

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**OFFICE OF DESIGN POLICY & SUPPORT  
INTERDEPARTMENTAL CORRESPONDENCE**

**FILE** P.I. # 0012626

**OFFICE** Design Policy & Support

Forsyth, Fulton, & Gwinnett Counties  
GDOT Districts: 1 - Gainesville  
7 - Metro Atlanta  
Johns Creek ITS Expansion

**DATE** 10/16/2014

**FROM**  for Brent Story, State Design Policy Engineer

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

**DISTRIBUTION:**

Glenn Bowman, Director of Engineering  
Joe Carpenter, Director of P3/Program Delivery  
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery  
Albert Shelby, State Program Delivery Engineer  
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Cynthia Burney, Project Manager  
BOARD MEMBER - 6th & 7th Congressional Districts

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

Project Type: STP P.I. Number: 0012626  
 GDOT District: 1, 7 County: Fulton, Gwinnett  
 Federal Route Number: \_\_\_\_\_ State Route Number: \_\_\_\_\_  
 Project Number: \_\_\_\_\_ N/A

**McGinnis Ferry Road, Abbots Bridge Road, State Bridge Road, and Pleasant Hill Road - ITS**

**Submitted for approval:**

BAGG HK 7.9.14  
 Alex Hofelich, PE, PTOE, Southeastern Engineering, Inc. (SEI) DATE  
[Signature] 7-9-2014  
 Thomas Black, City of Johns Creek Public Works Director DATE  
Albert Shelby 7-9-2014  
 ASH Albert V. Shelby, III, State Program Delivery Engineer DATE  
[Signature] 9/2/14  
 Cynthia C. Burney, PE, GDOT Project Manager DATE

**Recommendation for approval: (Delete any inapplicable signature lines)**

HIRSH PATEL\*/EKP 7/27/14  
 State Environmental Administrator DATE  
KATHY ZAHUL\*/EKP 8/12/14  
 State Traffic Engineer DATE

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

CINDY VANDUYKE\*/EKP 8/1/14  
 State Transportation Planning Administrator DATE

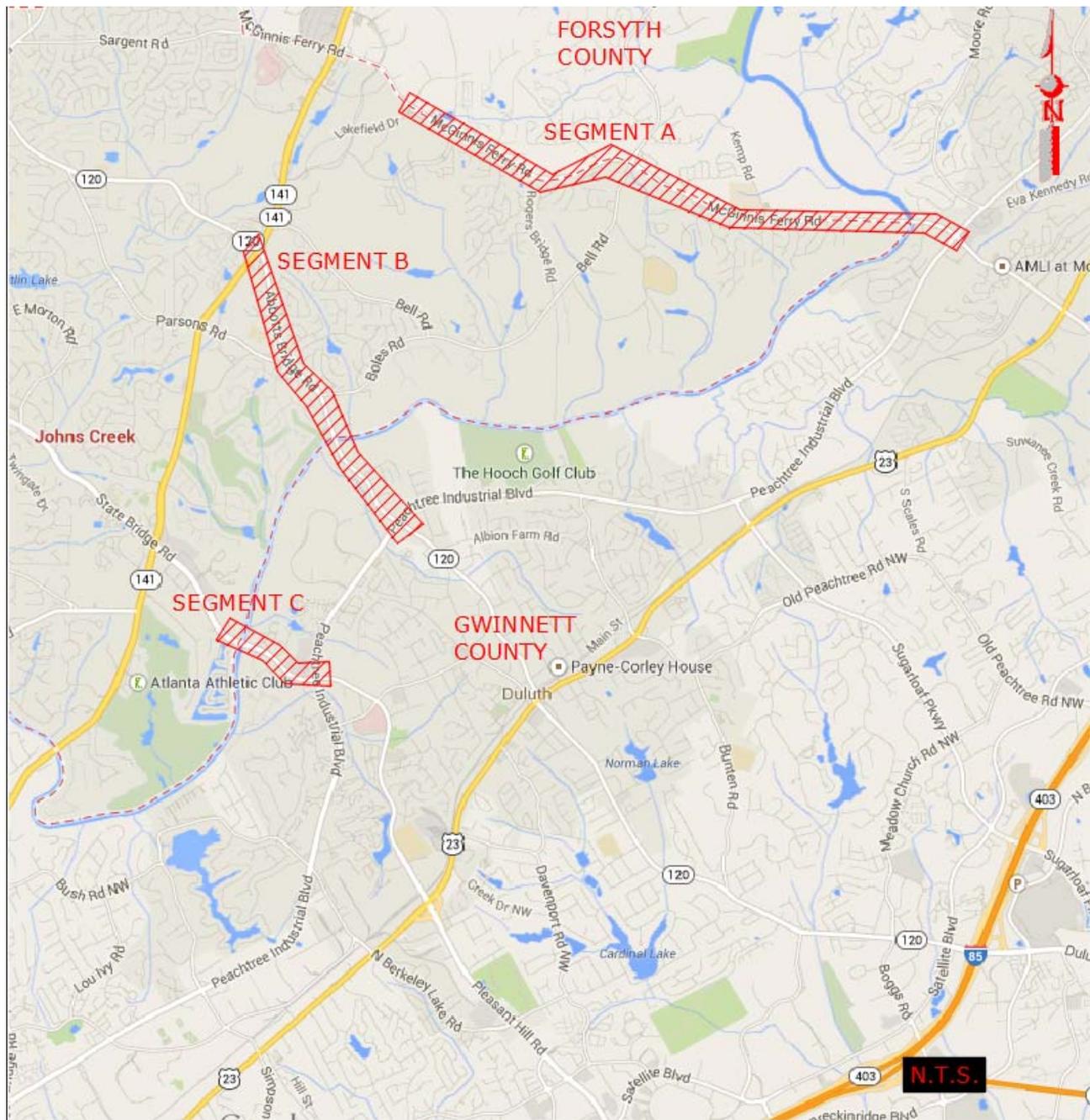
**Approval:**

Concur: [Signature] 10/8/14  
 GDOT Director of Engineering DATE

Approve: [Signature] 10/10/14  
 GDOT Chief Engineer DATE

*X - RECOMMENDATION ON FILE*

## PROJECT LOCATION



## PLANNING & BACKGROUND DATA

**Project Justification Statement:** This project is funded by the Georgia Department of Transportation (GDOT) through the Surface Transportation Program (STP). This project originated with the creation of the Johns Creek Intelligent Transportation Systems (ITS) Master Plan, which identified three corridors as a future project to expand the City’s ITS. The ITS Master Plan is included as an attachment.

The purpose of this project is to expand the City of Johns Creek’s existing ITS and increase the operational efficiency of the roadway system. The work includes installing fiber optic communication, closed-circuit television (CCTV) cameras, and Ethernet switches at signalized intersections where required. Completion of this work will provide the city with the ability to monitor traffic conditions on significant corridors

throughout the city resulting in increased incident response and clearance time, better traveler information to the public, and remote monitoring of traffic signals.

The proposed project limits consist of three corridors around the City of Johns Creek. Detailed project limits are listed in the table below.

Segment	Corridor	Begin	End	Length (mi)	Length of Fiber (mi)	Upgraded Intersections	CCTVs
A	McGinnis Ferry Road	Lakefield Drive	Peachtree Industrial Boulevard	4.07	1.36	8	5
B	Abbotts Bridge Road (SR 120)	Medlock Bridge Road (SR 141)	Peachtree Industrial Boulevard	2.21	2.21	5	2
C	State Bridge Road / Pleasant Hill Road	St Georgian Common	Peachtree Industrial Boulevard	0.75	0.25	2	0

**Existing conditions:**

Segment A: Within the project limits McGinnis Ferry Road is a four lane divided roadway. The length of the project segment is 4.07 miles and includes 8 signalized intersections.

Segment B: Within the project limits Abbotts Bridge Road (SR 120) is a two lane road. The length of the project segment is 2.21 miles and includes 5 signalized intersections.

Segment C: Within the project limits State Bridge Road/Pleasant Hill Road is a four lane divided roadway. The length of the project segment is 0.75 miles and includes 2 signalized intersections.

**Other projects in the area:**

**CSHPP-0007-00(310), GDOT PI 0007310:** Johns Creek Local Let Project to widen SR 120 from Parsons Road to Medlock Bridge Road. Anticipated CST in FY 2015.

**FN-285, GDOT PI 0012632:** Multimodal connection study from Old Alabama Road to State Bridge Road. Preliminary engineering anticipated in FY 2013.

**FN-263, GDOT PI 0010418:** SR120 (Kimball Bridge Road) widening from State Bridge Road to Jones Bridge Road. Preliminary engineering anticipated in FY 2013.

**FN-264, GDOT PI 721000-:** SR120 (Abbotts Bridge Road / Duluth Highway) widening from Medlock Bridge Road to Peachtree Industrial Boulevard. Preliminary engineering authorized in 2012. Necessary ROW acquisition anticipated in FY 2016.

**FN-281B, GDOT PI 0012627:** Expansion of Johns Creek Traffic Control Center, ITS Phase 3B. Anticipated CST in FY 2014.

**FN-281C, GDOT PI 0012628:** Adaptive Signal Control and Backup Power, ITS Phase 3C. Anticipated CST in FY 2014.

**GW-326, GDOT PI 0006823:** Pleasant Hill Road ATMS from US 23 (Buford Highway) to Fulton County Line. Anticipated CST in FY 2014.

**Pleasant Hill Road** widening from 4 to 6 lanes with a raised median, from Howell Ferry Road/McClure Bridge Road to the Chattahoochee River bridge (county line).

**Description of the proposed project:** The City of Johns Creek is developing a city wide ITS network; this project is to expand their existing system. The city has an existing ITS Master Plan, which includes a Concept of Operations for the Johns Creek Traffic Control Center (TCC). The system will be used to monitor and manage traffic through control and communications devices from the TCC. The purpose of the system is to reduce incident response time, crashes, congestion, delay, and travel time. Other goals include improving traffic flow and travel speed. This project includes converting existing signal systems to Internet protocol (IP) communications, installing video surveillance, and installing fiber and/or wireless communications to connect the TCC with these field devices.

The project is located in the City of Johns Creek, Georgia in Fulton County, and is divided into three segments. The purpose of the project is to expand the City of Johns Creeks ITS network. Segment A is on McGinnis Ferry Road from Lakefield Drive to Peachtree Industrial Boulevard, approximately 4.07 miles. For this segment communication fiber will be installed underground or aerially for 1.36 miles of the project segment, and CCTV cameras will be installed at 5 existing intersections. Segment B is on Abbotts Bridge Road (SR 120) from Medlock Bridge Road (SR 141) to Peachtree Industrial Boulevard, approximately 2.21 miles. For this segment communication fiber will be installed underground or aerially for 2.21 miles of the project segment, CCTV cameras will be installed at 2 existing intersections, and three traffic signals will be retrofitted to IP communications. Segment C is on State Bridge Road/Pleasant Hill Road from St Georgian Common to Peachtree Industrial Boulevard, approximately 0.75 miles. For this segment communication fiber will be installed underground or aerially for 0.25 miles of the project segment. Some modifications will be made in Gwinnett County including the hub at Peachtree Industrial Boulevard.

**MPO:** Atlanta Regional Commission (ARC)

**MPO #:** FN-281A

**TIA Regional Commission:** Atlanta Regional Commission

**Congressional District(s):** 6 & 7

**Federal Oversight:**  Exempt  State Funded  Other

**Projected Traffic:** ADT or AADT

Current Year (20WW): N/A Open Year (20XX): N/A Design Year (20YY): N/A

**Functional Classification (Mainline):** McGinnis Ferry Road is Urban Minor Arterial Street, Abbotts Bridge Road is Urban Minor Arterial Street, and State Bridge Road is Urban Principal Arterial.

**Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:**

Warrants met:  None  Bicycle  Pedestrian  Transit

## DESIGN AND STRUCTURAL

### Description of Proposed Project:

**Major Structures:** N/A

**Mainline Design Features:**

**McGinnis Ferry Road**

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4-8 (Varies)	N/A	N/A
- Lane Width(s)	11'-12'	N/A	N/A
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	N/A	N/A	N/A
- Outside Shoulder Slope	N/A	N/A	N/A
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	Location Varies	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45 mph		N/A
Design Speed	N/A	N/A	N/A
Min Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	N/A	N/A	N/A
Design Vehicle	N/A	N/A	N/A
Pavement Type	N/A	N/A	N/A

\*According to current GDOT design policy if applicable

**Abbotts Bridge Road (SR 120)**

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2-6 (Varies)	N/A	N/A
- Lane Width(s)	11'-12'	N/A	N/A
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	N/A	N/A	N/A
- Outside Shoulder Slope	N/A	N/A	N/A
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	Location Varies	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45 mph		N/A
Design Speed	N/A	N/A	N/A
Min Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	N/A	N/A	N/A
Design Vehicle	N/A	N/A	N/A
Pavement Type	N/A	N/A	N/A

\*According to current GDOT design policy if applicable

**State Bridge Road**

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4-7 (Varies)	N/A	N/A
- Lane Width(s)	11'-12'	N/A	N/A
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder or Border Area Width	N/A	N/A	N/A
- Outside Shoulder Slope	N/A	N/A	N/A
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	Location Varies	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	N/A	N/A	N/A
Posted Speed	45 mph		N/A
Design Speed	N/A	N/A	N/A
Min Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	N/A	N/A	N/A
Design Vehicle	N/A	N/A	N/A
Pavement Type	N/A	N/A	N/A

\*According to current GDOT design policy if applicable

**Major Interchanges/Intersections:** N/A

**Lighting required:**  No  Yes

**Transportation Management Plan [TMP] Required:**  No  Yes  
 If Yes: Project classified as:  Non-Significant  Significant  
 TMP Components Anticipated:  TTC  TO  PI

**Will Context Sensitive Solutions procedures be utilized?**  No  Yes

**Design Exceptions to FHWA/AASHTO controlling criteria anticipated:**

FHWA/AASHTO Controlling Criteria	No	Undetermined	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Bridge Structural Capacity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

12. If a new pole is required to be installed, and there is not adequate room within the existing right of way, then the pole may have to be installed in the clear zone.

**Design Variances to GDOT Standard Criteria anticipated:**

GDOT Standard Criteria	Reviewing Office	No	Undeter-- mined	Yes	Appvl Date (if applicable)
1. Access Control/Median Openings	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Intersection Sight Distance	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Intersection Skew Angle	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Lateral Offset to Obstruction	DP&S	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Rumble Strips	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Safety Edge	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Median Usage	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Roundabout Illumination Levels	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Complete Streets	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. ADA & PROWAG	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. GDOT Construction Standards	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. GDOT Drainage Manual	DP&S	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. GDOT Bridge & Structural Manual	Bridges	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. If a new pole is required to be installed, and there is not adequate room within the existing right of way, then the pole may have to be installed in the clear zone.

**UTILITY AND PROPERTY**

**Temporary State Route Needed:**  No  Yes  Undetermined

**Railroad Involvement:** N/A

**Utility Involvements:** There are no anticipated utility impacts. Some make ready work will be required to attach fiber to existing utility poles. Power service will be required for CCTV camera installations. Utility companies in the area are as follows:

- Sawnee Electric Membership Corporation
- Georgia Power Distribution
- AGL Resources
- AT&T Telecommunications
- Comcast
- Fulton County Public Works
- Verizon Business

**SUE Required:**  No  Yes  Undetermined

SUE may be required when installing fiber underground, but impacts should be minimal.

**Public Interest Determination Policy and Procedure recommended?**  No  Yes

**Right-of-Way:**

Existing width: Varies

Proposed width: N/A

Required Right-of-Way anticipated:  No  Yes  Undetermined

Easements anticipated:  None  Temporary  Permanent  Utility  Other

Anticipated number of impacted parcels:	0
Displacements anticipated:	Total: 0
	Businesses: 0
	Residences: 0
	Other: 0

**ENVIRONMENTAL AND PERMITS**

**Anticipated Environmental Document:**

GEPA:

NEPA:  CE

PCE

**MS4 Compliance – Is the project located in an MS4 area?**

No

Yes

\*Minimum square footage disturbance not anticipated.

**Environmental Permits, Variances, Commitments, and Coordination anticipated:**

Permit/ Variance/ Commitment/ Coordination Anticipated	No	Yes	Remarks
1. U.S. Coast Guard/USACE Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	City of Johns Creek to provide separately.
2. Forest Service/Corps Land	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Buffer Variance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Coastal Zone Management Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Cemetery Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Other Commitments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Other Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**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

Is a Carbon Monoxide hotspot analysis required?  No  Yes

\*Exempt from Air Quality Analysis per 40 CFR 93

**NEPA/GEPA Comments & Information:** Anticipate PCE. No known issues or risks at this time.

**Ecology:** It is anticipated that potentially sustainable habitat may exist in the project area for the Georgia Aster, Dwarf Sumac, Chattahoochee Crayfish, Pink Ladyslipper, Yellow Ladyslipper, and Bluestripe Shiner. Ecology studies were started in October based on the Georgia Aster’s growing season, followed by a field survey on November 13, 2013. No Georgia Asters were observed during the field survey.

