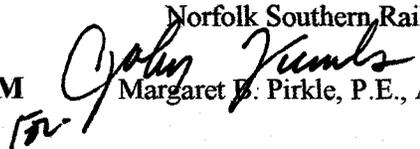


D.O.T. 66

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 0007291, Jackson County **OFFICE** Preconstruction  
CSSTP-0007-00(291)  
SR 98/SR 334 and SR 98/Ila Street/  
Norfolk Southern Railroad **DATE** May 4, 2006

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

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

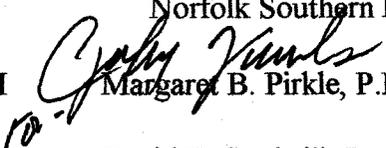
Brian Summers  
Harvey Keepler  
Ken Thompson  
Jamie Simpson  
Michael Henry  
Keith Golden  
Joe Palladi (file copy)  
Paul Liles  
Babs Abubakari  
Russell McMurry  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

---

**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** P. I. No. 0007291, Jackson County **OFFICE** Preconstruction  
 CSSTP-0007-00(291)  
 SR 98/SR 334 and SR 98/ILA Street/  
 Norfolk Southern Railroad **DATE** April 25, 2006

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

**TO** David E. Studstill, Jr., P.E., Chief Engineer

**SUBJECT** PROJECT CONCEPT REPORT

This project is the realignment of SR 98/SR 334 in the vicinity of the railroad crossing and the installation of train-activated warning devices. This project is in the Commerce city limits. The purpose of this project is to improve railroad and street crossing safety at SR 98 crossing (RR # 717696D). This project will provide safety features to increase driver awareness of passing trains. Additionally, the SR 98 and railroad intersection is a four-way stop located at the railroad; thus, it creates an unsafe, blind road crossing. The intersection needs to be realigned for increased visibility and public safety.

The proposed construction will consist of reconstructing 0.22 mile of SR 98/SR 334 to allow for the installation of train activated warning devices (bells, lights, gates) in advance of the at-grade highway rail crossing. Most construction of this project will occur within existing rights-of-way. However, some additional right-of-way will be required for the road realignment of this project.

Environmental concerns include requiring a Categorical Exclusion be prepared; a public hearing open house is not required; time saving procedures are appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C and inflation)	\$670,000	\$670,000	L540	Lump
Right-of-Way & Utilities	LGPA	LGPA		

David Studstill

Page 2

P.I. No. 0007291, Jackson

April 25, 2006

I recommend this project concept be approved.

MBP:JDQ/cj

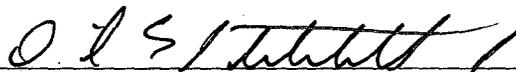
Attachment

CONCUR



Buddy Gratton, P.E., Director of Preconstruction

APPROVE



David E. Studstill, Jr., P.E., Chief Engineer

# NOTICE OF LOCATION AND DESIGN APPROVAL

*CSSTP-0007-00(291) Jackson County*

*P. I. 0007291*

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is *MAY 4, 2006*

*This project consists of reconstructing 0.22 miles of SR 98/SR 334 to allow for the installation of train activated warning devices (Bells, Lights & Gates) in advance of the at-grade highway rail crossing. This project lies in Georgia Militia District 255.*

*The proposed safety project is necessary to allow for the installation of train activated warning devices along SR 98/Ila St. at US DOT/ AAR Crossing No. 717696D and will increase the overall safety of the intersection.*

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

*Russell McMurry*  
*Russell.McMurry@dot.state.ga.us*  
*2505 Athens Highway, SE*  
*P.O. Box 1057*  
*Gainesville, Georgia 30503*  
*(770) 532-5526*

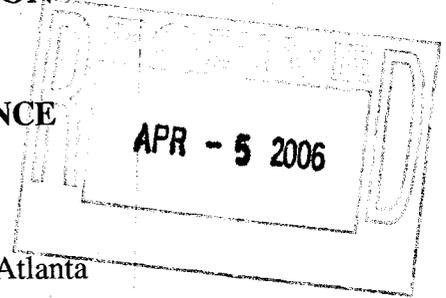
Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

*James Key Phillips*  
*Office of Traffic Safety & Design*  
*Key.Phillips@dot.state.ga.us*  
*935 E. Confederate Ave. Bldg # 24*  
*Atlanta, GA 30316*  
*404.635.8120*

Any written request or communication in reference to this project or notice SHOULD include the Project and P. I. Numbers as noted at the top of this notice.

