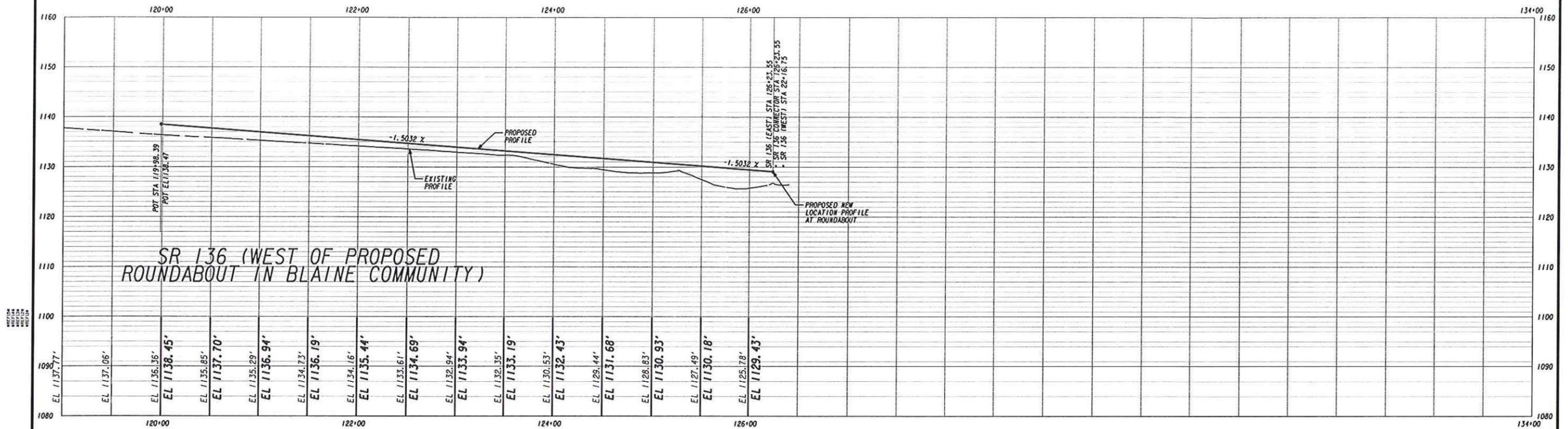


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REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
MAINLINE PLAN
PROJECT: CSSFT-0008-00(314)
COUNTY: PICKENS
DRAWING No.
13-10



