ORIGINAL TO GENERAL FILES

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0012673 **OFFICE** Design Policy & Support

Rockdale County
GDOT District 7 - Metro Atlanta **DATE** 11/13/2014
Traffic Signal Equipment Upgrades @
9 Locations

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
Rachel Brown, District Engineer
Scott Lee, District Preconstruction Engineer
Patrick Allen, District Utilities Engineer
Carleton Fisher, Project Manager
BOARD MEMBER - 4th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT

Project Type:	Signal Upgrade	P.I. Number:	0012673
GDOT District:	7	County:	Rockdale
Federal Route Number:	I-20/US 278	State Route Number:	SR 138/SR 162/ SR 402/SR 12

SIGNAL EQUIPMENT UPGRADE @ 9 LOC IN ROCKDALE COUNTY

Submitted for approval:

Lawrence Overn, P.E. Stantec Consulting Services, Inc. — DATE 10/16/2014

Albert Shelby — State Program Delivery Engineer — DATE 10/23/14

GDOT Project Manager — DATE 10-23-2014

Recommendation for approval:

HIRAL PATEL*/EKP — State Environmental Administrator — DATE 9/29/14

KATHY ZAHUL*/EKP — State Traffic Engineer — DATE 9/17/14

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 VANDYKE*/EKP — State Transportation Planning Administrator — DATE 9/3/14

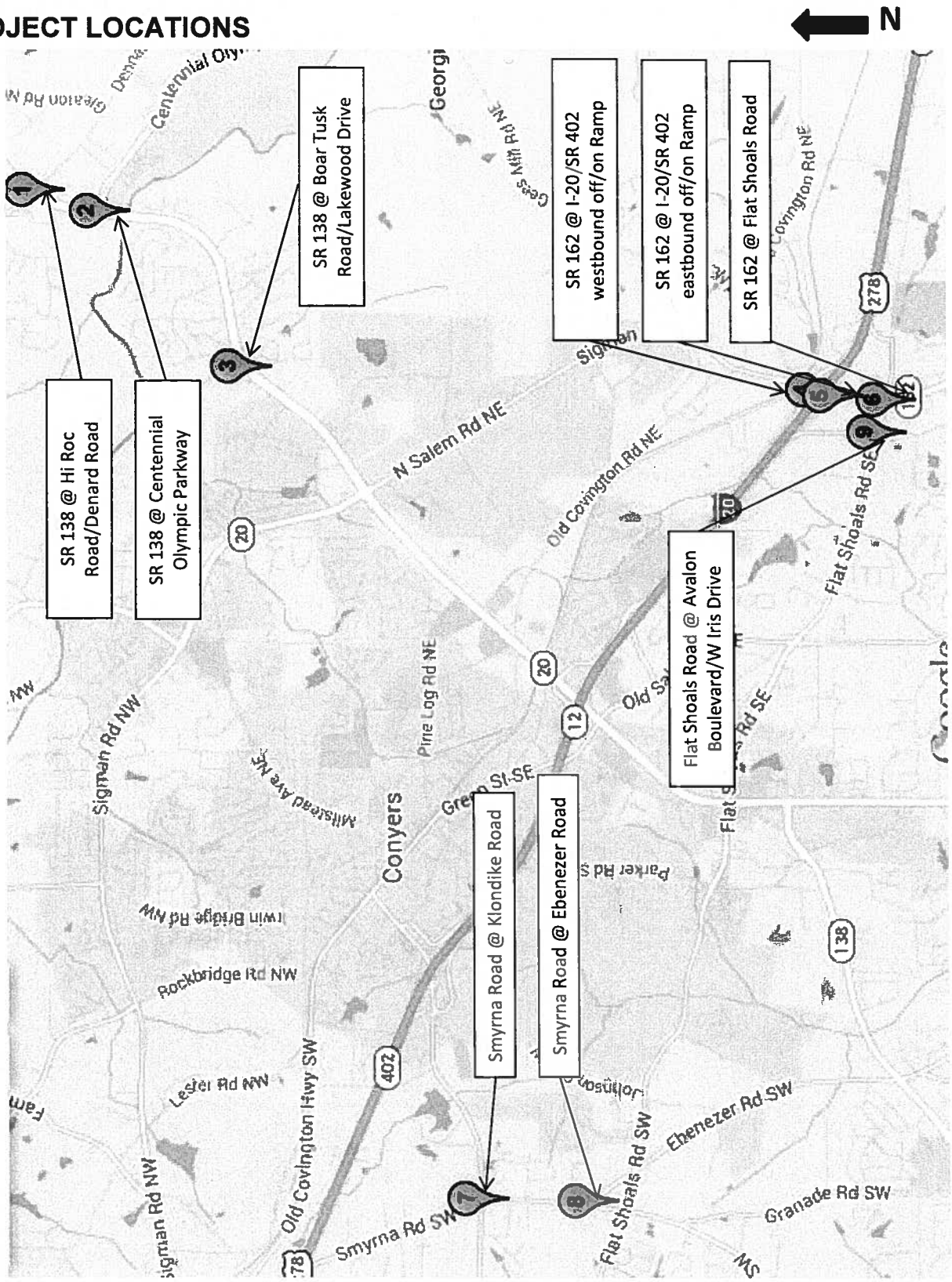
Approval:

Concur: GDOT Director of Engineering — DATE 11/6/14

Approve: GDOT Chief Engineer — DATE 11/9/14

* - RECOMMENDATION ON FILE

PROJECT LOCATIONS



N.T.S.

PLANNING & BACKGROUND DATA

Project Justification Statement: P.I. Number: 0012673

The following intersections located in Rockdale County have been identified by The Office of Traffic Operation as high priority for minor intersection improvements. The proposed project is to be included in the Region wide Signal Upgrade Program Lump Sum.

1. SR 138 @ Hi Roc Road/Dennard Road
2. SR 138 @ Centennial Olympic Parkway
3. SR 138 @ Boar Tusk Road/Lakewood Drive
4. SR 162 @ I-20/SR 402 westbound off/on Ramps
5. SR 162 @ I-20/SR 402 eastbound off/on Ramps
6. SR 162 @ Flat Shoals Road
7. Smyrna Road @ Klondike Road
8. Smyrna Road @ Ebenezer Road
9. Flat Shoals Road @ Avalon Boulevard/West Iris Drive

The project is to upgrade equipment, accommodate pedestrians, and to bring intersections to ADA standards.

Table 1: Intersection Upgrade Needs

County	Primary Route	Intersecting Road	Reason for Upgrade
Rockdale	SR 138	Hi Roc Road/Denard Road	Obsolete Equipment/ADA
Rockdale	SR 138	Centennial Olympic Parkway	Obsolete Equipment/ADA
Rockdale	SR 138	Boar Tusk Road/Lakewood Drive	Obsolete Equipment/ADA
Rockdale	SR 162	I-20/SR 402 westbound off/on Ramps	Obsolete Equipment/ADA
Rockdale	SR 162	I-20/SR 402 eastbound off/on Ramps	Obsolete Equipment/ADA
Rockdale	SR 162	Flat Shoals Road	Obsolete Equipment/ADA
Rockdale	Smyrna Road	Klondike Road	Obsolete Equipment/ADA
Rockdale	Smyrna Road	Ebenezer Road	Obsolete Equipment/ADA
Rockdale	Flat Shoals Road	Avalon Boulevard/ West Iris Drive	Obsolete Equipment/ADA

The project will upgrade equipment, accommodate pedestrians, and update pedestrian facilities to meet current ADA standards. The Office of Traffic Operations has justified these upgrade based on the following deficiencies: pedestrian accommodations, ADA compliance, old conductor cable, 332 cabinet w/2070, support poles/mast arms, utility issues, and signal interconnect.

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. Funding is provided by ARC. All communications and meetings involving this project should include the Office of Traffic Operations.

Existing conditions:

1. SR 138 @ Hi Roc Road/Dennard Road

- SR 138 Mainline Design Features:
  - This roadway has 4 lanes with a 44-foot wide grassed median with offset left turn lanes and right turn lanes with painted channelizing islands. There are crosswalks on all sides of the intersection, but no sidewalks or bike lanes.
- Hi Roc Road Side Road Features:
  - This roadway has 2 lanes with a left turn lane.
- Dennard Road Side Road Features:
  - This roadway has 2 lanes with a left turn.

2. SR 138 @ Centennial Olympic Parkway

- SR 138 Mainline Design Features:
  - This roadway has 4 lanes with curb and gutter around the intersection radii, a 44-foot wide raised, grassed, median offset left turn lanes, and right turn lanes with painted channelizing islands. There are crosswalks on the northern and eastern legs of the intersection, but no sidewalks or bike lanes.
- Centennial Olympic Parkway Side Road Features:
  - This roadway has 4 lanes with curb and gutter, a 20-foot to 72-foot wide raised, grassed, median with curb and gutter, dual left turn lanes, and a right turn lane with painted channelizing islands. There are no sidewalks or bike lanes.