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENTAL CORRESPONDENCE**



**FILE:** CSSTP-0007-00(291), Jackson  
PI# 0007291

**OFFICE:** Atlanta

**DATE:** April 3, 2006

**FROM:**  Keith Golden, State Traffic Safety & Design Engineer

**TO:** Meg Pirkle, Asst. Director of Preconstruction

**SUBJECT:** Project Concept Report

Attached is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

STH:LKG:GMB:jkp

Attachment

C: Brian Summers, Project Review Engineer  
Joseph P. Palladi, State Transportation Planning Administrator  
Harvey Keepler, State Environmental / Location Engineer  
Jamie Simpson, State Financial Management Administrator  
Russell McMurry, District Engineer, Gainesville  
Yancy Bachmann, Asst. State Traffic Safety & Design Engineer  
Marwan Abboud, AGM  
File

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
OFFICE OF TRAFFIC SAFETY & DESIGN  
PROJECT CONCEPT REPORT**

Prepared by: ARCADIS

**SR 98/ SR 334 & SR 98 /Ila St. / Norfolk Southern Railroad**

Project Number: CSSTP-0007-00(291)

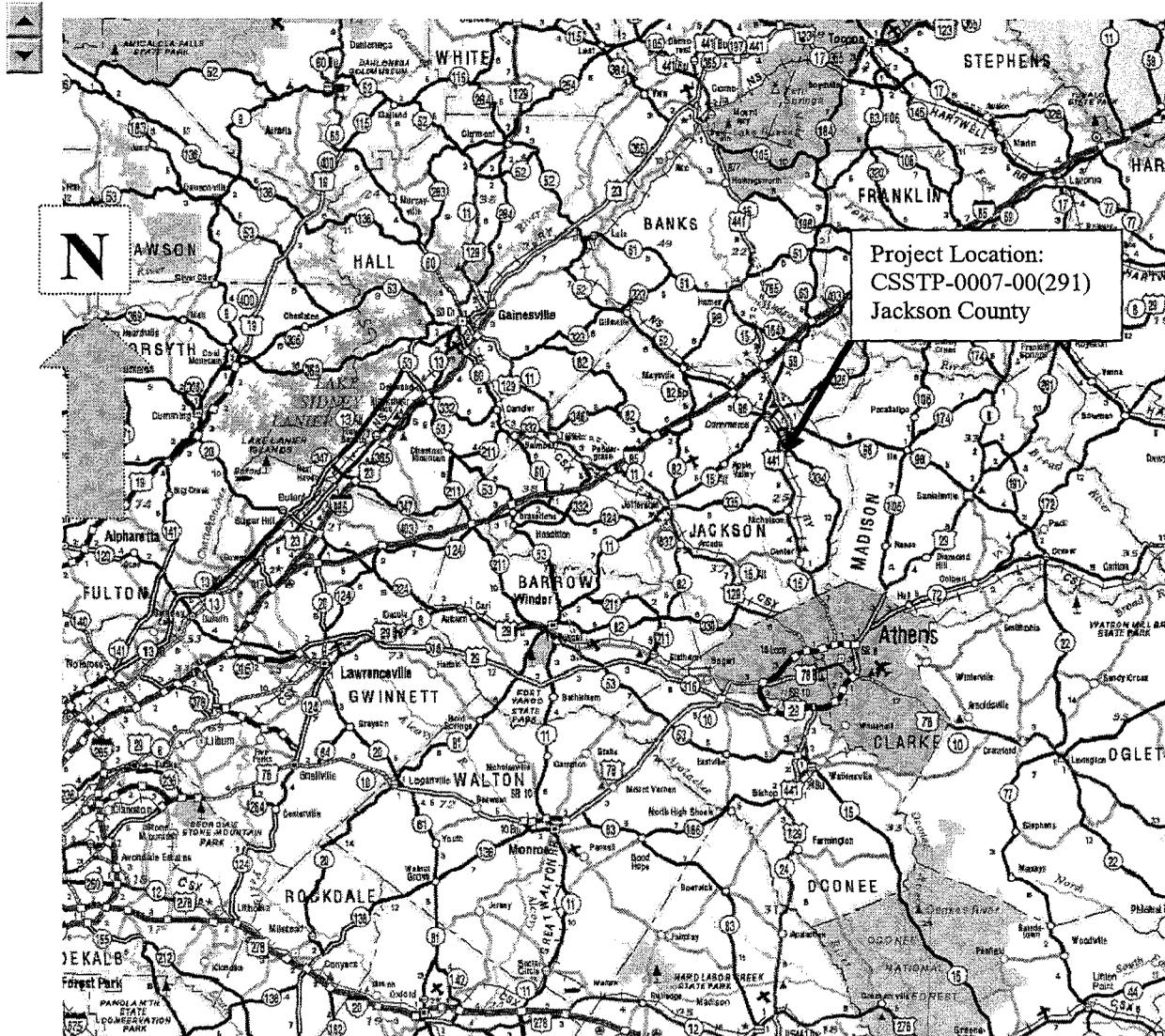
Counties: Jackson

P. I. Number: 0007291

Federal Route Number: NA

State Route Number: 334 / 98