3/1/2007 G2E06

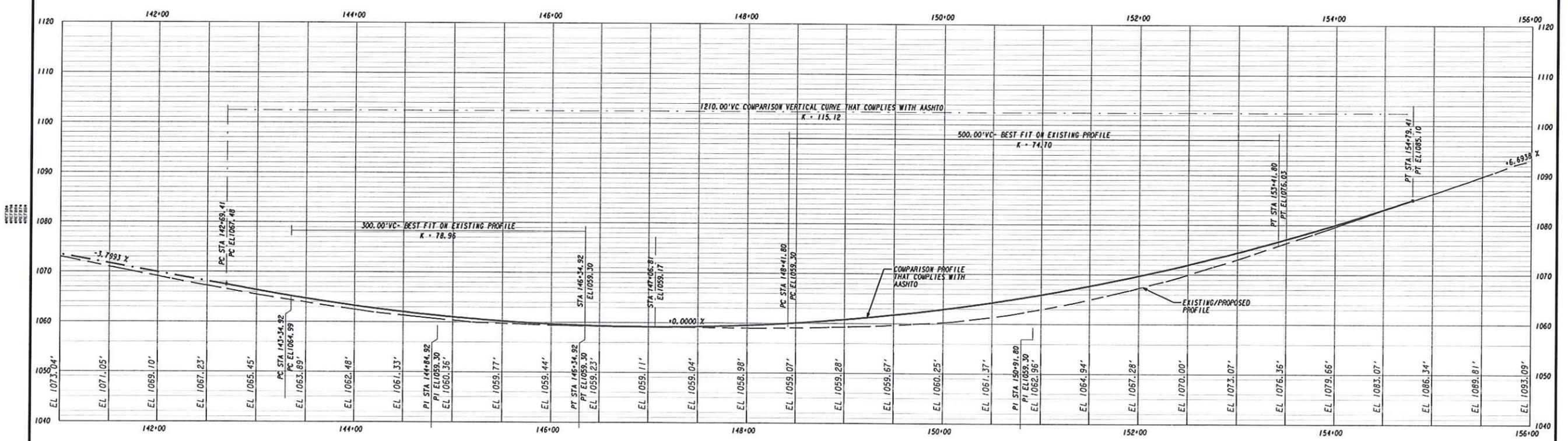
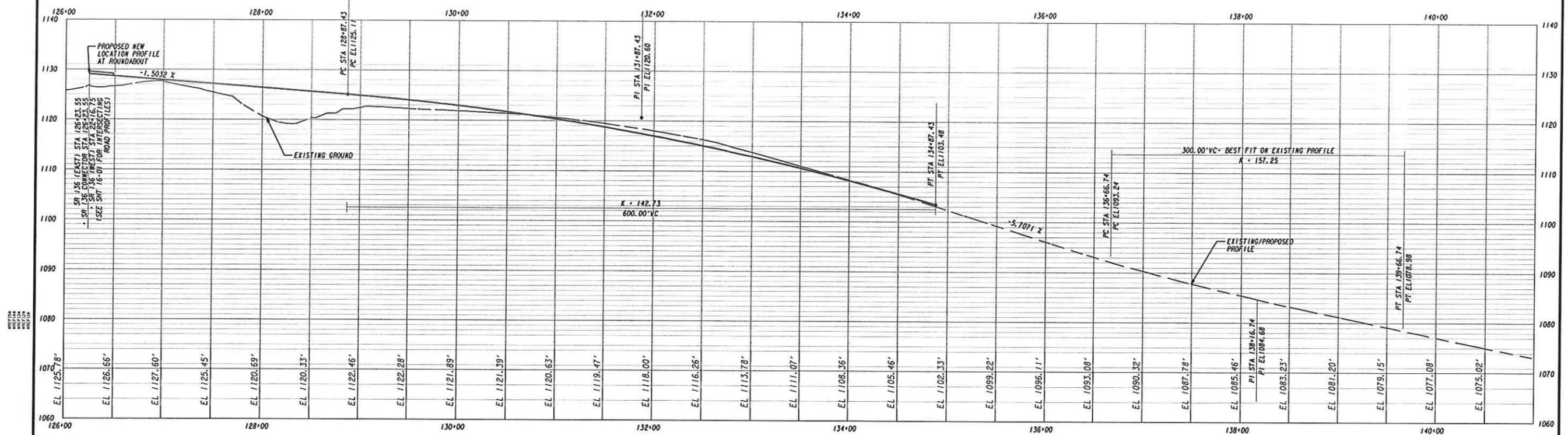


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REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
MAINLINE PROFILE

