

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

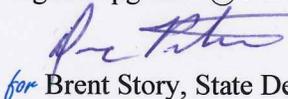
**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0012672

OFFICE Design Policy & Support

Barrow County
GDOT District 1 - Gainesville
Signal Upgrades @ 9 Locations

DATE 10/23/2014

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
Bobby Hilliard, Program Control Administrator
Albert Shelby, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Richard Cobb, Statewide Location Bureau
Brent Cook, District Engineer
David Olson, District Traffic Engineer
Neil Kantner, District Utilities Engineer
Steven Heng, Project Manager
BOARD MEMBER - 10th Congressional District

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

Project Type: Signals P.I. Number: 0012672
GDOT District: District 1 County: Barrow
Federal Route Number: _____ State Route Number: 53, 81, 211, & 316
Project Number: _____

SR 53; SR 81; SR 211 & SR 316 @ 9 Locations in Barrow County

Submitted for approval:

<u>Ashlyn Morgan</u> Ashlyn Morgan, PE, Atkins	<u>7.15.14</u> DATE
<u>Albert Shelby</u> State Program Delivery Engineer	<u>7.17.14</u> DATE
<u>Stewart Heng</u> GDOT Project Manager	<u>7-15-14</u> DATE

Recommendation for approval:

<u>HIRAL PATEL*/EKP</u> State Environmental Administrator	<u>7/18/2014</u> DATE
<u>KSTAN ZAHUL*/EKP</u> State Traffic Engineer	<u>7/22/2014</u> 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).