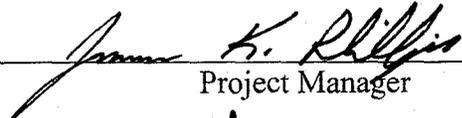
Project Location Map



Project Concept Report Page 2  
Project Number: CSSTP-0007-00(291)  
P.I. Number 0007291  
County: Jackson  
Prepared by: ARCADIS

Recommendation for approval:

DATE 4-3-06

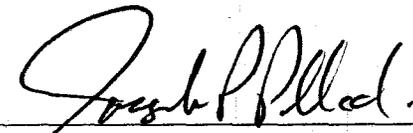
  
Project Manager

DATE 4.4.06

  
Traffic Safety & Design Engineer

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

DATE 4/10/06

  
State Transportation Planning Administrator

DATE \_\_\_\_\_

State Financial Management Administrator

DATE \_\_\_\_\_

State Environmental/Location Engineer

DATE \_\_\_\_\_

District Engineer

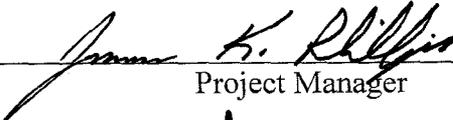
DATE \_\_\_\_\_

Project Review Engineer

Project Concept Report Page 2  
Project Number: CSSTP-0007-00(291)  
P.I. Number 0007291  
County: Jackson  
Prepared by: ARCADIS

Recommendation for approval:

DATE 4-3-06

  
\_\_\_\_\_  
Project Manager

DATE 4.4.06

  
\_\_\_\_\_  
Traffic Safety & Design Engineer

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental/Location Engineer

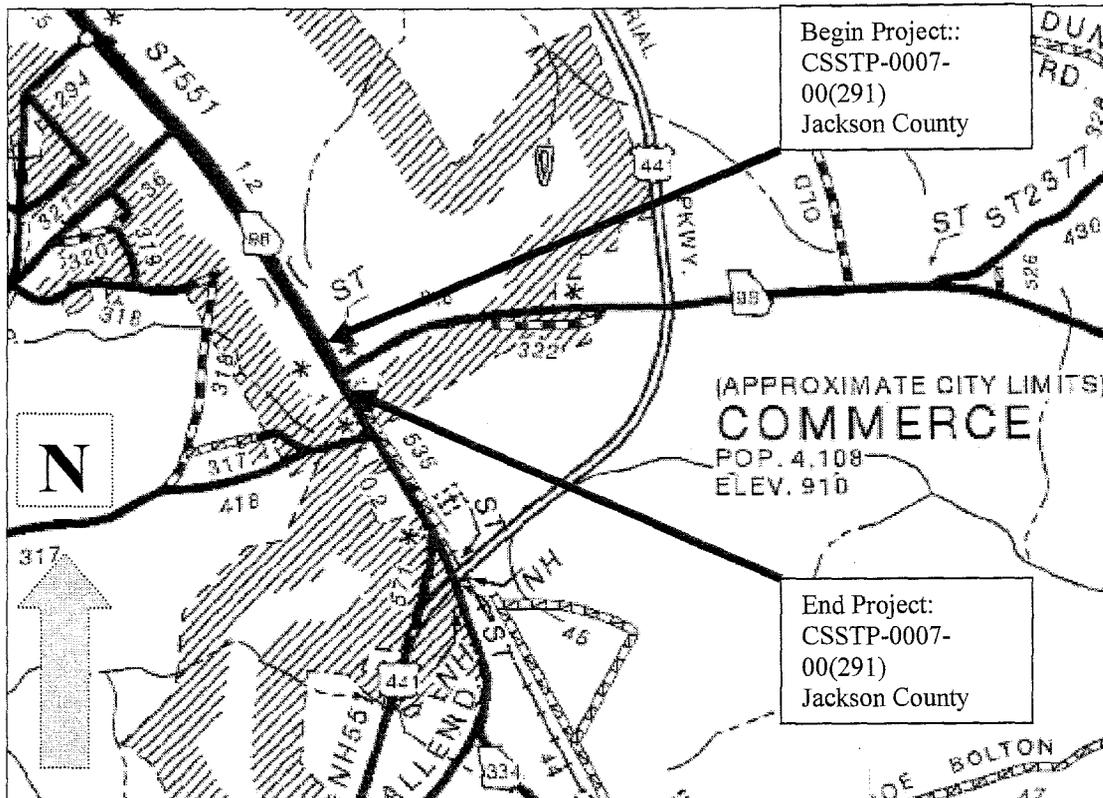
DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