DRAWING No.
16-01



3/1/2007 6:28:00

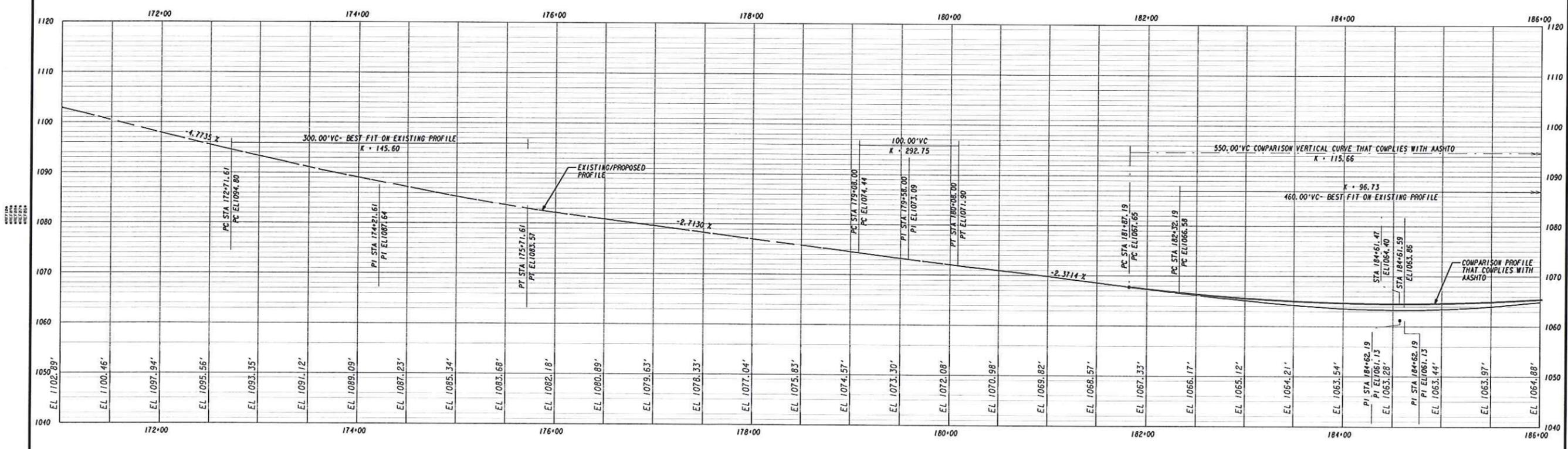
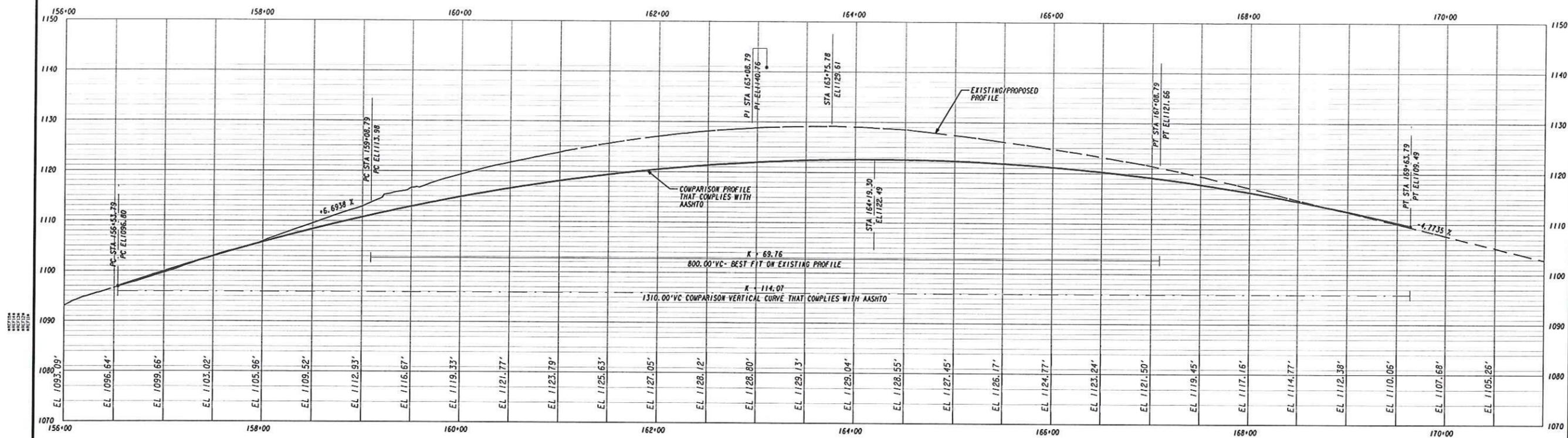


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REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
MAINLINE PROFILE