Animal	Plant
Cherokee Darter (US)	Dwarf Sumac (US)
Shinyrayed Pocketbook (US)	Georgia Aster (US)
Gulf Moccasinshell (US)	Pink Ladyslipper (GEORGIA)
Bachman’s Sparrow (GEORGIA)	Yellow Ladyslipper (GEORGIA)
Henslow’s Sparrow (GEORGIA)	Mountain Witch-alder (GEORGIA)
Chattahoochee Crayfish (GEORGIA)	Sweet Pinesap (GEORGIA)
Bluestripe Shiner (GEORGIA)	Indian Olive (GEORGIA)
Delicate Spike (GEORGIA)	Bay Star-vine (GEORGIA)
Peregrine Falcon (GEORGIA)	Barren Strawberry (GEORGIA)
Highscale Shiner (GEORGIA)	

**History:** All work to be done in the disturbed right of way, and there are no anticipated impacts. No known historic resources at this time. If resources are identified and determined to be historic, then the State Historic Preservation Office concurrence will be required.

**Archeology:** All work to be done in the disturbed right of way, and there are no anticipated impacts.

**Air & Noise Effects:** This project is exempt from Air Quality Analysis; however, air screening assessment, noise screening assessment, and interagency coordination for PM2.5 will be required for this project.

**Public Involvement:** None.

## COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

### Project Meetings:

3/11/14 – Scoping/Concept Meeting

3/28/14 – Scoping/Concept Meeting

\*meeting minutes, including attendees, attached

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Southeastern Engineering, Inc.
Design	Southeastern Engineering, Inc.
Right-of-Way Acquisition	N/A
Utility Relocation	City of Johns Creek
Letting to Contract	City of Johns Creek
Construction Supervision	City of Johns Creek
Providing Material Pits	N/A
Providing Detours	N/A
Environmental Studies, Documents, & Permits	Southeastern Engineering, Inc.
Environmental Mitigation	N/A
Construction Inspection & Materials Testing	City of Johns Creek

**Other coordination to date:** N/A

**Project Cost Estimate and Funding Responsibilities:**

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
<b>Funded By</b>	Johns Creek	N/A	Johns Creek	Johns Creek	N/A	
<b>\$ Amount</b>	\$47,844	N/A	**	\$661,299	N/A	661,299
<b>Date of Estimate</b>	01/07/14	N/A	N/A	09/09/14	N/A	

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

\*\* Make ready work not estimated.

**ALTERNATIVES DISCUSSION**

<b>Preferred Alternative:</b> City of Johns Creek ITS Phase 3A			
<b>Estimated Property Impacts:</b>	0	<b>Estimated Total Cost:</b>	\$661,299
<b>Estimated ROW Cost:</b>	\$0	<b>Estimated CST Time:</b>	12 Months
<b>Rationale:</b> This alternative fulfills the objectives of the Project Justification Statement, and the City of Johns Creek's ITS Master Plan.			

<b>No-Build Alternative:</b> Leave existing ITS network and infrastructure as is.			
<b>Estimated Property Impacts:</b>	0	<b>Estimated Total Cost:</b>	\$0
<b>Estimated ROW Cost:</b>	\$0	<b>Estimated CST Time:</b>	N/A
<b>Rationale:</b> Does not fulfill the objectives of the Project Justification Statement.			

**Comments/Additional Information:** None.

**LIST OF ATTACHMENTS/SUPPORTING DATA**

1. Johns Creek’s ITS Master Plan/Concept Plan of Operations
2. Cost Estimates (including Engineering and Inspection plus Contingency)
3. PFA
4. Meeting Minutes

# **Attachment 1**

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## 1. Executive Summary

### 1.1 Introduction

The City of Johns Creek's first Intelligent Transportation System (ITS) Master Plan will provide the vision and strategy for the future development of a system that will aid the city staff in managing traffic operations. The motorist will benefit from better traffic signal operation, better response to incidents, and availability of local real time traffic condition information. The ITS Master plan details the anticipated growth of the entire system network, and how each element within the system will communicate and be integrated into the network. This communication includes transmitting data between roadway devices and transportation system managers and users. This data can range from basic signal timing to Dynamic Message Sign (DMS) control and also video camera feed and control data.

Currently, the trend in the world of ITS communications is shifting to Internet Protocol addressable devices using an Ethernet system. When implemented within the City of Johns Creek ITS system, the IP format for communications will "free up" some of the communication fiber network's capacity and allow for smaller fiber cables as the future network expands. Additionally, the IP format can be used over wireless communications networks, allowing network expansion without extensive impacts.

Georgia's Regional ITS (GRITS) Architecture was finalized in February of 2005. The GRITS Architecture is a comprehensive document that provides statewide ITS standardization. This regional architecture uses the service areas identified in the National ITS Architecture to describe the planned operation of ITS in Georgia. These service areas are identified for all the stakeholder entities. The national and regional ITS architecture will be used as the template for the ITS Plan for Johns Creek.

The main objective of this plan is to establish a system for monitoring and managing traffic through control and communication devices that are efficient, sustainable, and expandable. Specifically, this plan has been developed such that implementation will:

- Reduce incident response times
- Reduce crashes and congestion
- Reduce delay and travel time
- Improve traffic flow and travel speed
- Improve quality and availability of traveler information
- Improve commute reliability
- Improve transit reliability
- Allow network and system expansion in an orderly, efficient manner

The plan has been developed using the Systems Engineering Model that has been developed for use on ITS projects by the USDOT and FHWA.

The process for developing the ITS Master Plan has many steps. These steps are: data collection, system element identification, system deficiency identification, and improvement identification. In order to accomplish the improvement identifications, the system concept of operations must be developed into a conceptual framework. This concept is documented in section 2.4. This section identifies those parts of the ITS architecture that have potential to be incorporated into the ITS system that serves the City of Johns Creek. Also identified in this section are the stakeholders and end users of the system, and the specific type and function of the systems that will be employed within the network. When identifying the potential systems that would be incorporated into the Master Plan, the focus was to address all possible systems and functions that may have potential benefits to the system. With this approach, adequate preparations can be made to allow for future expansions.

## **1.2 System Needs**

The existing ITS network is a legacy system developed by Fulton County and Georgia Department of Transportation. The system consists of fifty-seven stop and go traffic signals, a single mode (SM) fiber optic cable network along several roadway routes, and seven Closed Circuit Television (CCTV) locations. The fiber and camera infrastructure in place is described in Table 1, within section 3.1. Full system operation requires the establishment of a communication network that will seamlessly connect with each field device. The network centers on the establishment of a Traffic Control Center (TCC). The current planned TCC location is within Johns Creek City Hall. However, this location, since the office space is leased, may only be a short term location. The fiber connection required for a TCC-type facility is expensive and not readily transferable to a different location. Since City Hall could move to a new location in the future, the standard approach of a hard wired connection between the TCC and the fiber network is considered non-sustainable and not cost effective. Instead, this vital communications link will be established using a dual antennae wireless broadband technology system. The remaining system will be predominately fiber optic cabling with field switches on each end of the fiber cable establishing the Ethernet hub for the equipment at that location.

An Ethernet field switch will connect each device to the fiber optic cable and will be assigned a unique IP address. The switch will only communicate with another device when the Medium Access Control (MAC) address of that device is identified in the field switch programming. In the local area network (LAN), the field switch is the most important device, acting as a relay. It receives information from other devices and directs traffic across the network, allowing the equipment to talk to each other and share information in the most efficient manner. Each field switch will run in full-duplex mode, meaning each device can send and receive data simultaneously. This feature will allow the system to perform as a “self-healing” ring. The communications network is graphically displayed in Exhibit 3.

The corridors identified for video surveillance consist of the major traffic routes within the City. These routes are:

- Medlock Bridge
- Old Alabama Road
- McGinnis Ferry Road
- State Bridge Road
- Jones Bridge Road
- Abbotts Bridge Road

Of these routes, SR 141/Medlock Bridge Road has been identified by GDOT as a “Route of Regional Significance.” The route of regional significance program is being proposed to allow GDOT more control over major cross jurisdictional routes due to the historic problems of inter departmental and inter agency cooperation. The hope is to improve peak hour trip times through better signal coordination and improved arterial ITS deployment and monitoring. The plan is for GDOT to take a more proactive role in signal maintenance and timing during the peak periods. Additionally, the state will monitor the corridors for incidents and adjust the signal timing in the case of backups. The primary routes for traffic flow and speed monitoring are SR 141/Medlock Bridge Road, McGinnis Ferry Road and State Bridge Road. The devices and communication system infrastructure elements are shown graphically on Exhibit 4.

### **1.3 Potential Projects**

Projects currently identified as having ITS components included:

- DOE Grant - ITS Improvements within the City of Johns Creek. This project will develop an ITS Master Plan, replace existing inoperable cameras along Medlock Bridge Road, extend fiber communications to McGinnis Ferry Road, convert signal communications to Ethernet, establish TCC at Johns Creek City Hall, establish link between field devices and TCC.
- GDOT Project No. - MSL-0004-00(429), P.I. No. 0004429 - Widening & Reconstruction of McGinnis Ferry Road Sargent Road to Chattahoochee River. This project will install fiber optic cable along McGinnis Ferry Road from Sargent Road to Kemp Road along with fiber along Medlock Bridge Road down to East Johns crossing. Project is under construction at this time.
- GDOT Project No. - CSSTP -0008-00(425), P.I. No. 0008425 - Widening of SR 961/Old Alabama Road from CR 65/Jones Bridge Road to CR 111/Buice Road. This project will widen and reconstruct Old Alabama Road to a two lane roadway with raised median and turn lanes at some locations. Fiber has been requested in this project.
- GDOT Project No. - STP-2868-(1), P.I. No. 752660 - Widening of Old Alabama Road from Buice Road to SR 141/Medlock Bridge Road. This project will reconstruct and widen Old Alabama Road to three lanes, one lane in the west direction and two in the east direction with curb and gutter. Fiber has been requested in this project.

The results of the project development phase are tabulated in Table 4 (a copy of which is included here for easy access).

Table 4 - Priority Listing of Proposed Projects

**Construction Cost Estimates for Johns Creek ITS Expansion**

Priority	Road Segment	From	To	Segment Cost	Priority Group Costs
1	Abbotts Bridge Road	<i>Jones Bridge Road</i>	<i>Parsons Road</i>	\$172,810	
1	Jones Bridge Road	<i>Abbotts Bridge Road</i>	<i>States Bridge Road</i>	\$232,900	
1	State Bridge Road	<i>Skiddaway Drive</i>	<i>St. Georgen Common</i>	\$98,700	
1	State Bridge Road	<i>Kimbal Bridge Road</i>	<i>Morton Road</i>	\$250,100	
1	Jones Bridge Road	<i>States Bridge Road</i>	<i>Old Alabama Road</i>	\$356,755	\$1,111,265
2	Old Alabama Road	<i>Jones Bridge Road</i>	<i>Medlock Bridge Road</i>	\$485,475	
2	McGinnis Ferry Road	<i>Jones Bridge Road</i>	<i>Sargent Road</i>	\$189,300	
2	Jones Bridge Road	<i>Abbotts Bridge Road</i>	<i>McGinnis Ferry Road</i>	\$360,230	\$1,035,005
3	Haynes Bridge Road	<i>Old Alabama Road</i>	<i>Alvin Road</i>	\$89,450	\$89,450
4	Old Alabama Road	<i>Mt. Pisgah Church Driveway</i>	<i>Jones Bridge Road</i>	\$451,835	\$451,835

These projects total \$2,956,311 when a 10% contingency is included.

## **2 Introduction**

### **2.1 Background**

The City of Johns Creek's first Intelligent Transportation System (ITS) Master Plan will provide the vision and strategy for the future development of a system that will aid the city staff in managing traffic operations. The motorist will benefit from better traffic signal operation, better response to incidents, and availability of local real time traffic condition information. A basic description of the ITS's function is to transmit data between the roadway devices and the transportation system managers and users. The types of data transmitted can include basic signal timing, Dynamic Message Sign (DMS) control, video camera feed and control data.

Currently, the trend in the world of ITS communications is shifting to Internet Protocol addressable devices using an Ethernet system. This is a shift from the communications intensive system where each item and/or function (i.e. camera feed, camera pan-tilt-zoom (PTZ) control, signal system and device) individually uses a pair of fibers (fiber optic) or copper wire to communicate to the Traffic Control Center (TCC). The IP format for communications will "free up" some of the fibers that are being used now as well as allow for smaller fiber cables to become the standard. IP can also be used over wireless communications networks.

Georgia Regional ITS (GRITS) Architecture was finalized in February of 2005. Therefore, The City of Johns Creek was not identified as a stakeholder nor identified as having a Traffic Control Center (TCC) operation. Fulton County is identified with the associated functional requirements for the TCC and Field Devices. The GRITS Architecture is a comprehensive document that describes the operation and compartmentalizes the total system into the service areas identified in the National ITS Architecture with service areas identified for all the stakeholder entities. Each stakeholder has been assigned the service areas that most logically fit the function of the roadways. This regional Transportation Management Center (TMC) in Atlanta has been developed on the ITS Architecture current at the time of development. The operating system currently running the TMC is called NaviGator and was also developed to be compliant with the national ITS architecture. The national and regional ITS architecture will be used as the template for the ITS Master Plan for Johns Creek.

### **2.2 Objectives**

The main objective of this plan is to establish a system for monitoring and managing traffic through control and communication devices that are efficient, sustainable, and expandable. Specifically, this plan has been developed such that implementation will:

- Reduce Incident response times
- Reduce crashes and congestion
- Reduce delay and travel time
- Improve traffic flow and travel speed

- Improve quality and availability of traveler information
- Improve commute reliability
- Improve transit reliability

Sustainability in the design of the communication system also means versatility and adaptability. For example, the City Hall for Johns Creek is presently located in leased space. Therefore, the best use of monies for fiber plant would not be spent constructing an extensive fiber link into the building. With the current rate of evolution in the technology utilized for ITS devices, the plan developed today will be outdated in two years if the system is not designed with expandability and adaptability in mind. Therefore, the following is a list of the desired plan elements:

- A. TCC Concept of Operations
- B. Communications System Identification
- C. Signal System Operations
- D. Public Interface System
- E. Recommended Project Phasing

While meeting these objectives, many devices will be identified. These devices will be specified functionally and will comply with the National Transportation Communications for ITS Protocol (NTCIP) standards. The specifications for these devices have been developed by Georgia Department of Transportation (GDOT). With minor variations on these specifications, the City will be able to utilize off the shelf devices and software with the end result being a cost effective system with the ability to function to the current and future demands of the users.

### **2.3 Plan Development Process**

The plan will be developed using the Systems Engineering Model that has been developed for use on ITS projects by the United States Department of Transportation (USDOT) and Federal Highway Administration (FHWA).

The process for developing the ITS Master Plan begins with data collection. Once the data collection effort is complete, the data is compiled and reviewed to get an assessment of the existing conditions in the field. This then becomes the baseline against which all of the potential improvement options are measured. It is during the assessment phase of the plan development where deficiencies in the existing system are identified. These deficiencies may be different types such as operational deficiencies where the existing equipment does not work at all (non-operational) or functional deficiencies where the existing equipment works, but may not be connected into the system and therefore it provides no value in its present condition. Deficiencies in the existing communications systems will also be indentified.

The next step in the development process includes identifying where existing equipment (that is at least operational), can be used to leverage the existing funds available to upgrade the existing system and maximize the coverage area and capabilities of the system. Once both the deficiencies and opportunities available in the existing system have been identified, it will begin to become obvious where the critical needs are. At the same time, the critical

corridors will be identified so that the plan can focus on improvements for these locations as the first stage of improvements.

Identifying existing system bottlenecks would be the next step in the development process. It is also important at this step to identify where the potential is for future bottlenecks. These bottlenecks need to be either eliminated or avoided so the risk of a system slowdown or shutdown is reduced.

The development process will identify any major crossings of the system such as State highways/roadways. Wherever the proposed system crosses such facilities, the Master Plan will identify if any permits are required, what the process is for obtaining the permits and how long that process takes.