Project Location Map



**Project:** CSSTP-0007-00(291) Jackson County **PI No.:** 0007291  
**Description:** SR 98/ SR 334 & SR 98/ Ila St / Norfolk Southern RR

Project Concept Report Page 4  
Project Number: CSSTP-0007-00(291)  
P.I. Number 0007291  
County: Jackson  
Prepared by: ARCADIS

### **Need and Purpose:**

Project CSSTP-0007-00(291) in Jackson County will reconstruct 0.22 miles of SR 98/ SR 334 to allow for the installation of train activated warning devices in advance of the at-grade highway-rail crossing. Approximately 300 feet of SR 98 / Ila St will be reconstructed to provide a right turn lane onto SR 98/ SR 334 to keep drivers moving while the bells, lights & gates are in operation.

The 2005 traffic volume is 4188 for SR 98/ Ila St and 8260 for SR 98/SR 334. There are a total of 63 school buses that use this highway-railroad crossing on a daily basis during the school year.

There are no known large projects within the immediate project area.

There are no accidents on record for the NS Railroad Crossing 717696D.

This safety project is necessary to allow for the installation of train activated warning devices (Bells, Lights, & Gates) along SR 98 / Ila St. at US DOT / AAR Crossing No. 717696D. The existing geometry of the roadway intersection will not allow for the installation of the equipment (Bells, Lights, & Gates).

**Description of the proposed project:** This project is located in Jackson County, Georgia. The project begins just north of the NS railroad crossing on SR 98/ SR 334 and also involves minimal reconstruction of SR 98 / Ila St. which will be widened approximately 12' to allow for a right turn lane onto SR 98/ SR 334. The reconstruction of SR 98/ SR 334 will allow vehicles to approach the crossing at a much safer intersecting angle and provide for the installation of Bells, Lights, and Gates to forewarn motorists of arriving trains. Raised concrete islands will be installed at the intersection of SR 98/ Ila St & SR 98/ SR 334 to guide traffic through the intersection.

**SR 98/ SR 334**

The existing roadway consists of four 12' lanes approaching the railroad crossing. SR 98/ SR 334 partially includes curb and gutter with no sidewalk.. The improved facility will include 4 12' lanes with curb and gutter and sidewalk.

**SR 98/ Ila St**

The existing roadway consists of two 12' lanes with a rural shoulder. The East Side of SR 98/ Ila St includes a shopping center with no driveway control between the state route and the shopping center. The improved roadway will include two 12' lanes with curb and gutter and sidewalk through this area. A right turn lane will be added to SR 98/ Ila St onto SR 98/ SR 334.

**Is the project located in a Non-attainment area?**  Yes  No.  
**PDP Classification:** Major ( ), Minor (X)

**Federal Oversight:** Full Oversight ( ), Exempt(X), State Funded( ), or Other ( )

**Functional Classification:** Urban Minor Arterial

**U. S. Route Number(s):** NA **State Route Number(s):** 334 & 98

**Traffic (AADT):**

**SR 98/ SR 334**  
Current Year: (2005) 8260  
Design Year: (2007) 9086

**SR 98/ Ila St**  
Current Year: (2005) 4188  
Design Year : (2007) 4610

**Existing design features:**

Typical Section No. 1 (SR98/ SR 334)

Existing two lane urban typical section consisting of four 12' lanes with a variable width grass median, crowned at the centerline of pavement, sloped approximately 2% to the outside. Existing fill/cut slopes range from 2:1 to 6:1 and form either longitudinal ditches

or tie into existing ground at or near the existing R/W. The median of SR 98/ SR 334 includes the Norfolk Southern Railroad.

Typical Section No. 2 (SR 98/ Ila St)

Existing two lane urban typical section consisting of 12' lanes, crowned at the centerline of pavement, sloped approximately 2% to the outside with paved shoulders. This section of the project is north-east of the railroad crossing.

