

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE CSSTP-0007-00(017) Hall County **OFFICE** Preconstruction
P. I. No. 0007017
SR 367/SR 419 at CR 1461 Intersection Improvements **DATE** March 9, 2005

FROM *John Kunkle*
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO *for* SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

- David Mulling
- Harvey Keepler
- Ken Thompson
- Jamie Simpson
- Michael Henry
- Keith Golden
- Joe Palladi (file copy)
- Paul Liles
- Babs Abubakari
- Russell McMurry
- BOARD MEMBER

February 21, 2005

SEE ATTACHED
LOCATION SKETCH

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RECOMMENDED: 3-5-05
DATE

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RECOMMENDED: 3-5-05
DATE

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APPROVED: 3/4/05
DATE

ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

PROJECT CONCEPT REPORT

CSSTP-0007-00(017)

HALL COUNTY

FEDERAL ROUTE NO: NONE
STATE ROUTE NO: 365 / 419
GADOT P.I. NO: 0007017

SEE ATTACHED
LOCATION SKETCH

Date of Report: February 21, 2005

RECOMMENDED: 3-2-05
DATE

Sheryl Solih
STATE TRAFFIC SAFETY AND DESIGN ADMINISTRATOR

RECOMMENDED: 2-22-05
DATE

Russell R. McMurtry
DISTRICT ENGINEER

APPROVED: 3/4/05
DATE

O. J. S. [Signature]
CHIEF ENGINEER

PROJECT CONCEPT REPORT

P.I. No.: 0007017

Project No.: CSSTP-0007-00(017)

County: Hall

Route No.: SR365 / SR 419

Location: At the intersection of SR 365/SR 419 with County Road 1461 (Athens Street).
Approximately 2 miles northwest of the city limits of Lula.

Description: The improvement will consist of adding an acceleration lane to the median along southbound SR 365 so that traffic exiting from Athens Street headed south can better transition into southbound traffic along SR 365.

<u>Traffic – Current ADT:</u>	SR 356/SR 419	23,450
	CR 1461	740

Existing Typical: Divided four-lane highway with 64 foot grassed median. (inside shoulder width of 10 feet with 2 foot paved).

Existing Right of Way: Estimated 400 feet

Existing Traffic Control: Advanced intersection signs on SR 365/SR 419

Existing Major Structures: None

Statement of Need & Purpose: See Attached

Bicycle & Pedestrian Considerations: None

Length: 0.495 miles

Permits Required: None.

Level of Environmental Analysis: Categorical Exclusion.

Level of Public Involvement: None.

Time Saving Procedures Appropriate: Yes (X) No ()

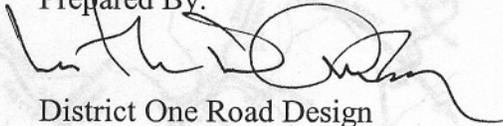
Design Variances Required: None

Alternates Considered: None

Comments: None

Attachments: Location Sketch
Typical Section
Need and Purpose Statement
Construction Cost Estimate