## **2.4 TCC Concept of Operations**

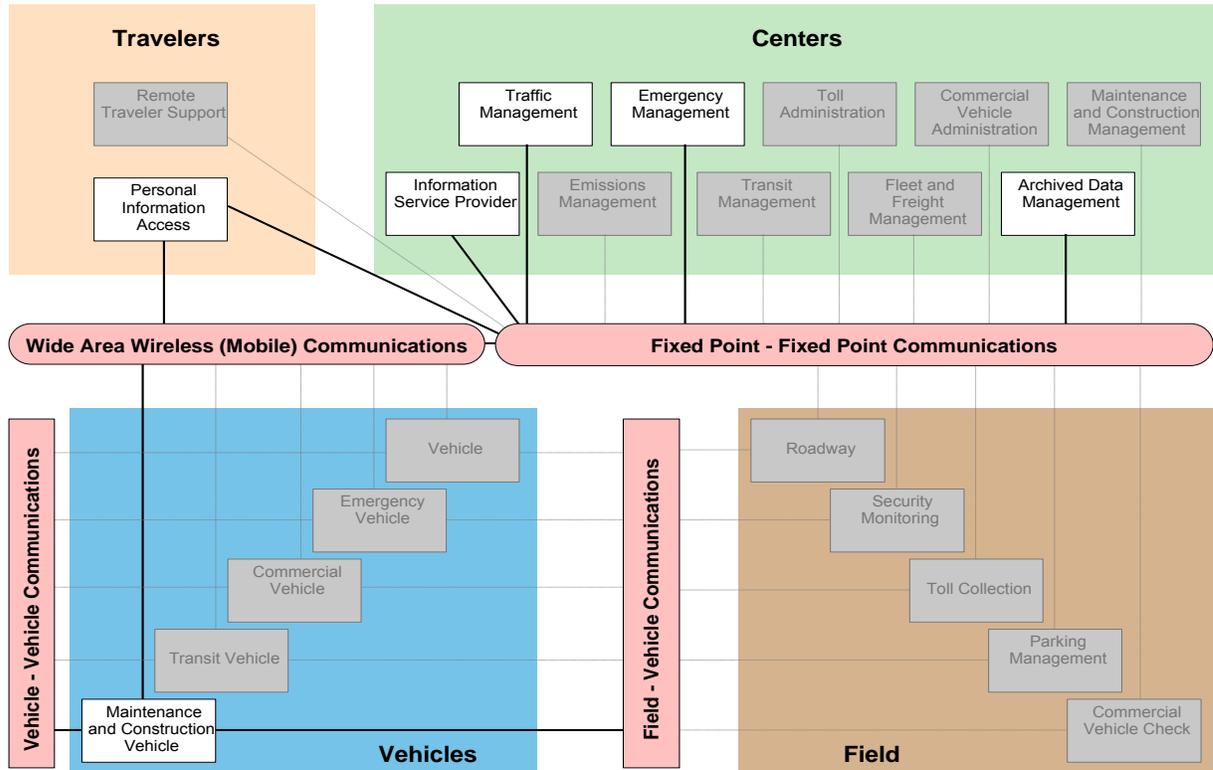
The operation of a Traffic Control Center (TCC) varies widely from one jurisdiction to another. Establishing how the center operates will determine the amount of resources required. This will also guide the development of the infrastructure and how it is to function. As mentioned above, the TCC is located in leased space. The traffic engineering staff is limited to the Traffic Manager and two Traffic Supervisors. These constraints have major impacts on how the TCC will operate.

Establishing the TCC for the City of Johns Creek as a “near virtual” TCC provides the flexibility necessary when addressing the portability of location and limited personnel resources issues. With Traffic Engineering staff being able to access the system from any remote location having internet access, the operating hours of the center in effect become “on demand.” This accessibility also allows emergency services personnel to utilize the information on an as needed basis to assist with proper response to incidents by using the CCTV video to gain early assessment of the situation from many locations.

### **2.4.1 Architecture**

The following section provides a description of the Johns Creek Traffic Control Center (TCC) project architecture and identifies its relationship to the Georgia Regional ITS Architecture (GRITS). The project can be described by the elements (or inventory) that will be developed or interfaced to, the services (expressed as market packages) the project will provide and a detailed description of the interfaces and information flows covered by the project (expressed as customized market package diagrams).

**Inventory:** An inventory is a list of “elements” that represent all existing and planned ITS systems that will be a part of the project, as well as non-ITS systems that provide information to or get information from the ITS systems. GRITS has a large list of elements defined as part of the regional inventory. GRITS will eventually need to be modified to integrate the Johns Creek TCC. This diagram has been modified to indicate which elements of GRITS will be the key elements of this project. The project elements are shown in bold in the figure.



**Figure 1: Sausage Diagram for Johns Creek TCC with Project Elements Highlighted**

### 2.4.2 Stakeholders

The primary stakeholder for the Johns Creek TCC project will be the City of Johns Creek. Certain agencies will have specific access to the TCC. For instance, the Johns Creek Fire Department as well as the Police Department will have the ability to take control of the CCTV cameras when needed. Other primary stakeholders are listed below:

- Johns Creek Fire Department
- Johns Creek Police Department
- Chattcom - Region's 911 Call Center
- GDOT - GDOT NaviGator System
- Johns Creek Public Works Department
- Public
- Media

Secondary Stakeholders:

- Gwinnett County
- Fulton County
- Alpharetta
- Roswell
- Forsyth County

### 2.4.3 System Services

Current and future projects will add or augment a number of ITS services for the region. These projects have as their focus the areas of Incident Management and Traffic Information Dissemination, but will address a variety of additional services in the areas of Archived Data Management, Advanced Public Transportation Systems, Traffic Management, Emergency Management, and Maintenance and Construction Management. For the City of Johns Creek, the following potential service areas and systems have been determined to best fit the current and future roadway systems. These service areas are designated based on the National ITS Architecture Market Packages:

- Archived Data Management (AD) – This service area pertains to the collection, storage, and retrieval of data for use by an agency. Data may also be shared with external agencies.
  - AD01 - ITS Data Mart
- Advanced Public Transportation Systems (APTS) – This service area includes services that cover public transportation, including bus, paratransit, and commuter rail. The following services were identified:
  - APTS1 - Transit Vehicle Tracking
  - APTS2 - Transit Fixed-Route Operations
  - APTS3 - Demand Response Transit Operations
  - APTS5 - Transit Security
  - APTS7 - Multi-modal Coordination
- Advanced Traveler Information Systems (ATIS) – This service area covers services that allow motorists to plan their trips, including the use of multi-modal alternatives.
  - ATIS01 - Broadcast Traveler Information
  - ATIS02 - Interactive Traveler Information
- Advanced Transportation Management Systems (ATMS) – This service area includes those services that provide for the dissemination of information to the traveling public. It also includes those elements that use large-scale technology to increase roadway capacity and flow, and reduce delay.
  - ATMS01 - Network Surveillance
  - ATMS03 - Surface Street Control
  - ATMS06 - Traffic Information Dissemination
  - ATMS07 - Regional Traffic Control
  - ATMS08 - Incident Management System
  - ATMS12 - Virtual TCC Systems
- Emergency Management (EM) – This service area includes services that address the need to improve response times for emergency vehicles and freeway service patrols.
  - EM01 - Emergency Response
  - EM02 - Emergency Routing
  - EM06 - Wide-Area Alert System Upgrade

- EM07 - Early Warning System Upgrade
- EM08 - Disaster Response and Recovery
- EM09 - Evacuation and Re-entry System
- EM10 - Disaster Travel Information System
- Maintenance and Construction (MC) - This service area includes services that pertain to the coordination of maintenance and construction vehicle activity.
  - MC03 - Road Weather Data Collection
  - MC04 - Weather Information Processing and Distribution
  - MC06 - Winter Maintenance System
  - MC07 - Roadway Maintenance and Construction
  - MC08 - Work Zone Management System
  - MC09 - Work Zone Safety Monitoring
  - MC10 - Maintenance and Construction Activity Coordination

#### 2.4.4 System Service Functions

The above system services have been identified in order to prepare for present and future implementation. To provide the above services, the following functions will be incorporated into the traffic control center:

##### **Traffic and Roadside Data Archival**

1. The center shall manage the collection of archive data directly from collection equipment located at the roadside such as operational data, event logs, etc.
2. The center shall collect traffic sensor information from roadside devices.
3. The center shall collect traffic flow data from commercial sources such as cell phone providers, transit AVL, commercial vehicle fleet operations/tracking, and GPS data.
4. The center shall respond to requests from the Archive Data Administrator to input the parameters that control the collection process.
5. The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
6. The center shall record the status about the imported traffic and roadside data.
7. The center shall use the status information to adjust the collection of traffic and roadside data.
8. The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
9. The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
10. The center shall be able to produce sample products of the data available.

##### **Advanced Public Transportation Systems**

There exists only one form of Public Transportation in Johns Creek, Georgia Regional Transportation Authority (GRTA) Express Bus Service, Xpress Route 408 provides service

from Johns Creek to the Metro Atlanta Rapid Transit Authority (MARTA) station in Doraville during morning and afternoon commutes. This system's function will be determined in cooperation with GRTA in the future. Currently Johns Creek has no participation in this public transportation system.

#### **Broadcast Traveler Information**

1. The center shall collect, process, store, and disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
2. The center shall collect, process, store, and disseminate maintenance and construction information to travelers, including scheduled maintenance and construction work activities and work zone activities.
3. The center shall collect, process, store, and disseminate event information to travelers.
4. The center shall provide the capability for a system operator to control the type and update frequency of broadcast traveler information.

#### **Network Surveillance**

1. The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
2. The center shall monitor, analyze, and distribute traffic images from CCTV systems under remote control of the center.
3. The center shall monitor, analyze, and store pedestrian sensor data collected from field elements under remote control of the center.
4. The center shall monitor, analyze, and distribute pedestrian images from CCTV systems under remote control of the center.
5. The center shall maintain a database of surveillance and sensors and the surface street and rural roadways, e.g. where they are located, to which part(s) of the network their data applies, the type of data, and the ownership of each link (that is, the agency or entity responsible for collecting and storing surveillance of the link) in the network. This does not include recording video from surveillance cameras.
6. The center shall distribute road network conditions data (raw or processed) based on collected and analyzed traffic sensor and surveillance data to other centers.
7. The center shall support an interface with a map update provider, or other appropriate data sources, through which updates of digitized map data (GIS/GPS) can be obtained and used as a background for traffic data.
8. The center shall respond to control data from center personnel regarding sensor and surveillance data collection, analysis, storage, and distribution.
9. The center shall remotely control vehicle speed sensors typically placed in work zones; control parameters may include environmental and traffic conditions.
10. The center shall collect operational status for the vehicle speed sensors; the status shall include logged information including measured speeds, warning messages displayed, and violation records.

11. The center shall provide the capability to notify an enforcement agency when vehicle speeds in the work zone are in excess of the posted speed limit or are creating an unsafe condition based upon the current environmental or traffic conditions.
12. The center shall monitor the traffic flow for low speeds and trigger the incident management verification and response system.
13. The center shall collect fault data for the vehicle speed sensors for repair.

### **Surface Street Control**

1. The center shall remotely control traffic signal controllers either through a wireless connection or directly from the TCC.
2. The center shall accept notifications of right-of-way requests from pedestrians.
3. The center shall collect traffic signal controller operational status and compare against the control information sent by the center.
4. The center shall collect traffic signal controller fault data from the field.
5. The center shall implement control plans to coordinate signalized intersections, under control of center personnel, based on data from sensors and surveillance monitoring traffic conditions, incidents, emergency vehicle preemptions, the passage of commercial vehicles with unusual loads, equipment faults, pedestrian crossings, adaptive traffic control systems, etc.
6. The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
7. The center shall remotely control CCTV cameras that have the ability of pan, tilt, zoom (PTZ).
8. The center shall have the ability to provide primary control of all field devices to a secondary party.
9. The center shall develop emergency route traffic signal plans.
10. The center shall develop traffic signal plans for special events.

### **Traffic Information Dissemination**

1. The center shall distribute traffic data to maintenance and construction centers, transit centers, emergency management centers, and traveler information providers. This shall include the GDOT NaviGator system which hosts the statewide 511 system.
2. The center shall distribute traffic data to the media upon request; the capability to provide the information in both data stream and graphical display shall be supported.
3. The center shall provide the capability for center personnel to control the nature of the data that is available to non-traffic operations centers and the media.
4. The center shall disseminate information, traffic and other, to drivers remotely by various means based on the most effective and cost effective technology available at the time. Such measures may be dynamic message signs, hybrid message signs, email, text messages, highway advisory radio, voice messages, and etcetera.
5. The center shall collect and store plans from event promoters for major future events possibly impacting traffic to support overall network performance evaluations.

### **Johns Creek Website**

1. Website shall receive traffic information from a center and present it to the traveler in formats that are easily used by both stationary and mobile customers.
2. Website shall receive wide-area alerts and present it to the traveler.
3. Website shall provide the capability for digitized map data to act as the background to the information presented to the traveler.

### **Regional Traffic Control**

1. The center shall exchange traffic information with other traffic management centers, which will include but is not limited to incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
2. The center shall exchange traffic control information with other traffic management centers, which will include but is not limited to remote monitoring and control of traffic management devices (e.g. signs, sensors, signals, cameras, etc.).

### **Incident Management System**

1. The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergencies, including information provided by the Emergency Alert System.
2. The center shall receive inputs concerning upcoming events that would affect the traffic network from event promoters, traveler information service providers, and intermodal freight depots.
3. The center shall exchange incident and threat information with emergency management centers as well as maintenance and construction centers; including notification of existence of incident and expected severity, location, time and nature of incident.
4. The center shall support requests from emergency management centers to remotely control sensor and surveillance equipment located in the field.
5. The center shall provide road network conditions and traffic images to emergency management centers to support the detection, verification, and classification of incidents.
6. The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
7. The center shall coordinate planning for incidents with emergency management centers - including pre-planning activities for disaster response, evacuation, and recovery operations.
8. The center shall support requests from emergency management centers to remotely control sensor and surveillance equipment located in the field, provide special

- routing for emergency vehicles, and to provide responding emergency vehicles with signal preemption.
9. The center shall exchange incident and threat information with emergency management centers as well as maintenance and construction centers; including notification of existence of incident and expected severity, location, time and nature of incident. The center shall respond to requests from emergency management to provide traffic management resources to implement special traffic control measures, assist in clean up, verify an incident, etc. This may also involve coordination with maintenance centers.
  10. The center shall receive inputs concerning upcoming events that would affect the traffic network from event promoters, traveler information service providers, media, and rail operations centers.
  11. The center shall provide road network conditions and traffic images to emergency management centers, maintenance and construction centers, and traveler information service providers.
  12. The center shall exchange road network status assessment information with emergency management and maintenance centers including an assessment of damage sustained by the road network including location and extent of the damage, estimate of remaining capacity, required closures, alternate routes, necessary restrictions, and time frame for repair and recovery.
  13. The center shall coordinate information and controls with other traffic management centers.
  14. The center shall support an interface with a map update provider, or other appropriate data sources, through which updates of digitized map data can be obtained and used as a background for traffic incident management.
  15. The center shall identify incidents where a lane or lanes are blocked and dispatch appropriate City response vehicles to assist with traffic control. In the case where the incident is a stalled vehicle City responder shall assist motorist to remove the vehicle from the travel lane.

#### **Virtual TCC Systems - GDOT NaviGator**

1. The center shall provide a server within the TCC that can access the GDOT NaviGator system and utilize the data for traffic management within the City.

#### **Emergency Dispatch**

1. The center shall store and maintain the emergency service responses in an action log.
2. The center shall receive asset restriction information from maintenance centers to support the dispatching of appropriate emergency resources.
3. The center shall receive traffic information, including closures, traffic conditions, etc. from traffic management centers.
4. The center shall receive road network conditions and traffic images to support dispatch of emergency vehicles.
5. The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.

6. The center shall coordinate response to incidents with other Emergency Dispatch centers to ensure appropriate resources are dispatched and utilized.

#### **Emergency Routing**

1. The center shall collect current traffic and road condition information from traffic management centers for emergency vehicle route calculation.
2. The center shall receive inputs from traffic management and maintenance centers on the location and status of traffic control equipment and work zones along potential emergency routes.

#### **Emergency Early Warning System and Wide-Area Alert System**

1. The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
2. The center shall receive incident information from other transportation management centers to support the early warning system.
3. The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (Amber Alert system), military activities, and other situations that pose a threat to life and property.

#### **Disaster Response and Recovery**

1. The center shall develop and exchange evacuation traffic control plans with allied agencies prior to the occurrence of a disaster.
2. The center shall provide an interface to the emergency system operator to enter disaster response plans and procedures and present the operator with other agencies' plans.

#### **Emergency Evacuation and Reentry Support**

1. The center shall coordinate planning for evacuation with emergency management centers; including pre-planning activities such as establishing routes, areas to be evacuated, signal timing, etc.
2. The center shall support requests from emergency management centers to preempt the current traffic control strategy, activate traffic control and closure systems such as gates and barriers, activate safeguard systems, or use driver information systems to support evacuation traffic control plans and traffic signal timing plans.
3. The center shall coordinate information and controls with other traffic management centers.
4. The center shall coordinate execution of evacuation strategies with emergency management centers - including activities such as setting closures and detours, establishing routes, updating areas to be evacuated, timing the process, etc.