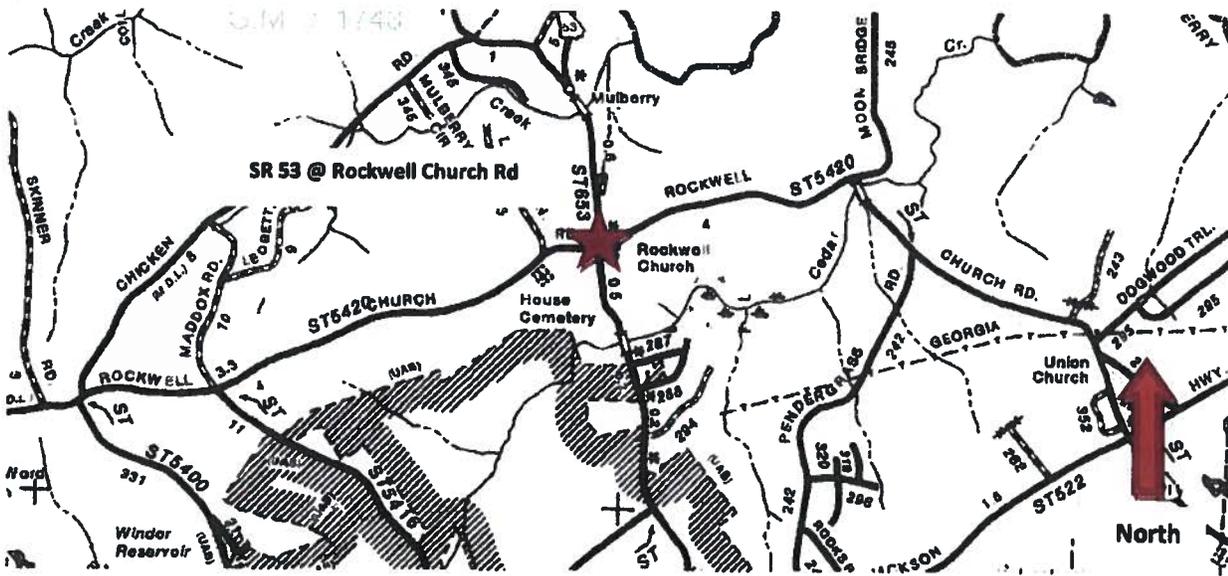
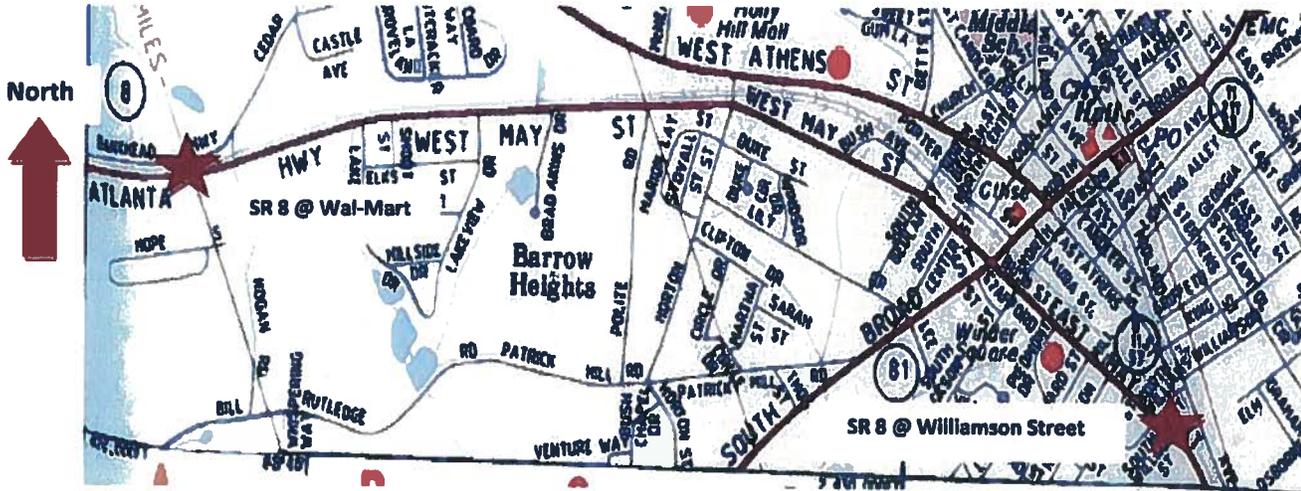
<u>CINDY VANDUYKE*/EKP</u> State Transportation Planning Administrator	<u>7/22/2014</u> DATE