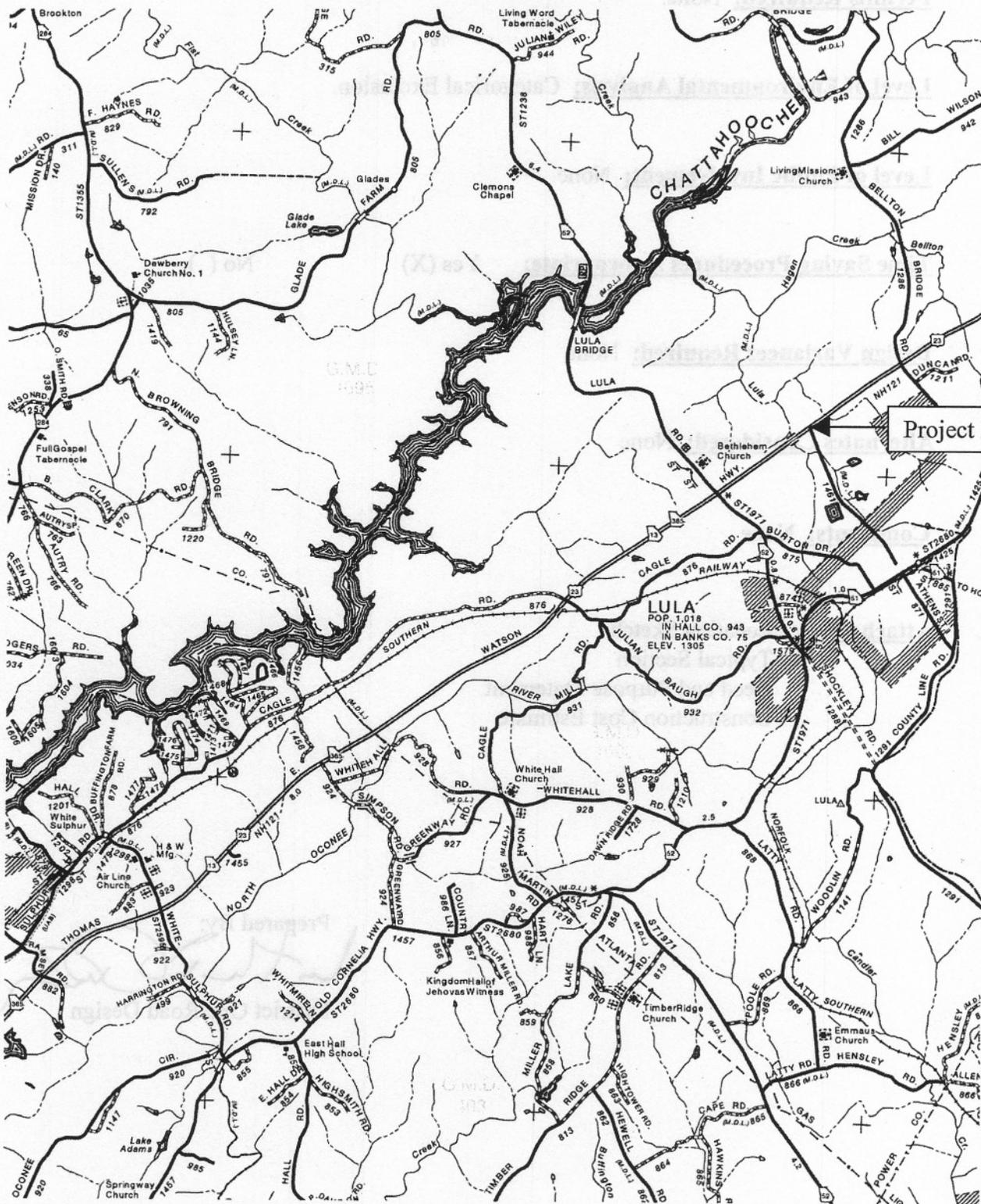
Prepared By:



District One Road Design

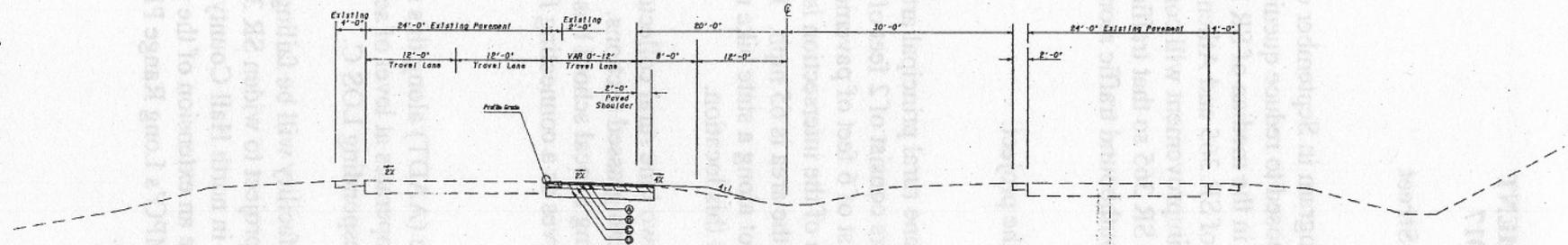
CSSTP-0007-00(017) Fall
P.I. No. 0007017
S.R. 305 at Altamont St.