#### **Disaster Travel Information System**

1. The center shall collect, process, store, and disseminate event information to travelers.

2. The center shall collect and provide wide-area alert information to the traveler interface system with region-specific data, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
3. The center shall collect and provide to the traveler interface systems emergency evacuation information, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.

#### **Road Weather Data Collection, Processing and Distribution**

1. The center shall assimilate current and forecast road conditions and surface weather information using a combination of weather service provider information (such as the National Weather Service and value-added sector specific meteorological services), data from roadway maintenance operations, and environmental data collected from sensors deployed on and about the roadway such as Road Weather Information Systems (RWIS).
2. The center shall provide weather and road condition information to weather service providers and center personnel.

#### **Winter Maintenance System**

1. The maintenance and construction vehicle shall send operational data to the center including the operational state of the maintenance equipment (e.g., blade up/down, spreader pattern), types and quantities of materials used for construction and maintenance activities, and a record of the actual work performed.
2. The maintenance and construction vehicle shall exchange operational and environmental data with other maintenance and construction vehicles. Operational data includes operational state of the maintenance equipment (e.g., blade up/down, spreader pattern, equipment configuration) and a record of the actual work performed while the environmental data includes environmental sensor data collected on-board a maintenance and construction vehicle, either raw or processed data.
3. The maintenance and construction vehicle shall respond to dispatch information from the center, presented to the vehicle operator for acknowledgement and returning status.
4. The maintenance and construction vehicle shall respond to control information from the center to allow remote operation of the on-board vehicle systems. These systems include winter maintenance equipment for plowing, applying de-icing treatments, and applying anti-icing treatments prior to the storm event.

#### **Roadway Maintenance and Construction**

1. The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.

2. The center shall collect and store CCTV surveillance system (traffic, pedestrian) operational status.
3. The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) fault data and send to the maintenance center for repair.
4. The center shall collect and store CCTV surveillance system (traffic, pedestrian) fault data send to the maintenance center for repair.
5. The center shall exchange data with maintenance centers concerning the reporting of faulty equipment and the schedule/status of their repair. Information exchanged includes details of new equipment faults, and clearances when the faults are cleared.
6. The center shall support an interface with a map update provider, or other appropriate data sources, through which updates of digitized map data can be obtained and used as a background for traffic maintenance data.

#### **Work Zone Management System and Work Zone Safety Monitoring**

1. The center shall receive work zone images from a maintenance center.
2. The center shall analyze work zone images for indications of a possible incident.
3. The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios and other future systems such as variable speed limit signs) to advise drivers of activity around a work zone.
4. The center shall collect operational status for the driver information systems equipment in work zones.
5. The center shall collect fault data for the driver information systems equipment in work zones for repair.
6. Field equipment shall be able to provide fault data and alert status to the center and/or provide remote notification of failures.
7. The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.

#### **Maintenance and Construction Activity Coordination**

1. The maintenance and construction vehicle shall provide status of the work zone warning systems to the center.
2. The maintenance and construction vehicle shall receive work zone warnings from the field equipment at the roadside, other maintenance and construction vehicles.
3. The maintenance and construction vehicle shall collect inputs from field personnel and from work zone devices on-board the maintenance and construction vehicle and send them to the controlling center.
4. The maintenance and construction vehicle shall respond to control information from the center to allow remote operation of the on-board vehicle systems. These systems include routine maintenance equipment for mowing, repairs, hazard removal, etc.
5. The maintenance and construction vehicle shall respond to dispatch information from the center, presented to the vehicle operator for acknowledgement and returning status.

6. The maintenance and construction vehicle shall send operational data to the center including the operational state of the maintenance equipment (e.g., blade up/down, spreader pattern), types and quantities of materials used for construction and maintenance activities, and a record of the actual work performed.
7. The maintenance and construction vehicle shall provide infrastructure sensor equipment operational status to the center.

## Section 3 – System Needs

### 3.1 Existing System

The existing ITS is a legacy system developed by Fulton County and Georgia Department of Transportation. The system consists of fifty eight stop and go traffic signals, various fiber optic Single Mode (SM) cables on several routes as well as seven CCTV locations. The fiber and camera infrastructure in place is described in Table 1 below. Exhibit 1 is a list of the Stop and Go signals located within and maintained by the City of Johns Creek. Exhibit 2 shows location of the signals and ITS infrastructure on the City Map.

Table 1 - Existing ITS Infrastructure

Fiber	Route	From	To	Dist. (Miles)
72 Fiber SM	State Bridge Road	SR 141/Medlock Bridge Road	Alpharetta City Limits	4.8
24 Fiber SM	State Bridge Road	Gwinnett Co. Line	SR 141/Medlock Bridge Road	0.93
72 Fiber SM	SR 141/Medlock Bridge Road	Gwinnett Co. Line	Johns Creek Parkway	4.4
6 Fiber SM	Jones Bridge Road	Sargent Road	Douglas Road	0.1
6 Fiber SM	SR 120/Abbotts Bridge and Jones Bridge	Addison Place	East Fox Court	0.32

Cameras	Route	Location	Side of Road
#1 - CCTV W/PTZ	SR 141/Medlock Bridge Road	North of River Bridge	Right
#2 - CCTV W/PTZ	SR 141/Medlock Bridge Road	0.19 miles north of Signal at Bobby Jones Drive	Right
#3 - CCTV W/PTZ	SR 141/Medlock Bridge Road	0.09 miles north of signal at Old Alabama Road	Left
#4 - CCTV W/PTZ	SR 141/Medlock Bridge Road	200' south of signal at State Bridge Road	Left
#5 - CCTV W/PTZ	SR 141/Medlock Bridge Road	0.19 Miles north of St. Ives Country Club Drive	Right
#6 - CCTV W/PTZ	SR 141/Medlock Bridge Road	0.11 miles south of signal at Parsons Road	Left
#7 - CCTV W/PTZ	SR 141/Medlock Bridge Road	0.13 miles north of signal at Bell Road	Right

### **3.2 Signal System Communications**

The City of Johns Creek uses Type 2070 controllers. These controllers have the ability to use an Ethernet type connection to a fiber optic field switch for communications. A field switch is used to convert the electrical digital data and convert analog video signals into optical digital signals for transmission along the fiber optic cable communication system.

Because these improvements will be financed with federal funds, a sole source can not be specified for the signal controller or any of the signal system communications equipment. GDOT currently owns a statewide license for the ACTRA Server Software, developed by Siemens ITS. This system allows for centralized control and modification of the traffic signal timing over an Ethernet system Local Area Network (LAN). Therefore, the equipment specifications will require language that will result in the contractor providing equipment that is compatible with the City's existing signal control system and the GDOT provided software.

Currently, the signal system communications consists of fiber interconnect along SR 141/Medlock Bridge Road from the River to Johns Creek Parkway, a short system along Jones Bridge Road from Sargent Road to Douglas Road and at the intersection of Jones Bridge Road and SR 120/Abbotts Bridge Road to the two adjacent intersections. Another system exists along Old Alabama Road from Jones Bridge Road to Nesbit Ferry Road using some combination of radio communications and fiber.

Ultimately, the architecture of signal system communications will consist of a distributed network. The distributed network will include signal systems, or signal sub-systems, and the ACTRA server as the main communications and control hub for each signal system. All of the signal controllers and the master controller (ACTRA Server) will be connected with each other using the communications system. The master controller will communicate with all controllers on its sub-system using the communications network.

### **3.3 CCTV System**

The CCTV system has many uses. The predominant use of this device is for traffic monitoring for incidents and congestion. Other uses include: traffic counts, remote signal operation verification, special event monitoring, and incident response planning. With additional software for license plate recognition, a rudimentary origin - destination study would be possible. Ideally, the system would have complete surveillance coverage on all arterial and collector routes for incident management purposes. However, this plan would not be economically prudent. Therefore, this study has focused on the major high traffic roadways and the current commercial districts along with the other areas identified as "Activity Nodes" on the "Future Development Map" provided in the City of Johns Creek Comprehensive Plan 2030. A copy of this map is included as Exhibit 3.

The major high traffic roadways identified in this plan are listed below:

- SR 141/Medlock Bridge Road
- State Bridge Road

- Old Alabama Road
- Jones Bridge Road
- SR 120/Abbotts Bridge Road
- McGinnis Ferry Road

The “Activity Nodes” identified in the Comprehensive Plan 2030 center around the following intersections:

- SR 141/Medlock Bridge Road at State Bridge Road
- SR 141/Medlock Bridge Road at SR 120/Abbotts Bridge Road
- SR 141/Medlock Bridge Road at McGinnis Ferry Road
- Old Alabama Road at Nesbit Ferry Road
- Old Alabama At Jones Bridge Road
- Jones Bridge Road at State Bridge Road
- Jones Bridge Road at SR 120/Abbotts Bridge Road

CCTV locations have been identified in the area of these intersections along with several dispersed along the roadways where fiber is to be located. Exhibit 4 is a map showing the existing and proposed fiber with the existing and proposed CCTV locations overlaid in the general area of where the cameras should be located. Final location will be determined at the time construction plans are developed for these future projects.

### **3.4 Information Dissemination**

A very large volume of data could be collected by the various ITS components. The historical data could be used for a variety of purposes including conducting traffic operations studies and evaluating incidents such as vehicular crashes. Real time data could be made available to other local and state agencies through direct and broadband connections. The general public could be provided with real time data by broadcasting to media outlets, the National 511 system and through the internet. The internet platform currently in use is the NaviGator system. All data collected by the Johns Creek ITS will be made available for public dissemination on the Johns Creek website. This information can also be located on the GDOT NaviGator site. This will ensure that the data collected by the Johns Creek system will have the widest available audience. A map of the Johns Creek network should also be included on the NaviGator site. Other possibilities for disseminating information would include RSS feeds, cell phones, PDAs and on-board navigation devices such as GPS receivers.

The types of real time data made available should include everything obtained by the system components such as travel times, speeds and delays on various segments and real time video from surveillance cameras. Access to the data, including modification rights, should be tightly controlled. This can be accomplished through a multi-tiered system consisting of various stakeholders. At one end of the spectrum, access to the data would be limited to read only for live data and historical data and no control over any ITS components would be available. The other end of the spectrum would include every level of access to all data as well as real time control over all ITS components.

There are four levels of stakeholders envisioned in this Master Plan. The first level includes all users of the information. This level includes the general public, adjacent local government agencies, Johns Creek emergency operations (Police and Fire Rescue) and traffic engineering. These stakeholders will have access to live and historical data including traffic volumes, speeds and video images from any one of 22 existing and proposed surveillance cameras distributed throughout the system.

The second level of stakeholders includes all of those listed in the first level with the exception of the general public. If the system becomes slowed down due to a large volume of data being transmitted across the system, such as during an incident, stakeholders in this level will have first priority to receive video and data transmission. This will allow first responders, from adjacent cities and counties, access to real time information. This invaluable information will enable them to assess the situation, coordinate with Johns Creek emergency managers and make decisions on dispatching emergency response teams to the incident site. As a secondary function, this information will provide traffic management centers in adjacent jurisdictions with the information they need to re-route traffic through the use of Dynamic Message Signs, GPS receivers and other on-board traffic information devices. They will also be able to retime traffic signal systems on adjacent routes to accommodate the additional influx of traffic that is being re-routed around the incident site. In the event that an incident occurs outside of Johns Creek, but adjacent to the city limits, emergency managers in the adjacent jurisdiction could request control over ITS components including surveillance cameras, dynamic message signs and traffic signal system controllers.

The third level of stake holders are the emergency management teams in Johns Creek. Police and Fire Rescue can request control access of ITS components to gather information about the incident through video surveillance cameras or to send out public service messages such as Amber Alerts. Johns Creek traffic management personnel would work with the City's emergency responders to evaluate the situation and decide on the most appropriate detour routes. Then, using all available means, the traffic management center would communicate detour routes and information on travel speeds and delays to motorists and public transportation staff.

The fourth level of stake holders would include only the Johns Creek traffic management personnel. They would have access rights to all of the information on the system and active control over all ITS components. This would include pan, tilt and zoom for all surveillance cameras, messages on dynamic message signs, and adjusting traffic signal system controllers. For the traffic signal system controllers, traffic management personnel could adjust system parameters such as cycle lengths, offsets and splits during various times of the day as needed to fine tune the system. During periods of low volume, when certain traffic signals are operating in "free" mode, traffic management personnel could adjust local timings on an "as-needed" basis in response to complaints from the public or based on observations of traffic flow using the surveillance cameras and information provided by the system on travel speeds and volumes for various segments.

Live data, not counting live video feeds, should be updated at least once every 30 seconds. Live video feeds should be updated as quickly as the processor has the ability to scan the

image. As funding becomes available and as technology advances, the capacity of the TCC to process and disseminate information will increase significantly.

### **3.5 Fiber Network**

The fiber network for the City of Johns Creek will consist of the existing fiber system and several new fiber installations. The proposed system will be designed to have the ability to “self-heal” using redundant routes and field switches.

A self-healing ring consists of multiple data paths, with each data path running in an opposite direction to the other. When operating normally, the primary data path is functioning. When there is a fault with any part of the system, a signal is sent to the master controller(s) and the data path reverses to one of the other data paths before it reaches the failed unit. By using a self-healing ring, any faults or failures are detected instantly and the automatic re-directing of the communication path will guarantee uninterrupted service.

Currently, fiber exists on State Bridge Road throughout the City of Johns Creek. On Georgia State Route 141 (Medlock Bridge Rd), fiber also exists with the exception of approximately 1 mile. There is also a partial installation through the intersection of SR 120/Abbotts Bridge Rd and Jones Bridge Rd.

To accomplish the self-healing ring, 24 fiber will be added to Jones Bridge Rd from Old Alabama Road to McGinnis Ferry Road, On McGinnis Ferry Road from Jones Bridge Road to Sargent Road, and the 1-mile gap on SR 141/Medlock Bridge Rd from Johns Creek Parkway to Hospital Drive will be filled in. In order to complete adequate coverage of the major commercial areas and activity nodes identified in the Community Agenda – Future Development Map, a fiber line will need to be extended along Old Alabama Road from Jones Bridge Road to the signal at Mt. Pisgah Church West driveway. This improvement has been included in the widening project identified for future implementation by GDOT. Exhibits 2 and 3 show the existing and proposed fiber networks respectively.

## **Section 4 - Improvements Needed**

### **4.1 Communications Network**

Ultimately, the optimal communications network for the City of Johns Creek will use an Ethernet protocol to transmit data via fiber optic cable and wireless links within the local area network.

Ethernet is a standard communications protocol embedded in software and hardware devices that controls the way data is transmitted within a local area network. The local area network for the City of Johns Creek consists of each traffic signal, camera, DMS, Traffic Counting and Traffic Flow Measuring devices locations in the network, a field switch in each device cabinet to convert from fiber optic cable to Ethernet ports in the equipment cabinet, Ethernet cable to connect to each device and network cards in each device.

For the wireless Ethernet links, the field switch will convert from fiber optic cable to Ethernet and using Ethernet patch cables connect to the wireless communication device. This wireless interface will use radio waves to communicate with a similar broadband wireless device (switch or hub) at the destination device, building or TCC.

The Ethernet field switch will be assigned a unique IP address. The switch will only communicate with another device when the Medium Access Control (MAC) address of that device is identified in the field switch programming. A wired interface card accommodates an Ethernet cable, which runs to a port on the back of the networking switch. If the interface is wireless, the card will feature an antenna port instead of an Ethernet port. The antenna transmits and receives the signals of the destination wireless networking device or switch, which also bears an antenna port.

In the local area network, the field switch is the most important device. The field switch acts as a relay. It receives information from each device and directs traffic across the network allowing the equipment to talk to each other and share information. Information is transmitted across the LAN or WAN using data packets. The first part of the data packet identifies where the packet is to go and where it is coming from. The field switch reads the data packets as they arrive from the various pieces of equipment and directs the data packet to the proper MAC address. Each field switch will run in full-duplex mode, meaning each device can send and receive data simultaneously. This feature will allow the system to perform as a “self-healing” ring as described previously in the Fiber Network section of this document.

The main wireless communication link within the City of Johns Creek system links the proposed TCC to the field devices. Other locations such as police headquarters, all three fire stations, and the 911 emergency centers may utilize similar wireless links. The data and video communication will be transmitted wirelessly. Each site utilizing this high end wireless link will have two wireless antennas, one for data/control and the other for video. This separation is to insure the band width capacities of the devices are not exceeded during

critical events. All other video will be transmitted and shared using a supporting fiber network. Exhibit 3 shows the proposed communications plan.