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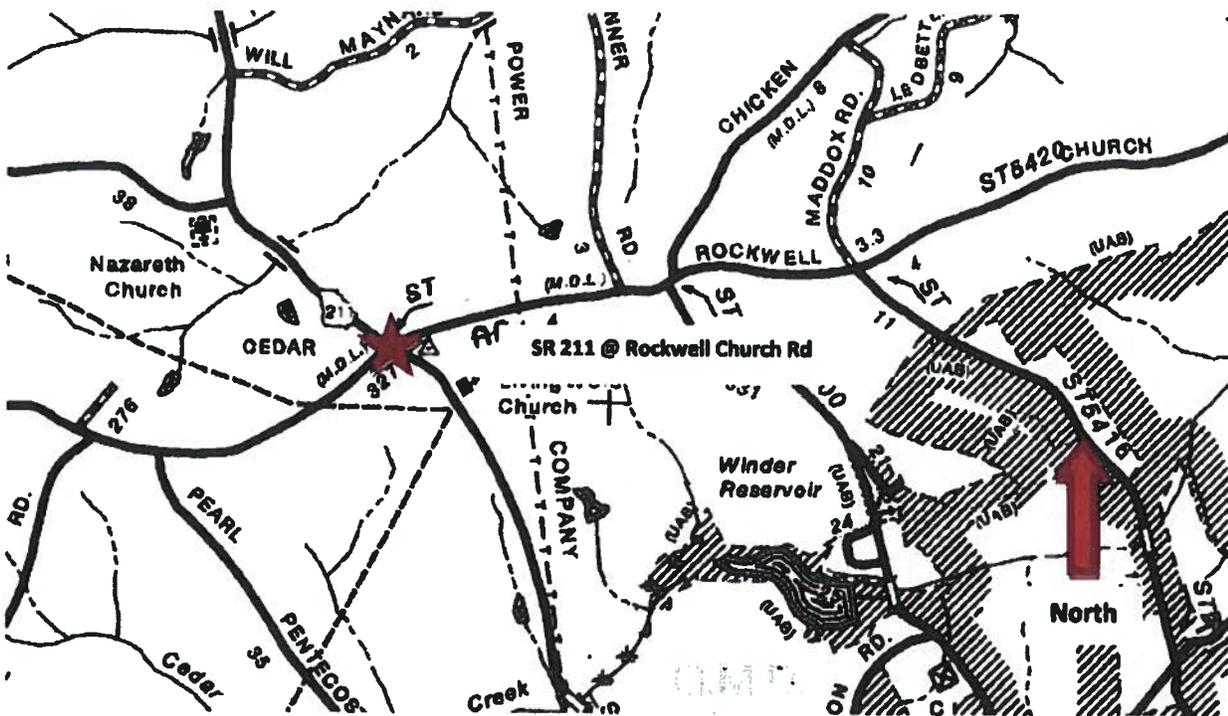
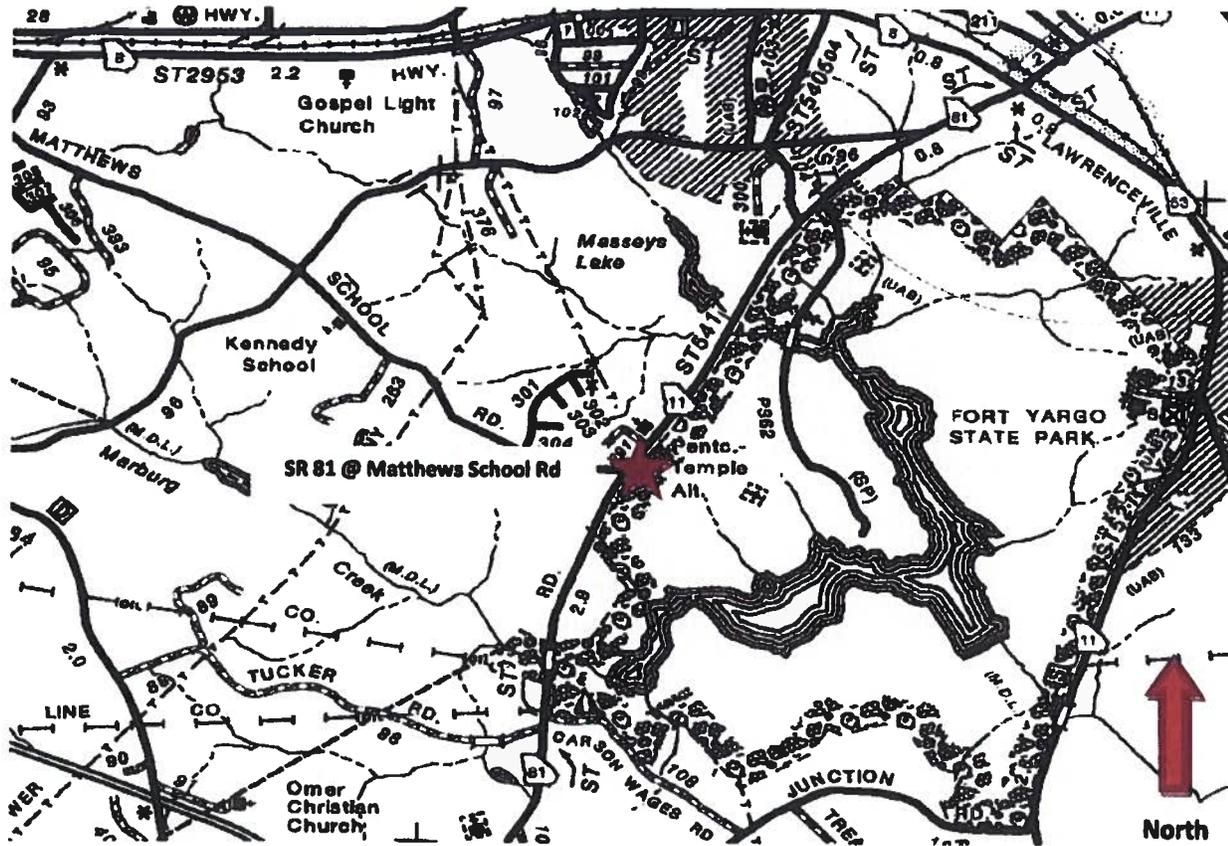
Approval:

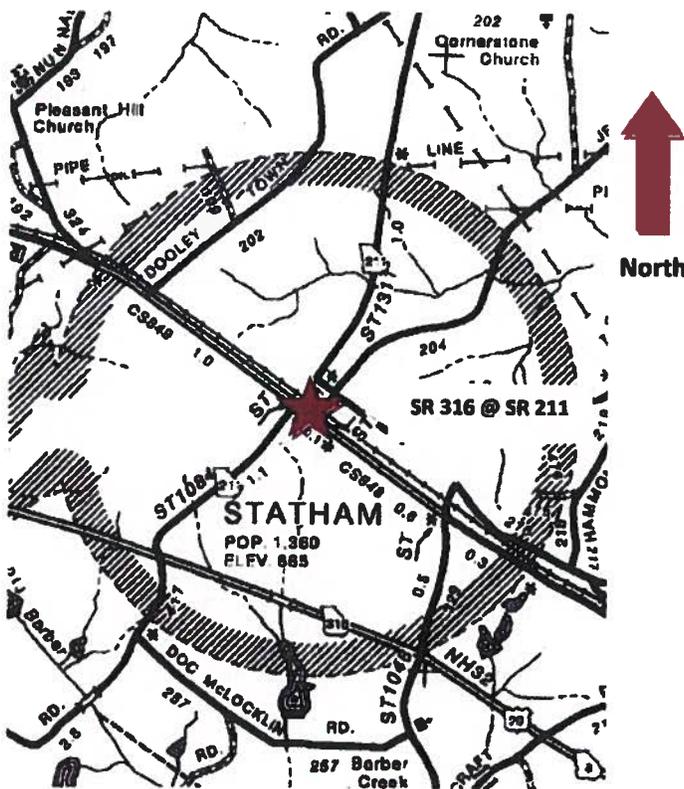
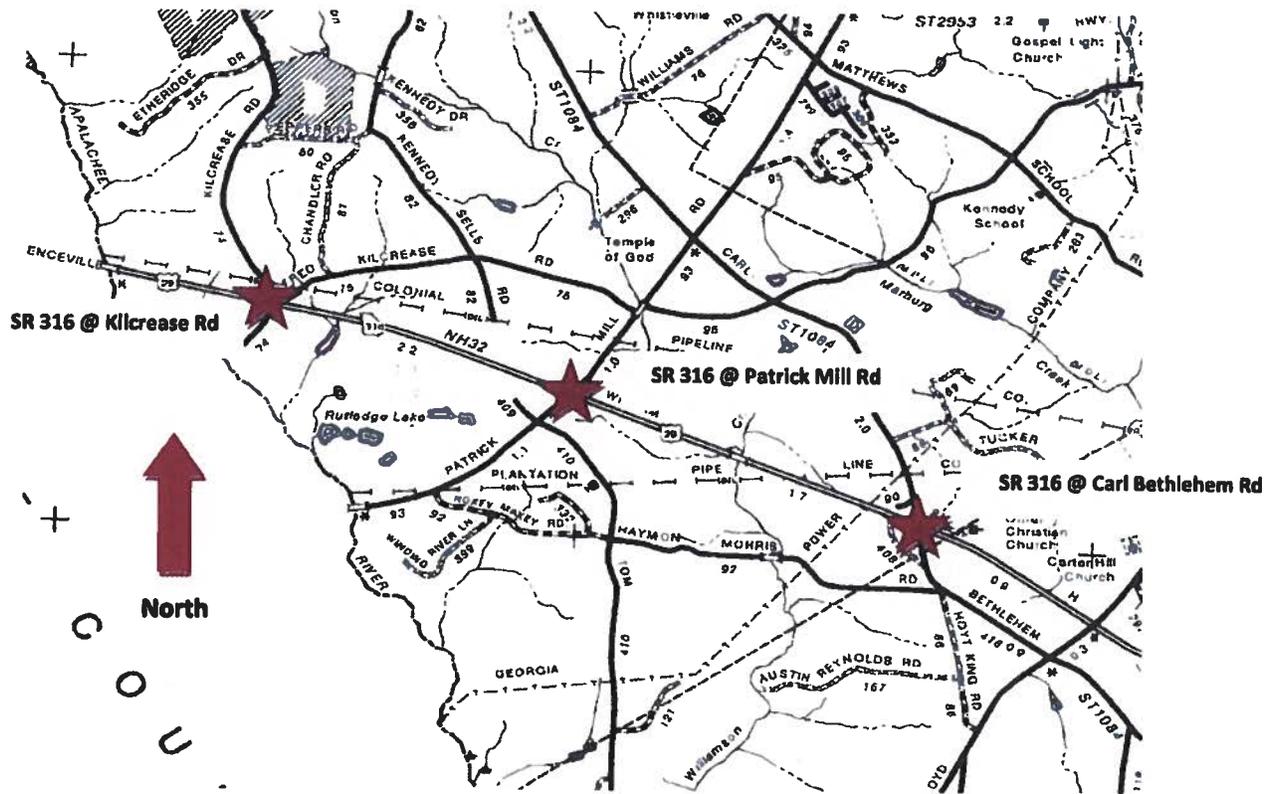
Concur: <u>[Signature]</u> GDOT Director of Engineering	<u>10/14/14</u> DATE
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Approve: <u>[Signature]</u> GDOT Chief Engineer	<u>10/20/14</u> DATE
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PROJECT LOCATION