3. SR 138 @ Boar Tusk Road/Lakewood Drive

- SR 138 Mainline Design Features:
  - This roadway has 4 lanes with valley curb and gutter on the eastern side of the intersection, a 44-foot wide raised, grassed, median offset left turn lanes, and right turn lanes with a painted right-turn channelizing island on the southbound approach only. There are crosswalks on all sides of the intersection, but no sidewalks or bike lanes.
- Boar Tusk Road Features:
  - This roadway has 2 lanes with a left turn lane. There are no sidewalks or bike lanes.
- Lakewood Drive Features:
  - This roadway has 2 lanes with curb and gutter and left turn laneat the intersection. There are no sidewalks or bike lanes.

4. SR 162 @ I-20/SR 402 westbound off/on Ramp

- SR 162 Mainline Design Features:
  - This roadway has 4 lanes separated by a 24-foot wide concrete transitioning to raised grass covered median north of the intersection with curb and gutter, dual left turn lanes northbound, with 5-foot wide sidewalks on both sides. There is a concrete channelizing island in the northeast quadrant and a painted channelizing island in the northwest quadrant. There are crosswalks on the north and east legs of the intersection through the concrete and painted channelizing islands. There are no bike lanes.

- I-20/SR 402 westbound off/on Ramp Features:
  - This roadway has 2 lanes on the off Ramp with curb and gutter, left and right turn lanes, and 2 lanes on the on Ramp transitioning to a single lane approaching I-20. There are no sidewalks or bike lanes.

5. SR 162 @ I-20/SR 402 eastbound off/on Ramp

- SR 162 Mainline Design Features:
  - This roadway has 5 lanes south of the intersection with a flush median (TWLTL) transitioning to a striped gore. There is a right turn lane with a concrete channelizing island northbound, no sidewalks, and with curb and gutter. This roadway has 6 lanes north of the intersection including a left turn lane, with 5-foot wide sidewalks on both sides. There are crosswalks across the southern and eastern legs of the intersection. There are no bike lanes at the intersection.
- I-20/SR 402 westbound off/on Ramp Features:
  - This roadway has 3 lanes on the off Ramp with curb and gutter, a left turn lane, a shared left and right turn lane, and a right turn lane, and 2 lanes on the on Ramp transitioning to a single lane approaching I-20. There are no sidewalks or bike lanes.

6. SR 162 @ Flat Shoals Road

- SR 162 Mainline Design Features:
  - This roadway has 5 lanes with a flush median (TWLTL) transitioning to left turn lanes at the intersection. There are also right turn lanes with painted channelizing islands on the northbound and southbound approaches. There is also curb and gutter along the roadway. There are crosswalks (through the painted islands) on all four sides of the intersection. There are no sidewalks or bike lanes at the intersection.
- Flat Shoals Road Side Road Features:
  - This roadway has 2 lanes with curb and gutter, left and right turn lanes with right turn channelizing islands. There are crosswalks (through the painted islands) on all four sides of the intersection. There are no sidewalks or bike lanes at the intersection.

7. Smyrna Road @ Klondike Road

- Smyrna Road Mainline Design Features:
  - This roadway has 2 lanes with curb and gutter. There is a northbound right turn lane with a painted gore/channelizing island, a left turn lane northbound, and a southbound left turn lane with a painted right turn channelizing island. There are no crosswalks, sidewalks, or bike lanes at the intersection.
- Klondike Road Side Road Features:
  - This roadway has 2 lanes with left turn lanes and curb and gutter at the intersection. There are no crosswalks, sidewalks, or bike lanes.

8. Smyrna Road @ Ebenezer Road

- Smyrna Road Mainline Design Features:
  - This roadway has 2 lanes with left turn lanes and curb and gutter at the intersection with a raised grass right turn channelizing island in the northwest quadrant. There are no crosswalks, sidewalks, or bike lanes.

- Ebenezer Road Side Road Features:
  - This roadway has 2 lanes with curb and gutter at the intersection. There are no crosswalks, sidewalks, or bike lanes.

9. Flat Shoals Road @ Avalon Boulevard/W Iris Drive

- Flat Shoals Road Mainline Design Features:
  - This roadway has 2 lanes with left and right turn lanes at the intersection and curb and gutter on the southern side of the road. There are crosswalks on the northern and western legs, but no sidewalks, or bike lanes.
- Avalon Boulevard Side Road Features:
  - This roadway has 2 lanes with a left turn lane at the intersection and curb and gutter. There are nosidewalks or bike lanes.
- W Iris Drive Side Road Features:
  - This roadway has 2 lanes with a left turn lane at the intersection. There are no sidewalks or bike lanes.

Other projects in the area:

PI0009311 (from GeoTRAQS/TRANSPi, not identified in ARC RTP)-- SR 138 Dogwood Dr to Centennial Olympic Pkwy: (Enhancement) Beautification improvements continuation. CST 2014

PI721080- ARC#138E -- SR 138 Dennard Rd to Miller Bottom Rd: Widening to four lanes. LR 2031-2040.