## **4.2 Corridors for Surveillance**

The corridors identified for video surveillance consist of the major traffic routes within the City. These routes are:

SR 141/Medlock Bridge  
Old Alabama Road  
McGinnis Ferry Road  
State Bridge Road  
Jones Bridge Road  
SR 120/Abbotts Bridge Road

Of these routes, SR 141/Medlock Bridge Road has been identified by GDOT as a “Route of Regional Significance.” The route of regional significance program is being proposed to allow GDOT more control over major cross jurisdictional routes. This is being done due to the historic problems of inter departmental cooperation. The hope is to improve peak hour trip times through better signal coordination and improved arterial ITS deployment and monitoring. The plan is for GDOT to take a more proactive role in signal maintenance and timing during the peak periods. Additionally the state will monitor the corridors for incidents and adjust the signal timing in the case of backups. The primary routes for traffic flow and speed monitoring are SR 141/Medlock Bridge Road, McGinnis Ferry Road and State Bridge Road.

## **4.3 TCC Design**

### **TCC Software**

1. The TCC shall have system software that meets the above functionality to provide the services to meet the goals for the project.
2. The TCC software has not been determined to date. Georgia Department of Transportation is currently under contract with DELCAN to incorporate their Intelligent NETWORKS software as the “NaviGator II” system. In this plan, equipment is recommended that will meet the minimum requirements of this system. It is recommended that this, along with other various systems, are reviewed and evaluated to determine if they will meet the functional requirements and provide the required services.
3. The TCC software will be housed on the TCC Server.

### **TCC Office Equipment**

1. Traffic Monitoring Displays: The TCC will be equipped with up to three large flat wall-mounted screen displays (42” to 50”). Connection to the displays can be made via Ethernet and a local-area network (LAN).

2. Operator work station - For ease of access to the ITS and TCC systems, one work station will be required and shall be housed in the TCC. This work station will be a standalone machine that will not serve any other function except to control the traffic signal system and ITS devices. The DELCAN recommended system, and minimum requirements, for this workstation is shown in Table 2, (equivalent computers could be utilized). This workstation should not be on the same network used by that the remainder of the city offices. Employees that need access to the ITS can gain that access at the appropriate level from anywhere on the Johns Creek network (another office or through VPN to the network).
3. Traffic Control Center System Server -This server will run the TCC software and will interface with the signal system, CCTV control system and DMS control system. (System requirements have been requested waiting on response to include in this section)
4. An additional server may be required to store archived data.
5. Georgia DOT has purchased a statewide license for the use of ACTRA Server and workstation software for use by counties and municipalities. An additional server will be needed to communicate with and control traffic signal controllers.
6. Additional Server/Workstation may be required to access GDOT NaviGator system, which will be supplied with the latest GDOT TCC software to access their system. (this is optional depending on how GDOT elects to operate their system)

Table 2:

Quantity:	1
Environment (e.g., Production, Development)	Production
Manufacturer:	Dell
Model:	OptiPlex XXXX
Storage Disk Space (minimum):	80GB
Ram (minimum):	2GB DDR2 Non-ECC SDRAM,667MHz, (2 DIMM)
Processor (minimum):	Intel® Core™ 2 Duo Processor E6550 (2.33GHz, 4M, VT, 1333MHz FSB)
OS:	Genuine Windows® XP Professional, SP3
Database and Version:	Not Applicable
Other Software & Versions:	None
Other:	Dell 19 inch UltraSharp™ 1908FP Flat Panel (1280 x 1024) 48X32 CDRW/DVD Combo, Cyberlink Power DVD™

### TCC Personnel

No additional personnel will be required to be housed in the TCC or man the TCC on a continual basis.

#### 4.4 Potential Projects

Projects currently identified as having ITS components included are as follows:

- DOE Grant - Develop ITS Master Plan, replace existing inoperable cameras along SR 141/Medlock Bridge Road, extend fiber communications to McGinnis Ferry Road, convert signal communications to Ethernet, establish TCC at Johns Creek City Hall, establish link between field devices and TCC.
- GDOT Project No. - MSL-0004-00(429), P.I. No. 0004429 - Widening & Reconstruction of McGinnis Ferry Road Sargent Road to Chattahoochee River. This project will install fiber optic cable along McGinnis Ferry Road from Sargent Road to Kemp Road along with fiber along SR 141/Medlock Bridge Road down to East Johns crossing. Project is under construction at this time.
- GDOT Project No. - CSSTP -0008-00(425), P.I. No. 0008425 - Widening of SR 961/Old Alabama Road from CR 65/Jones Bridge Road to CR 111/Buice Road. This project will widen and reconstruct Old Alabama Road to a two lane roadway with raised median and turn lanes at some locations. Fiber has been requested in this project.
- GDOT Project No. - STP-2868-(1), P.I. No. 752660 - Widening of Old Alabama Road from Buice Road to SR 141/Medlock Bridge Road. This project will reconstruct and widen Old Alabama Road to three lanes. Fiber has been requested in this project.

Table 3 represents the proposed projects identified in this plan. The table is formatted with the geographic grouping of the segments.

Table 3 - Proposed Project List

#### Construction Cost Estimates for Johns Creek ITS Expansion

Priority	Road Segment	From	To	Segment Cost
	McGinnis Ferry Road & Jones Bridge Road	Abbotts Bridge Road	Sargent Road	\$722,340
2	McGinnis Ferry Road	Jones Bridge Road	Sargent Road	\$189,300
2	Jones Bridge Road	Abbotts Bridge Road	McGinnis Ferry Road	\$360,230
1	Abbotts Bridge Road	Jones Bridge Road	Parsons Road	\$172,810
	Jones Bridge Road	Abbotts Bridge Road	Old Alabama Road	\$839,755
1	Jones Bridge Road	Abbotts Bridge Road	States Bridge Road	\$232,900
1	Jones Bridge Road	States Bridge Road	Old Alabama Road	\$356,755
1	State Bridge Road	Kimbal Bridge Road	Morton Road	\$250,100
	Old Alabama Road	Mt. Pisgah Church Driveway	Medlock Bridge Road	\$1,026,760
4	Old Alabama Road	Mt. Pisgah Church DW	Jones Bridge Road	\$451,835
2	Old Alabama Road	Jones Bridge Road	Medlock Bridge Road	\$485,475
3	Haynes Bridge Road	Old Alabama Road	Alvin Road	\$89,450
	State Bridge Road	Skiddaway Drive	St. Georgen Common	\$98,700
1	State Bridge Road	Skiddaway Drive	St. Georgen Common	\$98,700

Table 4 below lists the projects in priority grouping of those projects. This table is expanded to also show the devices and upgrades to be installed in these projects and segments. This expanded table is included as Exhibit 2.

Table 4 – Priority Listing of Proposed Projects

**Construction Cost Estimates for Johns Creek ITS Expansion**

Priority	Road Segment	From	To	Segment Cost	Priority Group Costs
1	Abbotts Bridge Road	<i>Jones Bridge Road</i>	<i>Parsons Road</i>	\$172,810	
1	Jones Bridge Road	<i>Abbotts Bridge Road</i>	<i>States Bridge Road</i>	\$232,900	
1	State Bridge Road	<i>Skiddaway Drive</i>	<i>St. Georgen Common</i>	\$98,700	
1	State Bridge Road	<i>Kimbal Bridge Road</i>	<i>Morton Road</i>	\$250,100	
1	Jones Bridge Road	<i>States Bridge Road</i>	<i>Old Alabama Road</i>	\$356,755	\$1,111,265
2	Old Alabama Road	<i>Jones Bridge Road</i>	<i>Medlock Bridge Road</i>	\$485,475	
2	McGinnis Ferry Road	<i>Jones Bridge Road</i>	<i>Sargent Road</i>	\$189,300	
2	Jones Bridge Road	<i>Abbotts Bridge Road</i>	<i>McGinnis Ferry Road</i>	\$360,230	\$1,035,005
3	Haynes Bridge Road	<i>Old Alabama Road</i>	<i>Alvin Road</i>	\$89,450	\$89,450
4	Old Alabama Road	<i>Mt. Pisgah Church Driveway</i>	<i>Jones Bridge Road</i>	\$451,835	\$451,835

These projects total \$2,956,311 when a 10% contingency is included.

Exhibit 1

**Johns Creek Signalized Intersections**

1. SR 120/Abbotts Bridge Road @ Boles Road
2. SR 120/Abbotts Bridge Road @ Sweet Creek Road
3. SR 120/Abbotts Bridge Road @ Northview High School
4. SR 120/Abbotts Bridge Road @ Parsons Road
5. SR 120/Abbotts Bridge Road @ Addison Way
6. SR 120/Abbotts Bridge Road @ Jones Bridge Road
7. Haynes Bridge Road @ Alvin Road
8. Haynes Bridge Road @ Publix
9. Jones Bridge Road @ Promenade
10. Jones Bridge Road @ Waters Road
11. Jones Bridge Road @ Buice Road
12. Jones Bridge Road @ Taylor Road
13. Jones Bridge Road @ East Fox Court
14. Jones Bridge Road @ Sargent Road
15. Jones Bridge Road @ Douglas Road
16. Kimball Bridge Road @ Ocee Elementary School
17. McGinnis Ferry Road @ Douglas Road
18. McGinnis Ferry Road @ Jones Bridge Road
19. McGinnis Ferry Road @ Seven Oaks
20. McGinnis Ferry Road @ Hospital Parkway
21. SR 141/Medlock Bridge Road @ Hospital Parkway
22. SR 141/Medlock Bridge Road @ Johns Creek Parkway
23. SR 141/Medlock Bridge Road @ Bell Road
24. SR 141/Medlock Bridge Road @ SR 120/Abbotts Bridge Road
25. SR 141/Medlock Bridge Road @ Skyway Drive
26. SR 141/Medlock Bridge Road @ Parsons Road
27. SR 141/Medlock Bridge Road @ Wilson Road
28. SR 141/Medlock Bridge Road @ Medlock Bridge Parkway
29. SR 141/Medlock Bridge Road @ St. Ives Country Club
30. SR 141/Medlock Bridge Road @ State Bridge Road
31. SR 141/Medlock Bridge Road @ Medlock Crossing Parkway
32. SR 141/Medlock Bridge Road @ Old Alabama Road
33. SR 141/Medlock Bridge Road @ Bobby Jones Drive
34. Old Alabama Road @ Buice Road
35. Old Alabama Road @ Country Club of the South/Hunts Pointe Drive
36. Old Alabama Road @ Autrey Mill Middle School/Cherbury Lane
37. Old Alabama Road @ Jones Bridge Road
38. Old Alabama Road @ Preston Oaks Drive/Breckenridge Close
39. Old Alabama Road @ Timberstone Road/Holy Redeemer
40. Old Alabama Road @ Brumbelow Road/Feather Sound Court

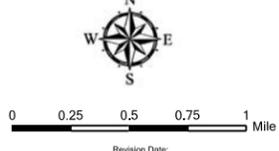
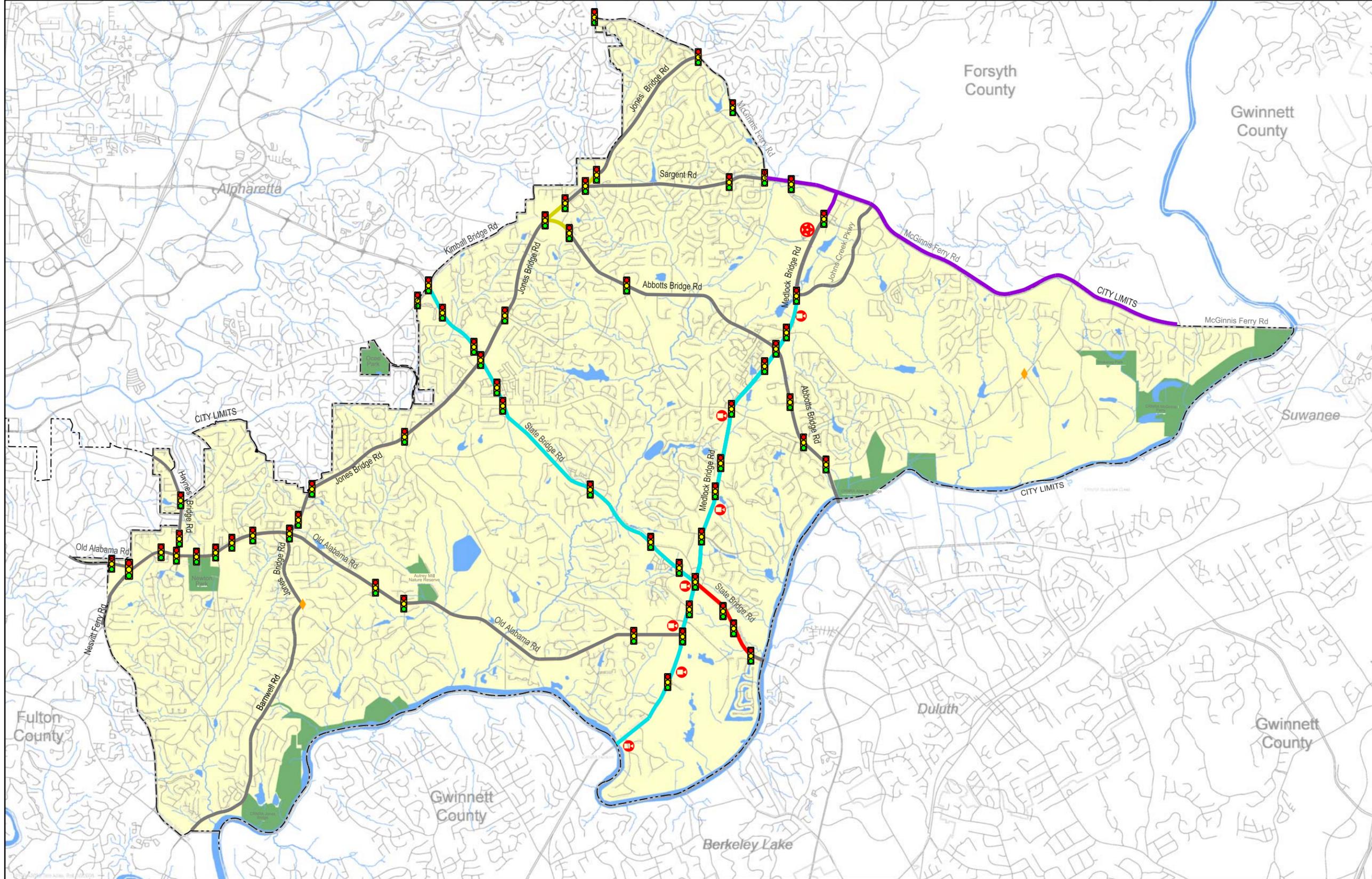
41. Old Alabama Road @ Newtown Park/Fire Station
42. Old Alabama Road @ Haynes Bridge Road/Rod Road
43. Old Alabama Road @ Kroger/Old Alabama Crossing Shopping Center
44. Old Alabama Road @ Nesbit Ferry Road/Mt. Pisgah School
45. Old Alabama Road @ Mt. Pisgah Church West
46. Sargent Road @ Findley Road
47. State Bridge Road @ St. Georgian Place
48. State Bridge Road @ Parkway Baptist Church
49. State Bridge Road @ Home Depot
50. State Bridge Road @ Medlock Crossing Parkway
51. State Bridge Road @ State Bridge Elementary School
52. State Bridge Road @ Twingate Drive/ Morton Road
53. State Bridge Road @ Abberley Township
54. State Bridge Road @ Jones Bridge Road
55. State Bridge Road @ Kroger/Saddle Brook Shopping Center
56. State Bridge Road @ Ocee Elementary School
57. State Bridge Road @ Kimball Bridge Road