PLANNING & BACKGROUND DATA

Project Justification Statement: There are nine (9) signalized intersections in Barrow County in need of improvements to address compliance with current GDOT standards and the Manual on Uniform Traffic Control Devices (MUTCD) and the requirements of the Americans with Disabilities Act (ADA). The proposed project will enhance efficiency for vehicular and pedestrian movements at several locations by providing upgraded traffic signal equipment and pedestrian platforms, energy saving LED signal heads, wheelchair ramps, pedestrian signals, and crosswalk striping.

The intersections listed in Table 1 located in Barrow County have been identified by The Office of Traffic Operation as high priority for minor intersection improvements. Table 1 also shows the reason the District has identified these intersections to be upgraded. The proposed project is to be included in the Region wide Signal Upgrade Lump Sum Program.

Table 1: Intersection Upgrade Needs

County	City	Primary Route	Intersecting Road	Reason for Upgrade
Barrow	Winder	SR 8	Williamson St/E Athens St	Obsolete Equipment/ADA
Barrow	Winder	SR 8	Wal-Mart Drive	Obsolete Equipment/ADA
Barrow	Winder	SR 53	Rockwell Church Rd	Obsolete Equipment/ADA
Barrow	Winder	SR 81	Matthews School Rd	Obsolete Equipment/ADA
Barrow	Statham	SR 211	SR 316	Obsolete Equipment/ADA
Barrow	Winder	SR 211	Rockwell Church Rd	Obsolete Equipment/ADA
Barrow	Winder	SR 316	Kilcrease Road	Obsolete Equipment/ADA
Barrow	Winder	SR 316	Patrick Mill Rd	Obsolete Equipment/ADA
Barrow	Winder	SR 316	Carl Bethlehem Rd	Obsolete Equipment/ADA

Existing conditions:

- SR 8 – at the intersection of Williamson St/E Athens St – is a two-lane roadway with 13-foot lanes, left turn lanes, and a right turn lane in the westbound direction at Williamson Street.
- SR 8 – at the intersection of Wal-Mart Dr – is a two-lane roadway with 12-foot lanes, left turn lane in the westbound direction, and a right turn lane and striped median in the eastbound direction at Wal-Mart Drive.
- SR 53 – at the intersection of Rockwell Church Rd – is a two-lane roadway with 12-foot lanes and left and right turn lanes at Rockwell Church Road.
- SR 81 – at the intersection of Matthews School Rd – is a two-lane roadway with 12-foot lanes, left turn lane in northbound direction, and striped median in southbound direction.
- SR 211 – at the intersection of SR 316/University Pkwy – is a two-lane roadway with 11-foot lanes, grass median, and left and right turn lanes at SR 316.
- SR 211 – at the intersection of Rockwell Church Rd – is a two-lane roadway with 12-foot lanes at Rockwell Church Rd.
- SR 316 – at the intersections of Kilcrease Rd, Patrick Mill Rd, and Carl Bethlehem Rd – is a four-lane divided roadway with 12-foot lanes, grass median, offset left turn lanes, and right turn lanes.

Other projects in the area:

- 0006327 – West Winder Bypass from CR 325/Mathews School Rd to SR 211 – PH 1
- 0013045 – Off-System Safety Improvements @ 20 locations in Barrow County
- M004679 – SR 211 @ US29/SR8/SR 316 add left turn and thru lanes

Description of the proposed project: The project will upgrade equipment, accommodate pedestrians, and update pedestrian facilities to meet current ADA standards at the following intersections.

- SR 8 @ Williamson Street/E. Athens Street
- SR 8 at Wal-Mart Drive
- SR 53 @ Rockwell Church Rd
- SR 81 @ Mathews School Rd
- SR 211 @ SR 316
- SR 211 @ Rockwell Church Rd
- SR 316 @ Kilcrease Road
- SR 316 @ Patrick Mill
- SR 316 @ Carl Bethlehem

The standard project limits will be 200 feet from the center point of the intersection; should setback loops need replacement, the project limits will be 500 feet from the center point of the intersection. If setback loops are present, the survey should include the edge of pavement and property lines to the setback loop. Standard erosion control details should be used. Traffic studies are not needed for this project. The scope of this project will be limited to equipment upgrades, pedestrian accommodations, and updating pedestrian facilities to meet ADA standards.