- Posted speed 45 mph Maximum degree of curvature: 9°50'
- Maximum grade: Urban – 6.00%
- Width of right of way: 120'
- Major structures: None
- Major intersections along the project: See Below
- Norfolk Southern RR XING 717696D
  
- **Proposed Design Features:**
- Proposed typical section(s): Proposed four lane typical section consisting of 12' lanes sloped approximately 2% to the outside with curb and gutter and sidewalk. Proposed fill/cut slopes range from 2:1 to 6:1 and will form either longitudinal ditches or tie into existing grades.
- Proposed Design Speed: 45 MPH
- Proposed Maximum grade (Urban): Match Existing
- Proposed Maximum grade driveway: Match Existing
- Proposed Maximum degree of curve (Urban): 9°-50'
- Right of way
  - Width : 140'
  - Easements: Temporary (X), Permanent (X), Utility (X), Other ( ).
  - Type of access control: Full ( ), Partial ( ), By Permit ( X), Other ( ).
  - Number of parcels : 9
  - Number of displacements:
    - Business: 0
    - Residences 0
    - Mobile homes
    - Other: None
- Structures:
  - None
- Major intersections:
  - NS RR Crossing 717696D
- Traffic control during construction: Traffic control will maintain four-lane, two-way traffic utilizing minimum lane widths in conjunction with applicable work-zone signs, barriers, and barricades to facilitate construction of the passing lanes, shoulders, and milling and resurfacing operations, and other roadway improvements.

- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROADWAY WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

None of the above design criteria, indicated as "NO", will require a design exception, based on field review information and proposed improvements.

- Design Variances; It is anticipated that no design variances will be required for design criteria which do not require a design exception.
- Environmental concerns:
  - **Potential Underground Storage Tanks:** Gas station just north of project limits on SR 98/ Ila St.,
  - **Potential Hazardous Waste Sites:** None known at this time
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes (X) No ( ),
  - Categorical exclusion (X)
  - Environmental Assessment/Finding of No Significant Impact (FONSI) ( ), or Environmental Impact Statement (EIS) ( )
- Utility involvements: Standard distribution utilities within project limits.

**Project responsibilities:**

- Design, ARCADIS
- Right of Way Acquisition, LGPA
- Relocation of Utilities, LGPA
- Letting to contract, GDOT
- Supervision of construction, GDOT
- Providing material pits, Contractor
- Providing detours. Contractor (If Required)

**Coordination**

- Concept meeting date and brief summary
- Local government comments
- Other projects in the area - To be verified with GDOT
- L & D Notice

**Scheduling – Responsible Parties’ Estimate**

- Time to complete the environmental process:   4   Months.
- Time to complete preliminary construction plans:   3   Months.
- Time to complete right of way plans:   2   Months.
- Time to complete the Section 404 Permit:   4   Months.
- Time to complete final construction plans:   2   Months.
- Time to complete to purchase right of way:  10  Months.
- List other major items that will affect the project schedule:   0   Months.

**Other alternates considered:**

1. No Build –.
2. Install Traffic Signal

**Comments:**

**Attachments:**

1. Cost Estimates:
  - a. Construction including E&C,
  - b. Right of Way – By LGPA
  - c. Utilities – By LGPA
2. Typical Sections
3. Environmental Scan
4. Ecology Memorandum
5. Concept Team Meeting Minutes
6. Location & Design Notice

Project Number: CSSTP-0007-00(291)  
P.I. Number 0007291  
County: Jackson  
Prepared by: ARCADIS

## PRELIMINARY COST ESTIMATE

PREPARED BY: ARCADIS

PROJECT LENGTH: 0.22 MILES

<b>PROJECT COST</b>	
<b>A. RIGHT-OF-WAY:</b>	
1. PROPERTY (LAND & EASEMENT)	By LGPA
2. IMPROVEMENTS	By LGPA
3. DISPLACEMENTS; RES: 0, BUS: 0, M.H.: 0	By LGPA
4. PROPERTY MANAGEMENT (ASBESTOS REMOVAL AND DEMO)	By LGPA
5. OTHER COST (DAMAGES, ADM. / COURT, INFL., ETC.)	By LGPA
<b>SUBTOTAL: A</b>	<b>By LGPA</b>
<b>B. REIMBURSABLE UTILITIES:</b>	
1. TRANSMISSION LINES:	By LGPA
2. DISTRIBUTION LINES	By LGPA
3. OTHER UTILITIES	By LGPA
<b>SUBTOTAL: B</b>	<b>By LGPA</b>
<b>C. CONSTRUCTION:</b>	
1. MAJOR STRUCTURES: None	\$0
SUBTOTAL: C-1	\$0
2. GRADING AND DRAINAGE:	
a. EARTHWORK	\$65,000
b. DRAINAGE	\$25,000
c Curb & Gutter, Sidewalk	\$8,500
SUBTOTAL: C-2	\$98,500
3. BASE AND PAVING:	
a. 12" GR AGGR BASE CRS - (412 Ton @ \$18 / Ton)	\$7,416
b. ASPHALT PAVING:	
1. Asph Conc, 4" superpave base (1065 tons x \$39)	\$41,535
2. Asph Conc, 2" superpave binder (715 tons x \$39)	\$27,885
3. Asph Conc, 1 1/2" superpave surface (550 tons x \$39)	\$21,450
SUBTOTAL: C-3.b	\$90,870