### **Flashing Caution Signals**

1. Jones Bridge Road @ Barnwell Road

### **Vehicle Approaching Signs**

1. Bell Road @ Rogers Circle



Revision Date:  
04/14/2009  
Streets Updated:  
04/06/2009

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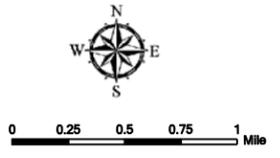
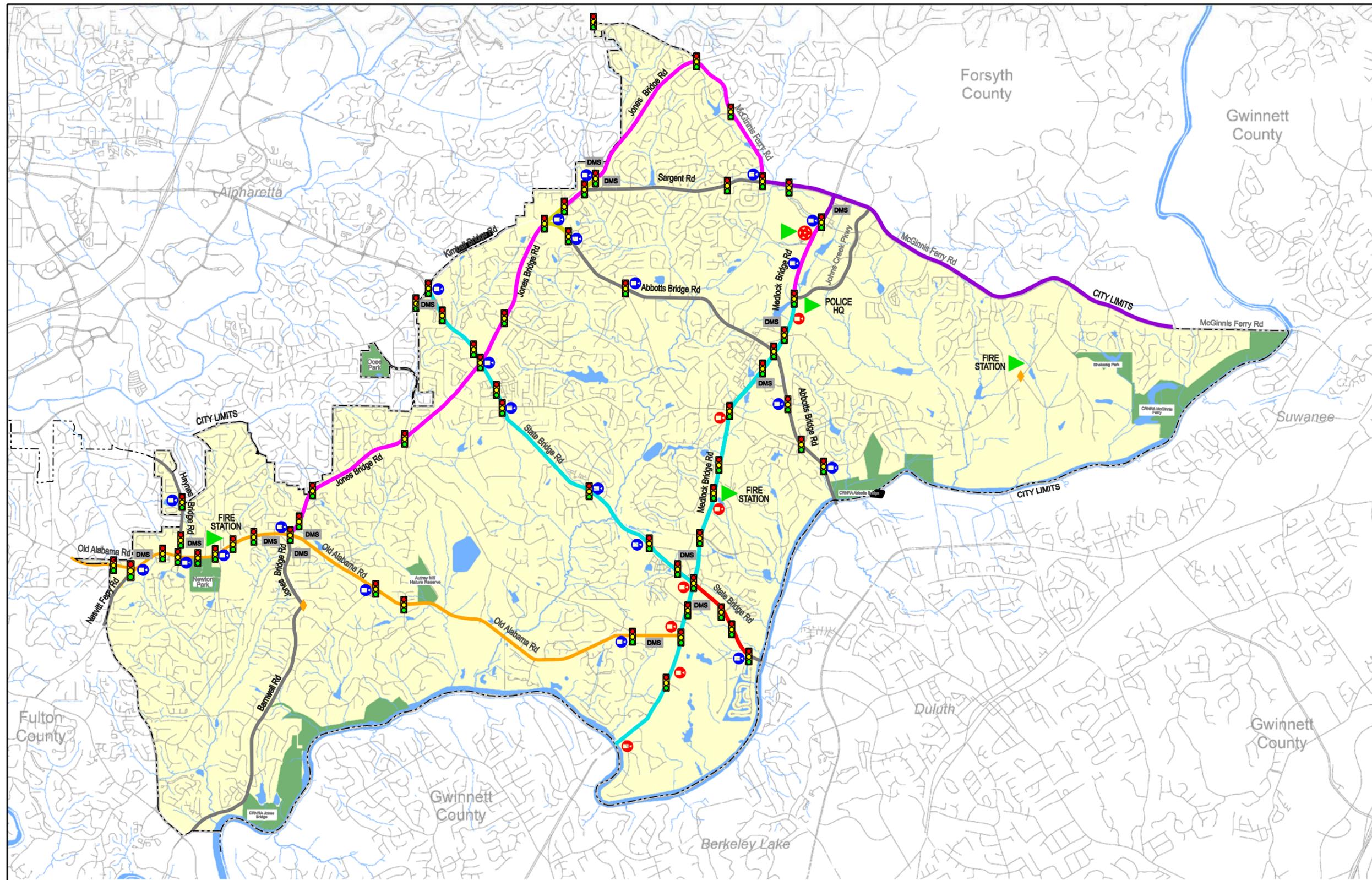


**LEGEND**

- EXISTING 72 FIBER TRUNK LINE
- EXISTING 6 FIBER SIGNAL INTERCONNECT
- 24 FIBER SIGNAL INTERCONNECT UNDER CURRENT CONTRACT
- EXISTING 24 FIBER SIGNAL INTERCONNECT
- - - - - CITY LIMITS/ COUNTY LINE
- PROPOSED TCC LOCATED IN CITY OFFICES
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL FLASHER
- EXISTING CCTV CAMERA LOCATIONS
- STATE AND MAJOR ROUTES



**EXHIBIT 2  
EXISTING ITS DEVICES & FIBER NETWORK**



Revision Date: 04/14/2008  
 Streets Updated: 04/02/08

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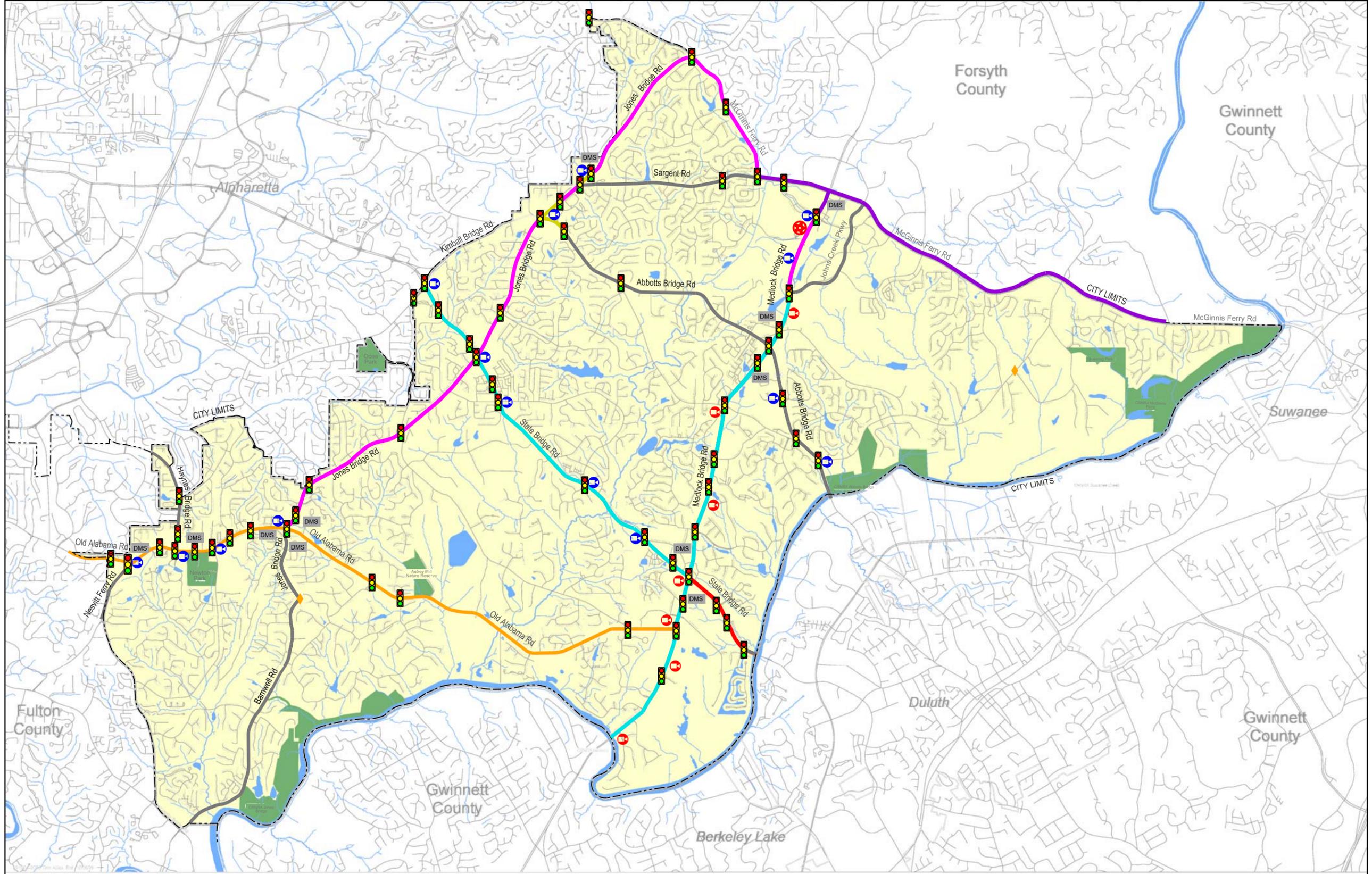


**LEGEND**

- EXISTING 72 FIBER TRUNK LINE
- EXISTING 6 FIBER SIGNAL INTERCONNECT
- 24 FIBER SIGNAL INTERCONNECT UNDER CURRENT CONTRACT
- EXISTING 24 FIBER SIGNAL INTERCONNECT
- PROPOSED 24 FIBER SIGNAL INTERCONNECT
- PROPOSED FIBER INSTALLATION INCLUDED IN THE FUTURE OLD ALABAMA ROAD WIDENING PROJECT
- CITY LIMITS/ COUNTY LINE
- STATE AND MAJOR ROUTES
- PROPOSED TCC LOCATED IN CITY OFFICES
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL FLASHER
- EXISTING CCTV CAMERA LOCATIONS
- PROPOSED CCTV CAMERA LOCATIONS
- FUTURE DMS LOCATIONS
- WIRELESS COMMUNICATION LOCATION



**EXHIBIT 3  
 PROPOSED COMMUNICATION PLAN**



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 Revision Date:  
 04/14/2009  
 Streets Updated:  
 04/06/2009  
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**LEGEND**

	EXISTING 72 FIBER TRUNK LINE		TRAFFIC SIGNAL
	EXISTING 6 FIBER SIGNAL INTERCONNECT		TRAFFIC SIGNAL FLASHER
	24 FIBER SIGNAL INTERCONNECT UNDER CURRENT CONTRACT		EXISTING CCTV CAMERA LOCATIONS TO BE RETROFITTED
	EXISTING 24 FIBER SIGNAL INTERCONNECT		PROPOSED CCTV CAMERA LOCATIONS
	PROPOSED 24 FIBER SIGNAL INTERCONNECT		FUTURE DMS LOCATIONS
	PROPOSED FIBER INSTALLATION INCLUDED IN THE FUTURE OLD ALABAMA ROAD WIDENING PROJECT		STATE AND MAJOR ROUTES
	CITY LIMITS/ COUNTY LINE		



**EXHIBIT 4**  
**PROPOSED ITS DEVICES & FIBER NETWORK**

Exhibit 5: Project Priority Listing

Construction Cost Estimates for Johns Creek ITS Expansion

Priority	Road Segment	From	To	Roadway Length	FO Cable Length (mi)	Fiber Optic Communications (mi)	CCTV Quantity	CCTV Camera (ea)	Microwave Radar Detector Quantity	Microwave Radar Detector (ea)	Proposed ATMS Devices				Retrofit Traffic Signal Quantity	Retrofit Traffic Signal (ea)	Utility Make Ready & Misc.	Segment Cost	Priority Group Costs
											Changeable Message Sign Quantity	Changeable Message Sign (ea)	Changeable Message Sign Quantity	Changeable Message Sign (ea)					
1	Abbeys Bridge Road	Jones Bridge Road	Parsons Road	0.94	0.94	\$95,500	2	\$28,200		\$24,000	\$0	0	\$6,800	2	\$6,500	\$13,640	\$172,810		
1	Jones Bridge Road	Abbeys Bridge Road	States Bridge Road	1.4	1.4	\$133,700	1	\$28,200	1	\$24,000	\$24,000	2	\$13,600	2	\$13,000	\$20,400	\$232,900		
1	State Bridge Road	Skiddaway Drive	St. Georges Common	1.94	0	\$0	1	\$28,200	1	\$24,000	\$0	0	\$0	5	\$32,500	\$14,000	\$98,700		
1	State Bridge Road	Kirtbal Bridge Road	Merton Road	2.31	0	\$0	4	\$112,800	3	\$72,000	\$72,000	1	\$6,800	5	\$32,500	\$26,000	\$250,100		
1	Jones Bridge Road	States Bridge Road	Old Alabama Road	2.37	2.37	\$226,335	1	\$28,200	2	\$48,000	\$0			4	\$26,000	\$28,220	\$366,755	\$1,111,265	
2	Old Alabama Road	Jones Bridge Road	Medlock Bridge Road	3.85	3.85	\$367,675	2	\$56,400		\$0	\$0	1	\$6,800	3	\$19,500	\$35,100	\$485,475		
2	McGinnis Ferry Road	Jones Bridge Road	Sargent Road	1.4	1.4	\$133,700	1	\$28,200		\$0	\$0	0		2	\$13,000	\$14,400	\$189,300		
2	Jones Bridge Road	Abbeys Bridge Road	McGinnis Ferry Road	2.02	2.02	\$192,910	2	\$56,400	2	\$48,000	\$48,000	1	\$6,800	4	\$26,000	\$30,120	\$360,230	\$1,035,005	
3	Haynes Bridge Road	Old Alabama Road	Alvin Road	0.5	0.5	\$47,750	1	\$28,200		\$0	\$0			1	\$6,500	\$7,000	\$89,450	\$89,450	
4	Old Alabama Road	Mt. Pisgah Church Driveway	Jones Bridge Road	1.69	1.69	\$181,395	3	\$84,600	3	\$72,000	\$72,000	4	\$27,200	9	\$58,500	\$48,140	\$451,835	\$451,835	

## **Attachment 2**

**COST ESTIMATE****McGinnis Ferry, Abbotts Bridge (SR 120), and State Bridge****PI 0012626**

Item Number	Item Description	Unit	Quantity	Unit Price	Total
				Engineer's Estimate	
150-1000	TRAFFIC CONTROL - 0010328	LS	1	\$20,000.00	\$20,000.00
615-1200	DIRECTIONAL BORE - 3 INCH	LF	0	\$6.20	\$0.00
615-1200	DIRECTIONAL BORE - 5 INCH	LF	18310	\$8.00	\$146,516.62
639-1350	TREATED TIMBER POLE, CL 3, 50'	EA	0	\$1,608.98	\$0.00
639-2002	STEEL WIRE STRAND CABLE, 3/8"	LF	1685	\$3.23	\$5,436.56
641-1200	GUARDRAIL, TP W	LF	0	\$37.38	\$0.00
641-5001	GUARDRAIL ANCHORAGE, TP 1	EA	0	\$1,137.21	\$0.00
641-5012	GUARDRAIL ANCHORAGE, TP 12	EA	0	\$2,913.03	\$0.00
643-8200	BARRIER FENCE (ORANGE), 4 FT	LF	0	\$1.52	\$0.00
647-2130	PULL BOX, PB-3	EA	0	\$445.85	\$0.00
647-2141	PULL BOX, PB-4S	EA	20	\$738.33	\$14,766.52
647-2170	PULL BOX, PB-7	EA	13	\$1,206.99	\$15,690.84
681-5115	LUMIN BRACKET ARM, 15 FT ARM	EA	7	\$859.89	\$6,019.26
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	36620	\$3.30	\$120,846.00
682-6236	CONDUIT, NONMETL, TP2, 2 IN	LF	270	\$11.27	\$3,042.36
682-9010	SVC POLE RISER	EA	140	\$968.89	\$135,644.88
700-9300	SOD	SY	0	\$6.36	\$0.00
713-3011	WOOD FIBER BLANKET, TP I, SHOULDERS	SY	0	\$1.36	\$0.00
935-1116	OUT PLNT FBR OPT CBL,LOOSE TB,SM,24 FBR	LF	24400	\$1.47	\$35,916.80
935-1512	OUT PLNT FBR OPT CBL,DROP,SM,6 FBR	LF	300	\$1.13	\$340.44
935-3106	FIBER OPTIC CLOSURE,UNDRGRD,24 FIBER	EA	6	\$591.48	\$3,548.88
935-3603	FBR. OP.CLOS.,FDC PRE-TERM., TYP. A	EA	5	\$915.22	\$4,576.09
935-4010	FIBER OPTIC SPLICE, FUSION	EA	144	\$33.39	\$4,808.54
935-8000	TESTING	LS	1	\$10,000.00	\$10,000.00
936-1000	CCTV SYSTEM TYPE C	EA	7	\$7,788.78	\$54,521.47
939-2300	FIELD SWITCH, TYPE A	EA	1	\$2,327.57	\$2,327.57
939-2305	FIELD SWITCH, TYPE C	EA	8	\$1,641.76	\$13,134.10
939-5010	ELEC PWR SVC ASSEMBLY, AERIAL SVC POINT	EA	0	\$1,915.25	\$0.00
639-4004	STRAIN POLE, TP IV	EA	0	\$5,253.24	\$0.00
999-0001	Cabinet Type C (Pole Mounted)	EA	2	\$1,750.00	\$3,500.00
999-0002	Trace Wire	LF	18110	\$0.03	\$543.30
<b>SUBTOTAL</b>					<b>\$601,180.24</b>
<b>Engineering and Inspection (5%)</b>					<b>\$30,059.01</b>
<b>Contingency (5%)</b>					<b>\$30,059.01</b>
<b>GRAND TOTAL</b>					<b>\$661,298.27</b>

ESTIMATE DATE:

9/9/2014

# **Attachment 3**

Keith Golden, P.E., Commissioner



GEORGIA DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW  
Atlanta, Georgia 30308  
Telephone: (404) 631-1000

April 25, 2013

RECEIVED

MAY 07 2013

CITY OF JOHNS CREEK  
PUBLIC WORKS DEPT.

