

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** PESTP-0007-00(239) Fulton County **OFFICE** Preconstruction  
P. I. No. 0007239  
SR 400/SR 140 Ramp Improvements **DATE** January 19, 2005

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

**TO** SEE DISTRIBUTION

**SUBJECT** PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

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

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District Seven

PROJECT CONCEPT REPORT

FULTON COUNTY

PROJECT NUMBER: PESTP-0007-00(239)

FEDERAL ROUTE NO: N/A  
STATE ROUTE NO: 400  
GADOT PI Number: 0007239  
Southbound Exit 7 Ramp Improvement

SEE ATTACHED  
LOCATION SKETCH

Date of Report: 12/17/04

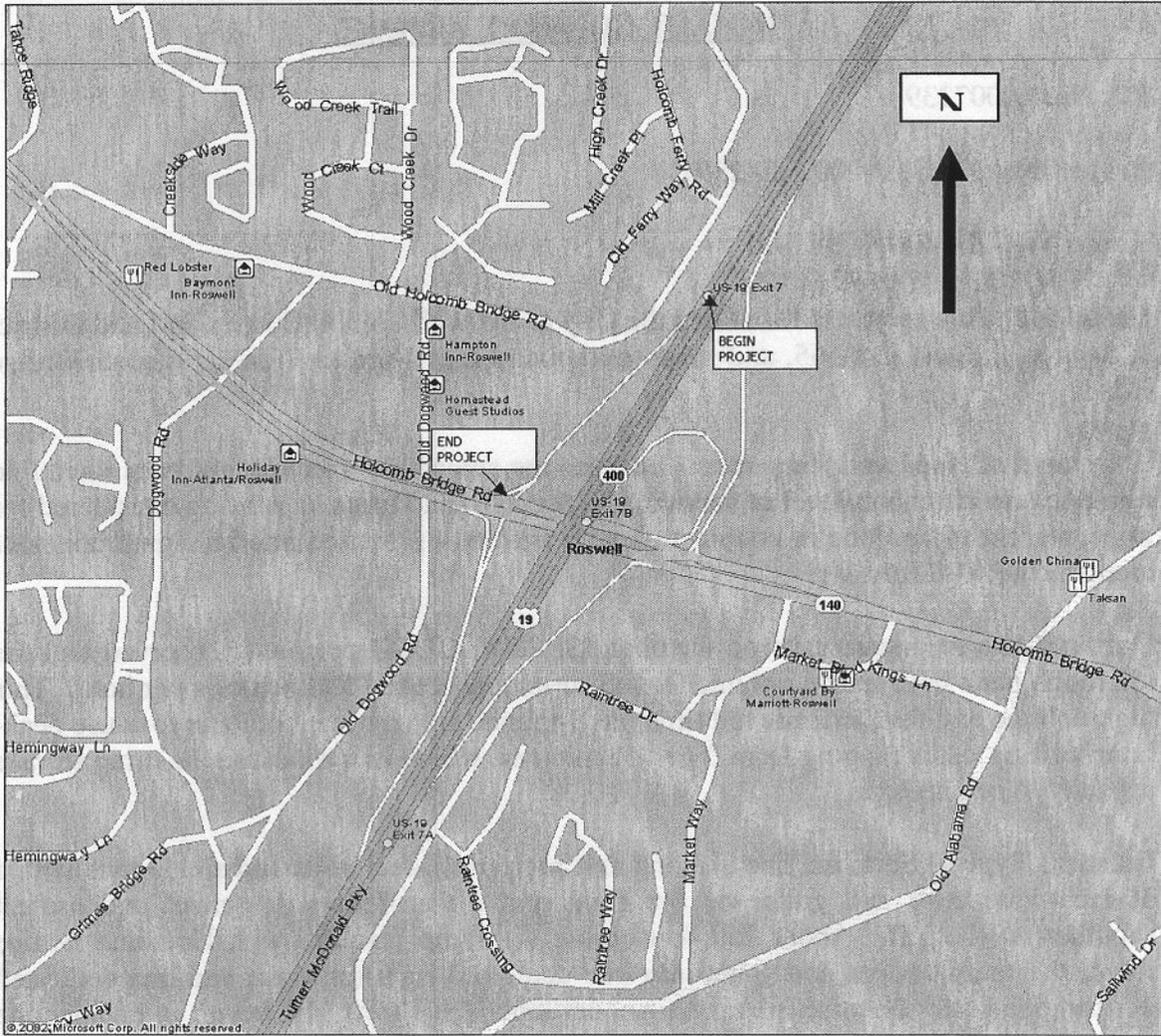
This concept as presented herein and submitted for approval is consistent with operational improvements.