DRAWING No.
15-01



3/11/2007 6:28:00

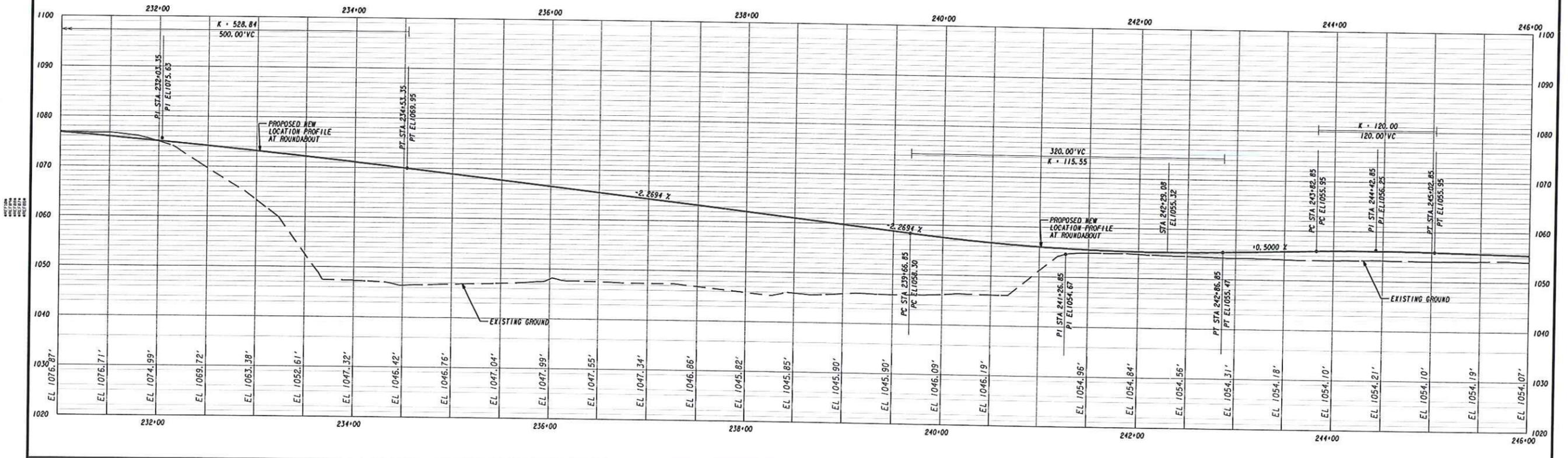
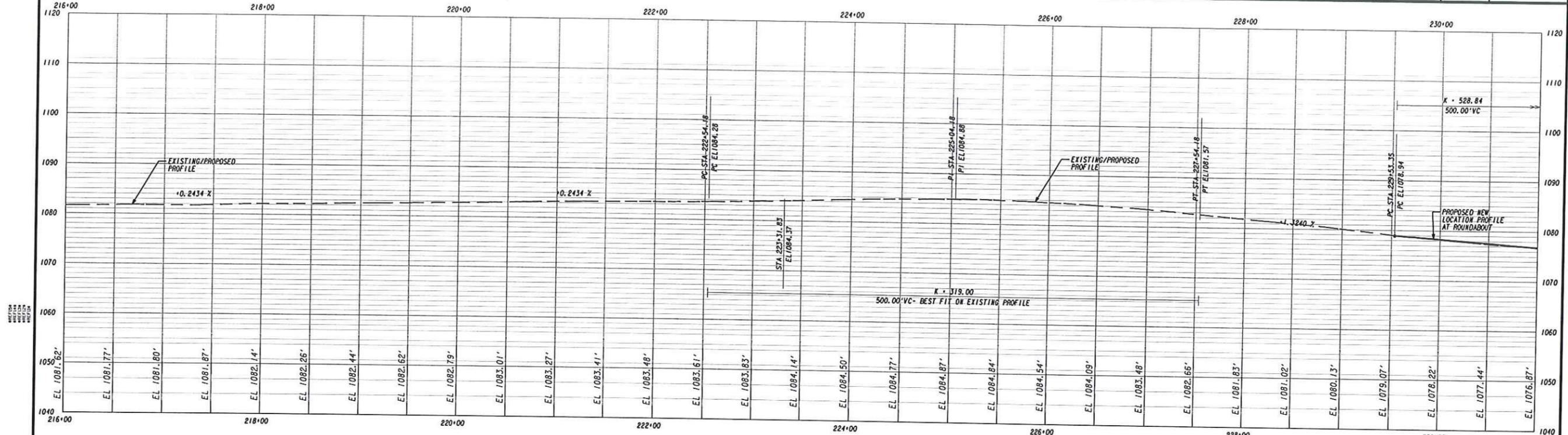


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REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
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DRAWING No.
15-02