MPO: Atlanta TMA

TIP #: N/A

TIA Regional Commission: Not a TIA Project

Congressional District(s): 10

Federal Oversight: Exempt State Funded Other

Projected Traffic: **N/A**

Current Year (20WW): N/A Open Year (20XX): N/A Design Year (20YY): N/A
 Traffic Projections Performed by: N/A

Functional Classification (Mainline):

- SR 8 – Urban Collector & Urban Principal Arterial
- SR 53 - Urban Minor Arterial Street
- SR 81 - Urban Minor Arterial Street
- SR 211 – Urban Collector & Rural Major Collector
- SR 316 - 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:

SR 8 – Urban Collector & Urban Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	N/A	N/A
- Lane Width(s)	Varies: 12ft – 13ft	N/A	N/A
- Median Width & Type	Width Varies; striped & 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	Yes & No	N/A	N/A
- Auxillary Lanes	N/A	N/A	N/A
- Bike Lanes	No	N/A	N/A
Posted Speed	45mph – 55mph		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

SR 53 – Urban Minor Arterial Street

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	N/A	N/A
- Lane Width(s)	12ft	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	No	N/A	N/A
- Auxillary Lanes	N/A	N/A	N/A
- Bike Lanes	No	N/A	N/A
Posted Speed	55mph		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

SR 81 – Urban Minor Arterial Street

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	N/A	N/A
- Lane Width(s)	12ft	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	No	N/A	N/A
- Auxillary Lanes	N/A	N/A	N/A
- Bike Lanes	No	N/A	N/A
Posted Speed	55mph		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

SR 211 – Urban Collector & Rural Major Collector

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2	N/A	N/A
- Lane Width(s)	Varies: 11ft – 12ft	N/A	N/A
- Median Width & Type	Width Varies; grass & 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	No	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	No	N/A	N/A
Posted Speed	45mph – 55mph		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

SR 316 – Urban Principal Arterial

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	N/A	N/A
- Lane Width(s)	12ft	N/A	N/A
- Median Width & Type	Width varies 0’-30’, Grass	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	No	N/A	N/A
- Auxiliary Lanes	N/A	N/A	N/A
- Bike Lanes	No	N/A	N/A
Posted Speed	65 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

Major Interchanges/Intersections:

- SR 316 @ Kilcrease Road
- SR 316 @ Patrick Mill Road
- SR 316 @ Carl Bethlehem Road
- SR 316 @ SR 211

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: None

Design Variances to GDOT Standard Criteria anticipated: None

UTILITY AND PROPERTY

Temporary State Route Needed: No Yes Undetermined

Railroad Involvement: None

Utility Involvements:

- Windstream – Telecom
- City of Winder – Gas & Water
- Atlanta Gas Light – Gas
- Atmos Energy – Gas
- AT&T – Telecom
- Barrow County – Water & Sewer
- City of Buford – Gas & Water
- Colonial Pipeline – Gas
- Comcast – Cable TV
- Georgia Power – Electric Distribution
- Georgia Transmission Corporation – Electric Transmission
- Jackson EMC – Electric Distribution
- Plantation Pipeline – Gas
- Walton EMC – Electric Distribution

SUE Required: No Yes

Public Interest Determination Policy and Procedure recommended? No Yes

Right-of-Way: Existing width: _ft Proposed width: _ft
Required Right-of-Way anticipated: No Yes Undetermined
Easements anticipated: None Temporary Permanent Utility Other

Anticipated number of impacted parcels: N/A
Displacements anticipated: Total: N/A
Businesses: N/A
Residences: N/A
Other: N/A

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

GEPA: NEPA: CE PCE

MS4 Compliance – Is the project located in an MS4 area? No Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

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

NEPA/GEPA Comments & Information: Due to the nature of the project, impacts to ecology, history, and archaeology resources are anticipated to be minimal to none, and air and noise analyses would be at the screening level. The project is expected to be documented as a PCE.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Project Meetings: Project kickoff meeting held 05/01/2014, meeting minutes attached.