PI752210- ARC#RO-235C,D &E1 – Sigman Rd from SR 138 to Dogwood Dr: Widening to four lanes. LR 2031-2040.

PI0004434 ARC#RO-206 – SR 162 (Salem Rd) Flat Shoals Rd to Newton County: Widening to four lanes (six lanes with 5' sidewalk from GeoTRAQS/TRANSPi-ROW 2016 CST 2019). LR 2018-2030 in RTP.

PI752360- ARC#RO-025C – Flat Shoals Rd Old Salem Rd to Salem Rd: Widening to four lanes. LR 2031-2040.

PI0011759 (from GeoTRAQS/TRANSPi, not identified in ARC RTP)-- Flat Shoals Rd (included in Off-Systems Safety Improvements @ 10 LOCS in Rockdale County): Guardrail. CST 2013

PI0010741 (from GeoTRAQS/TRANSPi, not identified in ARC RTP)-- CR 438/Smyrna Rd @ CR 437/Klondike Rd (included in Off-Systems Safety Improvements @ 7 LOCS in Rockdale County): Pavement markings. CST 2012

PI0012886 ARC#RO-256 – Sigman Rd Multi-Use Trail. ROW 2016, CST 2017.

ARC#ASP-AR-440 – East Corridor Commuter Rail Service Extension from Conyers To Madison. TBD

Description of the proposed project: The proposed project is located in Rockdale County. The approximate length of the project is 2 miles and will consist of traffic signalization upgrades, including

LED vehicular signals, countdown pedestrian signals, ADA wheelchair ramps, and crosswalk striping at 9 intersections.

MPO: Atlanta Regional Commission (ARC) **TIP #:** N/A

TIA Regional Commission: Not a TIA Project

Congressional District(s): 4

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): Urban Principal Arterial

- SR 162 (Salem Rd) @
  - I-20 westbound off/on ramps
  - I-20 eastbound off/on ramps

Functional Classification (Mainline): Urban Minor Arterial

- SR 138 (Walnut Grove Rd) @
  - Hi Roc Rd/Dennard Rd
  - Centennial Olympic Pkwy
  - Boar Tusk Rd/Lakewood Dr
- SR 162 (Salem Rd) @
  - Flat Shoals Rd
- Smyrna Rd @
  - Klondike Rd
  - Ebenezer Rd
- Flat Shoals Rd @
  - Avalon Blvd/W Iris Dr

Complete Streets - Bicycle, Pedestrian, and/or Transit Warrants:
Warrants met: ☒ None ☐ Bicycle ☐ Pedestrian ☐ Transit

DESIGN AND STRUCTURAL

Description of the proposed project: See Field Visit Kick Off Meeting Minutes Attachment

Major Structures: N/A

Mainline Design Features: SR 138 from Hi Roc Rd/Dennard Rd to Boar Tusk Rd/Lakewood Dr

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4		N/A
- Lane Width(s)	12 ft.		N/A
- Sidewalks	No		N/A
- Auxiliary Lanes	Yes (Left & Right turn lanes)		N/A
Posted Speed	55 mph		N/A

*According to current GDOT design policy if applicable

Mainline Design Features: SR 162 from I-20/SR 402 Eastbound to Westbound off/on Ramps

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4		N/A
- Lane Width(s)	12 ft.		N/A
- Sidewalks	6 ft		N/A
- Auxiliary Lanes	Yes (Left & Right turn lanes)		N/A
Posted Speed	45 mph		N/A

*According to current GDOT design policy if applicable

Mainline Design Features: SR 162 from I-20/SR 402 Westbound off/on Ramps to Flat Shoals Rd

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	5		N/A
- Lane Width(s)	12 ft.		N/A
- Sidewalks	No		N/A
- Auxiliary Lanes	Yes (Left & Right turn lanes)		N/A
Posted Speed	45 mph		N/A

*According to current GDOT design policy if applicable

Mainline Design Features: Smyrna Rd from Klondike Rd to Ebenezer Rd

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2		N/A
- Lane Width(s)	12 ft.		N/A
- Sidewalks	No.		N/A
- Auxiliary Lanes	Yes (Left & Right turn lanes)		N/A
Posted Speed	45 mph		N/A

*According to current GDOT design policy if applicable

Mainline Design Features: Flat Shoals Rd from SR 162 to Avalon Blvd

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	2		N/A
- Lane Width(s)	12 ft.		N/A
- Sidewalks	No.		N/A
- Auxiliary Lanes	Yes (Left turn lanes)		N/A
Posted Speed	45 mph		N/A

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: I-20/SR 402 @ SR 162

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:

Rockdale County Water - Water
Rockdale County Sewer - Sewer
AT&T – Communication
Comcast - Communication
Georgia Power Company - Electrical
Georgia Power Transmission – Electrical
Snapping Shoals EMC - Electrical
Atlanta Gas Light - Gas

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: 0
Displacements anticipated: 0 Total: 0
Businesses: 0
Residences: 0
Other:

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

This project is exempt and does not add capacity or change roadway conditions; therefore, it is excluded from a CO hotspot.