Location Sketch



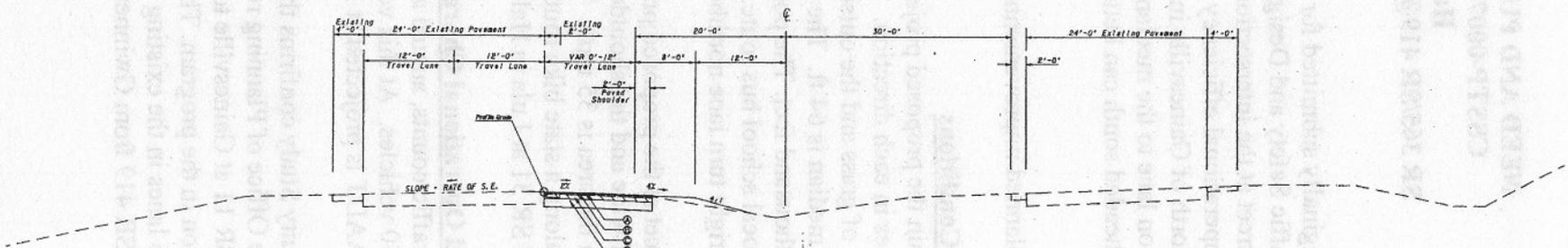
CSSTP-0007-00(017), Hall
P.I. No. 0007017
S.R. 365 at Athens St.

TYPICAL SECTION



S. R. 365
TANGENT SECTION
APPLIES FROM STA 24+38.55 TO STA 50+52.91

- REQUIRED PAVEMENT AND INSIDE SHOULDER PAVEMENT:
- Ⓐ 12.5mm SUPERPAVE, GP 2 ONLY, 165 LB/SY, MIX DESIGN LEVEL B
 - Ⓑ 19mm SUPERPAVE, GP 1 OR 2, 220 LB/SY, MIX DESIGN LEVEL B
 - Ⓒ 25mm SUPERPAVE, GP 1 OR 2, 550 LB/SY, MIX DESIGN LEVEL A
 - Ⓓ GRADED AGGREGATE BASE, 12 IN



SUPERELEVATED SECTION

NOT TO SCALE

REVISION DATES	STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
	OFFICE: DISTRICT ONE DESIGN
	TYPICAL SECTIONS
	CSSTP-0007-00(017)
	HALL COUNTY

DRAWING NO.
5-01

NEED AND PURPOSE STATEMENT
CSSTP-0007-00(017), PI 0007017
Hall County
SR 365/SR 419@CR 1461/Athens Street

Background

This project was originally submitted for inclusion in the program in September of 2004 by the Office of Traffic Safety and Design. It has been proposed to reduce queuing on CR 1461/ Athens Street at the intersection with SR 365 and in the median of SR 365 and to improve overall operational efficiency at the intersection of SR 365 and Athens Street. The site is located north of Gainesville in Hall County. The improvement will consist of adding an acceleration lane to the median along southbound SR 365 so that traffic exiting from Athens Street headed south can better transition into southbound traffic along SR 365.

There are no other planned improvements in the vicinity of the project.

Existing Roadway Conditions

SR 365/SR 419 within the proposed project limits is a four lane rural principal arterial with two 12 foot lanes in each direction. The inside shoulders consist of 2 feet of pavement and 8 feet of grass and the outside shoulders consist of 6 feet of pavement and 4 feet of grass. The median is 64 ft. The profile to the south of the intersection is on an upgrade for several thousand feet. The posted speed limit in the area is 65 mph. The roadway is along a local school bus route. The roadway is not along a state bike route. There is an existing right turn lane northbound on SR 365 at this location.

