

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0005825, Gwinnett County **OFFICE** Preconstruction
STP-0005-00(825)
Old Norcross Road ITS Installation **DATE** October 12, 2005

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

TO *MBP* SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

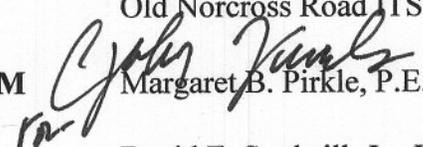
DISTRIBUTION:

Brian Summers
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Ken Thompson
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BOARD MEMBER
FHWA

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0005825, Gwinnett County **OFFICE** Preconstruction
STP-0005-00(825)
Old Norcross Road ITS Installation **DATE** September 19, 2005

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 consists of the installation of fiber optic communications cable and closed circuit television (CCTV) cameras along Old Norcross Road between Brekinridge Boulevard and West Pike Street (SR 120) for a total of 6.6 miles. Traffic volumes on Old Norcross Road have increased to 34,000 VPD. This arterial has become congested and operates below an acceptable level of service during peak hours. The purpose of this project is to enable arterial traffic monitoring, signal control and quicker incident response along Old Norcross Road in Gwinnett County from Brekinridge Boulevard to SR 120. An Intelligent Transportation System (ITS) will allow for improved signal progression and traffic surveillance as well as the ability to control signal timing to effectively manage traffic backup due to incidents along the roadway. The ITS system will allow for a more orderly progression of traffic through the corridor.

The project will consist of the installation of a communication backbone of fiber optic cable along Old Norcross Road from Brekinridge Boulevard to W. Pike Street (SR 120). The total project section is approximately 6.6 miles in length. There are 14 traffic signals within the project limits. All existing traffic signal controllers along the corridor will be spliced onto the fiber optic backbone. Closed Circuit Television cameras will be installed at specified locations along the corridor for traffic surveillance. The fiber optic backbone installed on this project will be connected to the 144 Fiber Backbone that is currently being designed for installation along SR 120. With future connections, all CCTV cameras and traffic signal controllers along the corridor will be connected by fiber optic cable with the Gwinnett County TCC and will be integrated into the Georgia DOT Navigator system.

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

David Studstill

Page 2

P.I. No. 0005825, Gwinnett
September 19, 2005

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)	\$1,201,000	\$1,392,000	Q23	2007
Right-of-Way & Utilities*	Local	Local		

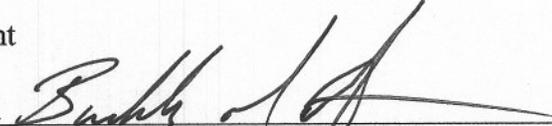
*Gwinnett County signed PMA on 2-17-05 for PE, right-of-way, utilities, and 20% of construction costs.

I recommend this project concept be approved and the project description be revised to reflect the project described herein.

MBP:JDQ/cj

Attachment

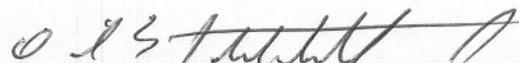
CONCUR


Buddy Gratton, P.E., Director of Preconstruction

APPROVE


For Robert M. Callan, Administrator, FHWA

APPROVE


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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: STP-0005-00(825) Gwinnett
P.I. No. 0005825
Old Norcross Road CCTV/ATMS

OFFICE: Engineering Services

DATE: September 15, 2005

FROM: Brian K. Summers, P.E., Project Review Engineer *REW*

TO: Meg Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT: CONCEPT REPORT

We have reviewed the Concept Report submitted September 8, 2005, and have no comments.