NEPA/GEPA Comments & Information:

Ecology: Due to the nature and scope of the project, a combined Ecology Resource/AOE is anticipated. Department of Natural Resources and United States Fish & Wildlife Service coordination is in process. Field surveys are to be completed upon response from DNR and USFWS. Design will avoid any impacts. Preliminary surveys identified several Waters of the U.S. at the intersections, including nine possible ephemeral streams and wetlands. Crossings and ditches require further evaluation by a qualified ecologist. The potential protected species in the area will be determined by coordination with Georgia Department of Natural Resources and U.S. Fish and Wildlife Service. A survey for federally-protected bats that exists within the area may be required. The bat survey would be required to receive Ecology Report approval. Migratory bird habitat possible at bridge locations over I-20. A Section 404 Permit would be required if USACE-jurisdictional waters are impacted by the proposed project. Mitigation credits would be required to be purchased if the impacts exceeded 100 linear feet for streams or 0.1 acre for wetlands. A stream buffer variance would be required for any impacts within 25-foot of top of bank at USACE-jurisdictional streams or state buffered waters. Stream buffer credits may be required based on the type of impact. A National Pollutant Discharge Elimination System (NPDES) permit would be required for greater than 1.0 acre of disturbance for the proposed project.

History: Section 106 Notification begun. Historian completed a desktop survey for historic properties based on property tax records, Georgia NARGHIS (Natural, Archaeological, and Historic Resources GIS) research, and aerial maps. Results are pending. Field survey pending completion of 30 day response period. Preliminary screening identified three potentially eligible resources and/or historic districts. A Historic Resources Survey Report and Assessment of Effects documentation are anticipated. Potential Section 4(f) resources at several intersections.

Archeology: EPEI's staff archaeologist requested a Georgia Site File and NARGHIS review for any potential archaeological sites in the project area. Results are pending. A short form of findings is expected.

Air & Noise: Qualitative air assessment is anticipated. Letter of Determination is required for review by Interagency to document impacts to particulate matter (PM2.5). Based on project type a Type III Noise Assessment is anticipated.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Project Activity	Party Responsible for Performing Task(s)
Concept Development	PRIME: Parsons Brinkerhoff SUB: Stantec Consulting Services, Inc.
Design	PRIME: Parsons Brinkerhoff SUB: Stantec Consulting Services, Inc.
Right-of-Way Acquisition	GDOT
Utility Relocation	Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	GDOT
Environmental Studies, Documents, & Permits	GDOT
Environmental Mitigation	N/A
Construction Inspection & Materials Testing	GDOT

Other coordination to date: N/A

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Reimbursable Utility	CST*	Environmental Mitigation	Total Cost
Funded By	GDOT	N/A	GDOT	GDOT	N/A	
$ Amount	$300,000	N/A	$120,000	~~$1,033,704~~ $1,139,659 EKP	N/A	~~$1,453,704~~ $1,559,659 EKP
Date of Estimate	8/4/2014	N/A	8/15/2014	8/13/2014	N/A	

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

Comments/Additional Information: None

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Field Visit Kick-off Meeting Minutes
2. Construction Cost Estimate
3. Utility Cost estimate

Stantec

Meeting Minutes

TO#3 – PI#0012673 Traffic Signal Design Kickoff Meeting Minutes

178201105

Date/Time:	July 18, 2014 / 8:30 AM
Place:	Conyers, Georgia
Attendees:	Larry Overn, Stantec Clara Jennings, Stantec Mike Holt, Parsons Brinkerhoff Heather Perrin, Edwards Pittman Carlton Fisher, GDOT Alan Davis, GDOT
Distribution:	All of the above

The meeting began at 8:30am in Conyers. All parties met on site at the intersection of SR 162 at Flat Shoals Road to begin the field review of all proposed intersections. The intersections visited included.