CR 1461/Athens Street at the proposed project location is a two lane rural collector street. The lanes are 12 feet wide and the shoulders are minimal width grassed sections. The posted speed limit in the area is 35 mph. The roadway is along a local school bus route. The roadway is not along a state bike route. The roadway serves as a connecting facility between SR 365 and SR 51 at Lula in Hall County.

Travel Demand and Operational Characteristics

According to 2003 traffic counts, annual average daily traffic (AADT) along this segment of SR 365 was 23,450 vehicles. At this volume, the facility operates at level of service (LOS) B. In 2013, AADT is projected at 31,515 with a corresponding LOS C.

The 2004 Multi-County Study confirms that LOS along this facility will be failing by 2030. Therefore, the Office of Planning recommends that a project to widen SR 365 to 6 lanes from US 129/SR 11 at Gainesville to Mud Creek Road in north Hall County be submitted for inclusion in the program. This project would be an extension of the planned widening from 4 to 6 lanes in the existing Gainesville-Hall MPO's Long Range Plan along I-985/SR 365/SR 419 from Gwinnett to US 129/SR 11.

The current 2003 AADT for CR 1461/Athens Street is 740 vehicles with a corresponding level of service (LOS) A. The projected AADT on CR 1461 in the year 2013 will be in the range of 1000 vehicles and will remain at a LOS A.

Safety

Accident figures along on SR 316 in the vicinity of the intersection, as reflected in the following chart, reveal an accident rate that is less than the statewide average for accidents along similar facilities.

However over the three year analysis period, 12 of the accidents were rear end collisions on SR 365. These accidents are reported to have occurred in the median and just south of the intersection and could in part be the result of operational deficiencies at SR 365 and Athens Street.

Crashes from M.P. 24.58 to 25.36

Year	2000		2001		2002	
	SR 365	Statewide	SR 365	Statewide	SR 365	Statewide
Crashes	7		5		4	
Crashes Per 100 MVMT	115	143	77	134	61	95
Injuries	2		1		0	
Injuries Per 100 MVMT	33	33	15	45	0	48
Fatalities	0		0		0	
Fatalities Per 100 MVMT	0	1.97	0	2.09	0	1.41

(MVMT: Million Vehicle Miles Traveled)

There are no noted accidents on CR 1461/Athens Street at the project site.

Community Issues

This project is located in Hall County. In 2003, its population was reported to be 156,101 people. Like much of the metropolitan Atlanta region, the county is a rapidly growing residential and commercial area. From 1990 to 2000, the population increased by 45.9%. This is almost twice the amount of growth experienced by the state during the same time period. Of the 2000 population, 7.3% were Black and 19.6% were of Hispanic origin. The median household income in 1999 was \$44,908. In the same year, 12.4% of the population had incomes below the poverty level.

The community surrounding this project area is rural agricultural with occasional small residential developments. The city of Lula is approximately 1 mile from the SR 365 and CR 1461 intersection. The population of the surrounding community is primarily Caucasian with moderate incomes. The primary employment centers for this area are Gainesville and the metro area of Atlanta.

There are no environmental concerns anticipated to be part of this project.

Need and Purpose

The proposed improvements at SR 365/SR419 and CR 1461/Athens Street are necessary to improve overall operations efficiency of the intersection. Specifically, the improvements will serve to reduce traffic queues, reduce the number of traffic accidents, and improve the ability of traffic exiting from Athens Street to merge onto southbound SR 365.

Year	Crashes	Injuries	Fatalities
2007	115	33	0
2008	143	33	1.97
2009	77	15	0
2010	134	48	2.09
2011	61	0	0
2012	4	0	0

(MVT: Million Vehicle Miles Traveled)

There are no noted accidents on CR 1461/Athens Street at the project site.