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

Other coordination to date: Kickoff Meeting 05/01/2014

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	GDOT	GDOT	GDOT	GDOT	N/A	
\$ Amount	\$350,000	-	-	\$ 1,203,615.35		\$1,553,615.35
Date of Estimate	4/24/2014			7/7/2014		

*CST Cost includes: Construction and Engineering and Inspection

ALTERNATIVES DISCUSSION

No-Build Alternative:			
Estimated Property Impacts:	N/A	Estimated Total Cost:	N/A
Estimated ROW Cost:	N/A	Estimated CST Time:	N/A
Rationale: Does not fulfill the objectives of the Project Justification Statement			

Comments/Additional Information: None.

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Revisions to Program Costs
2. Cost Estimates
3. Kickoff meeting minutes

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **OFFICE**

PROJECT DESCRIPTION

DATE

From: *Albert Shelby*

To: Lisa L. Myers, State Project Review Engineer

Subject: REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MGMT LET DATE

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

*Cost Contains % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

Project Type: Reconstruction/Rehabilitation Risk: Low Project Phase: Concept
Updated construction cost estimate based on information gathered during field visit and proposed work to intersections. Cost estimate for right of way will not change at this time due to the initial stage of the project and survey has not started yet. It will be updated in the next Milestone.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$	1,091,714.60	Base Estimate From CES
B. ENGINEERING AND INSPECTION (E & I):	\$	54,585.73	Base Estimate (A) x 5 %
C. CONTINGENCY:	\$	57,315.02	Base Estimate (A) + E & I (B) x 5 % <u>See % Table in "Risk Based Cost Estimation" Memo</u>
D. TOTAL LIQUID AC ADJUSTMENT:	\$		Total From Liquid AC Spreadsheet
E. CONSTRUCTION TOTAL:	\$	1,203,615.35	(A + B + C + D = E)

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	\$ -

ATTACHMENTS:

Detailed cost estimate Preliminary ROW Cost Estimate

STATE HIGHWAY AGENCY
DATE : 07/07/2014

JOB DETAIL ESTIMATE

JOB NUMBER : 0012672 SPEC YEAR: 01
DESCRIPTION: SR 8; SR 53; SR 81; SR 211 & SR 316 @ 9 LOCATIONS

ITEMS FOR JOB 0012672

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - 0012672	1.000	51986.41	51986.41
0010	163-0232		AC	TEMPORARY GRASSING	1.000	437.96	437.96
0015	163-0240		TN	MULCH	10.000	249.42	2494.22
0020	441-0108		SY	CONC SIDEWALK, 8 IN	900.000	45.91	41321.67
0025	636-1020		SF	HWY SGN, TP1MAT, REFL SH TP3	150.000	19.29	2894.05
0030	636-1033		SF	HWY SIGNS, TP1MAT, REFL SH TP 9	580.500	18.98	11018.75
0035	639-4004		EA	STRAIN POLE, TP IV	36.000	6108.60	219909.71
0040	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 1	1.000	75000.00	75000.00
0045	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 2	1.000	75000.00	75000.00
0050	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 3	1.000	75000.00	75000.00
0055	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 4	1.000	75000.00	75000.00
0060	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 5	1.000	75000.00	75000.00
0065	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 6	1.000	75000.00	75000.00
0070	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 7	1.000	75000.00	75000.00
0075	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 8	1.000	75000.00	75000.00
0080	647-1000		LS	TRAF SIGNAL INSTALLATION NO - 9	1.000	75000.00	75000.00
0085	647-2130		EA	PULL BOX, PB-3	9.000	73.15	658.39
0090	652-2501		LM	SOLID TRAF STRIPE, 5 IN, WHITE	1.000	916.95	916.95
0095	652-2502		LM	SOLID TRAF STRIPE, 5 IN, YELLO	1.000	895.80	895.80
0100	652-3501		GLM	SKIP TRAF STRIPE, 5 IN, WHITE	1.000	525.52	525.52
0105	652-5701		LF	SOLID TRAF STRIPE, 24", WHITE	2352.000	1.74	4097.30
0110	652-5801		LF	SOLID TRAF STRIPE, 8 IN, WHITE	4500.000	1.10	4950.00
0115	682-6233		LF	CONDUIT, NONMETL, TP 3, 2 IN	7380.000	5.00	36900.00
0120	682-9950		LF	DIRECTIONAL BORE - 3"	1350.000	10.00	13500.00
0125	682-9950		LF	DIRECTIONAL BORE - 5"	1350.000	15.00	20250.00
0130	700-6910		AC	PERMANENT GRASSING	1.000	669.02	669.02
0135	700-7000		TN	AGRICULTURAL LIME	4.000	151.32	605.31
0140	700-8000		TN	FERTILIZER MIXED GRADE	3.000	495.25	1485.76
0145	700-8100		LB	FERTILIZER NITROGEN CONTENT	200.000	2.93	586.15
0150	713-3011		SY	WOOD FIBER BLANKET, TP I, SHOULDERS	2500.000	0.24	611.63
ITEM TOTAL							1091714.61
INFLATED ITEM TOTAL							1091714.60