Mr. Tom Black, Director  
City of Johns Creek Public Works  
12000 Findley Rd, Suite 400  
Johns Creek, GA 30097-1412

Dear Mr. Black:

I am returning for your files an executed agreement between the Georgia Department of Transportation and the City of Johns Creek for the following project:

**Fulton County, PI# 0012626**

We look forward to working with you on the successful completion of the joint project.  
Should you have any questions, please contact the Project Manager Cynthia Burney at (404) 631-1851.

Sincerely,

Angela Robinson,  
Financial Management Administrator

AR:kp

Enclosure

c: Bob Rogers  
Rachel Brown – District 7 Engineer  
Vicki Gavalas – District 7 Planning & Programming Engineer  
Jonathan Walker – District 7 Utilities Engineer  
Mike Bolden – State Utilities Engineer

**AGREEMENT  
BETWEEN  
DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
AND  
THE CITY OF JOHNS CREEK  
FOR  
TRANSPORTATION FACILITY IMPROVEMENTS**

This Framework Agreement is made and entered into this 16<sup>th</sup> day of April, 2009, by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the **CITY OF JOHNS CREEK**, acting by and through its Mayor and City Council, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment "A", attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

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WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the DEPARTMENT has provided an estimated cost to the LOCAL GOVERNMENT for its participation in certain activities of the PROJECT; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another “for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide.” Ga. Constitution Article IX, §III, ¶I(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT has applied for and received “Qualification Certification” to administer federal-aid projects. The GDOT Local Administered Project (LAP) Certification Committee has reviewed, confirmed and approved the certification for the LOCAL GOVERNMENT to develop federal project(s) within the scope of its certification using the DEPARTMENT’S Local Administered Project Manual procedures. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities,

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hereinafter referred to as "PE", all reimbursable utility relocations, all non-reimbursable utilities owned by the LOCAL GOVERNMENT, railroad costs, right of way acquisitions and construction, as specified in Attachment "A", affixed hereto and incorporated herein by reference. In addition, the September 17, 2010 Planning Office memorandum titled "Preliminary Engineering Oversight for Project Managers/Project Delivery Staff", outlines the five (5) conditions when the LOCAL GOVERNMENT will be requested to fund the PE oversight activities at 100%, and is enclosed as Attachment "C" and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT prior to the execution of this AGREEMENT or subsequent funding agreements shall not be considered for reimbursement by the DEPARTMENT. PE expenditures incurred by the LOCAL GOVERNMENT after execution of this AGREEMENT shall be reimbursed by the DEPARTMENT once a written notice to proceed is given by the DEPARTMENT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the PE, right of way acquisitions, reimbursable utility relocations, railroad costs, or construction (specified in Attachment "A") affixed hereto and incorporated herein by reference, and none of the five (5) conditions apply from the Planning Office memorandum dated September 17, 2010 (specified in Attachment "C").

3. The DEPARTMENT shall provide a PE Oversight Estimate to the LOCAL GOVERNMENT, if appropriate, appended as Attachment "D" and incorporated by reference as if fully set out herein. The LOCAL GOVERNMENT will be responsible for

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providing payment, which represents 100% of the DEPARTMENT's PE Oversight Estimate at the time of the Project Framework Agreement execution.

If at any time the PE Oversight funds are depleted within \$5,000 of the remaining PE Oversight balance and project activities and tasks are still outstanding, the LOCAL GOVERNMENT shall, upon request, make additional payment to the DEPARTMENT. The payment shall be determined by prorating the percentage complete and using the same estimate methodology as provided in Attachment "D". If there is an unused balance after completion of all tasks and phases of the project, then pending a final audit, the remainder will be refunded to the sponsor.

4. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the PE. The Right of Way and Construction funding estimate levels as specified in Attachment "A" are provided herein for planning purposes and do not constitute a funding commitment for right of way and construction. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for funding applicable to other activities when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds if the PROJECT does not proceed forward to completion due to a lack of available funding in future PROJECT phases, changes in local priorities or

cancellation of the PROJECT by the LOCAL GOVERNMENT without concurrence by the DEPARTMENT.

5. In accordance with Georgia Code 32-2-2, The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance and operations of any and all sidewalks and the grass strip between the curb and sidewalk within the PROJECT limits. The LOCAL GOVERNMENT shall also be responsible for the continual maintenance and operation of all lighting systems installed to illuminate any roundabouts constructed as part of this PROJECT. Furthermore, the LOCAL GOVERNMENT shall also be responsible for the maintaining of all landscaping installed as part of any roundabout constructed as part of this PROJECT.

6. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation Improvement Program/State Transportation Improvement Program, hereinafter referred to as "TIP/STIP". Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment "B" and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

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If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the PROJECT's implementation until funds can be re-identified for right of way or construction phases, as applicable.

7. The LOCAL GOVERNMENT shall certify that the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, and FEDERAL AUDIT REQUIREMENTS" are understood and will comply in full with said provisions.

8. The LOCAL GOVERNMENT shall accomplish the PE activities for the PROJECT. The PE activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process hereinafter referred to as "PDP", the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications Construction of Transportation Systems, and all applicable design guidelines and policies of the DEPARTMENT to produce a cost effective PROJECT. Failure to follow the PDP and all applicable guidelines and policies will jeopardize the use of Federal Funds in some or all categories outlined in this agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. The LOCAL GOVERNMENT's responsibility for PE activities shall include, but is not limited to the following items:

a. Prepare the PROJECT Concept Report and Design Data Book in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be updated or modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of PE due to updated guidelines, public input, environmental requirements, Value Engineering recommendations, Public Interest Determination (PID) for utilities, utility/railroad conflicts, or right of way considerations.

b. Prepare a Traffic Study for the PROJECT that includes Average Daily Traffic, hereinafter referred to as "ADT", volumes for the base year (year the PROJECT is expected to be open to traffic) and design year (base year plus 20 years) along with Design Hour Volumes, hereinafter referred to as "DHV", for the design year. DHV includes morning (AM) and evening (PM) peaks and other significant peak times. The Study shall show all through and turning movement volumes at intersections for the ADT and DHV volumes and shall indicate the percentage of trucks on the facility. The Study shall also include signal warrant evaluations for any additional proposed signals on the PROJECT.

c. Prepare environmental studies, documentation reports and complete Environmental Document for the PROJECT along with all environmental re-

evaluations required that show the PROJECT is in compliance with the provisions of the National Environmental Policy Act or the Georgia Environmental Policy Act as per the DEPARTMENT's Environmental Procedures Manual, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, community involvement, environmental justice, flood plains, underground storage tanks, and hazardous waste site studies required. The completed Environmental Document approval shall occur prior to Right of Way funding authorization. A re-evaluation is required for any design change as described in Chapter 7 of the Environmental Procedures Manual. In addition, a re-evaluation document approval shall occur prior to any Federal funding authorizations if the latest approved document is more than 6 months old. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all studies, documents and reports for review and approval by the DEPARTMENT, the FHWA and other environmental resource agencies. The LOCAL GOVERNMENT shall provide Environmental staff to attend all PROJECT related meetings where Environmental issues are discussed. Meetings include, but are not limited to, concept, field plan reviews and value engineering studies.

d. Prepare all PROJECT public hearing and public information displays and conduct all required public hearings and public information meetings with appropriate staff in accordance with DEPARTMENT practice.

e. Perform all surveys, mapping, soil investigations and pavement evaluations needed for design of the PROJECT as per the appropriate DEPARTMENT Manual.

f. Perform all work required to obtain all applicable PROJECT permits, including, but not limited to, Cemetery, TVA and US Army Corps of Engineers permits, Stream Buffer Variances and Federal Emergency Management Agency (FEMA) approvals. The LOCAL GOVERNMENT shall provide all mitigation required for the project, including but not limited to permit related mitigation. All mitigation costs are considered PE costs. PROJECT permits and non-construction related mitigation must be obtained and completed 3 months prior to the scheduled let date. These efforts shall be coordinated with the DEPARTMENT.

g. Prepare the stormwater drainage design for the PROJECT and any required hydraulic studies for FEMA Floodways within the PROJECT limits. Acquire of all necessary permits associated with the Hydrology Study or drainage design.

h. Prepare utility relocation plans for the PROJECT following the DEPARTMENT's policies and procedures for identification, coordination and conflict resolution of existing and proposed utility facilities on the PROJECT. These policies and procedures, in part, require the Local Government to submit all requests for existing, proposed, and relocated facilities to each utility owner within the project area. Copies of all such correspondence, including executed agreements for reimbursable utility/railroad relocations, shall be forwarded to the DEPARTMENT's Project Manager and the District Utilities Engineer and require that any conflicts with the PROJECT be resolved by the LOCAL GOVERNMENT. If it is determined that the PROJECT is located on an on-system route or is a DEPARTMENT LET PROJECT, the LOCAL GOVERNMENT and the District Utilities Engineer shall ensure that permit applications are approved for each utility company in conflict with

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the project. If it is determined through the DEPARTMENT's Project Manager and State Utilities Office during the concept or design phases the need to utilize Overhead/Subsurface Utility Engineering, hereinafter referred to as "SUE", to obtain the existing utilities, the LOCAL GOVERNMENT shall be responsible for acquiring those services. SUE costs are considered PE costs.

i. Prepare, in English units, Preliminary Construction plans, Right of Way plans and Final Construction plans that include the appropriate sections listed in the Plan Presentation Guide, hereinafter referred to as "PPG", for all phases of the PDP. All drafting and design work performed on the project shall be done utilizing Microstation V8i and InRoads software respectively using the DEPARTMENT's Electronic Data Guidelines. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the final right of way plans and construction plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to acquire the right of way and construct the PROJECT.

j. Prepare PROJECT cost estimates for construction, Right of Way and Utility/railroad relocation along with a Benefit Cost, hereinafter referred to as "B/C ratio" at the following project stages: Concept, Preliminary Field Plan Review, Right of Way plan approval (Right of Way cost only), Final Field Plan Review and Final Plan submission using the applicable method approved by the DEPARTMENT. The cost estimates and B/C ratio shall also be updated annually if the noted project stages occur at a longer frequency. Failure of the LOCAL GOVERNMENT to provide timely and accurate cost estimates and B/C ratio may delay the PROJECT's

implementation until additional funds can be identified for right of way or construction, as applicable.

k. Provide certification, by a Georgia Registered Professional Engineer, that the Design and Construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT Design Policies.

l. Provide certification, by a Level II Certified Design Professional that the Erosion Control Plans have been prepared under the guidance of the certified professional in accordance with the current Georgia National Pollutant Discharge Elimination System.

m. Provide a written certification that all appropriate staff (employees and consultants) involved in the PROJECT have attended or are scheduled to attend the Department's PDP Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

9. The Primary Consultant firm or subconsultants hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. The LOCAL GOVERNMENT shall comply with all applicable state and federal regulations for the procurement of design services and in accordance

with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act, for any consultant hired to perform work on the PROJECT.

10. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

11. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the hydraulic and hydrological studies and the design of the bridge(s). The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

12. The LOCAL GOVERNMENT unless otherwise noted in Attachment "A" shall be responsible for funding all LOCAL GOVERNMENT owned utility relocations and all other reimbursable utility/railroad costs. The utility costs shall include but are not limited to PE, easement acquisition, and construction activities necessary for the utility/railroad to accommodate the PROJECT. The terms for any such reimbursable relocations shall be laid out in an agreement that is supported by plans, specifications, and itemized costs of the work agreed upon and shall be executed prior to certification by the

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DEPARTMENT. The LOCAL GOVERNMENT shall certify via written letter to the DEPARTMENT's Project Manager and District Utilities Engineer that all Utility owners' existing and proposed facilities are shown on the plans with no conflicts 3 months prior to advertising the PROJECT for bids and that any required agreements for reimbursable utility/railroad costs have been fully executed. Further, this certification letter shall state that the LOCAL GOVERNMENT understands that it is responsible for the costs of any additional reimbursable utility/railroad conflicts that arise during construction.

13. The DEPARTMENT will be responsible for all railroad coordination on DEPARTMENT Let and/or State Route (On-System) projects; the LOCAL GOVERNMENT shall address concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT. If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A" on off-system routes, the LOCAL GOVERNMENT shall be responsible for all railroad coordination and addressing concerns, comments, and requirements to the satisfaction of the Railroad and the DEPARTMENT for PROJECT.

14. The LOCAL GOVERNMENT shall be responsible for acquiring a Value Engineering Consultant for the DEPARTMENT to conduct a Value Engineering Study if the total estimated PROJECT cost is \$10 million or more. The Value Engineering Study cost is considered a PE cost. The LOCAL GOVERNMENT shall provide project related design data and plans to be evaluated in the study along with appropriate staff to present and answer questions about the PROJECT to the study team. The LOCAL

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GOVERNMENT shall provide responses to the study recommendations indicating whether they will be implemented or not. If not, a valid response for not implementing shall be provided. Total project costs include PE, right of way, and construction, reimbursable utility/railroad costs.

15. The LOCAL GOVERNMENT, unless shown otherwise on Attachment "A", shall acquire the Right of way in accordance with the law and the rules and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT. Upon the DEPARTMENT's approval of the PROJECT right of way plans, verification that the approved environmental document is valid and current, a written notice to proceed will be provided by the DEPARTMENT for the LOCAL GOVERNMENT to stake the right of way and proceed with all pre-acquisition right of way activities. The LOCAL GOVERNMENT shall not proceed to property negotiation and acquisition whether or not the right of way funding is Federal, State or Local, until the right of way agreement named "Contract for the Acquisition of Right of Way" prepared by the DEPARTMENT's Office of Right of Way is executed between the LOCAL GOVERNMENT and the DEPARTMENT. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. Right of way costs eligible for reimbursement include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable right of way

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costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. The LOCAL GOVERNMENT shall certify that all required right of way is obtained and cleared of obstructions, including underground storage tanks, 3 months prior to advertising the PROJECT for bids.

16. The DEPARTMENT unless otherwise shown in Attachment "A" shall be responsible for Letting the PROJECT to construction, solely responsible for executing any agreements with all applicable utility/railroad companies and securing and awarding the construction contract for the PROJECT when the following items have been completed and submitted by the LOCAL GOVERNMENT:

- a. Submittal of acceptable PROJECT PE activity deliverables noted in this agreement.
- b. Certification that all needed rights of way have been obtained and cleared of obstructions.
- c. Certification that the environmental document is current and all needed permits and mitigation for the PROJECT have been obtained.
- d. Certification that all Utility/Railroad facilities, existing and proposed, within the PROJECT limits are shown, any conflicts have been resolved and reimbursable agreements, if applicable, are executed.

If the LOCAL GOVERNMENT is shown to LET the construction in Attachment "A", the LOCAL GOVERNMENT shall provide the above deliverables and certifications and

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shall follow the requirements stated in Chapters 10, 11, 12 and 13 of the DEPARTMENT's Local Administered Project Manual. The LOCAL GOVERNMENT shall be responsible for providing qualified construction oversight with their personnel or by employing a Consultant firm prequalified in Area Class 8.01 to perform construction oversight. The LOCAL GOVERNMENT shall be responsible for employing a GDOT prequalified consultant in area classes 6.04a and 6.04b for all materials testing on the PROJECT, with the exception of field concrete testing. All materials testing, including field concrete testing shall be performed by GDOT certified technicians who are certified for the specific testing they are performing on the PROJECT. The testing firm(s) and the individual technicians must be submitted for approval prior to Construction.

17. The LOCAL GOVERNMENT shall provide a review and recommendation by the engineer of record concerning all shop drawings prior to the DEPARTMENT review and approval. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer files and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if the PROJECT is being let by the DEPARTMENT. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to

use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all reports, designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the reports, designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors, omissions or deficiencies within 30 days of notification shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays and supplemental agreements caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

20. The DEPARTMENT shall be furnished with a copy of all contracts and agreements between the LOCAL GOVERNMENT and any other agency or contractor associated with construction activities. The DEPARTMENT's Project Manager shall be the primary point of contact unless otherwise specified.