Community Issues

This project is located in Hall County. In 2007, its population was reported to be 126,101 people. Like much of the metropolitan Atlanta region, the county is a rapidly growing residential and commercial area. From 1990 to 2000, the population increased by 42.9%. This is almost twice the amount of growth experienced by the state during the same time period. Of the 2000 population, 7.3% were Black and 19.6% were of Hispanic origin. The median household income in 1999 was \$44,908. In the same year, 13.4% of the population had incomes below the poverty level.

The community surrounding this project area is rural agricultural with occasional small residential developments. The city of Lenoir is approximately 1 mile from the SR 365 and CR 1461 intersection. The population of the surrounding community is primarily Caucasian with moderate incomes. The primary employment centers for this area are Gainesville and the metro area of Atlanta.

Estimate Report for file "0007017"

Section A-Roadway					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	Lump	LS	25000.00	TRAFFIC CONTROL - CSSTP-0007-00(017)	25000.0
210-0100	Lump	LS	50000.00	GRADING COMPLETE - CSSTP-0007-00(017)	50000.0
310-1101	2700.00	TN	13.36	GR AGGR BASE CRS, INCL MATL	36072.0
402-3121	1100.00	TN	35.77	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	39347.0
402-3130	315.00	TN	36.65	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM	11544.75
402-3190	425.00	TN	39.13	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM	16630.25
Section Sub Total:					\$178,594.00

Section B-Erosion Control					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
163-0232	1.00	AC	447.96	TEMPORARY GRASSING	447.96
163-0240	20.00	TN	193.21	MULCH	3864.20
163-0300	2.00	EA	1051.94	CONSTRUCTION EXIT	2103.88
163-0504	5.00	EA	232.87	CONSTRUCT AND REMOVE SILT CONTROL GATE, TP 4	1164.35
165-0010	1325.00	LF	0.98	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	1298.5
165-0088	5.00	EA	109.85	MAINTENANCE OF SILT CONTROL GATE, TP 4	549.25
165-0101	2.00	EA	341.98	MAINTENANCE OF CONSTRUCTION EXIT	683.96
167-1000	2.00	EA	2595.92	WATER QUALITY MONITORING AND SAMPLING	5191.84
167-1500	3.00	MO	690.31	WATER QUALITY INSPECTIONS	2070.93
171-0010	2650.00	LF	1.70	TEMPORARY SILT FENCE, TYPE A	4505.0
700-6910	1.00	AC	739.15	PERMANENT GRASSING	739.15
700-7000	4.00	TN	59.55	AGRICULTURAL LIME	238.2
700-7010	3.00	GL	20.62	LIQUID LIME	61.86
700-8000	1.00	TN	234.39	FERTILIZER MIXED GRADE	234.39
700-8100	40.00	LB	1.43	FERTILIZER NITROGEN CONTENT	57.19
Section Sub Total:					\$23,210.67

Section C-Signing and Marking					
Item Number	Quantity	Units	Unit Price	Item Description	Cost
653-0110	6.00	EA	50.81	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	304.86
653-1501	1650.00	LF	0.25	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	412.5
653-1502	2700.00	LF	0.23	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	621.0
653-3501	350.00	GLF	0.14	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	49.00
653-6006	26.00	SY	2.58	THERMOPLASTIC TRAF STRIPING, YELLOW	67.08
654-1003	25.00	EA	3.19	RAISED PVMT MARKERS TP 3	79.75
Section Sub Total:					\$1,534.19

Total Estimated Cost: \$203,338.86

Subtotal Construction Cost	\$203,338.86
E&C Rate 10.0 %	\$20,333.89
Inflation Rate 0.0 % @ 0.0 Years	\$0.00
Total Construction Cost	
Right Of Way	\$0.00
ReImb. Utilities	\$0.00
Grand Total Project Cost	
	\$223,672.75