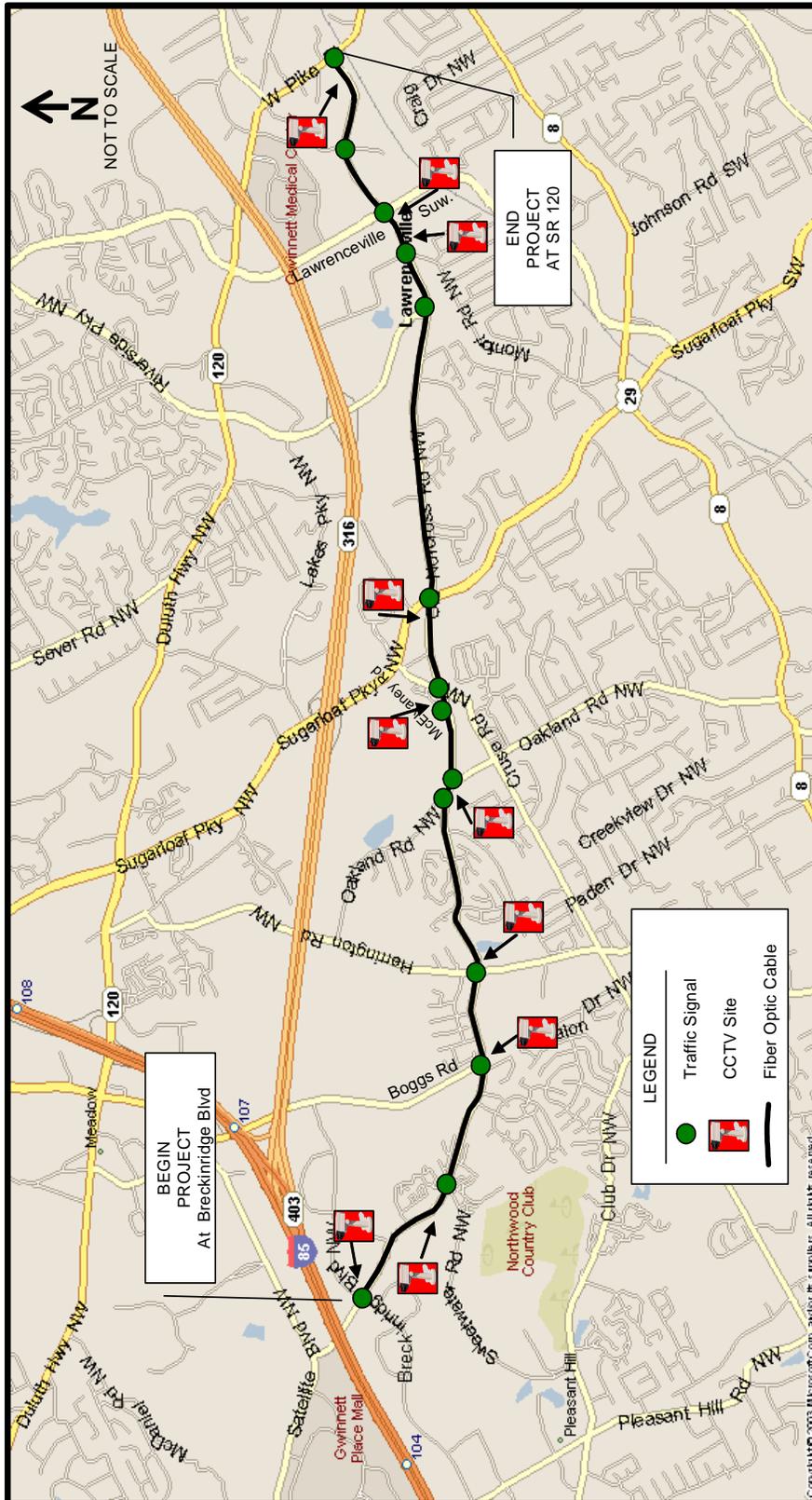
The costs for this project are:

Construction	\$1,039,504
Inflation	\$51,975
E & C	\$109,148
Reimbursable Utilities	\$0.00
Right of Way	\$0.00

REW

c: Keith Golden, Attn.: Jim Tolson

Figure 1 – PROJECT LOCATION MAP



OLD NORCROSS RD CCTV/ATMS PROJECT
 GWINNETT COUNTY DOT



Need and Purpose: The Old Norcross Road corridor currently has no communications that allow for surveillance and coordination of traffic operations in the area. In addition, the corridor currently does not have nor can support any Intelligent Transportation Systems (ITS) elements.