1. SR 138 @ Hi Roc Road/Dennard Road
2. SR 138 @ Centennial Olympic Parkway
3. SR 138 @ Boar Tusk Road/Lakewood Drive
4. SR 162 @ I-20 WB Ramps
5. SR 162 @ I-20 EB Ramps
6. SR 162 @ Flat Shaols Road
7. Smyrna Road @ Klondike Road
8. Smyrna Road @ Ebenezer Road
9. Flat Shoals Road @ Avalon Boulevard/W Iris Drive

Flashing yellow arrows will be designed for all protected/permissive left turns. Three-section flashing yellow arrows will be installed on all permitted only approaches opposing a protected/permissive left turn phase. We will also provide two separate fiber optic communications paths. The first will connect Intersections #4, #5, #6, and #9. The second will connect Intersections #1 and #2. GPS clocks will be provided at Intersections #7 and #8. Finally cellular modems will be provided at Intersections #2 and #3.

The field visits started at the intersection of SR 162 at Flat Shoals Road. It was noted at the intersection that the existing base was recently updated; therefore, we will maintain the existing cabinet and base and add an auxiliary load switch bay for the proposed flashing yellow arrows. It was also discussed that there is abandoned multi-mode fiber optic communications in the cabinet and existing wireless communications. It was decided that new single mode fiber optic signal communications will be designed at the existing points of attachment from Intersection #9 to Intersection #6 and then northward to Intersections #4 and #5. The proposed installation will include the following.

- New spanwire signal design
- Add flashing yellow arrow
- Add ADA ramps and landings in all quadrants
- Upgrade existing painted islands in NW and SE quadrants to raised concrete
- Remove painted islands in NE and SW quadrants and extend stopbars across right turn lanes

- Restripe all stopbars
- Retain existing cabinet and add auxiliary load switch bay

We then moved onto the intersection of Flat Shoals Road at Avalon Boulevard/W Iris Drive. The proposed installation at the intersection will include the following.

- New spanwire signal design
- Add ADA ramps and landings on southern side of intersection
- Add ADA pedestrian landings on northern side of intersection
- Add crosswalks to Southern and Eastern approaches to intersection
- Restripe crosswalks on Northern and Western approaches to intersection
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on the northbound, eastbound, and westbound approaches

The next intersection was SR 162 at I-20 EB Ramps. The initial proposal was to provide video detection for all approaches, but in the field it was requested to use video detection only on the bridge. Loops will be used for all other approaches. The proposed installation at the intersection will include the following.

- New spanwire signal design
- Update all existing ADA ramps to current standards
- Redesign current raised concrete island in SE quadrant
- Add ADA ramps with landings in SE and SW quadrants of intersection
- Add crosswalk across I-20 EB exit ramp
- Design video detection for southbound approach and loops for remaining approaches
- Restripe all stopbars
- Replace sign spans and overhead lane designation signs on the southbound approach
- Replace drainage structure in NE quadrant of intersection

We then visited the intersection of SR 162 at I-20 WB Ramps. There is existing wireless communication from this intersection to the of SR 162 at Dogwood Connector to the north. This intersection is not part of the project, but we will maintain a wireless antenna to retain the existing communications. The existing communication to the south will be replaced with a new fiber optic communications cable. It was also decided in the field that the entire intersection will be covered using video detection. The proposed installation at the intersection will include the following.

- New spanwire signal design
- Update all existing ADA ramp to current standards
- Restripe existing pedestrian crossing across SR 162 to current standards
- Add crosswalk across I-20 WB entrance ramp
- Cutback median nose on northern side of intersection
- Design video detection for entire intersection
- Restripe all stopbars

The intersection of SR 138 (N-S) at Boar Tusk Road/Lakewood Drive (E-W) was next. It was noted that this intersection is currently part of an RTOP corridor. We do not propose to provide communications at this intersection, but a cellular modem will be installed for remote communications. The initial plan was to investigate a joint use pole in the SW quadrant; however, this will be designed with an exclusive pole. On the SE quadrant, the existing span is in conflict with the overhead power, so a joint use pole will be designed here. The current utility pole owner is Snapping Shoals EMC. Finally, we will investigate whether the existing mainline medians can be pulled forward to provide a two-

stage pedestrian crossing. Vehicle turning paths from the side streets will be analyzed to determine feasibility. The proposed installation at the intersection will include the following.

- New spanwire signal design with a possible new joint use pole on the SE quadrant
- Design ADA pedestrian landings on western side of intersection
- Design ADA pedestrian landings at back of valley gutter on eastern side of intersection
- Remove painted island in NW quadrant and place stopbar across right turn lanes
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on the northbound, southbound, and westbound approaches

The intersection of SR 138 (N-S) at Centennial Olympic Parkway (WB) was then visited. It was noted when we visited the intersection that there is significant rutting in the roadway and the loop detection on the westbound approach was inoperable. It was decided to provide Sensys wireless detection on all approaches to the intersection to combat the broken loops. It was also noted that there is existing multi-mode communication between this intersection and Intersection #1. This existing communication will be replaced with single-mode fiber optic at the existing attachment heights and a cellular modem installed in the cabinet for remote access to the system. It was also decided that because of the speed limit and the need for a 10' offset at the intersection that raised concrete islands in the NE and SE quadrants would not work. Finally, the pedestrian crossing across the northern leg of the intersection will be designed with a 2-stage crossing. The proposed installation at the intersection will include the following.