RECOMMENDED: 1-5-05 Phillip N. Allen  
DATE STATE TRAFFIC SAFETY AND DESIGN ENGINEER

RECOMMENDED: 12/21/04 Bryant Poole  
DATE DISTRICT ENGINEER

RECOMMENDED: 1/13/05 Paul W. Math  
DATE CHIEF ENGINEER

APPROVED: 1-13-05 Harold E. Linnick  
DATE COMMISSIONER



## Project Location Map

P.I. No. 0007239

Description of the Project: The map shows the project location in the Roswell area, Georgia. The project is located on US-19, between the intersection of Dogwood Rd and Holcomb Bridge Rd. The project area is bounded by the 'BEGIN PROJECT' and 'END PROJECT' markers. The map shows the surrounding roads, including Dogwood Rd, Holcomb Bridge Rd, and various local streets. Key landmarks and businesses are also indicated, such as the Red Lobster, Hampton Inn, and Courtyard by Marriott. The map includes a north arrow and a scale bar.

Estimated Left-Turning 30 HV: Current Year (2004): 500  
 Design Year (2024): 900  
 Assumed Growth Factor = 0.03

## PROJECT CONCEPT REPORT

**P.I. No.:** 0007239

**Project No.:** PESTP-0007-00(239)

**Route No.:** SR 400 @ SR 140

**Location:** This project is located in the City of Roswell, Fulton County, in Land District 1, Section 2, Land Lot 565, and is on southbound Exit Number 7 onto Holcomb Bridge Road.

**Statement of Need and Purpose:** Because the subject intersection has been identified as having an afternoon level of service of F for left-hand turns, it is being considered for improvement to be done in conjunction with formerly proposed arterial signal upgrades along the SR 400 corridor.

During a site reconnaissance on October 13, 2004, GDOT personnel observed that the afternoon peak-hour traffic volume for left turning exceeded 500 vehicles per hour. This high volume and the 2-minute red time per 3-minute signal cycle combine to cause peak-hour waiting times ranging from 3 to 4 ½ minutes, which in turn, cause the ramp storage capacity to be exceeded.

**Existing Typical Section:** The existing exit ramp is 16-feet wide and single-lane with a 30-inch-wide curb and gutter on the right and a four-foot-wide gravel and asphalt shoulder on the left. About 250 feet before the ramp junction with Holcomb Bridge Road, the ramp widens and splits into one dedicated right-turn lane and one dedicated left-turn lane (see the attached existing conditions plan sheet). However, in practice the entire length of the ramp accommodates two lanes of traffic with the 4-foot shoulder and 24-inch gutter serving as part of the travel way. Allowing for an average required length of 25 feet per stored vehicle per lane, the ramp has a left-turn storage capacity of about 50 vehicles.

**Description of the Project:** The major proposed improvement is increasing the width of the exit ramp from 16 feet to 36 feet by adding 20 feet of PCC pavement along the entire length of the right side to create two 12-foot-wide dedicated left-turn lanes and one 12-foot-wide dedicated right-turn lane(see the attached proposed improvement plan sheet). This addition would not only significantly increase the left-turning movement capacity but also increase the left-turning storage capacity by approximately 50 vehicles and should, therefore, markedly increase the level of service. Additionally, the existing curb and gutter is proposed to be replaced by V gutter per current GDOT standards.

**Estimated Left-Turning 30 HV:** Current Year (2004): 500  
Design Year (2024): 900  
Assumed Growth Factor = 0.03

**Existing Right of Way:** R/W varies but is ~100 feet from the right-side back of curb.

**Existing Traffic Control:** The existing traffic control consists of a traffic signal with one left turn signal on eastbound SR 140 (Holcomb Bridge Road) and a yield sign for westbound right-turning traffic.

**Existing Major Structures:** None

**Bicycle & Pedestrian Considerations:** We propose no pedestrian or bicycle traffic improvements.

**Length:** 0.25 mile (~1300 feet)

**Termini (SR 400)**  
**From M.P.:** 14.98  
**To M.P.:** 15.23

**PDP Class:** Minor project

**Functional Class:** Urban Other Freeways and Expressways

**Minimum Radius:** N/A

**Max Degree of Curve:** N/A

**Max Grades:** +/- 8%

**Design Speed:** 35 mph

**Proposed Typical Section:** See attached typical section.

**Proposed Major Structures:** None

**Type Access:** Unlimited

**Traffic Control during Construction:** Detours will not be necessary.

**Right-of-Way Requirements:** N/A

**Utilities:** Georgia Department of Transportation

**Estimated Cost:**

| <b><u>Item</u></b>      | <b><u>Total Amount</u></b>  |                     |
|-------------------------|-----------------------------|---------------------|
|                         | <b><u>FEDERAL/STATE</u></b> | <b><u>LOCAL</u></b> |
| Surveying               | \$5,000.00                  | \$0.00              |
| Preliminary Engineering | \$30,000.00                 | \$0.00              |
| R/W                     | \$0.00                      | \$0.00              |
| Utilities               | \$0.00                      | \$0.00              |
| Estimate LGPA Total     | \$0.00                      | \$0.00              |
| Construction            | \$300,000.00                | \$0.00              |
| Traffic Signal          | \$0.00                      | \$0.00              |
| Railroad Equipment      | \$0.00                      | \$0.00              |
| E & C                   | \$15,000.00                 | \$0.00              |
| <b>Total Project</b>    | <b>\$350,000.00</b>         | <b>\$0.00</b>       |