TOTALS FOR JOB 0012672

ESTIMATED COST: 1091714.60
CONTINGENCY PERCENT (0.0): 0.00
ESTIMATED TOTAL: 1091714.60

Meeting notes - Draft

Project:	0012672		
Subject:	Kickoff Meeting		
Date and time:	1 May 2014 – 8:30	Meeting no:	1
Meeting place:	Field	Minutes by:	Ashlyn Morgan/Kaitlin Potnick
Present:	Steven Heng Cynthia Burney Kevin York Troy Galloway Chris McJunkin Shane Giles Nathaniel O'Kelley Jay Halgat Tyler Jefferson Jeff Williams Kaitlin Potnick Ashlyn Morgan	Representing:	Program Delivery Program Delivery D1 Right-of-Way TMC - Traffic Operations D1 Right-of-Way D1 Traffic Operations D1 Utilities Windstream Windstream City of Winder Gas & Water Atkins Atkins

MINUTES

SR 316 @ Kilcrease Road

Overhead and underground utilities present – water, gas, and phone

No right-of-way constraints

New poles

Add battery backup system

Add FYA

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians

Install loops for detection

Landing pads in radii for pedestrians

Add pedestrian signals, crosswalks and any additional necessary accommodations

SR 316 @ Patrick Mill Road

Jackson EMC owns utility pole line

Possible joint use in SE quadrant. Will require two additional poles to be replaced. Will coordinate with Jackson EMC to determine level of effort.

Overhead and underground utilities present – water, gas, phone, and power

No right-of-way constraints

New poles

Add battery backup system

NOTE TO RECIPIENTS:

These meeting notes record Atkins understanding of the meeting and intended actions arising therefrom. Your agreement that the notes form a true record of the discussion will be assumed unless adverse comments are received in writing within five days of receipt.

Add FYA

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians

Landing pads in radii for pedestrians

Add pedestrian signals, crosswalks and any additional necessary accommodations

Install loops for detection

SR 316 @ Carl Bethlehem Road

Underground utilities present – phone, water, & gas

No right-of-way constraints

Add FYA

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians or remove

Add battery backup system

New poles

Install loops for detection

Add pedestrian signals, crosswalks, and any other necessary accommodations

Landing pads in radii for pedestrians

SR 211 @ SR 316

No known utilities issues at this time

No right-of-way constraints

Add FYA

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians or remove

Possibly restripe SB approach for alignment purposes

Add battery backup system

New poles

Install loops for detection

Add pedestrian signals and accommodations

Landing pads in radii for pedestrians

SR 211 @ I-85 NB

Remove – recently upgraded under another project – will be replaced

SR 211 @ I-85 SB

Remove – recently upgraded under another project – will be replaced

SR 211 @ Rockwell Church Road/Carl-Cedar Hill Road

Underground and overhead utilities present – phone, water, tv, power & gas

No known utilities issues at this time

Kickoff Meeting

No right-of-way constraints

Add FYA

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians

No battery backup system

Replace only pole by cabinet

Install loops for detection

Add pedestrian signals and accommodations

Landing pads in radii for pedestrians

SR 81 @ Mathews School Road

Underground and overhead utilities present – phone, water, & gas

Right-of-way constraints on Fort Yargo State Park side – Mast arms ok if right-of-way becomes an issue

Add FYA

No battery backup system

New poles

Install loops for detection

Add pedestrian signals and accommodations

Landing pads in radii for pedestrians

District looking into sight distance and crash data for left turn onto Mathews School Road

SR 53 @ Rockwell Church Road

Underground and overhead utilities present – phone, water, & gas

No right-of-way constraints

Wiring for FYA, but not head

Address striped islands – add concrete islands and cut throughs or ramps as applicable for pedestrians or remove

No battery backup system

Only replacing signal pole by cabinet

Install loops for detection

Add pedestrian signals and accommodations

Landing pads in radii for pedestrians

Potential environmental concern in NW quadrant