The purpose of the project is to establish the Advanced Traffic Management System (ATMS) communication route along the corridor. The project will provide a fiber optic backbone along the corridor for the deployment of various ITS elements.

Additionally, the fiber will provide communication route for the implementation of traffic signal coordination and monitoring. This coordination will improve existing traffic operations, minimize vehicular delay and improve overall safety along the designated corridor.

In addition to signal communication, the fiber backbone will allow for the placement of Closed Circuit Television (CCTV) cameras. The cameras will be mounted on strain poles, which will allow Gwinnett County and GDOT surveillance of the above-mentioned corridor. The addition of the fiber optic backbone, CCTV cameras and interconnection of the traffic signals will provide Gwinnett County the following options:

- Monitoring and early detection of arterial incidents
- Signal timing monitoring and fine tuning
- Signal trouble call verification allowing timely and proper dispatch of required resources
- Monitoring of accident “hot spots” to identify potential remedies
- Detour routes monitoring and implementation

Description of the proposed project:

The Gwinnett County Lawrenceville-Suwanee Road ATMS project expands upon the current Intelligent Transportation Systems (ITS) in Gwinnett County, GA. The project will consist of the installation of a communication backbone of fiber optic cable along Old Norcross Road from Breckinridge Boulevard to W. Pike Street (SR 120). The total project section is approximately 6.6 miles in length. There are 14 traffic signals within the project limit. All existing traffic signal controllers along the corridor will be spliced onto the fiber optic backbone. Closed Circuit Television (CCTV) Cameras will be installed at specified locations along the corridor for traffic surveillance.

The fiber optic backbone installed on this project will be connected to the 144 Fiber Backbone that is currently being design for installation along SR 120. With future connection, all CCTV cameras and traffic signal controllers along the corridor will be connected by fiber optic cable with the Gwinnett County TCC and will be integrated into the Georgia DOT NaviGator system.

Ten (10) CCTV sites along the Old Norcross Road corridor will be included in this project. The deployment includes the following sites:

CCTV Site	Location Old Norcross Rd
1	Northeast corner of Breckinridge Blvd
2	West of Sweetwater Rd on the south side of Old Norcross
3	Southeast corner of Boggs Rd
4	Southeast corner of Herrington Rd
5	Between the two legs of Oakland Rd on the south side of Old Norcross Rd
6	At McElvaney Rd
7	At Riverside Pkwy
8	East of Montford Rd on the south side of Old Norcross Rd
9	Southwest corner of Lawrenceville Suwanee Rd
10	West of SR 120 on the north side of Old Norcross Rd

Is the project located in a Non-attainment area? Yes No.

PDP Classification: Major Minor
Federal Oversight: Full Oversight (), Exempt(X), State Funded(), or Other ()

Functional Classification: Urban Minor Arterial

U. S. Route Number(s): N/A

State Route Number(s): N/A

Traffic (AADT):

Current Year: (2004) 34,000 Design Year: (20YY) N/A

Existing design features:

- Typical Section: (*Describe number & width of lanes, turn lanes, curb & gutter, sidewalks, etc.*): **4 lanes, Some sections have center TWLTL, Others have median**
- Posted speed: **45 MPH** Maximum degree of curvature: **N/A**
- Maximum grade: **N/A**
- Width of right of way: **Various**
- Major structures: _____ List all bridge structures including length, width, and sufficient rating).