**Permits Required:** None

**Level of Environmental Analysis:** Categorical Exclusion

**Level of Public Involvement:** N/A

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

**Design Variances Required:** None expected

**Alternates Considered:** None

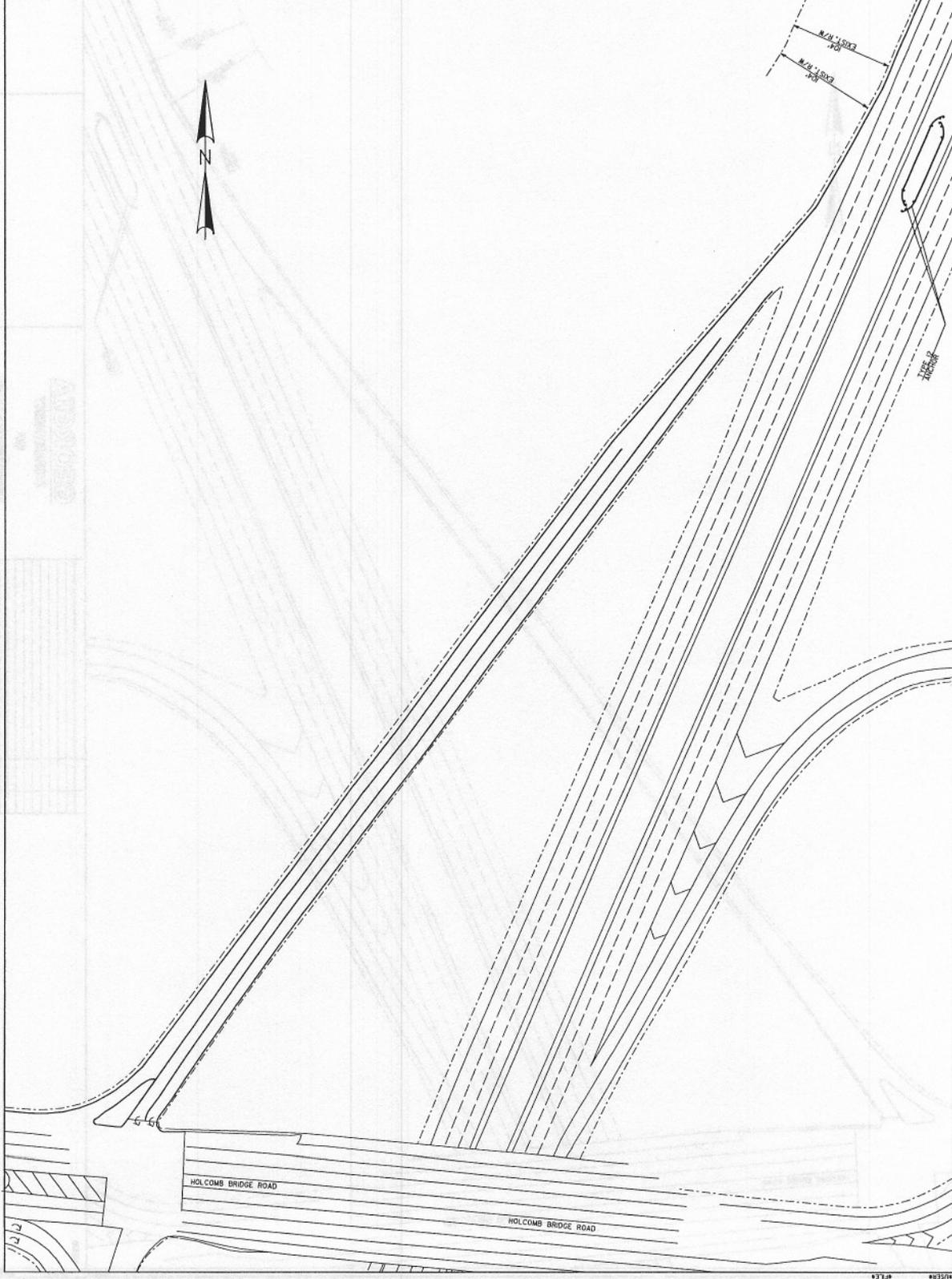
**Comments:** None

**Prepared by:** Jon Griffith, P.E.  
Design Engineer 1



|           |              |
|-----------|--------------|
| SHEET NO. | TOTAL SHEETS |
| 2         | 3            |

|       |                   |
|-------|-------------------|
| STATE | PROJECT NUMBER    |
| GA.   | PRSTP-0007-000370 |



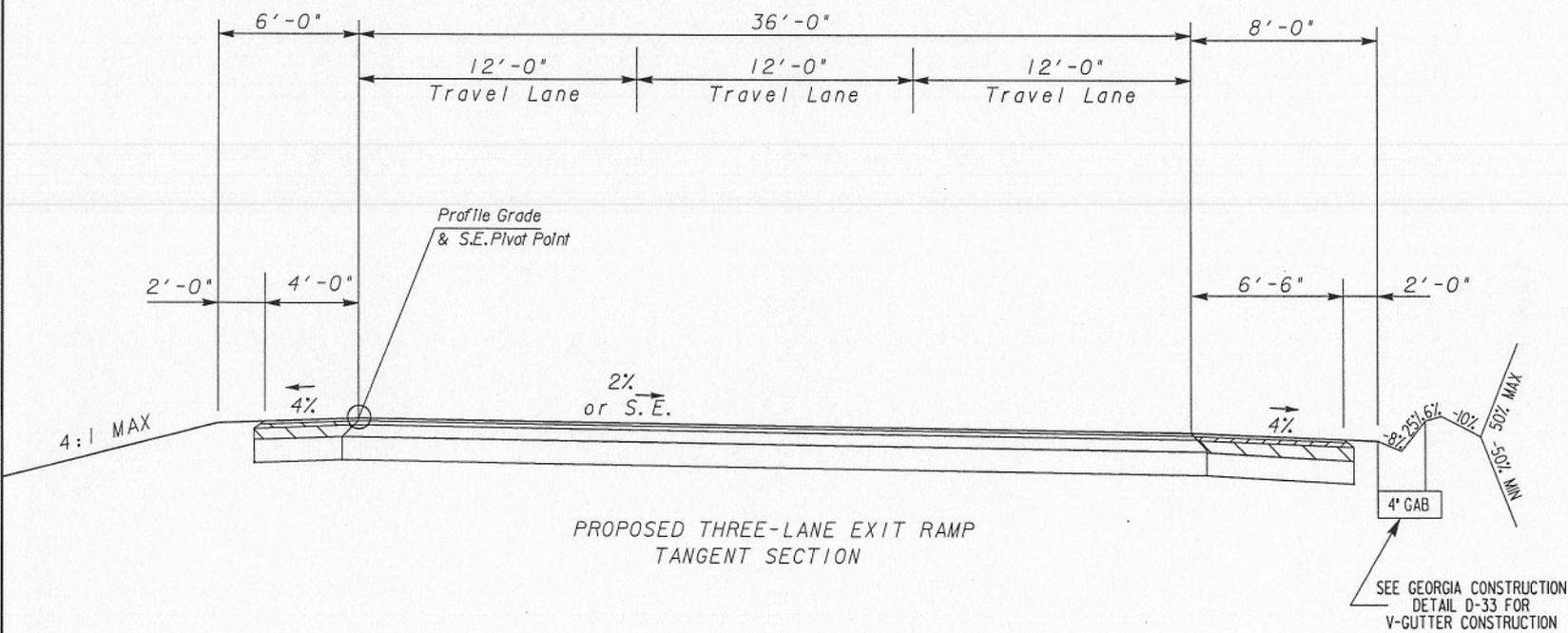
|          |             |             |             |
|----------|-------------|-------------|-------------|
| DESIGNER | CHECKED     | DATE        | SCALE       |
| DATE     | PROJECT NO. | PROJECT NO. | PROJECT NO. |

SR 400 @ SR 140/HOLCOMB BRIDGE ROAD  
SB EXIT NO. 7 IMPROVEMENT

PROPOSED IMPROVEMENT PLAN SHEET

|     |      |                         |
|-----|------|-------------------------|
| NO. | DATE | DESCRIPTION OF REVISION |
|     |      |                         |
|     |      |                         |

GEORGIA  
DEPARTMENT  
OF  
TRANSPORTATION



SR 400 SOUTHBOUND  
EXIT 7 RAMP  
IMPROVEMENT

**GEORGIA**  
DEPARTMENT  
OF  
TRANSPORTATION

NOT TO SCALE

| REVISION DATES |
|----------------|
|                |
|                |
|                |
|                |
|                |
|                |

STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: District 7 Preconstruction

**TYPICAL TANGENT SECTION**

DRAWING NO.  
**5-1**