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21. The LOCAL GOVERNMENT shall provide the DEPARTMENT with a detailed project schedule that reflects milestones, deliverables with durations for all pertinent activities to develop critical path elements. An electronic project schedule shall be submitted to the Project Manager after execution of this agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

DEPARTMENT OF TRANSPORTATION

LOCAL GOVERNMENT NAME

BY: [Signature]  
Commissioner

BY: [Signature]  
Mike Bodker  
Mayor, City of Johns Creek

ATTEST:  
[Signature]  
Treasurer

Signed, sealed and delivered this 15 day of March, 2013, in the presence of:



[Signature]  
Witness



Notary Public  
This Agreement approved by Local Government, the 11<sup>th</sup> day of March, 2013

Attest  
[Signature]  
Joanie Jones, City Clerk

FEIN: 11-3793525

**Attachment "A" Funding Sources and Distribution**  
 Project No.: 0012626 Sponsor: City of Johns Creek

Project # 0012626 Johns Creek  
 Attach "Project Manager" Project Charging Form for Approval

Preliminary Engineering Phase I		Preliminary Engineering - Phase I <sup>1</sup>				GDOT Oversight for PE (Phase I) <sup>2</sup>			Preliminary Engineering Grand Total (Phase I)	
Percentage	PE Amount	Maximum PE Participation Amount (\$)	Participant	PE Activity Sponsor	Percentage	Amount	Participant	Percentage	Amount	
80%	\$32,800.00	\$32,800.00	Federal	Local Government	#DIV/0!	\$0.00	Federal	80%	\$32,800.00	
0%	\$0.00	\$0.00	State		#DIV/0!	\$0.00	State	0%	\$0.00	
20%	\$8,200.00	N/A	Local		#DIV/0!	\$0.00	Local	20%	\$8,200.00	
0%	\$0.00	\$0.00	Other		#DIV/0!	\$0.00	Other	0%	\$0.00	
<b>Total</b>	<b>\$41,000.00</b>				<b>#DIV/0!</b>	<b>\$0.00</b>		<b>100%</b>	<b>\$41,000.00</b>	

Right of Way Phase II		Right of Way - Phase II <sup>3</sup>				Acquisition Fund By:	
Percentage	ROW Amount	Maximum ROW Participation Amount (\$)	Participant	Acquisition By:	Percentage	Amount	Utility Relocation - Phase IV
#DIV/0!	\$0.00	\$0.00	Federal	Local Government			Utility Phase IV
#DIV/0!	\$0.00	\$0.00	State				
#DIV/0!	\$0.00	N/A	Local				
#DIV/0!	\$0.00	\$0.00	Other				
<b>Total</b>	<b>\$0.00</b>						<b>100%</b>

Construction Phase III		Construction - Phase III <sup>3</sup>				Letting By:	
Percentage	CST Amount	Maximum CST Participation Amount (\$)	Participant	Acquisition By:	Percentage	Amount	GDOT Oversight for CST (Phase III) <sup>2</sup>
80%	\$295,200.00	\$295,200.00	Federal	Local Govt			Construction Oversight Phases V & VI
0%	\$0.00	\$0.00	State				
20%	\$73,800.00	N/A	Local				
0%	\$0.00	\$0.00	Other				
<b>Total</b>	<b>\$369,000.00</b>						<b>100%</b>

Summary of Phases I Through III		Grand Total - All Phases I through III				
Percentage	TOTAL Amount	Maximum Participation Amount (\$)	Participant	Letting By:	Percentage	Amount
80%	\$328,000.00	\$328,000.00	Federal	Local Government	80%	\$32,800.00
0%	\$0.00	\$0.00	State		0%	\$0.00
20%	\$82,000.00	N/A	Local		20%	\$8,200.00
0%	\$0.00	\$0.00	Other		0%	\$0.00
<b>Total</b>	<b>\$410,000.00</b>				<b>100%</b>	<b>\$410,000.00</b>

<sup>1</sup>The maximum allowable GDOT participating amounts for PE phase are shown above. The local government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.

<sup>2</sup>GDOT Oversight for PE (Phase I) is detailed in Attachment "D".

<sup>3</sup>Right-of-Way and Construction amounts shown are for budget planning purposes only.

NOTE: Separate GDOT P.O.s will be established for each funding phase.

## ATTACHMENT "B" Project Timeline

PI # 0012626 – City of Johns Creek

### Proposed Project Timeline

Environmental Phase	Execute Agreement	September 2013 (Approve Concept)	December 2013 (Approve Env. Document)	N/A (Authorize Right of Way funds)	June 2014 (Authorize Const. funds)
Concept Phase	Execute Agreement	September 2013 (Approve Concept)	December 2013 (Approve Env. Document)	N/A (Authorize Right of Way funds)	June 2014 (Authorize Const. funds)
Preliminary Plan Phase	Execute Agreement	September 2013 (Approve Concept)	December 2013 (Approve Env. Document)	N/A (Authorize Right of Way funds)	June 2014 (Authorize Const. funds)
Right of Way Phase	Execute Agreement	September 2013 (Approve Concept)	December 2013 (Approve Env. Document)	N/A (Authorize Right of Way funds)	June 2014 (Authorize Const. funds)

**Deadlines for Responsible Parties**      **Execute Agreement**      **September 2013**      **September 2013**      **December 2013**      **December 2013**      **June 2014**  
 (Approve Concept)      (Approve Concept)      (Approve Env. Document)      (Approve Env. Document)      (Authorize Right of Way funds)      (Authorize Const. funds)

### Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

# ATTACHMENT "C"

D.O.T. 66

Project #0012626 Johns Creek

## DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

### INTERDEPARTMENTAL CORRESPONDENCE

**FILE** OFFICE Planning  
**DATE** September 17, 2010

**FROM**   
Angela T. Alexander, State Transportation Planning Administrator

**TO** Todd I. Long, PE, PTOE, Director of Planning  
Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner

**SUBJECT** Preliminary Engineering Oversight for Project Managers/Project Delivery Staff

*Note: This memo supersedes the previous PE Oversight Memo, dated August 17, 2010. PE Oversight funding for Safe Route to School (SRTS) projects are eligible for PE Oversight funds, paid for with funding from the SRTS program. No other changes were made to the memo.*

As you are aware, the Department is unable to continue funding PE oversight with 100% motor fuel funds due to the decline in motor fuel revenues. As a result, the Department needs an established procedure detailing the circumstances under which the Department will fund PE oversight with federal-aid funds (matched with state motor fuel funds) and when the Department will request that the local government/project sponsor fund the Department's expenses associated with PE oversight. The PE Oversight funds will be used to fund staff man-hours and any other associated expenses incurred by any GDOT employee working on the project. Please note that the process detailed below applies equally to routes both on and off the state highway system.

#### **GDOT Funds PE Oversight with Federal-Aid:**

The Department will fund PE oversight with federal-aid funds (and matching motor fuel funds), only if a subsequent project phase (ROW, UTL, CST) is programmed within the first 4 active years of the currently approved TIP/STIP. The source of federal-aid funds to be used for the PE oversight activities is as follows:

- 1) Projects on the National Highway System will use NHS funds (L050) to finance GDOT's PE oversight expenses
- 2) Projects *not* on the National Highway System but eligible for Surface Transportation Program (STP) funds, will follow one of the scenarios below:
  - a) Projects in urban areas between 5,000 and 199,999 in population will use L200 funds (with MPO approval, if applicable)
  - b) Projects in urban areas with a population greater than 200,000 will use L230 funds (with MPO approval)
  - c) Projects in rural areas with a population less than 5,000 will use L250 funds
  - d) The Department may, at the joint discretion of the Chief Engineer and Director of Planning, apply L240 funds to any federal-aid eligible project

- 3) Projects which have received an earmark in federal legislation, will use a portion of the earmark funding for GDOT's PE oversight expenses, pending MPO approval if applicable. (Note: earmark funded projects could receive PE oversight funding regardless of the funding being programmed within the first 4 active years of a currently approved TIP/STIP).
- 4) Projects funded with Safe Route to School (SRTS) funds will use SRTS funds to finance GDOT's PE oversight expenses, regardless of whether or not a subsequent phase of the project appears in the STIP/TIP.

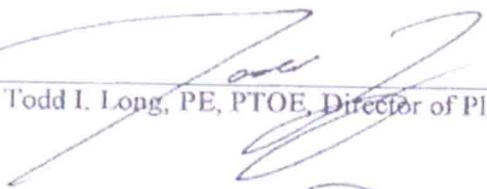
**GDOT Requests Local Government/Project Sponsor to Fund PE Oversight:**

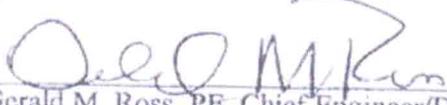
The Department will request that the local government fund PE oversight with 100% local funds under the following conditions:

- 1) A subsequent phase of the project is not programmed within the first 4 active years of the Currently approved TIP/STIP
- 2) The MPO has elected to not approve the use of L200 or L230 funds for GDOT's PE oversight expenses
- 3) The project is funded with CMAQ funds
- 4) The project is funded with an earmark identified in federal legislation and the local government/entity which secured the earmark (or MPO, if applicable) declines to allow GDOT to use a portion of the earmark for PE oversight expenses
- 5) The project is currently funded entirely with local funds; however, the local government intends to secure federal funding at a future date

Once the PE oversight process is implemented, it will be the responsibility of the GDOT Project Manager to work with the GDOT Office of Financial Management to establish an appropriate amount of federal-aid funded PE oversight funding, or work with the local government to secure locally sourced PE oversight funds.

If you approve of this process, please sign below. Once an acceptable process is developed and approved by both the Chief Engineer and Director of Planning, we will provide the finalized process to the Office of Program Control for distribution to the GDOT Project Managers and incorporation into future Project Framework Agreements. If you have any questions, please contact Matthew Fowler at 404-631-1777.

Approved:  \_\_\_\_\_ 9/27/10  
 Todd I. Long, PE, PTOE, Director of Planning Date

Approved:  \_\_\_\_\_ 10/7/20  
 Gerald M. Ross, PE, Chief Engineer/Deputy Commissioner Date

**ATTACHMENT "D"**

**GDOT Oversight Estimate for Locally Administered Project**

Monday, March 25, 2013 10:09 AM

	<input type="text" value="0012626"/>	<input type="text"/>
<b>PI Number</b>		<b>Project Number</b>
<b>County</b>	<input type="text" value="Fulton"/>	<b>Project Length</b> <input type="text" value="5.240"/> <b>Miles</b>
<b>Project Manager</b>	<input type="text" value="Burney, Cynthia"/>	<b>Project Cost</b> <input type="text" value="\$ 410,000.00"/>
<b>Project Type</b>	<input type="text" value="Intelligent Transportation System (ITS)"/>	
<b>Project Description</b>	<input type="text" value="McGinnis Ferry Road &amp; State Bridge Road – ITS Expansion"/>	
<b>Expected Life of Project</b>	<input type="text" value="1.00"/> <b>Years</b>	

Project Phase	Oversight Hours	Oversight Cost
1. Project Initiation	0	\$ 00.00
2. Concept Development	0	\$ 00.00
3. Database Preparation*	0	\$ 00.00
4. Preliminary Design	0	\$ 00.00
5. Environmental	0	\$ 00.00
6. Final Design	0	\$ 00.00
Travel Expenses		\$ -
<b>Total Oversight Estimate</b>	<b>0</b>	<b>\$ 00.00</b>
Percentage of Project Cost	.00%	

W:\DPPE\PFA\LOCAL PE\JOHNS CREEK\Zero Oversight Estimate for 0012626

**ATTACHMENT "E"**  
**GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT**  
**AFFIDAVIT**

Name of Contracting Entity: City of Johns Creek

Contract No. and Name: \_\_\_\_\_  
\_\_\_\_\_

By executing this affidavit, the undersigned person or entity verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm, or entity which is contracting with the Georgia Department of Transportation has registered with, is authorized to participate in, and is participating in the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

The undersigned person or entity further agrees that it will continue to use the federal work authorization program throughout the contract period, and it will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the undersigned with the information required by O.C.G.A. § 13-10-91(b).

The undersigned person or entity further agrees to maintain records of such compliance and provide a copy of each such verification to the Georgia Department of Transportation within five (5) business days after any subcontractor is retained to perform such service.

# 100011  
E-Verify / Company Identification Number

02/13/2008  
Date of Authorization

[Signature]  
Signature of Authorized Officer or Agent

Mary Ann Haskins  
Printed Name of Authorized Officer or Agent

HR & Support Services Director  
Title of Authorized Officer or Agent

03/14/2013  
Date

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
14<sup>th</sup> DAY OF March, 2013

Joan Jones  
Notary Public

My Commission Expires: 12/12/14



**JOAN JONES**  
**NOTARY PUBLIC**  
**HENRY COUNTY, GEORGIA**

[NOTARY SEAL]

## ATTACHMENT "F"

### TITLE VI INTRODUCTION

As a sub-recipient of federal funds from Georgia Department of Transportation, all municipalities are required to comply with Title VI of the Civil Rights Act of 1964 which provides that:

**"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance under This title or carried out under this title."**

Additionally, the Civil Rights Restoration Act of 1987, expanded the definition of the terms "programs and activities" to include all programs or activities of federal recipients, subrecipients, and contractors, whether or not such programs and activities are federally assisted.

The provisions of Title VI apply to all contractors, subcontractors, consultants and suppliers. And is a condition for receiving federal funds. All sub recipients must sign Title VI assurances that they will not discriminate as stated in Title VI of the Civil Rights Act of 1964.

In the event that the sub recipient distributes federal aid funds to second tier entity, the sub-recipient shall include Title VI language in all written documents and will monitor for compliance. If, these assurances are not signed, the City or County government may be subjected to the loss of federal assistance.

All sub recipients that receive federal assistance must also include Federal Highways Administrations 1273 in their contracts. The FHWA 1273 sets out guidance for ensuring non discrimination and encouraging minority participation and outreach.

Enclosed you will find Title VI acknowledgment form and the Title VI assurances. The Title VI acknowledgment form and Title VI assurances must be signed by your local government official if it has not been signed.

Revised: 12/2011

ATTACHMENT "F"

TITLE VI ACKNOWLEDGEMENT FORM

The City of Johns Creek assures that no person shall on the grounds or race, color, national origin or sex as provided by Title VI of the Civil Rights Act of 1964, and the Civil Rights Restoration Act of 1987 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any City or County sponsored program or activity. The City of Johns Creek assures that every effort will be made to ensure non discrimination in all of its programs or activities, whether those programs are federally funded or not.

Assurance of compliance therefore falls under the proper authority of the City Council or the County Board of Commissioners. The Title VI Coordinator or Liaison is authorized to ensure compliance with provisions of this policy and with the Law, including the requirements of 23 Code of Federal Regulations (CFR) 200 and 49 CFR 21.

Mary Ann Naskins  
Official Name and Title HR & Support Services Director

03/14/2013  
Date

Citations:

Title VI of the Civil Rights Act of 1964; 42 USC 2000d to 2000d-4; 42 USC 4601 to 4655; 23 USC 109(h); 23 USC 324; DOT Order 1050.2; EO 12250; EO 12898; 28CFR 50.3

**Other Nondiscrimination Authorities Expanded the range and scope of Title VI coverage and applicability**

- The 1970 Uniform Act (42 USC 4601)
- Section 504 of the 1973 Rehabilitation Act (29 USC 790)
- The 1973 Federal-aid Highway Act (23 USC 324)
- The 1975 Age Discrimination Act (42 USC 6101)
- Implementing Regulations (49 CFR 21 & 23 CFR 200)
- Executive Order 12898 on Environmental Justice (EJ)
- Executive Order 13166 on Limited English Proficiency (LEP)

# **Attachment 4**

ITS Phase 3A - PI#0012626  
3/11/14

Attendees:

- Alex Hofelich, SEI
- Cindy Jenkins, COJC
- Chris Maddox, SEI
- John Portwood, COJC
- Tom Udell, COJC

Topics:

- Discussed schedule and balance between goal of May 2015 let date and goal of getting a letter for advance funding if possible
- Discussed need for coordination with Gwinnett County
  - Meeting to be scheduled next week with COJC, Gwinnett, GDOT PM, and SEI
  - Need to add Gwinnett projects to concept report
  - Need to discuss river crossing preferences
- Discussed impact of SR 120 project and potential modification to scope
  - COJC to hold meeting 3/12 to determine next steps that project and how that will impact PI#0012626
- Discussed several items in draft concept report that need to be adjusted
  - Provided new paragraph discussing avoidance of signal permits and discussed how and where to expand
  - Additional redlines to be provided to COJC
- Discussed need to start environmental early coordination
  - Aster survey completed in late 2013
- Cindy is to be CC'd on milestone items but not details
- SEI needs from COJC
  - Copy of local let approval form
  - Copy of Material Testing Request
  - Determination of cost responsibility for utility relocation and make-ready work

ITS Phase 3A - PI#0012626  
Project Scope Meeting Agenda  
3/28/14

Invited Attendees:

- Cynthia Burney, GDOT
- Alex Hofelich, SEI
- Cindy Jenkins, COJC
- John Portwood, COJC
- Tom Sever, Gwinnett County
- Tom Udell, COJC

Topics:

- Concept Report
- Need list of impacted Gwinnett projects for concept report, including any additional Pleasant Hill projects or SPLOST projects
- Discuss river crossing preferences
- Discussed SR 120 project - long range - this project should be constructed and punched out years before the other is getting close to breaking ground