Old Norcross Rd Over Yellow River Bridge:

Structure ID:	Length:	Width	Sufficiency Rating:
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- Major intersections along the project:

Old Norcross Rd at:

@ Breckinridge Blvd

@ Sweetwater Rd

@ Boggs Rd

@ Herrington Rd

@ Oakland Rd (N)

@ Oakland Rd (S)

@ McElvaney Rd

@ Cruse Rd

@ Sugarloaf Pkwy

@ Riverside Pkwy

@ Montford Rd

@ Lawrenceville Suwanee Rd

@ Hurricane Shoals Rd

@ W. Pike St (SR 120)

- Existing length of roadway segment: 6.6 Miles

Proposed Design Features:

- Proposed typical section(s): **Existing section will remain**
- Proposed Design Speed Mainline: **N/A**
- Proposed Maximum grade Mainline: **N/A** Maximum grade allowable **N/A**
- Proposed Maximum grade Side Street: **N/A** Maximum grade allowable **N/A**
- Proposed Maximum grade driveway: **N/A**
- Proposed Maximum degree of curve: **N/A** Maximum degree allowable: **N/A**
- Right of way: **Existing right-of-way width will remain**
 - Width _____.
 - Easements: Temporary (), Permanent (), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (), Other ().
 - Number of parcels: _____ Number of displacements:
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges (*Describe*): **N/A**
 - Retaining walls (*Describe alternates*): **N/A**
 - **Type IV strain poles for CCTV cameras inside the existing right-of-way will be required at identified locations**
- Major intersections and interchanges: **N/A**
- Traffic control during construction:
Traffic control for underground fiber optic cable installation will require shoulder closures only. Traffic signals will remain functioning during the construction. CCTV camera installation may require temporary right lane closure.

- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
ROADWAY WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	()	(X)
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
HORIZONTAL CLEARANCE:	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)

This area of the Concept Report is for the indication of potential deviations from the controlling criteria followed by the Department. A brief description of the potential deviation should be included in the report. A design exception must be granted for design exceptions.

- Design Variances: *(List design variances expected)*. **N/A**
- Environmental concerns: An environmental screening was performed for the project. There are no anticipated wetland/stream impacts or US Army Corps of Engineers permits. The environmental screening identified several potentially historic properties. No low income or minority populations or communities were identified in the study area during the environmental screening. Historic properties and environmental justice communities will be examined further as part of the Categorical Exclusion (CE) that is underway.
- Level of environmental analysis anticipated:
 - Are Time Savings Procedures appropriate? Yes (), No (**X**),
 - Categorical exclusion (**X**),
 - Environmental Assessment/Finding of No Significant Impact (FONSI) (), or
 - Environmental Impact Statement (EIS) ().
- Utility involvements: **New trunk fiber will be installed underground. Will coordinate with utility owners during construction.**

Project responsibilities:

- Design: **Gwinnett County DOT**
- Right of Way Acquisition: **None Required**
- Relocation of Utilities: **None Required**
- Letting to contract: **Gwinnett County DOT**
- Supervision of construction: **Gwinnett County DOT**
- Providing material pits: **N/A**
- Providing detours: **N/A**

Coordination

- Concept meeting date and brief summary. Attach minutes.
- P. A. R. meetings, dates and results: **None Required**
- FEMA, USCG, and/or TVA: **N/A**
- Public involvement. (*List coordination meetings with citizen groups, public officials, and public hearings and public information meetings. Give a brief summary of the significant meetings and the results and decisions as a result thereof.*): **N/A**
- Local government comments. (*Give a brief summary and attach minutes.*) **None**
- Other projects in the area:
 - GDOT P.I. No. 110530 Interstate 85/SR 316 Interchange Improvements

- Other coordination to date. **None**
- Railroads (*Discuss the ownership and future use of the railroad.*) **CSX Spur Crossing**

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: 3 Months.
- Time to complete preliminary construction plans: 4 Months.
- Time to complete right of way plans: N/A Months.
- Time to complete the Section 404 Permit: N/A Months.
- Time to complete final construction plans: 2 Months.
- Time to complete to purchase right of way: N/A Months.
- List other major items that will affect the project schedule:
 - Communication Control Board 3 Months.
 - Utility Coordination 3 Months
 - Railroad Approval 3 Months

Other alternates considered: (*Describe in summary and coordinate with environmental. If rejected ensure environmental is in agreement*).

Alternate 1: Installation of fiber trunk cable, ITS elements along the corridor and CCTV Camera Systems at ten identified locations along the corridor.