3/11/2009 G32C02

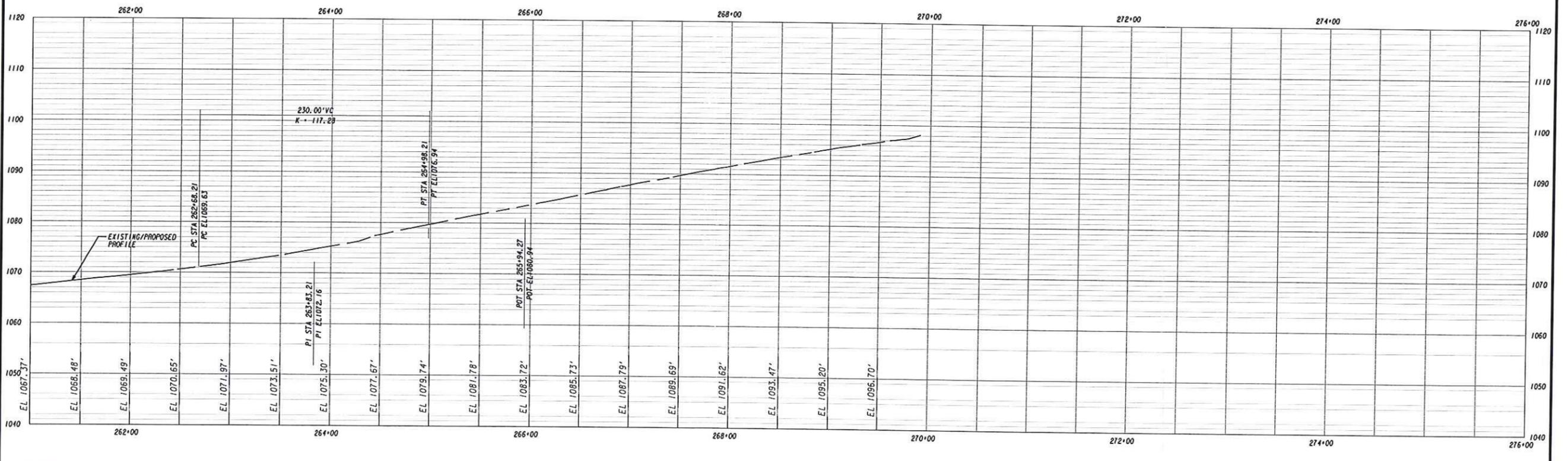
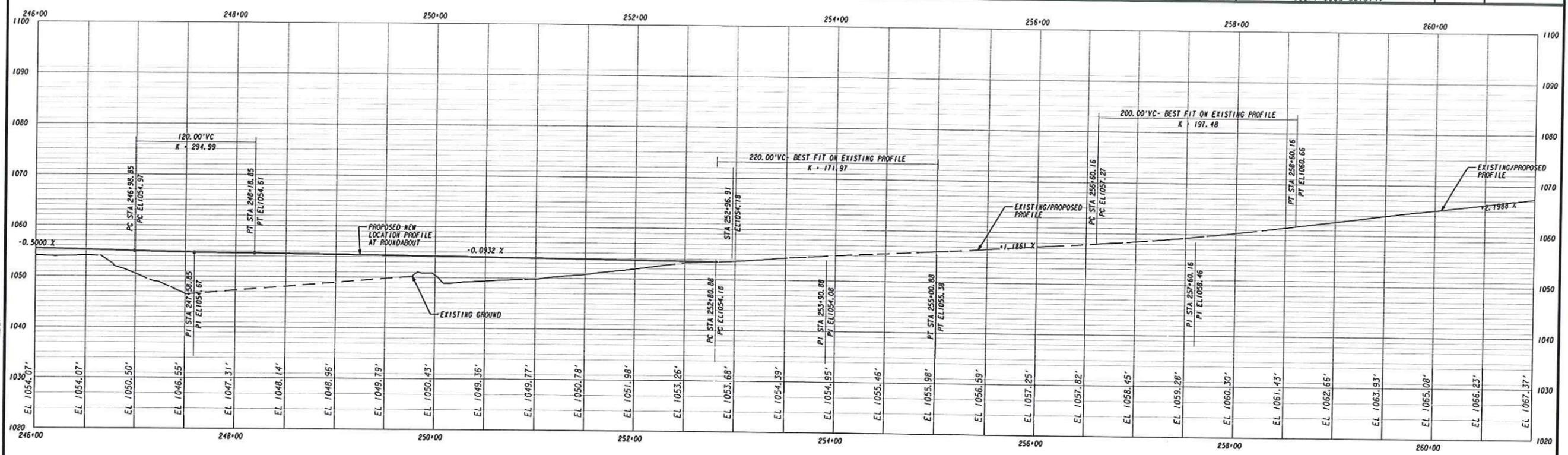


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REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: PROGRAM DELIVERY
MAINLINE PROFILE

DRAWING No.
15-04



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REVISION	DATE

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: PROGRAM DELIVERY
MAINLINE PROFILE

DRAWING No.
15-05