- New spanwire signal design
- A 3-section flashing yellow U-turn arrow signal head will be provided for the northbound u-turn lane
- Design ADA pedestrian landings on western side of intersection
- Design ADA ramps on eastern side of intersection
- Cut through existing median on the westbound approach for pedestrian access
- Design two-stage crossing across northern leg for pedestrian access
- Redesign all crosswalks for ADA compliance
- No crosswalk will be provided across the southern leg of the intersection
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on each approach

We then visited the intersection of SR 138 (N-S) at Hi Roc Road/Dennard Road (E-W). The proposed installation at the intersection will include the following.

- New spanwire signal design
- Replace power poles in SE/SW quadrants (coordinate with Snapping Shoals EMC)
- Design ADA pedestrian landings on all four quadrants of intersection
- Redesign all crosswalks for ADA compliance
- Remove painted islands in NW and SE quadrants and place stopbars across right turn lanes
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on each approach

The intersection of Smyrna Road (N-S) at Klondike Road (E-W) was then visited. It was initially planned to provide communication between Intersection #7 and #8; however, in the field it was decided to provide GPS clocks at the two intersections instead. There is also an existing joint use pole in the SE quadrant that will be redesigned as an exclusive pole to remove the joint use. The proposed installation at the intersection will include the following.

- New spanwire signal design
- GPS clock
- Add ADA ramps and landings in all quadrants avoiding drainage structures in NW and SW quadrants
- Upgrade existing painted islands in NW and SE quadrants to raised concrete
- Add crosswalks across all approaches
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on each approach

The proposed installation for the intersection of Smyrna Road (N-S) at Ebenezer Road (E-W) will include.

- New spanwire signal design
- GPS clock
- Add ADA ramps and landings in all quadrants avoiding drainage structures in SE and SW quadrants
- Remove painted island in SW quadrant and extend stopbar across right turn lane
- Add crosswalks across all approaches
- Restripe all stopbars
- Restripe lane lines (but not left turn gores) and turn arrows to the back of loops on each approach

The meeting adjourned at 11:30 AM
The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Services Inc.

Larry Overn
Associate
Phone: (678) 689-2370
Fax: (770) 813-0688
Larry.Overn@stantec.com

CONTINGENCY SUMMARY

A.	**CONSTRUCTION COST ESTIMATE:**	$ 1,033,704.25	Base Estimate From CES	
B.	**ENGINEERING AND INSPECTION (E & I):**	$ 51,685.21	Base Estimate (A) x	5 %
C.	**CONTINGENCY:**	$ 54,269.47	Base Estimate (A) + E & I (B) x See % Table in "Risk Based Cost Estimation" Memo	5 %
D.	**TOTAL LIQUID AC ADJUSTMENT:**	$	Total From Liquid AC Spreadsheet	
E.	**CONSTRUCTION TOTAL:**	$ **1,139,658.94**	(A + B + C + D = E)	

REIMBURSABLE UTILTY COSTS

UTILITY OWNER	REIMBURSABLE COST
TOTAL	$ -

ATTACHMENTS:

JOB ESTIMATE REPORT

JOB NUMBER : 0012673 SPEC YEAR: 13
DESCRIPTION: SIGNAL EQUIPMENT UPGRADE @ 9 LOCS IN ROCKDALE COUNTY

ITEMS FOR JOB 0012673

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - PI NO. 0012673	1.000	50000.00	50000.00
0010	441-0104		SY	CONC SIDEWALK, 4 IN	375.000	51.00	19125.00
0014	441-0748		SY	CONC MEDIAN, 6 IN	350.000	59.26	20741.71
0015	441-6222		LF	CONC CURB & GUTTER/ 8X30TP2	680.000	27.09	18424.86
0020	639-4004		EA	STRAIN POLE, TP IV	36.000	6906.04	248617.58
0025	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 1	1.000	61000.00	61000.00
0030	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 2	1.000	56000.00	56000.00
0035	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 3	1.000	62000.00	62000.00
0040	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 4	1.000	50000.00	50000.00
0045	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 5	1.000	55000.00	55000.00
0050	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 6	1.000	64000.00	64000.00
0055	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 7	1.000	61000.00	61000.00
0060	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 8	1.000	56000.00	56000.00
0065	647-1000		LS	TRAF SIGNAL INSTALLATION NO - NO. 9	1.000	58000.00	58000.00
0070	653-0120		EA	THERM PVMT MARK, ARROW, TP 2	45.000	87.15	3921.87
0075	653-0130		EA	THERM PVMT MARK, ARROW, TP 3	1.000	126.21	126.21
0080	653-0170		EA	THERM PVMT MARK, ARROW, TP 7	1.000	102.34	102.34
0085	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	7000.000	0.64	4485.81
0090	653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	4500.000	0.67	3048.12
0095	653-1704		LF	THERM SOLID TRAF STRIPE,24,WH	900.000	5.54	4990.62
0100	653-1804		LF	THERM SOLID TRAF STRIPE, 8,WH	11000.000	2.24	24735.48
0105	682-6233		LF	CONDUIT, NONMETL, TP 3, 2 IN	7000.000	3.66	25620.00
0110	682-9950		LF	DIRECTIONAL BORE - 5-IN	1500.000	11.44	17160.00
0120	700-7000		TN	AGRICULTURAL LIME	1.000	118.65	118.65
0125	700-8000		TN	FERTILIZER MIXED GRADE	1.000	632.52	632.53
0130	700-8100		LB	FERTILIZER NITROGEN CONTENT	75.000	3.53	265.34
0135	700-9300		SY	SOD	150.000	6.91	1036.98
0136	927-0300		EA	2070 MNT SPRD SPEC WIRE. TRANS. W/ RS	1.000	1983.74	1983.75
0137	927-0500		EA	DIRECTIONAL RADIO ANT AND CONNECT CABLE	1.000	792.11	792.12
0140	935-1113		LF	OUT PLNT FBR OPT CBL,LOOSE TB,SM,24 FBR	6000.000	1.50	9000.00
0145	935-1511		LF	OUT PLNT FBR OPT CBL,DROP,SM,6 FBR	3000.000	2.05	6173.82
0150	935-3203		EA	FBR OPTIC CLOSURE,AERL(SLD),24 FBR	6.000	700.00	4200.00
0155	935-3602		EA	FBR. OP. CLOS., FDC PRE-TERM., TYP. A, 6	6.000	500.00	3000.00
0160	935-4010		EA	FIBER OPTIC SPLICE, FUSION	36.000	39.24	1412.90
0165	935-5060		EA	FIBER OPTIC SNOWSHOE	26.000	165.00	4290.00
0170	935-6562		EA	EXT TRNSCVR,DRP&RPT,1310SM,(SIGNAL JOBS)	6.000	1435.48	8612.91
0175	935-8000		LS	TESTING	1.000	10000.00	10000.00

0180	937-6050	EA	INT VIDEO DET SYS ASMBLY, TP A	4.000	4521.41	18085.65

STATE HIGHWAY AGENCY

DATE : 10/16/2014
PAGE : 2

JOB ESTIMATE REPORT

ITEM TOTAL	1033704.23
INFLATED ITEM TOTAL	1033704.25

TOTALS FOR JOB 0012673

ESTIMATED COST:	1033704.25
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	1033704.25

Project Concept Report
County: Rockdale

P.I. Number: 0012673

Utility Preliminary Cost Estimate

08/15/2014

Preliminary Estimated Utility Cost = $120,000

Snapping Shoals EMC

1. SR 138 @ Hi Roc Road/Dennard Road
   Possible need to raise Snapping Shoals EMC Electric lines, SE & SW corners = $80,000

2. SR 138 @ Boar Tusk Road/Lakewood Drive
   Possible need to place joint use Snapping Shoals EMC pole, SW corner = $40,000

Fisher, Carleton

From: Allen, Patrick
Sent: Friday, October 10, 2014 10:31 AM
To: Fisher, Carleton
Cc: Woodard, Wade; Witherspoon, Sharon
Subject: RE: 0012673 Utility Cost Concurence

Carleton,

I concur with utility cost estimate in the concept. I suggest adding a note that the costs may change as the project is developed further.

Thanks,

Patrick Allen, P.E.
District Utilities Engineer
Georgia Department of Transportation District 7
5025 New Peachtree Rd
Chamblee, GA 30341
770-986-1117 office
770-986-1411 fax
paallen@dot.ga.gov

From: Fisher, Carleton
Sent: Friday, October 10, 2014 10:13 AM
To: Allen, Patrick
Subject: 0012673 Utility Cost Concurence

Patrick,

Can you tell me whether your office concurs with the utility cost estimate included on page 19 of this concept report?

CARLETON H. FISHER, PMP
PROJECT MANAGER
GDOT- OFFICE OF PROGRAM DELIVERY
600 WEST PEACHTREE STREET, 25TH FLOOR
ATLANTA, GEORGIA 30308
(404) 631-1981