Alternate 2: No Build

Comments: N/A

Attachments:

1. Cost Estimate

Project Concept Report
 Project Number: STP-0005-00(825)
 P. I. Number: 0005825
 County: Gwinnett

PROJECT CONCEPT COST ESTIMATE

PROJECT NUMBER: STP-0005-00(825)
 DATE: August 11 2005
 PREPARED BY: Iteris, Inc.

COUNTY: GWINNETT
 ESTIMATED LETTING DATE: 2007
 PROJECT LENGTH: 6.6 MILES

()PROGRAMING PROCESS (X) CONCEPT DEVELOPMENT ()DURING PROJECT DEV

PROJECT COST	
A. RIGHT-OF-WAY	
1. PROPERTY (LAND & EASEMENT)	\$0
2. DISPLACEMENT; RES: 0, BUS; 0, M.H.: 0	\$0
3. OTHER COST (ADM./COST, INFLATION, ETC)	\$0
SUBTOTAL: A	\$0
B. REIMBURSABLE UTILITIES:	
1. RAILROAD	\$0
2. TRANSMISSION LINES	\$0
3. SERVICES	\$0
SUBTOTAL: B	\$0
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	\$0
a. OVERPASSES	\$0
b. OTHER	\$0
SUBTOTAL: C-1	\$0
2. GRADING AND DRAINAGE	
a. EARTH WORK	\$0
b. DRAINAGE	\$0
SUBTOTAL: C-2	\$0
3. BASE AND PAVING	
a. 8" GR AGGR BASE CRS -	\$0
b. ASPHALT PAVING	\$0
SUBTOTAL: C-3	\$0
4. LUMP ITEMS	
a. TRAFFIC CONTROL	\$20,000
b. CLEARING AND GRUBBING	\$0
c. GRASSING	\$5,000
d. EROSION CONTROL	\$10,000
SUBTOTAL: C-4	\$35,000
5. SIGNAL INSTALLATIONS: NONE	
SUBTOTAL: C-5	\$0
6. ATMS (SEE ATTACHED ATMS COST ESTIMATE FOR DETAILS)	
a. SIGNAL COMMUNICATIONS	\$704,504
b. CCTV CAMERA SYSTEMS	\$300,000
c. TCC UPGRADES	\$0
SUBTOTAL: C-6	\$1,004,504

Project Concept Report
 Project Number: STP-0005-00(825)
 P. I. Number: 0005825
 County: Gwinnett

PROJECT COST	
7. MISCELLANEOUS ITEMS:	
a. SIGNING & STRIPING	\$0
b. FIELD OFFICE	\$0
SUBTOTAL: C-7	\$0
8. SPECIAL FEATURES: NONE	
SUBTOTAL: C-8	\$0

ESTIMATE SUMMARY	
A. RIGHT-OF-WAY	\$0
B. REIMBURSABLE UTILITIES:	\$0
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	\$0
2. GRADING AND DRAINAGE	\$0
3. BASE AND PAVING	\$0
4. LUMP ITEMS	\$35,000
5. SIGNAL INSTALLATIONS:	\$0
6. ATMS	\$1,004,504
7. MISCELLANEOUS ITEMS	\$0
8. SPECIAL FEATURES	\$0
SUBTOTAL CONSTRUCTION COST	\$1,039,504
INFLATION (5% PER YEAR)	\$51,975
NUMBER OF YEARS:	1
TOTAL CONSTRUCTION COST	\$1,091,479
GRAND TOTAL PROJECT COST	\$1,091,479

This project is 100% in Gwinnett County, GDOT District 1 and Congressional District No. 11.