c. BITUMINOUS TACK COAT - (2,077 gal x \$1.20)	\$2,492
d. Milling, Asph Conc, 1 1/2" (1000 SY x \$1.68)	\$1,680
SUBTOTAL: C-3	\$102,458
4. LUMP ITEMS:	
a. TRAFFIC CONTROL(.50 mi.@ \$110,000/mile)	\$55,000
b. CLEARING AND GRUBBING (1.2 Acres @ \$11,000/Acre)	\$13,200
c. GRASSING (.5 miles @ \$20,500/mile)	\$10,250
d. EROSION CONTROL (.5 miles @ \$52,500 / mile)	\$26,250
e. SIGNALS	
1. Train Activated Warning Devices(Bells,Lights&Gates)	\$200,000
SUBTOTAL: C-4.e	\$200,000
SUBTOTAL: C-4	\$304,700
5. MISCELLANEOUS:	
a. SIGNING & STRIPING	\$30,000
b. FIELD OFFICE	\$0
e. GUARDRAIL	\$0
SUBTOTAL: C-5	\$30,000
<b>SUBTOTAL C:</b>	<b>\$535,658</b>

Project Number: CSSTP-0007-00(291)  
 P.I. Number 0007291  
 County: Jackson  
 Prepared by: ARCADIS

<b>ESTIMATE SUMMARY</b>		
A. RIGHT-OF-WAY:		<b>By LGPA</b>
B. REIMBURSABLE UTILITIES:		<b>By LGPA</b>
C. CONSTRUCTION:		
1. MAJOR STRUCTURES	\$0	
2. GRADING AND DRAINAGE	\$98,500	
3. BASE AND PAVING	\$102,458	
4. LUMP ITEMS	\$304,700	
5. MISCELLANEOUS	\$30,000	
6. SPECIAL FEATURES	\$0	
SUBTOTAL CONSTRUCTION COST	\$535,658	
E. & C. (10%)	\$53,566	
INFLATION (5% PER YEAR)	\$80,349	
NUMBER OF YEARS: 3		
TOTAL CONSTRUCTION COST		<b>\$669,573</b>
<b>GRAND TOTAL PROJECT COST</b>		<b>\$669,573</b>



ARCADIS G&M, Inc.  
2849 Paces Ferry Road  
Suite 400  
Atlanta  
Georgia 30339  
Tel 770 431 8666  
Fax 770 435 2666

**MEMO – Environmental Scan**

To:  
Georgia Department of Transportation

Copies:

From:  
Bonnie Peacock  
ARCADIS  
Environmental Specialist

Date:  
September 22, 2005

ARCADIS Project No.:  
GA063229.0814

Subject:  
SR 334 & SR 98 Ila St/Norfolk Southern Railroad  
Project Number CSSTP-0007-00(291), Jackson County, P.I. No. 0007291

On August 18, 2005 ARCADIS completed a field reconnaissance site visit for the subject project. The purpose of this site visit was to identify potential environmental constraints associated with the improvements to the at grade railroad crossing of the Norfolk Southern Railroad and SR 334/SR98 located within the downtown city limits of Commerce, Jackson County.

Within the project limits and the project's area of potential effect, the following potential environmental constraints were noted:

A Citgo gas station is located at the intersection of Ila St/SR 98 and SR 334, thus UST's and potential contaminants. Should right-of-way be acquired from this site, subsurface investigations would be necessary. Additionally, a Pure auto shop is within the project limits.

Three to four structures exist within the limits of the project that may be eligible for listing in the National Register of Historic Places. A historic resources survey report and an archaeological resources survey report will be necessary for compliance with Section 106 of the National Historic Preservation Act will be necessary. Avoidance of all resources or the taking of property from any eligible resources should be avoided during preliminary design. It is unlikely that any archaeological resources exist within the project corridor due to previous roadway and railroad construction activities

It does not appear that any impact would occur to residents or neighborhoods in that none exist within the immediate project area. The corridor is comprised mainly of commercial businesses, none of which are unique to the area. No relocations are anticipated. Air and Noise surveys should not be necessary for this safety improvement project.

# MEMORANDUM

---

**Ecology Memorandum**  
SR 98 RR Crossing Safety Project  
Commerce, Georgia

CSSTP-0007-00(291)  
P.I. No. 0007291

Prepared for The Office of Environment/Location  
Georgia Department of Transportation

April 11, 2005

Prepared by ARCADIS

Preparer:

\_\_\_\_\_  
Sara M. Moore

---

## INTRODUCTION

This Ecology Memorandum provides an assessment of natural systems on one site associated with the State Road (SR) 98/U.S. Highway 441 and Norfolk Southern Railroad Crossing Safety Project [CSSTP-0007-00(291); P.I. No. 0007291], which is part of the Railroad Crossing Hazard Elimination Program. This railroad and street crossing is located in Commerce, Georgia (Figure 1).

## Project Description

The Railroad Crossing Hazard Elimination Program improves the existing railroad crossings by road realignment and construction of train-activated warning devices throughout Georgia. One of these railroad crossings is within the Commerce city limits in Jackson County, Georgia. The Commerce project will consist of the installation of train-activated warning devices, including bells, flashing lights, and gates following road realignment to create a more perpendicular and safe SR 98, U.S. Highway 441, and Norfolk Southern Railroad crossing (RR # 717696D). Most construction for this project would occur within existing rights-of-way (ROW); however, some additional ROW would be required for the road realignment in this project.

The proposed project corridor lies along the ridge between two drainage basins, Hydrologic Unit Code (HUC) 03070101 of the Upper Oconee River basin and HUC 03060104 of the Broad River basin on the Commerce, Georgia United States Geologic Survey (USGS) 7.5-minute topographic sheet. Approximate coordinates of the median point in the project are Latitude 34° 11' 44" North and Longitude 83° 26' 75" West.

## Need and Purpose

The purpose of the project is to improve railroad and street crossing safety at the Commerce, Georgia, SR 98/U.S. 441 crossing (RR # 717696D). The project will provide safety features such as bells, lights, and gates to increase driver awareness of passing trains at the proposed intersection. This intersection includes potential traffic from six directions

converging at the railroad crossing (including Harris Street, which terminates at the intersection). The SR 98 and railroad intersection is a four-way stop located at the railroad crossing, thus it creates an unsafe, blind road crossing. The intersection needs to be realigned with improved traffic flow for increased visibility and public safety. The proposed project will improve overall public safety at the designated intersection.

## **HABITAT DESCRIPTION AND PROJECT EFFECTS**

### **Water Quality**

The project corridor lies along the ridge separating two watersheds. Waters located within the proposed project area are split between the Broad River basin within HUC 03060104 and the Upper Oconee basin within HUC 03070101. At the time of the site visit, no jurisdictional streams or wetlands were identified within the project corridor. Additionally, review of Hydrologic Atlas 18 indicates that the project area does not lie within a significant recharge area for the state of Georgia. Grove River Reservoir approximately six miles north northwest of the proposed project is the closest public water intake. No water resources would be impacted by the proposed project.

The proposed project is not expected to decrease the overall quality of water available or the water supply (e.g., drinking water or other water consumptive purposes). The proposed project would not result in a large demand from available water resources and would not degrade the quality of waters in the state.

### **Floodplain**

Executive Order 11988 requires the avoidance of floodplain impacts to the greatest extent possible. A survey of the project corridor and a review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) were performed. The proposed project is exclusively within existing developed ROW and would involve minimal land disturbance. The project corridor is located within an area determined to be outside the 100-year floodplain located on FEMA map 1303450125A dated November 16, 1990 (Attachment 1).

### **Biotic Resources**

Field surveys were conducted on February 17, 2005. Prior to the survey, background research was conducted, including the study of area soils, geology, and aerial photographs.

Due to the surrounding development, including residences, businesses, roadsides, and mowed utility rights-of-way, plant and animal populations are limited. The groundcover composition primarily consists of common edge species including *Festuca* sp. (fescue grass) and *Trifolium repens* (white clover). Most animal populations would be confined to undeveloped areas, which are outside of the project area. The railroad easement contains primarily grass species surrounding the railroad right-of-way, but these areas are not expected to support a significant wildlife population.

### *Migratory Bird Habitat*

The Migratory Bird Treaty Act protects all common wild birds found in the United States, except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, dove, and wild turkey. The Migratory Bird Treaty Act decrees that all migratory birds and their parts (including eggs, nests, and feathers) are fully protected. The project area consists of residential and commercially developed land and roadway ROW. No prime habitat for migratory birds would be impacted as a result of the proposed project. Therefore, impacts to migratory birds are not anticipated.

### *Essential Fish Habitat*

Essential fish habitat is defined for federally managed fish species as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” Essential fish habitat can be found in the following Georgia counties: Camden, Glynn, McIntosh, Liberty, Bryan, and Chatham. Essential fish habitat is not found in Jackson County; therefore, no essential fish habitat will be impacted by the proposed project.

### *Invasive Species*

In accordance with Executive Order 13112, a survey for populations of invasive species that may be spread during construction was conducted for this project. No invasive species were located within the proposed ROW during the field survey. If any invasive species are encountered, the Department will take measures during project construction to prevent or minimize the spread of these species as appropriate for the time of the year. These measures will include removing and disposing of vegetative parts in the soil that may reproduce by root raking prior to moving the soil, burning on site any such parts and aboveground parts that bear fruit, controlling or eradicating infestations prior to construction, and cleaning vehicles and other equipment prior to leaving the infested site. The measures used will be those that are appropriate for the particular species and the specific site conditions on the project, as described in Georgia Standard Specifications Section 201, Clearing and Grubbing of ROW.

### **Jurisdictional Waters of the United States**

Under provisions of Executive Order 11990 and subsequent federal regulations, jurisdictional wetland determinations were performed using parameters described in the *1987 Army Corps of Engineers Wetlands Delineation Manual* and supplementary technical literature for hydrophytic vegetation, hydric soils, and hydrology indicators. No jurisdictional wetlands or waters were identified during field surveys of the project area.

### **Protected Species**

A list of threatened and endangered species was obtained from the Georgia Department of Natural Resources (DNR) and the U.S. Fish and Wildlife Service (USFWS). One federal-listed species and one additional state-listed species were found to potentially occur in Jackson County. The project corridor was surveyed on February 17, 2005, to determine the existence of any listed species or suitable habitat. No federal- or state-listed species or their associated habitats were identified during field studies. Table 1 lists federal and state threatened and endangered species, their federal and state status, the existence of suitable

habitat within the survey corridor, and the conclusion of effect. Because the proposed project is exclusively within existing developed ROW and involves minimal land disturbance, no effect on any listed species is anticipated.

**Table 1. Federal and State Threatened and Endangered Species of Potential Occurrence in Jackson County**

Common Name	Scientific Name	Federal Status*	State Status*	Suitable Habitat	Biological Conclusion of Effect
bald eagle	<i>Haliaeetus leucocephalus</i>	T	E	None	None
Altamaha shiner	<i>Cyprinella xaenura</i>	N/A	E	None	None

### Erosion Control

The proposed railroad crossing improvements would not encroach within any stream buffer areas. However, precautions would be taken to minimize impacts to water resources and water quality in the project area. Due to increased amounts of exposed soils, the project would be expected to produce some increased siltation within wetlands and streams during the construction phase. Although no jurisdictional areas are located within the project limits, downstream communities may be present. Under the provisions of the Georgia Erosion and Sedimentation Act of 1975, as amended, and the Federal-Aid Policy Guide, Part 650, Subpart B, the project is required to include measures to control erosion and sedimentation. All land-disturbing activities must comply with state and local erosion and sediment control and stormwater management regulations.

Provisions in the construction contract would require the contractor to utilize best management practices (BMPs) during construction to prevent the pollution and sedimentation of streams in the project vicinity. These include the following:

- 1) Preservation of roadside vegetation beyond the limits of construction where possible;
- 2) Early revegetation of disturbed areas so as to minimize soil erosion;
- 3) The use of slope drains, detention/retention structures, or surface, subsurface, and cross drains, designed as appropriate or needed, so that discharge would occur in locations and in such a manner that surface and subsurface water quality would not be affected (the outlets may require aprons, bank protection, silt basins, and energy dissipaters);
- 4) Inclusion of construction features for the control of predicted erosion and water pollution in the plans and specifications and contract pay items (Georgia Standard Specifications –1993, Sections 161 through 171 and 700 through 715 identify the pollution control measures that may be used);
- 5) The dumping of chemicals, fuels, lubricants, bitumens, raw sewage, and other harmful waste into or alongside of streams or impoundments, or into natural or manmade channels leading thereto, would be prohibited;
- 6) Compliance with terms of the National Pollution Discharge Elimination System (NPDES) permit for construction activities to include preparation and submittal of project Notice of Intent (NOI) and Notice of Termination