Project Concept Report
 Project Number: STP-0005-00(825)
 P. I. Number: 0005825
 County: Gwinnett

SCORING RESULTS AS PER TOPPS 2440-2

Project Number: STP-0005-00(825)		County: Gwinnett		PI No.: 0005825	
Report Date:		Concept By: DOT Office: Traffic Safety & Design			
<input type="checkbox"/> CONCEPT		Consultant: ITERIS			
Project Type: Choose One From Each Column		<input type="checkbox"/> Major <input type="checkbox"/> Minor	<input type="checkbox"/> Urban <input type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge <input type="checkbox"/> Building <input type="checkbox"/> Interchange <input type="checkbox"/> Intersection <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation					
Judgement					
Environmental					
Right of Way					
Utility					
Constructability					
Schedule					

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Office of Traffic Safety and Design

PROJECT CONCEPT REPORT

Project Number: STP-0005-00(825)

County: Gwinnett

P. I. Number: 0005825

Federal Route Number:

State Route Number:

Recommendation for approval:

DATE 8/30/05

DATE 8/30/05

James E. Toben
Project Manager
Heidi Bollen
State 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 the State Transportation Improvement Program (STIP).

DATE _____

State Transportation Planning Administrator

DATE _____

State Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

DATE 9/15/05

District Engineer
Brian K. Summers *REW*
Project Review Engineer

Project Concept Report
Project Number: STP-0005-00(825)
P. I. Number: 0005825
County: Gwinnett

NOTICE OF LOCATION AND DESIGN APPROVAL

PROJECT: STP-0005-00(825), GWINNETT COUNTY, P.I. NO. 0005825

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 the above projects.

Date of Location and Design Approval: OCTOBER 12, 2005

Project STP-0005-00(825) in Gwinnett County consists of installing CCTV cameras along Old Norcross Road, which is an important east-west corridor. The project will also install a fiber optic backbone for communications between the cameras and the Gwinnett TCC. The backbone will also connect to the ten (10) signalized intersections in the project limits.

The CCTV system will allow for the monitoring of the operation of the corridor from the TCC, allowing traffic engineers to adjust system parameters based on varying traffic demands. The system will also allow for incident detection and reaction.

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

Mr. Jim Tolson, Traffic Design Manager
935 E. Confederate Avenue
Wayne Shackelford Building
Atlanta, GA 30316
(404) 635-8139
email: jim.tolson@dot.state.ga.us

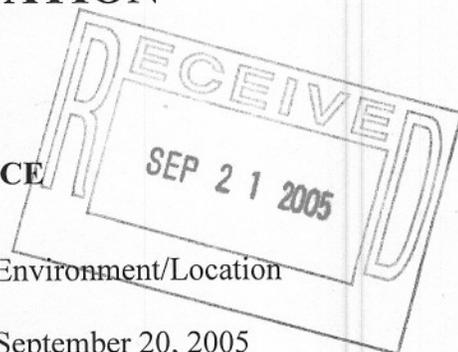
Any interested party may obtain a copy of the drawings or portions thereof by paying a nominal fee and requesting in writing to:

Keith Golden, P.E.
Office of Traffic Safety & Design
935 E. Confederate Avenue
Building 24
Atlanta, GA 30316
email: keith.golden@dot.state.ga.us

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE



FILE: P.I. No. 0005825

OFFICE: Environment/Location

DATE: September 20, 2005

A handwritten signature in black ink, appearing to read "Harvey D. Keepler".

FROM: Harvey D. Keepler, State Environmental/Location Engineer

TO: Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

SUBJECT: **PROJECT CONCEPT REPORT**
STP-0005-00(825) /Gwinnett County

The above subject concept report has been reviewed. This Office has no comment at this time.

If you have any questions, please contact me at (404) 699-4401.

HDK/lc

Attachment

cc: Brian Summers, P.E., Project Review Engineer
Keith Golden, State Traffic Safety and Design Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Office of Traffic Safety and Design

PROJECT CONCEPT REPORT

Project Number: STP-0005-00(825)

County: Gwinnett

P. I. Number: 0005825

Federal Route Number:

State Route Number:

Recommendation for approval:

DATE 8/30/05

DATE 8/30/05

Janna E. Toben
Project Manager
Heidi Sobben
State 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 the State Transportation Improvement Program (STIP).

DATE _____

State Transportation Planning Administrator

DATE _____

State Financial Management Administrator

DATE 9/20/05

Alvin...
State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer