

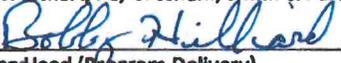


**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
PROJECT CSSFT-0010-00(292)  
CONCEPT REPORT**

Project Type: <u>Intersection Improvement</u>	P.I. Number: <u>0010292</u>
GDOT District: <u>District 4</u>	County: <u>Dougherty</u>
Federal Route Number: <u>US 82</u>	State Route Number: <u>SR 520</u>

SR 520/US 82 at CR 459/County Line Road

**Submitted for approval:**

<u></u>	<u>6/05/2012</u>
Eric J. Rickert, PE, Gresham, Smith & Partners	DATE
<u></u>	<u>6-7-2012</u>
Office Head (Program Delivery)	DATE
<u></u>	<u>6/6/12</u>
GDOT Project Manager	DATE

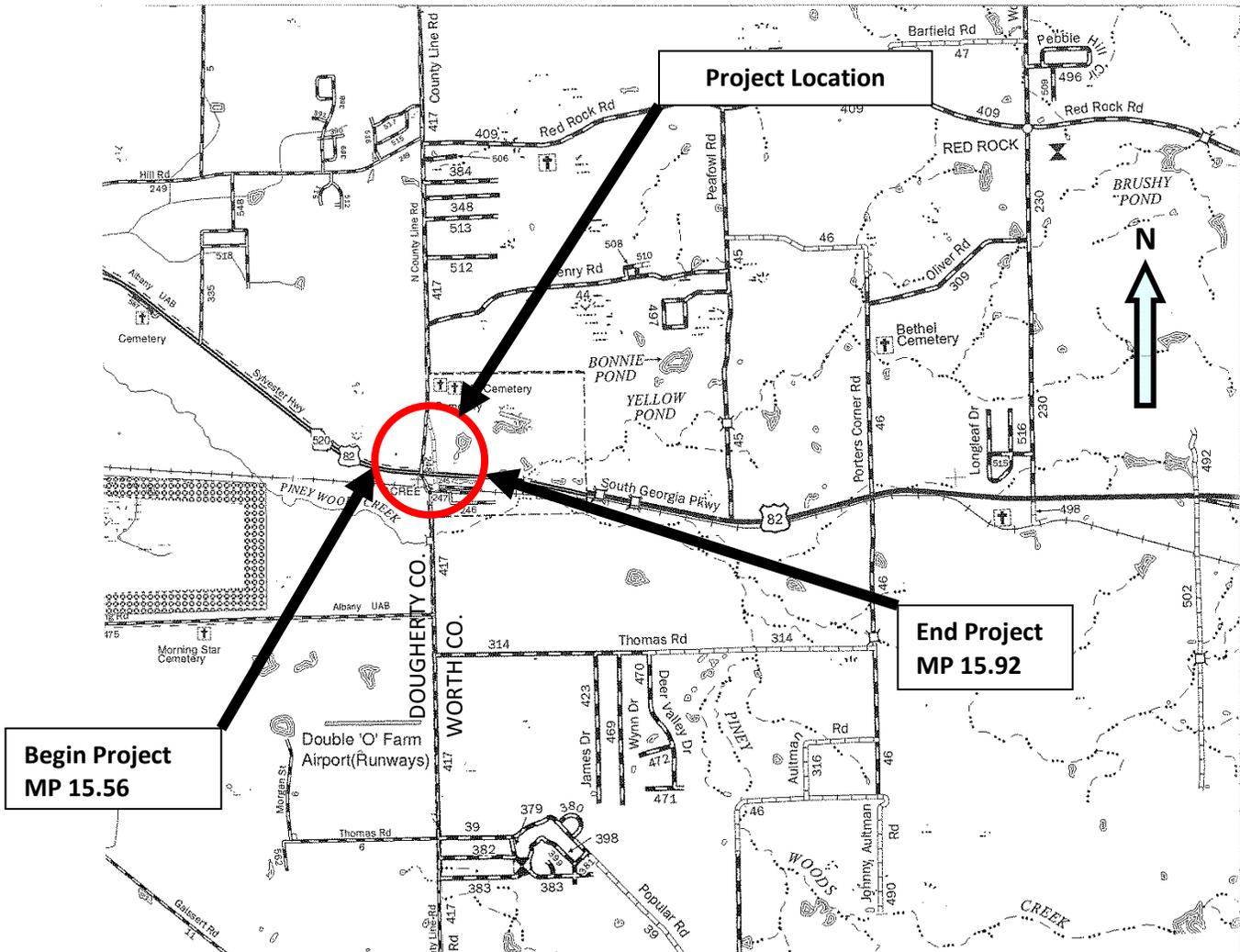
**Recommendation for approval:**

_____ Program Control Administrator	_____ DATE
* <u>GLENN BOWMAN</u> State Environmental Administrator	<u>6/22/2012</u> DATE
* <u>KATHY ZAHUL</u> State Traffic Engineer	<u>6/29/2012</u> DATE
* <u>LISA MYERS</u> Project Review Engineer	<u>6/21/2012</u> DATE
* <u>PATRICK ALLEN</u> State Utilities Engineer	<u>6/21/2012</u> DATE
<u>BOB</u> * <u>JOE SHEFFIELD</u> District Engineer	<u>6/20/2012</u> DATE
_____ State Transportation Financial Management Administrator	_____ 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>GINTHIA L. VANDUYKE</u>	<u>6/20/2012</u>
State Transportation Planning Administrator	DATE

\* RECOMMENDATION ON FILE 



Project CSSFT-0010-00(292)  
Location Map

## PLANNING & BACKGROUND DATA

**Project Justification Statement:** GDOT Project CSSFT-0010-00(292) proposes to reduce the crash frequency and severity and improve the operation of SR 520/US 82 intersection with South County Line Road/CR 459 and North County Line Road/ CR 459 in Dougherty County. SR 520/US 82 is a four lane roadway with a 64 ft. depressed median with a 55 mph speed limit. It forms an intersection with North County Line Road and South County Line Road, two lane roadways that are also posted for a 55 mph speed limit. The median opening is relatively wide and uncontrolled with left turn lanes built parallel and next to the through lanes. The side roads are currently stop controlled on each respective side of the intersection. Operational issues that will be addressed by the project are as follows:

- This section of SR 520/US 82 at the intersection with North and South County Line Road has had 19 angle crashes over the latest three years period where complete data was available (2006-2008). Approximately 60 percent of the crashes at this intersection were injury crashes.
- Along SR 520/US 82 in the vicinity of the intersection, there were 36 crashes with 13 of these being injury crashes over the most recent three year period where complete data was available (2006-2008). This is almost double the statewide crash rate for total crashes and injury crashes on rural principal arterials.
- Along North and South County Line Roads in the vicinity of the intersection, there were 15 crashes with six of these being injury crashes over the same three year period where complete data was available (2006-2008). This is almost double the statewide crash rate for total crashes and injury crashes on rural major collectors.
- The intersection has significantly large left turning volumes. It currently operates at a level of service C/C for the AM/PM peak hours, and the 2035 future no-build anticipated level of service is E/E for the AM/PM peak hours.
- The existing median opening at the intersection is 64 ft. wide. Due to this width, vehicles from South County Line Road and North County Line Road typically stop twice to cross or turn left at SR 520/US 82. Field observations indicates that at times more than one vehicle is queued in the median opening to cross or turn left at the intersection.
- The existing left turn lanes on SR 520/ US 82, being adjacent to their respective travel lanes, are offset from one another and create a left turn interlock with their opposing sight distances. These existing left turn lanes also do not comply with the AASHTO guidelines in *A Policy of Geometric Design for Highways and Streets-2004 Edition* for auxiliary lane lengths. The *GDOT Design Policy Manual* recommends that any reconstructed median opening should comply with the options shown on GDOT Construction Detail M-3. It further elaborates that a GDOT Type B crossover with opposing left turn lanes is the preferred median opening configuration option.
- The *GDOT Design Policy Manual* recommends right turn deceleration lanes on multi-lane roadways having median widths greater than 12 ft. and with posted speeds of 45 mph or more with intersections of paved public streets. SR 520/US 82 at North and South County Line Road would meet these criteria.
- North County Line Road and South County Line Road have an existing alignment break of 23 degrees across the intersection with SR 520/ US 82. This is substantially greater than the guidelines in the *GDOT Design Policy Manual* which allows for a five degree break at an intersection with a stop condition. The *GDOT Design Policy Manual* further notes that if North

County Line Road and South County Line Road at the intersection become a continuous through movement (such as with the introduction of a traffic signal), then only a 20 minute deflection could be used in place of a horizontal curve.

- The existing intersection skew between South County Line Road and SR 520/ US 82 is only 65 degrees. The *GDOT Design Policy Manual* stipulates that a 70 degree intersection skew should be the minimum for intersections.

GDOT Project CSSFT-0010-00(292) originated from a Traffic Engineering Report dated September 5, 2008 from GDOT District 4 to the GDOT Office of Traffic Operations. The recommendations from this traffic engineering report have been incorporated into the project concept.

The project limits for GDOT Project CSSFT-0010-00(292) along SR 520/ US 82 and North County Line Road are dictated by the length of proposed left turn lanes and their respective tapers for the intersection. The project limits on South County Line Road are set by where a minor proposed realignment returns to the existing alignment.

**Description of the proposed project:** The project begins on SR 520/US 82 just west of the intersection with North and South County Line Roads at MP 15.56 and ends just east of the Old County Line Road intersection at MP 15.92 for a total project length of 0.36 miles. The entire project is located within Dougherty County, but is only 25 ft. north of the Worth County line on South County Line Road. The project goes through the unincorporated community of Acree, is 5.5 miles east of the City of Albany, and 0.5 miles east from the Marine Corps Logistic Supply Base. The project limits along South County Line Road are approximately 1200 ft. and 700 ft. for North County Line Road.

The project proposes improving the intersection of SR 520/ US 82, North County Line Road and South County Line Road as follows:

- SR 520/US 82 will be improved by lengthening the left turn lanes to comply with AASHTO auxiliary lane guidelines for deceleration, storage, and tapering. The left turn lanes on SR 520/ US 82 at North and South County Line Road will be reconfigured to create a GDOT Type 'B' style median opening which has the opposing left turn lanes directly across from one another in the median opening and separated from their originating through travel lanes by a gore area. This will improve the sight distance of left turning motorists because a queued left turning vehicle will not block the line of sight for a motorist in the opposing left turn lane. Right turn lanes complying with AASHTO guidelines will be added along SR 520/ US 82 to accommodate decelerating right turn movements while not impeding traffic flow on the through travel lanes. This will also reduce the potential for rear-end crashes on SR 520/ US 82. An intersection tie-in with Old County Line Road is also required as it terminates into SR 520/ US 82 within the project limits. This will be a right-in/ right-out configuration.
- A traffic signal (which was recommended by the GDOT Traffic Engineering Report dated September 5, 2008) is proposed at SR 520/ US 82 at North and South County Line Road to allow protected left turn movements in each direction at the intersection. This traffic signal will be interconnected with the warning flashers and gates of the nearby railroad crossing on South County Line Road. It is anticipated that the proposed traffic signal's protected movements may reduce the number of angle crashes at the intersection. The existing warning flashers along SR

520/ US 82 that warn of the intersection will be replaced with warning flashers that will alert motorists of the traffic signal.

- North and South County Line Road will be slightly realigned through the intersection with a horizontal curve. This will create a seamless through movement between these roadways with the introduction of the aforementioned traffic signal by eliminating the existing alignment break between the north and south legs. This realignment will also correct the substandard intersection skew that is present between the south leg and SR 520/ US 82. Left turn deceleration lanes complying with AASHTO guidelines will be added to North and South County Line Road to enhance the operation of the proposed traffic signal. South County Line Road will also be realigned to the west so the widening for the left turn lane will not impact a historic resource located at Acree Avenue intersection's northeast corner. Improved intersection tie-ins with Railroad Street and Acree Avenue will be built as they terminate into South County Line Road within the project limits.

**Federal Oversight:**  Full Oversight  Exempt  State Funded  Other

**MPO:**  N/A  MPO - Dougherty Area Regional Transportation Study (DARTS)

MPO Project TIP # TSM-8

**Regional Commission:**  N/A  RC – Southwest Georgia RC  
RC Project ID # N/A

**Congressional District(s):** 2

**Projected Traffic:** Choose an item.

Current Year (2012): 14,200      Open Year (2015): 14,780      Design Year (2035): 18,030

**Functional Classification (Mainline):** Urban principal arterial roadway west of North and South County Line Road intersection and rural principal arterial roadway east of intersection

**Is this project on a designated bike route?**  No  YES

**Is this project located on a pedestrian plan?**  No  YES

**Is this project located on or part of a transit network?**  No  YES

## CONTEXT SENSITIVE SOLUTIONS

**Issues of Concern:** There are no known context sensitive issues of concern as this project is a relatively small intersection improvement on SR 520/ US 82 and will have only minor environmental and development impacts. The proposed project is consistent with its surroundings, which is a rural area bisected by the existing wide footprint of a high speed arterial highway.

**Context Sensitive Solutions:** None

## DESIGN AND STRUCTURAL DATA

Mainline Design Features: SR 520 / US 82 (urban principal arterial roadway west of North and South County Line Road intersection and rural principal arterial roadway east of intersection)

Feature	Existing	Standard*	Proposed
<b>Typical Section</b>			
- Number of Lanes	4	4	4
- Lane Width(s)	12 ft.	12 ft.	12 ft.
- Median Width & Type	64 ft. Depressed	44 ft. Depressed	64 ft. Depressed
- Outside Shoulder Width & Type	10 ft. rural with 4 ft. paved	10 ft. rural with 6.5 ft. paved	10 ft. rural with 6.5 ft. paved
- Outside Shoulder Slope	6:1	6:1 normal/2:1 maximum	6:1 normal/2:1 maximum
- Inside Shoulder Width & Type	6 ft. rural with 2 ft. paved	6 ft. rural with 2 ft. paved	6 ft. rural with 2 ft. paved
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	11 ft. left turning lanes	12 ft. left (with gore) and right turning lanes	12 ft. left (with gore) and right turning lanes
- Bike Lanes	N/A	N/A	N/A
Posted Speed	55 mph		55 mph
Design Speed	60 mph	65 mph	65 mph
Min Horizontal Curve Radius	3890 ft.	1660 ft.	3890 ft.
Superelevation Rate	6.0%	6.0%	6.0%
Grade	0.5%	5% maximum west of intersection/ 3% maximum east of intersection	3% maximum
Access Control	None	None	None
Right-of-Way Width	245 ft.	N/A	245 ft. – 284 ft.
Design Vehicle	N/A	WB-62	WB-62

\*According to current GDOT design policy if applicable

Side Road Design Features: South County Line Road (rural major collector roadway) and North County Line Road (rural minor collector roadway)

Feature	Existing	Standard*	Proposed
<b>Typical Section</b>			
- Number of Lanes	2	2	2
- Lane Width(s)	12 ft.	12 ft.	12 ft.
- Median Width & Type	N/A	N/A	N/A
- Outside Shoulder Width & Type	4 ft. rural	8 ft. rural with 4 ft. paved	8 ft. rural with 4 ft. paved
- Outside Shoulder Slope	4:1	4:1	4:1
- Inside Shoulder Width & Type	N/A	N/A	N/A
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	N/A	12 ft.	12 ft.
- Bike Lanes	N/A	N/A	N/A

<b>Posted Speed</b>	<b>55 mph</b>		<b>55 mph</b>
<b>Design Speed</b>	<b>55 mph</b>	<b>55 mph</b>	<b>55 mph</b>
<b>Min Horizontal Curve Radius</b>	<b>1320 ft.</b>	<b>1060 ft.</b>	<b>1100 ft.</b>
<b>Superelevation Rate</b>	<b>6.0%</b>	<b>6.0%</b>	<b>6.0%</b>
<b>Grade</b>	<b>1.5%</b>	<b>6% maximum</b>	<b>1.5% maximum</b>
<b>Access Control</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>Right-of-Way Width</b>	<b>80 ft. – 100 ft.</b>	<b>N/A</b>	<b>103 ft. – 170 ft.</b>
<b>Design Vehicle</b>	<b>N/A</b>	<b>SU</b>	<b>SU</b>

\*According to current GDOT design policy if applicable

**Side Road Design Features: Old County Line Road, Acree Avenue and Railroad Street (all rural local roadways)**

<b>Feature</b>	<b>Existing</b>	<b>Standard*</b>	<b>Proposed</b>
<b>Typical Section</b>			
- <b>Number of Lanes</b>	<b>2</b>	<b>2</b>	<b>2</b>
- <b>Lane Width(s)</b>	<b>10 ft. (with Old County Line Road being unpaved)</b>	<b>10 ft.</b>	<b>10 ft.</b>
- <b>Median Width &amp; Type</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
- <b>Outside Shoulder Width &amp; Type</b>	<b>0 ft. rural</b>	<b>N/A as ADT &lt;2000 vpd</b>	<b>6 ft. rural with 2 ft. paved</b>
- <b>Outside Shoulder Slope</b>	<b>4:1</b>	<b>4:1</b>	<b>4:1</b>
- <b>Inside Shoulder Width &amp; Type</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
- <b>Sidewalks</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
- <b>Auxiliary Lanes</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
- <b>Bike Lanes</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Posted Speed</b>	<b>35 mph</b>		<b>35 mph</b>
<b>Design Speed</b>	<b>35 mph</b>	<b>35 mph</b>	<b>35 mph</b>
<b>Min Horizontal Curve Radius</b>	<b>None</b>	<b>340 ft.</b>	<b>700 ft.</b>
<b>Superelevation Rate</b>	<b>None</b>	<b>6%</b>	<b>6%</b>
<b>Grade</b>	<b>6%</b>	<b>7% maximum</b>	<b>6%</b>
<b>Access Control</b>	<b>None</b>	<b>None</b>	<b>None</b>
<b>Right-of-Way Width</b>	<b>80 ft.</b>	<b>N/A</b>	<b>90 ft. for Old County Road only as Acree Ave. and Railroad St. are within railroad right of way</b>
<b>Design Vehicle</b>	<b>N/A</b>	<b>S-BUS36</b>	<b>S-BUS36</b>

\*According to current GDOT design policy if applicable

**Major Structures:** N/A

**Major Interchanges/Intersections:** Intersection at SR 520/ US 82 with South County Line Road/ CR 459 and North County Line Road/ CR 459

**Utility Involvements:**

- Bellsouth/AT&T-Telecommunications

- City of Sylvester/CNS-Natural Gas
- Windstream/Verizon-Telecommunications
- Mitchell EMC-Electric
- Mediacom-Telecommunications
- CSX Transportation/Georgia and Florida Railway-Railroad

**Public Interest Determination Policy and Procedure recommended (Utilities)?**  Yes  No

**SUE Required:**  Yes  No

**Railroad Involvement:** The project limits on South County Line Road cross a railroad track that is owned by CSX Transportation but leased by the Georgia and Florida Railway of OmniTRAX, Inc. This railroad track is in service and is used as a spur to access freight customers between the communities of Albany and Sylvester, Georgia. Railroad coordination will be necessary as there will be direct impacts to the railroad crossing on South County Line Road as well within the intersections of Acree Avenue and Railroad Street which are both within the railroad’s right of way.

**Right-of-Way:**

Required Right-of-Way anticipated:  YES  NO  Undetermined  
 Easements anticipated:  Temporary  Permanent  Utility  Other

Anticipated number of impacted parcels: 10

Anticipated number of displacements (Total): 0

**Location and Design approval:**  Not Required  Required

**Off-site Detours Anticipated:**  No  Yes  Undetermined

**Transportation Management Plan Anticipated:**  YES  NO

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

FHWA/AASHTO Controlling Criteria	YES	Approval Date (if applicable)	NO	Undetermined
1. Design Speed	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Lateral Offset to Obstruction	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Design Variances to GDOT standard criteria anticipated:**

GDOT Standard Criteria	Reviewing Office	YES	Approval Date (if applicable)	NO	Undetermined
1. Access Control - Median Opening Spacing	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Median Usage & Width	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Intersection Skew Angle	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Lateral Offset to Obstruction	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Intersection Sight Distance	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Bike & Pedestrian Accommodations	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. GDOT Drainage Manual	DP&S	<input type="checkbox"/>	Click here	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Georgia Standard Drawings	DP&S	<input type="checkbox"/>	Click here	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. GDOT Bridge & Structural Manual	Bridge Design	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Roundabout Illumination - (if applicable)	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Rumble Strips/Safety Edge	DP&S	<input type="checkbox"/>	Click here	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VE Study anticipated:  No  Yes

**ENVIRONMENTAL DATA**

**Anticipated Environmental Document:**

GEPA:  NEPA:  Categorical Exclusion  EA/FONSI  EIS

**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

**Environmental Permits/Variances/Commitments/Coordination anticipated:**

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Nationwide or Regional Permit anticipated
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GA EPD MS4 stormwater discharge permit since Dougherty County is in a Phase II MS4 permitted area
11. Other Commitments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Is a PAR required?  No  Yes

**NEPA/GEPA:** Appropriate documentation level (CE or PCE) determination in progress.

**Ecology:** Ecology Resource Survey and Assessment of Effects Report in progress.

**History:** SHPO has concurred that the Georgia and Florida Railway (formerly the Brunswick and Albany Railroad) and the Wilder-Nichols House on the north side of Acree Avenue east of the intersection with South County Line Road are eligible for the National Register of Historic Places. SHPO concurrence will be required for the Historic Resources Survey Report and for an Assessment of Effects.

**Archeology:** Survey underway.

**Air & Noise:** Anticipate Noise Type III is appropriate. CO modeling and full Air Quality Assessment for new traffic signal is anticipated.

**Public Involvement:** No public involvement meetings are anticipated.

**Major stakeholders:** Traveling public

## CONSTRUCTION

**Issues potentially affecting constructability/construction schedule:** Railroad coordination with Georgia and Florida Railway

**Early Completion Incentives recommended for consideration:**  No  Yes

## PROJECT RESPONSIBILITIES

### Project Activities:

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

**Lighting required:**  No  Yes

**Initial Concept Meeting:** - An initial concept meeting was held on March 22, 2012. (See attachments for meeting minutes).

**Other projects in the area:** STP00-0002-00(409), this project is along SR 520/Clarke Ave from CS 1060/Turner Field Rd to Cordele Road. This project consists of improvements in Dougherty County along 1.03 miles of the existing Clark Avenue from Turner Field Road to the Georgia-Florida Parkway (SR 62/SR 300)

Dougherty County proposes to widen Fleming Road from South Mock Road to County Line Road. This project would add a two-way left turn lane to the roadway in three consecutive phases. Preliminary design is projected to begin in 2014, right of way acquisition in 2015, and construction in 2017.

GDOT project M0004498 proposes to mill and inlay the travel lanes of US 82/ SR 520 between M.P. 13.8 in Dougherty County to the Worth County line, which will include the project area of CSSFT-0010-00(292). It is programmed for construction in October 2012.

**Project Cost Estimate and Funding Responsibilities:**

	<b>Breakdown of PE</b>	<b>ROW</b>	<b>Utility/Railroad</b>	<b>CST*</b>	<b>Environmental Mitigation</b>	<b>Total Cost</b>
By Whom	GDOT	GDOT	GDOT	GDOT	N/A	
\$ Amount	\$311,594.80	\$590,000.00	\$831,000.00	\$1,900,867.38	\$0.00	\$3,633,462.18
Date of Estimate	8/11/2011	5/18/2012	12/01/2011 and 6/01/2012	6/4/2012	N/A	

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

**ALTERNATIVES DISCUSSION**

<b>Preferred Alternative:</b> Signalizing SR 520/US82 intersection with North and South County Line Road/CR459 with turn lanes, minor realignment of South County Line Road to improve through movement with North County Line Road, and installing Type B median opening on SR 520/US82			
<b>Estimated Property Impacts:</b>	2.80 acres of right of way and 1.11 acres of perm. easement, no displacements	<b>Estimated Total Cost:</b>	\$3,358,462.18
<b>Estimated ROW Cost:</b>	\$590,000.00	<b>Estimated CST Time:</b>	12 months
<b>Rationale:</b> This alternative potentially reduces future angle crashes at the intersection as movements through the intersection would be protected by the traffic signal. It also improves the intersection to comply with AASHTO and GDOT guidelines for turn lanes or roadway geometrics, which would decrease the potential for rear end crashes. Further, this alternative has the least right of way impacts and best accommodates the nearby railroad crossing on South County Line Road as the traffic signal would be interconnected with the crossing’s warning gates and flashers.			

<b>No-Build Alternative:</b> No improvements to SR 520/US82 intersection with North and South County Line Road/CR459			
<b>Estimated Property Impacts:</b>	None	<b>Estimated Total Cost:</b>	\$0.00
<b>Estimated ROW Cost:</b>	\$0.00	<b>Estimated CST Time:</b>	None
<b>Rationale:</b> This alternative does not potentially reduce future angle crashes at the intersection nor improve the existing intersection to comply with AASHTO and GDOT guidelines for turn lanes or roadway geometrics.			

<b>Alternative 1:</b> Placing dual lane roundabout at SR 520/US82 intersection with North and South County Line Road/CR459			
<b>Estimated Property Impacts:</b>	2.10 acres of right of way and 0.06 acres of perm. easement, no displacements	<b>Estimated Total Cost:</b>	\$3,800,000.00
<b>Estimated ROW Cost:</b>	\$1,207,000.00	<b>Estimated CST Time:</b>	12 months
<b>Rationale:</b> This alternative also potentially reduces future angle crashes at the intersection and would comply with AASHTO and GDOT guidelines for roadway geometrics. However, this alternative would require additional right of way impacts and would not function well with the adjacent railroad crossing on South County Line Road as SB vehicles stopped at the crossing during a train movement could potentially queue into the roundabout's circular roadway.			

**Attachments:**

1. Concept Layout
2. Typical sections
3. Detailed Cost Estimates:
  - a. Construction including Engineering and Inspection
  - b. Completed Fuel & Asphalt Price Adjustment forms
  - c. Right-of-Way
  - d. Utilities
  - e. Railroad surface work
4. Crash summaries
5. Traffic diagrams
6. Capacity analysis summary (*tabular format*)
7. TE Report from GDOT District 4
8. Minutes of Initial Concept meeting

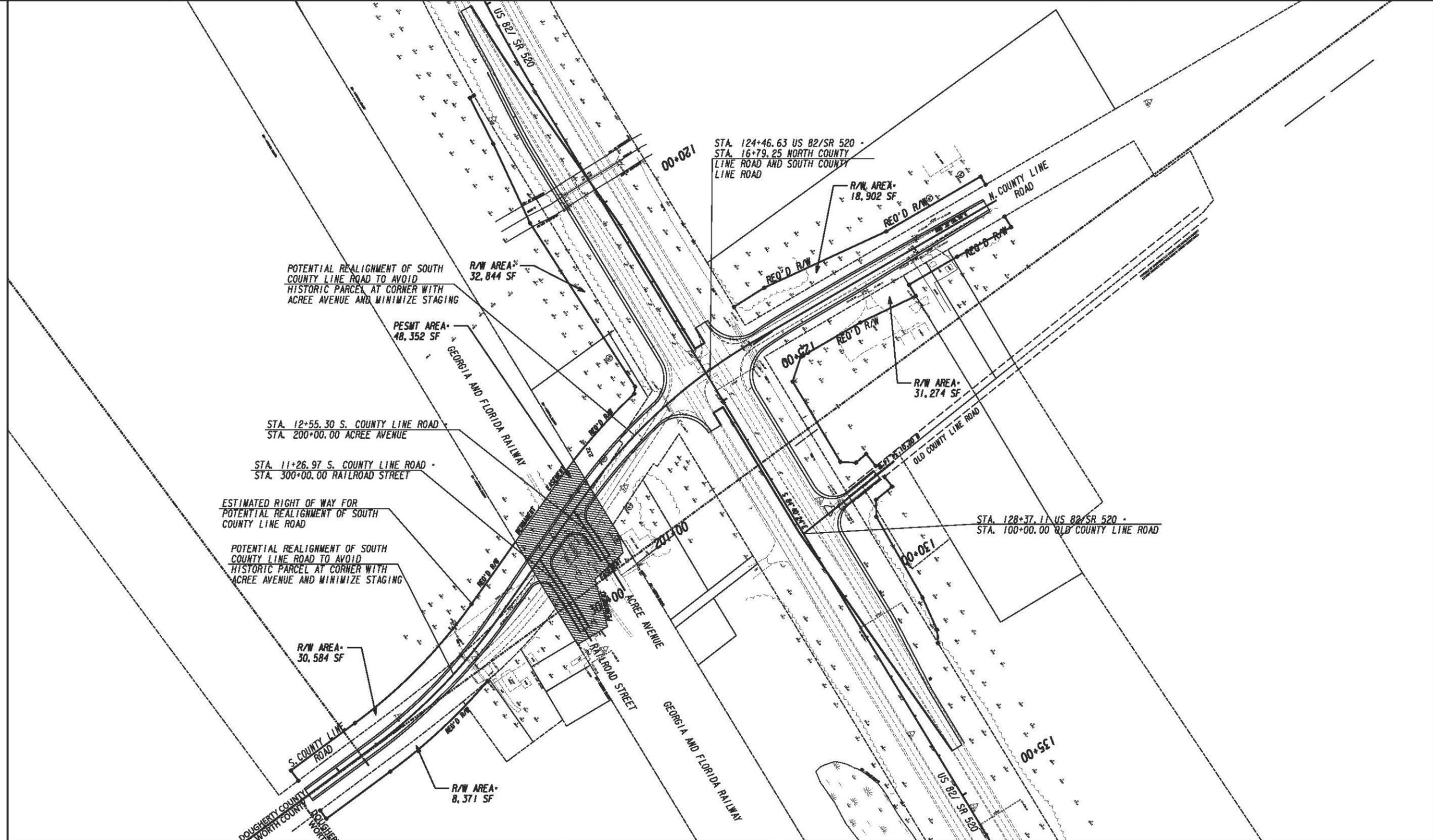
**APPROVALS**

Concur:   
 Director of Engineering

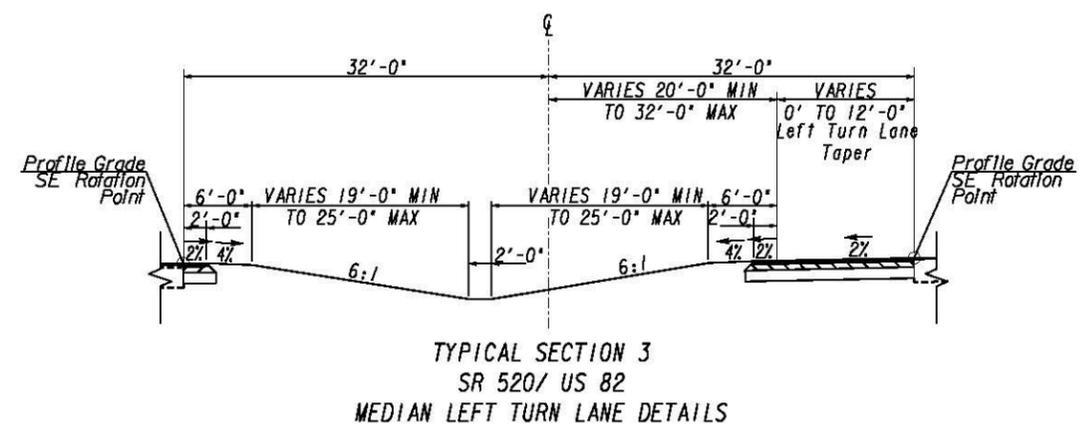
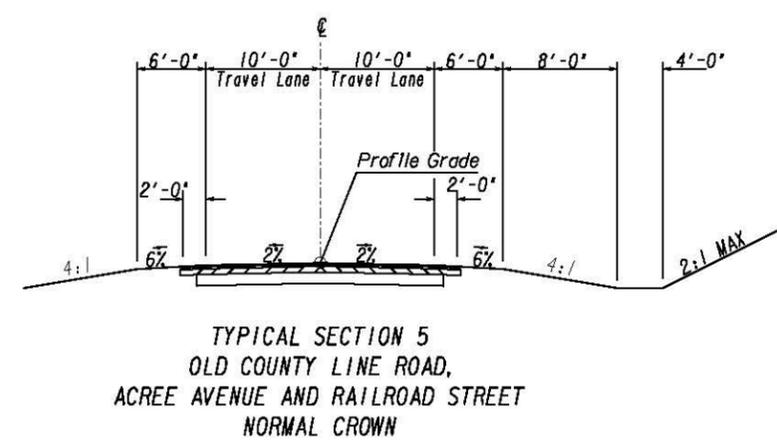
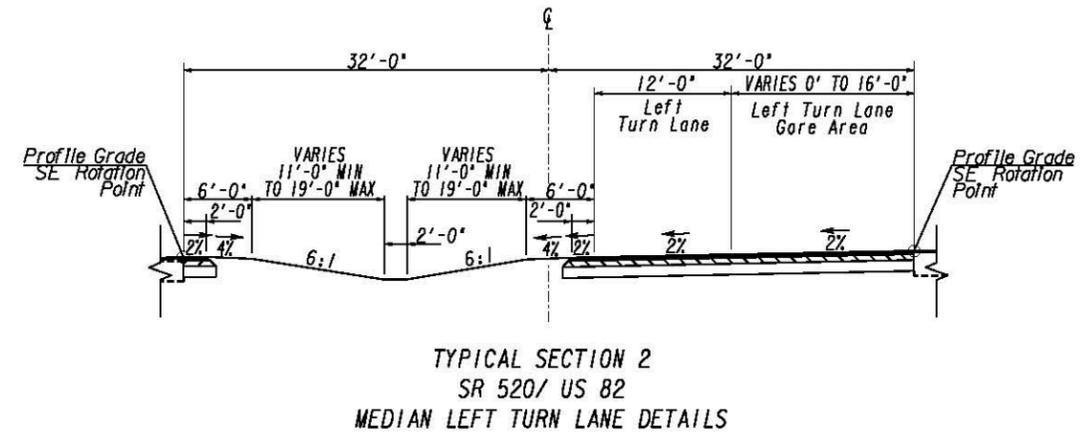
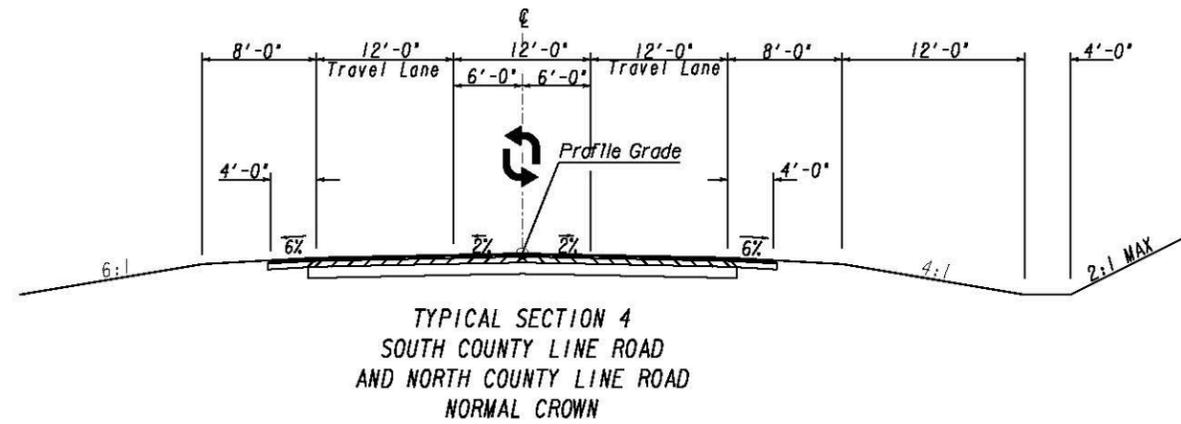
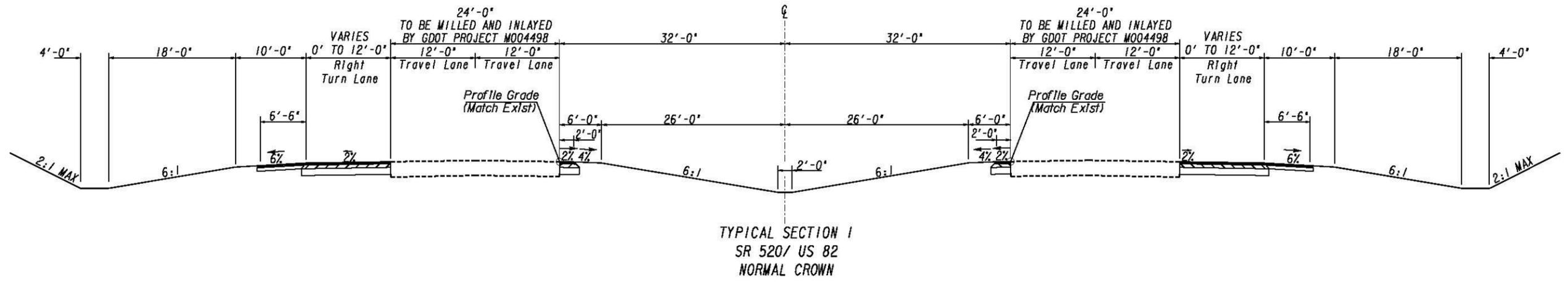
Approve:   
 Chief Engineer

7/26/12  
 Date





<b>GEORGIA</b> DEPARTMENT OF TRANSPORTATION	SCALE IN FEET 	REVISION DATES <table border="1" style="width: 100%; height: 40px;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>									STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE: PROGRAM DELIVERY <b>CONCEPT DISPLAY</b>  PROJECT: CSSFT-0010-00(292) COUNTY: DOUGHERTY
			DRAWING No.								



NOT TO SCALE



GRESHAM  
SMITH AND  
PARTNERS

REVISION DATES


STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION

OFFICE: PROGRAM DELIVERY

**TYPICAL SECTIONS**

PROJECT: CSSFT-0010-00(292)  
COUNTY: DOUGHERTY

DRAWING No.  
**5-001**

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

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INTERDEPARTMENT CORRESPONDENCE

**FILE** PROJECT No. CSSFT-0010-00(292), Dougherty  
SR 520/US 82 at CR 459/County Line Road  
Intersection Improvements  
P.I. No. 0010292

**OFFICE** Program Delivery

**DATE** 6/4/2012

**FROM** Bobby Hilliard, P.E., State Program Delivery Engineer

**TO** GDOT Contracts Administration

**SUBJECT** REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Charles Robinson

MNGT LET DATE X/X/XX

MNGT R/W DATE X/X/XX

**PROGRAMMED COST (TPro W/OUT INFLATION)**

**LAST ESTIMATE UPDATE**

CONSTRUCTION \$0,000,000.00

DATE X/XX/XX

RIGHT OF WAY \$0,000,000.00

DATE XX/XX/XXX

UTILITIES \$ N/A

DATE N/A

**REVISED COST ESTIMATES**

CONSTRUCTION\* \$1,900,867.38

RIGHT OF WAY \$590,000.00

UTILITIES\*\* \$556,000.00

\* Costs contain 5% Engineering and Inspection and 0% Construction Contingencies.

\*\* Costs contain 0% contingency.

**REASON FOR COST INCREASE** Revised concept based upon further development

### CONTINGENCY SUMMARY

Construction Cost Estimate:	\$1,690,556.63	(Base Estimate)
Engineering and Inspection:	\$84,527.83	(Base Estimate x 5 %)
Construction Contingency:	\$0.00	(Base Estimate x 0 %) (The Construction Contingency is based on the Project Improvement Type in TPro.)
Total Liquid AC Adjustment (50% cap)	\$125,782.92	(From attached worksheet)
<b>Construction Total:</b>	<b>\$1,900,867.38</b>	
Utility Cost Estimate:	\$556,000.00	
Utility Contingency:	\$0.00	
<b>Utility Total:</b>	<b>\$556,000.00</b>	

### REIMBURSABLE UTILITY COST

<u>Utility Owner</u>	<u>Reimbursable Costs</u>
Bellsouth/AT&T	\$250,000.00
Mitchell EMC	\$84,000.00
CSX Transportation/ Georgia and Florida Railway, Inc.	\$497,000.00

#### Attachments

- 1.) PI #0010292 CES Output
- 2.) PI #0010292 Asphalt and Fuel Price Adjustment Spreadsheet
- 3.) PI #0010292 Right of Way Estimate
- 4.) PI #0010292 Utility Estimate
- 5.) PI #0010292 Railroad Surface Work Estimate
- 6.) PI #0010292 Railroad Warning Device Replacement Estimate

c: Genetha Rice-Singleton, State Program Control Administrator

STATE HIGHWAY AGENCY

DATE : 6/5/2012  
 PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER: 0010292 SPEC YEAR:01  
 DESCRIPTION: SR 520/US 82 AT CR 459/ COUNTY LINE ROAD

ITEMS FOR  
 PROJECT CSSFT-0010-00(292)  
 DOUGHERTY COUNTY  
 PI # 0010292

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
	5 150-1000		LS	TRAFFIC CONTROL - CSSFT-0010-00(292)	1	\$100,000.00	\$100,000.00
	10 210-0100		LS	GRADING COMPLETE - CSSFT-0010-00(292)	1	\$520,000.00	\$520,000.00
	15 310-1101		TN	GR AGGR BASE CRS, INCL MATL	10172	\$23.04	\$234,362.88
	20 402-3111		TN	RECYL AC 19MM MIX,GP1OR2,BM&HL	1755	\$68.00	\$119,340.00
	25 402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	2544	\$68.00	\$173,005.38
	30 402-4510		TN	RECYL AC 12.5 MM SP,GP2ONLY,INC P-MBM&HL	1411	\$89.29	\$126,001.72
	35 413-1000		GL	BITUM TACK COAT	1021	\$2.49	\$2,542.29
	40 432-5010		SY	MILL ASPH CONC PVMT,VARB DEPTH	10980	\$2.32	\$25,506.65
	45 441-0748		SY	CONC MEDIAN, 6 IN	50	\$46.77	\$2,338.65
	50 446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	7750	\$2.60	\$20,153.49
	55 402-1812		TN	RECYL AC LEVELING,INC BM&HL	900	\$78.48	\$70,632.32
	60 500-3200		CY	CL B CONC	78	\$151.09	\$11,785.39
	65 511-1000		LB	BAR REINF STEEL	8422	\$0.73	\$6,192.28
	70 550-1180		LF	STM DR PIPE 18",H 1-10	56	\$31.99	\$1,791.69
	75 550-1240		LF	STM DR PIPE 24",H 1-10	146	\$39.96	\$5,834.33
	80 550-1300		LF	STM DR PIPE 30",H 1-10	164	\$53.88	\$8,837.49
	84 550-1480		LF	STM DR PIPE 48",H 1-10	216	\$70.45	\$15,217.42
	90 550-2180		LF	SIDE DR PIPE 18",H 1-10	230	\$26.25	\$6,039.75
	95 550-3518		EA	SAFETY END SECTION 18",STD,6:1	8	\$614.01	\$4,912.13
	100 550-3530		EA	SAFETY END SECTION 30",STD,6:1	2	\$1,645.37	\$3,290.75
	105 550-4218		EA	FLARED END SECT 18 IN, ST DR	2	\$501.42	\$1,002.85
	110 550-4224		EA	FLARED END SECT 24 IN, ST DR	7	\$520.70	\$3,644.96
	120 668-2100		EA	DROP INLET, GP 1	3	\$1,666.74	\$5,000.23
	125 668-7018		EA	DRAIN INLET, 18 IN	1	\$1,913.07	\$1,913.08
	130 600-0001		CY	FLOWABLE FILL	9	\$178.80	\$1,609.28
	135 163-0232		AC	TEMPORARY GRASSING	3	\$419.10	\$1,257.32
	140 163-0300		EA	CONSTRUCTION EXIT	4	\$1,193.41	\$4,773.66
	145 163-0240		TN	MULCH	107	\$204.52	\$21,883.65
	150 167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	1	\$628.44	\$628.45
	155 167-1500		MO	WATER QUALITY INSPECTIONS	12	\$959.53	\$11,514.48
	160 700-6910		AC	PERMANENT GRASSING	6	\$1,328.96	\$7,973.79
	165 700-7000		TN	AGRICULTURAL LIME	17	\$47.37	\$805.33
	170 700-8000		TN	FERTILIZER MIXED GRADE	4	\$523.57	\$2,094.29
	175 700-8100		LB	FERTILIZER NITROGEN CONTENT	275	\$2.82	\$776.68
	180 171-0010		LF	TEMPORARY SILT FENCE, TYPE A	5660	\$1.86	\$10,552.84
	181 163-0550		EA	CONS & REM INLET SEDIMENT TRAP	4	\$164.76	\$659.07
	182 165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	2830	\$0.75	\$2,134.56
	183 165-0101		EA	MAINT OF CONST EXIT	4	\$543.88	\$2,175.52
	184 165-0105		EA	MAINT OF INLET SEDIMENT TRAP	4	\$43.59	\$174.36
	185 636-2080		LF	GALV STEEL POSTS, TP 8	300	\$8.74	\$2,622.16
	190 636-1033		SF	HWY SIGNS, TP1MAT,REFL SH TP 9	130	\$20.00	\$2,600.29
	195 653-0120		EA	THERM PVMT MARK, ARROW, TP 2	10	\$71.43	\$714.37
	200 653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	13000	\$0.33	\$4,366.83
	205 653-1502		LF	THERMO SOLID TRAF ST, 5 IN YEL	3130	\$0.43	\$1,352.47
	210 653-1704		LF	THERM SOLID TRAF STRIPE,24",WH	118	\$3.60	\$425.76
	215 653-6004		SY	THERM TRAF STRIPING, WHITE	2860	\$2.67	\$7,651.76
	220 653-6006		SY	THERM TRAF STRIPING, YELLOW	480	\$2.87	\$1,380.28
	225 653-3501		GLF	THERMO SKIP TRAF ST, 5 IN, WHI	800	\$0.23	\$191.70
	230 653-1804		LF	THERM SOLID TRAF STRIPE, 8",WH	850	\$1.70	\$1,448.90
	235 647-1000		LS	TRAF SIGNAL INSTALLATION NO - ONE	1	\$90,000.00	\$90,000.00

240 647-5230	EA	SIGNAL ASS, FLASHING SCHOOL,CO	4	\$5,850.66	\$23,402.67
245 641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	1	\$600.67	\$600.68
250 641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	1	\$1,805.29	\$1,805.29
255 641-1200	LF	GUARDRAIL, TP W	288	\$17.96	\$5,174.46
260 550-3648	EA	SAFETY END SECTION 48",SD,6:1	4	\$2,115.00	\$8,460.00
-----					-----
ITEM TOTAL					\$1,690,556.60
INFLATED ITEM TOTAL					\$1,690,556.60
TOTALS FOR JOB PI# 0010292					
-----					-----
ESTIMATED COST:					\$1,690,556.63
CONTINGENCY (0.0):					0
ESTIMATED TOTAL:					\$1,690,556.63

PROJ. NO.

CSSFT-0010-00(292)

CALL NO.

P.I. NO.

0010292

DATE

6/4/2012

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	May-12	\$ 3.668
DIESEL		\$ 4.057
LIQUID AC		\$ 626.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

**LIQUID AC ADJUSTMENTS**

$PA = \left( \frac{APM - APL}{APL} \right) \times TMT \times APL$

**Asphalt**

Price Adjustment (PA)				<b>124135.8</b>	\$	<b>124,135.80</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	1,001.60		
Monthly Asphalt Cement Price month project let (APL)			\$	626.00		
Total Monthly Tonnage of asphalt cement (TMT)				330.5		

ASPHALT	Tons	%AC	AC ton
Leveling	900	5.0%	45
12.5 OGFC		5.0%	0
12.5 mm	1411	5.0%	70.55
9.5 mm SP		5.0%	0
25 mm SP	2544	5.0%	127.2
19 mm SP	1755	5.0%	87.75
	<b>6610</b>		<b>330.5</b>

**BITUMINOUS TACK COAT**

Price Adjustment (PA)			\$	<b>1,647.12</b>	\$	<b>1,647.12</b>
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	1,001.60		
Monthly Asphalt Cement Price month project let (APL)			\$	626.00		
Total Monthly Tonnage of asphalt cement (TMT)				4.385298041		

Bitum Tack			
Gals	gals/ton	tons	
1021	232.8234	4.38529804	

**PROJ. NO.**

CSSFT-0010-00(292)

CALL NO.

P.I. NO.

0010292

DATE

6/4/2012

**BITUMINOUS TACK COAT (surface treatment)**

Price Adjustment (PA)						<b>0</b>	\$	-
Monthly Asphalt Cement Price month placed (APM)			Max. Cap	60%	\$	1,001.60		
Monthly Asphalt Cement Price month project let (APL)					\$	626.00		
Total Monthly Tonnage of asphalt cement (TMT)						0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf. Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0
					0

<b>TOTAL LIQUID AC ADJUSTMENT</b>							\$	<b>125,782.92</b>
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**GEORGIA DEPARTMENT OF TRANSPORTATION  
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 5/18/2012 Project: 0010292  
 Revised: County: Dougherty  
 PI: 0010292

Description: SR520/US 82 @ CR 459/County Line Road  
 Project Termini: SR520/US 82 @ CR 459/County Line Road

Existing ROW: Varies  
 Required ROW: Varies

Parcels: 6

Land and Improvements \$475,650.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$0.00
Trade Fixtures	\$0.00
Improvements	\$250,000.00

Valuation Services \$6,000.00

Legal Services \$41,550.00

Relocation \$12,000.00

Demolition \$0.00

Administrative \$54,500.00

**TOTAL ESTIMATED COSTS \$589,700.00**

**TOTAL ESTIMATED COSTS (ROUNDED) \$590,000.00**

Preparation Credits	Hours	Signature

Prepared By: Madhona Alexander CG#: 286999 05/18/2012  
 Approved By: Madhona Alexander CG#: 286999 05/18/2012

**NOTE: No Market Appreciation is included in this Preliminary Cost Estimate**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE**

Project No: **PI 0010292**  
County **DOUGHERTY**

OFFICE: **Tifton**  
DATE: **December 1, 2011**

P.I. # **PI 0010292**

Description: **SR 520/US 82 @ CR 459/County Line Road**

**FROM** Tim Warren, P.E., District Utilities Engineer

**TO** Charles A. Robinson, Project Manager ( **VIA- EMAIL** )

**SUBJECT** **UTILITY COST ESTIMATE**

A review of utilities located on the above referenced project has been conducted without a design concept.. Listed below is a breakdown of the anticipated reimbursable and non-reimbursable cost.

<u>Utility Owner</u>	<u>Reimbursable</u>	<u>Non-Reimbursable</u>	<u>Estimate Based on</u>
Bellsouth/Att	\$250,000.00	\$15,500.00	Site Visit / Available Drawings
City Of Sylvester-CNS- **	\$0.00	\$7,750.00	Site Visit / Available Drawings
Windstream/Verison	\$0.00	\$8,220.00	Site Visit / Available Drawings
Mitchell Emc	\$84,000.00	\$0.00	Site Visit / Available Drawings
Mediacom	\$0.00	\$5,800.00	Site Visit / Available Drawings
GA/FLA RAILNET- X # 637215L	UNKNOWN	UNKNOWN	See Richard Crowley
<b>Total</b>	<b>\$334,000.00</b>	<b>\$37,270.00</b>	

**\*\* Indicates Potential Utility Aid Request from Local Gov't**

Estimate is based on the best available information at the current stage, unforeseen prior rights information may be provided by the Utility Company at a later date that could cause some non-reimbursable costs to shift to the reimbursable cost column.

If additional information is needed, please contact me or Bill Cooper, Assistant District Utilities Engineer at (229) 386-3288.

TW:BC:KC

c: Jeff Baker, P.E., State Utilities Engineer  
Brent Thomas, District Preconstruction Engineer  
Angela Robinson, State Financial Management Administrator

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## INTERDEPARTMENT CORRESPONDENCE

**FILE:** PI No. 0010292, Dougherty County      **OFFICE:** State Utilities Office  
**FROM:** *Jill Franks for i*  
Jeff Baker, State Utility Engineer      **DATE:** June 1, 2012  
**TO:** Bobby Hilliard, State Program Delivery Engineer  
**Attn:** Charles Robinson, Project Manager  
**SUBJECT:** PRELIMINARY RAILROAD COST FOR SURFACE WORK (CONCEPT ESTIMATE)

A review of railroads located within the project limits on the above referenced project has been conducted based on the proposed concept report provided. Listed below is a breakdown of the estimated railroad costs:

<u>FACILITY OWNER</u>	<u>NON-REIMBURSABLE</u>	<u>REIMBURSABLE</u>
Georgia Florida RR- PE for at-grade crossing	\$0.00	\$22,000.00
Georgia Florida RR- CE for at-grade crossing	\$0.00	\$200,000.00
<b>Total Reimbursement Cost:</b>	<b>\$0.00</b>	<b>\$222,000.00</b>

Total railroad surface work reimbursable cost for the above project is estimated to be:  
**\$222,000.00**

Please note that this amount does not include other reimbursable utility and railroad warning device costs that may be associated with this project. Please keep the railroad costs separate from other utilities in your designer's cost estimate.

If you have any questions, please contact Richard Crowley, (404)631-1372, [rcrowley@dot.ga.gov](mailto:rcrowley@dot.ga.gov) or Jill Franks, (404) 631-1370, [jfranks@dot.ga.gov](mailto:jfranks@dot.ga.gov).

JB:RLC:jlf

cc: Sal Pirzad, State Utilities Preconstruction Engineer  
Angela Robinson, State Financial Management Administrator  
Tim Warren, District 4 Utilities Engineer  
Stenley Mack, Railroad Crossing Program Manager

**Rickert, Eric**

---

**Subject:** Railroad Information for Proposed Concept Report, PI Number 0010292, Dougherty County

---

**From:** Mack, Stenley K.  
**Sent:** Monday, June 04, 2012 2:57 PM  
**To:** Robinson, Charles A.  
**Cc:** Crowley, Richard; Franks, Jill L.  
**Subject:** RE: Railroad Information for Proposed Concept Report, PI Number 0010292, Dougherty County

Charles,

An estimate for Railroad Warning Devices would be \$275,000.00  
Thanks

---

**From:** Robinson, Charles A.  
**Sent:** Friday, June 01, 2012 11:33 AM  
**To:** Mack, Stenley K.  
**Cc:** Crowley, Richard; Franks, Jill L.  
**Subject:** FW: Railroad Information for Proposed Concept Report, PI Number 0010292, Dougherty County

Hi Stenley,

Can you please provide me with a conceptual level cost estimate for the above referenced project? I have attached the preliminary railroad cost estimate without the warning devices and the revised layout for your use.

I will be able to submit the concept report for approval upon receiving your cost estimate.

Please let me know if you have any questions.

Thanks,

**Charles A. Robinson**  
Project Manager  
Georgia Department of Transportation  
Office of Program Delivery  
One Georgia Center  
600 West Peachtree Street, Floor 24  
Atlanta, GA 30308  
Office: (404) 631-1439  
Mobile: (404) 985-0720  
Fax: (404) 631-1588  
[chrobinson@dot.ga.gov](mailto:chrobinson@dot.ga.gov)

## GDOT PROJECT CSSFT-0010-00(292) Crash Summary

### Summary of Traffic Crash History along SR 520/US 82 in Dougherty County (Milelogs: 15.23 to 16.23)

Year	Accidents			Accidents Per 100 Million Vehicle Miles <sup>1</sup>		
	Total	Injury	Fatal	Total	Injury	Fatal
2006	9	1	0	187 (137)	21 (47)	0.00 (1.75)
2007	13	4	0	270 (145)	83 (47)	0.00 (1.99)
2008	14	8	0	290 (146)	166 (48)	0.00 (1.61)
<b>Total</b>	<b>36</b>	<b>13</b>	<b>0</b>			
<b>Average</b>	<b>12</b>	<b>4</b>	<b>0</b>	<b>249 (143)</b>	<b>83 (47)</b>	<b>0.00 (1.78)</b>

Note: (1) The number in parentheses represents the statewide average crash rates for Rural Principal Arterials

### Summary of Traffic Crash History along North and South County Line Road (CR 459) in Dougherty County (Milelogs: 5.9 to 6.9)

Year	Accidents			Accidents Per 100 Million Vehicle Miles <sup>1</sup>		
	Total	Injury	Fatal	Total	Injury	Fatal
2006	4	2	0	282 (203)	141 (73)	0.00 (3.28)
2007	6	2	0	423 (203)	141 (72)	0.00 (3.24)
2008	5	2	0	352 (194)	141 (68)	0.00 (3.03)
<b>Total</b>	<b>15</b>	<b>6</b>	<b>0</b>			
<b>Average</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>352 (200)</b>	<b>141 (71)</b>	<b>0.00 (3.18)</b>

Note: (1) The number in parentheses represents the statewide average crash rates for Rural Major Collectors

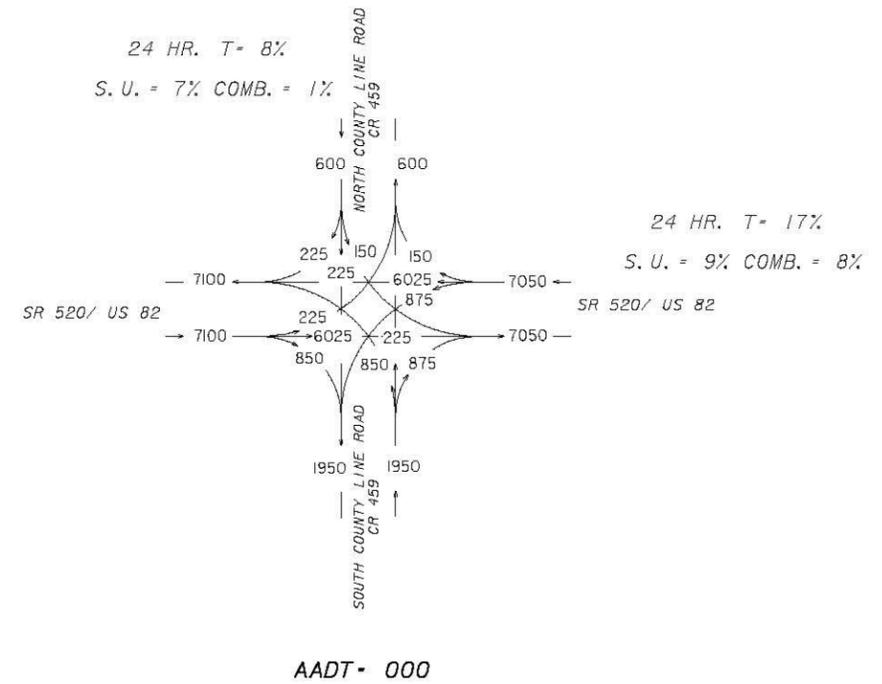
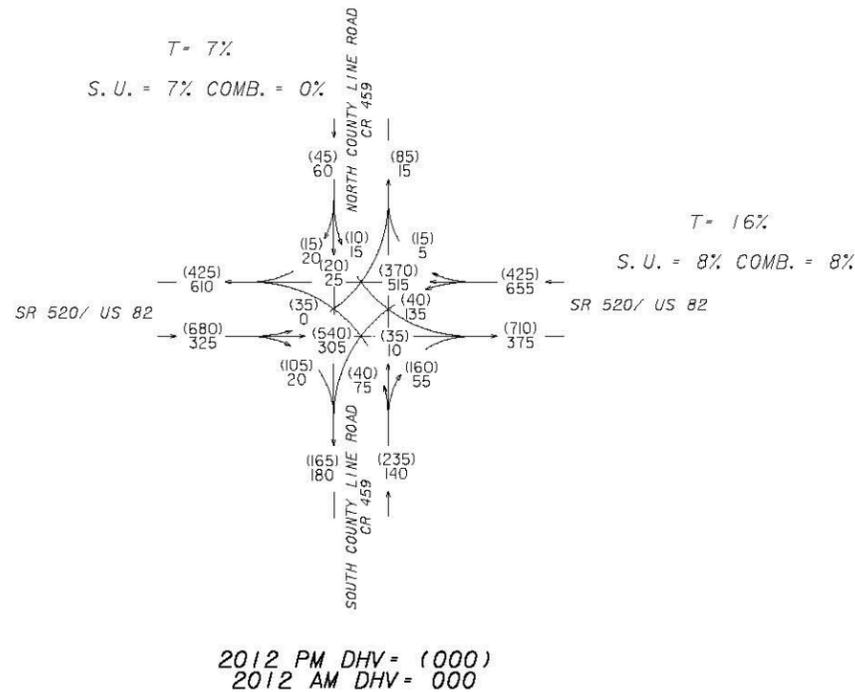
### Summary of Crashes at the SR 520/US 82 & North and South County Line Rd (CR 459) intersection

Year	Manner of Collision						Total Crashes	Type of Accident		
	Angle	Head On	Rear End	Sideswipe-Same Direction	Sideswipe-Opposite Direction	Not a Collision With a Motor Vehicle		PDO	Injury	Fatal
2006	5	1	1	0	0	1	8	7	1	0
2007	5	1	2	0	0	0	8	5	3	0
2008	9	0	2	0	0	0	11	4	7	0
<b>Total</b>	<b>19</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>27</b>	<b>16</b>	<b>11</b>	<b>0</b>
<b>Percent</b>	<b>70.4%</b>	<b>7.4%</b>	<b>18.5%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.7%</b>	<b>NA</b>	<b>59.3%</b>	<b>40.7%</b>	<b>0.0%</b>



2012 EXISTING  
AM AND PM PK HR  
TRAFFIC VOLUMES

2012 EXISTING  
AADT TRAFFIC VOLUMES



2012 EXISTING YEAR  
 AM AND PM PEAK HOUR  
 AND AADT TRAFFIC VOLUMES



GRESHAM  
 SMITH AND  
 PARTNERS

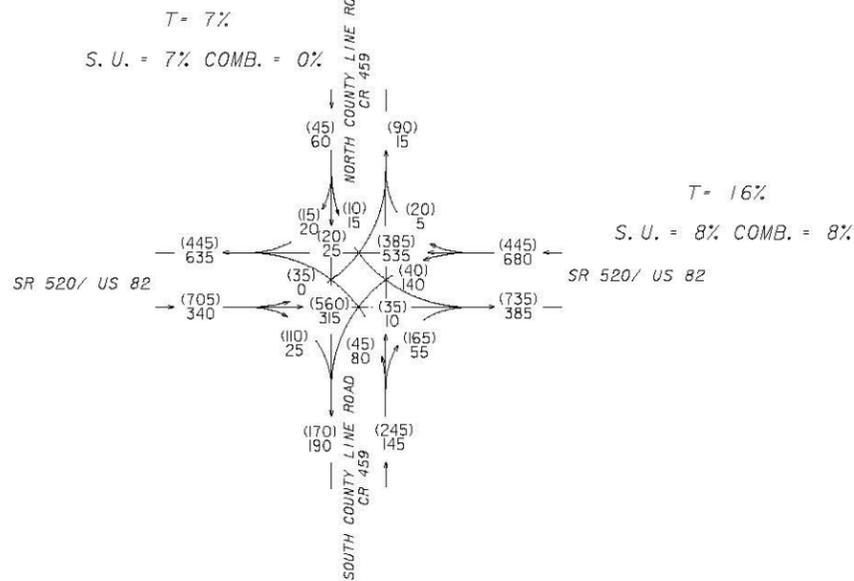
NOT TO SCALE

REVISION DATES

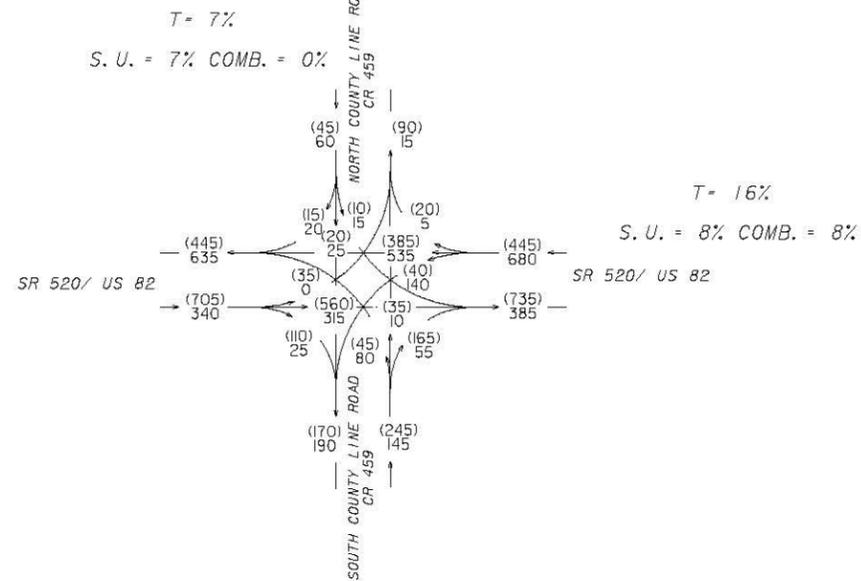
STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: PROGRAM DELIVERY  
 CSSFT-0010-00(292) PI# 0010292  
 SR 520 AT CR 459/COUNTY LINE ROAD  
 CONCEPT LAYOUT  
 DOUGHERTY COUNTY APRIL 2, 2012

DRAWING No.  
 10-001

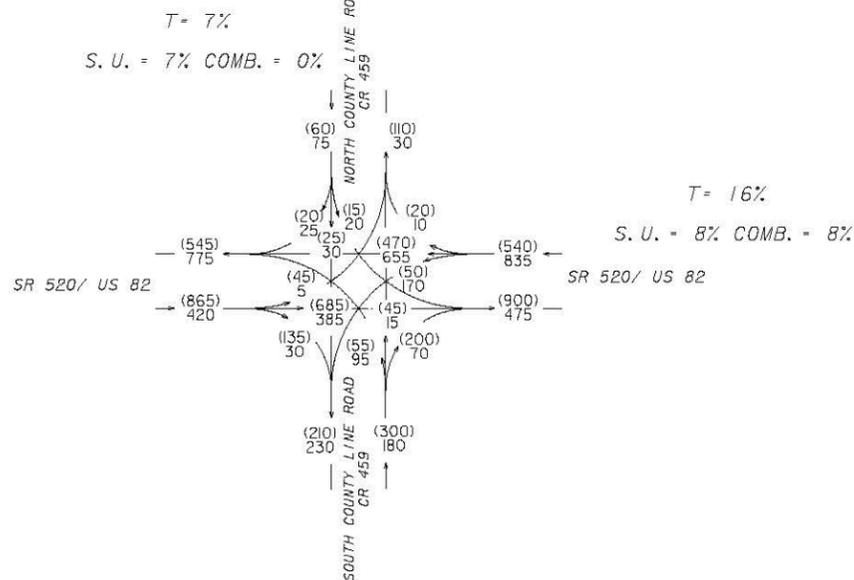
**2015 OPENING YEAR  
 NO BUILD  
 AM AND PM PK HR  
 TRAFFIC VOLUMES**



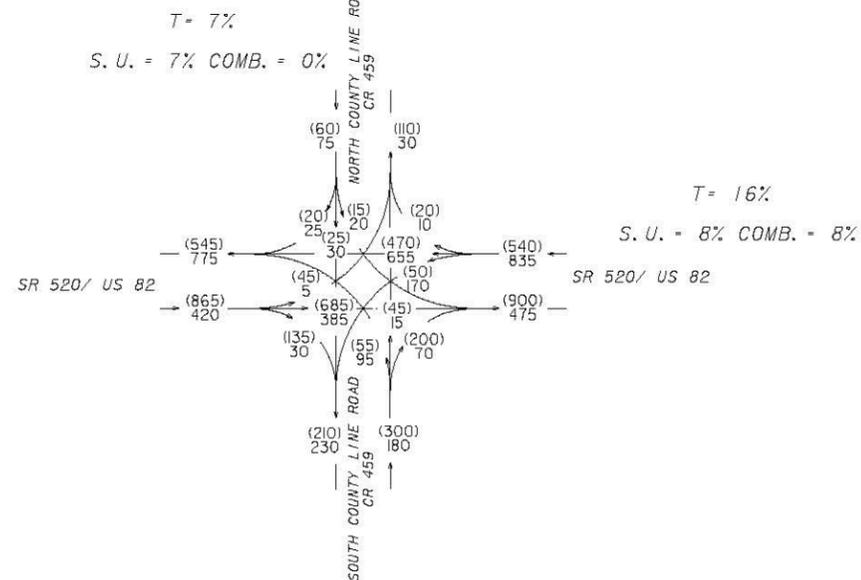
**2015 OPENING YEAR  
 BUILD  
 AM AND PM PK HR  
 TRAFFIC VOLUMES**



**2035 DESIGN YEAR  
 NO BUILD  
 AM AND PM PK HR  
 TRAFFIC VOLUMES**



**2035 DESIGN YEAR  
 BUILD  
 AM AND PM PK HR  
 TRAFFIC VOLUMES**



2015 OPENING YEAR  
 2035 DESIGN YEAR  
 AM AND PM PEAK HOUR  
 TRAFFIC VOLUMES

**LEGEND**

PM DHV = (000)  
 AM DHV = 000



GRESHAM  
 SMITH AND  
 PARTNERS

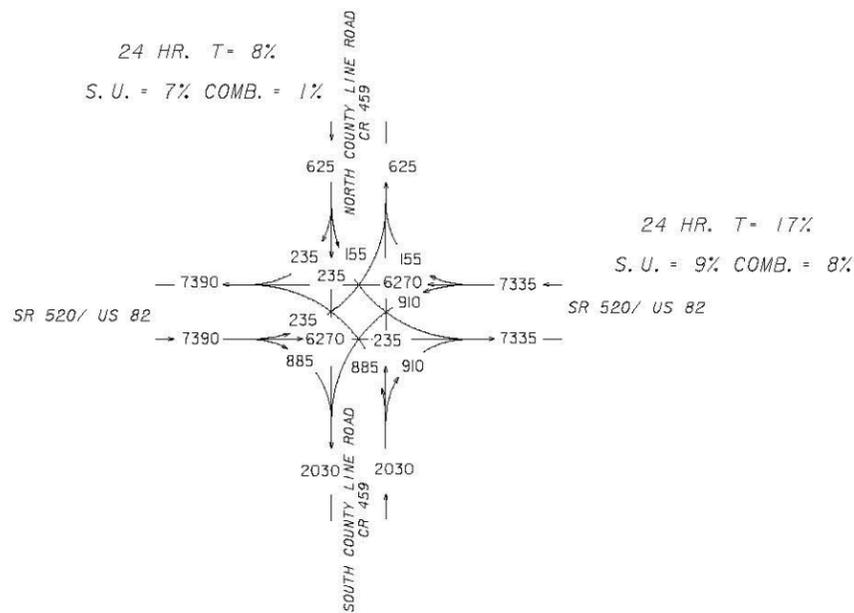
NOT TO SCALE

**REVISION DATES**

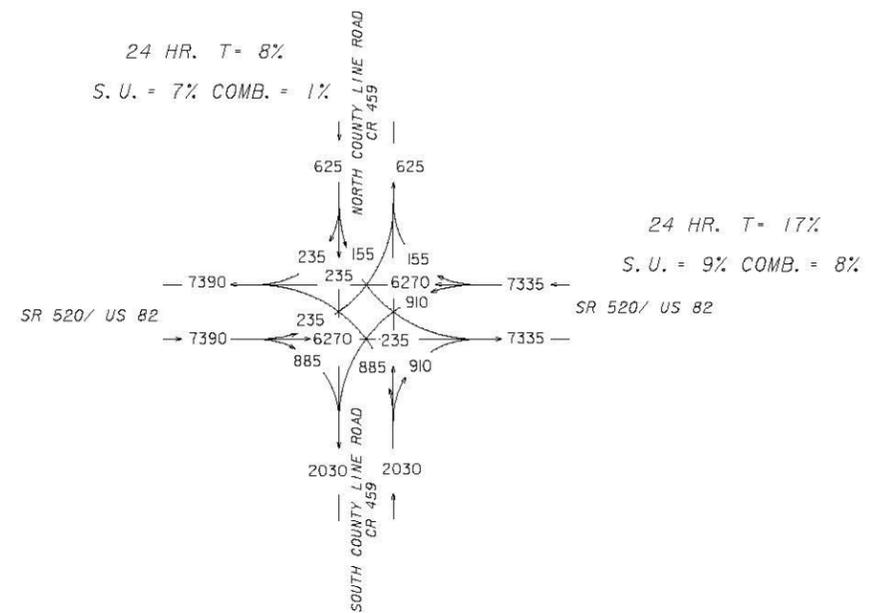
STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: PROGRAM DELIVERY  
 CSSFT-0010-00(292) PI# 0010292  
 SR 520 AT CR 459/COUNTY LINE ROAD  
 CONCEPT LAYOUT  
 DOUGHERTY COUNTY APRIL 2, 2012

DRAWING No.  
**10-002**

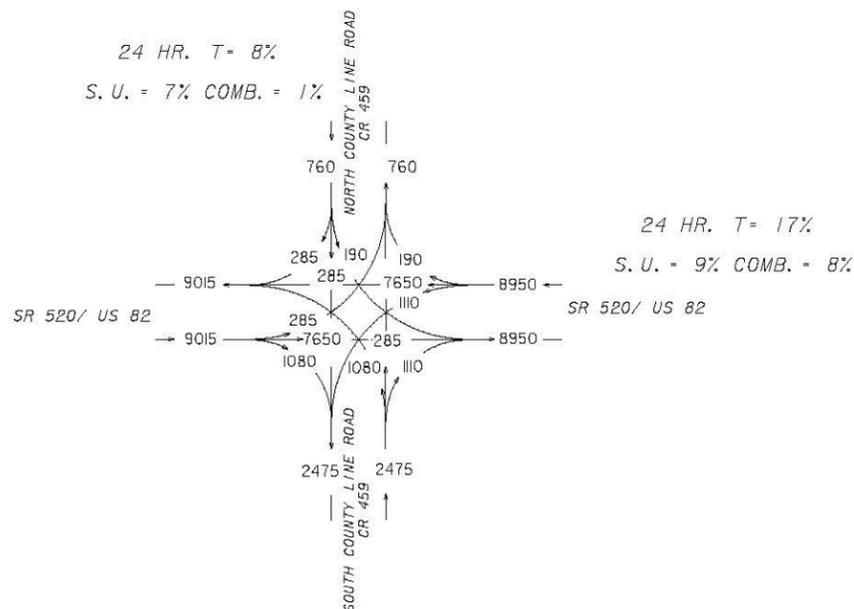
2015 OPENING YEAR  
NO BUILD  
AADT TRAFFIC VOLUMES



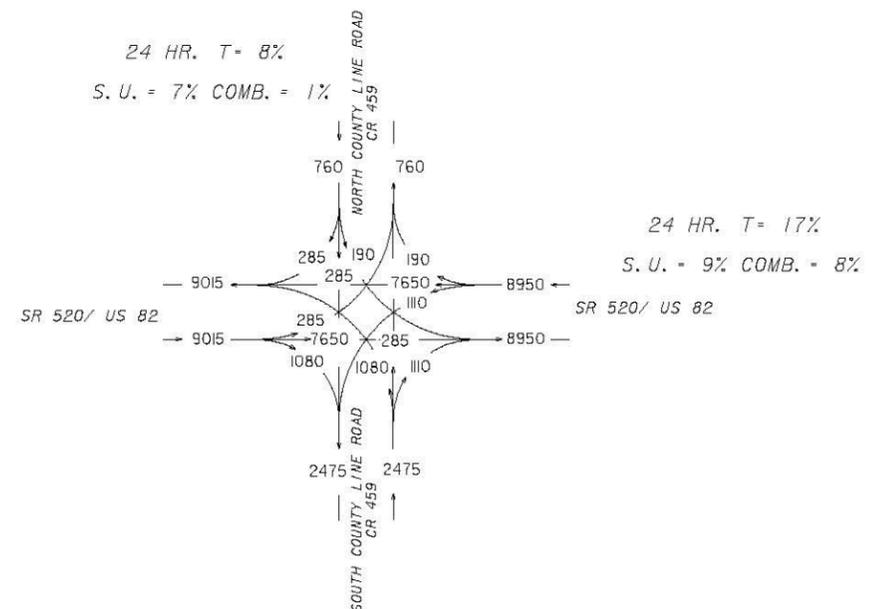
2015 OPENING YEAR  
BUILD  
AADT TRAFFIC VOLUMES



2035 DESIGN YEAR  
NO BUILD  
AADT TRAFFIC VOLUMES



2035 DESIGN YEAR  
BUILD  
AADT TRAFFIC VOLUMES



2015 OPENING YEAR  
 2035 DESIGN YEAR  
 AADT TRAFFIC VOLUMES

LEGEND  
 AADT = 000



GRESHAM  
 SMITH AND  
 PARTNERS

NOT TO SCALE

REVISION DATES

NO.	DATE	DESCRIPTION

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: PROGRAM DELIVERY  
 CSSFT-0010-00(292) PI# 0010292  
 SR 520 AT CR 459/COUNTY LINE ROAD  
 CONCEPT LAYOUT  
 DOUGHERTY COUNTY APRIL 2, 2012

DRAWING No.  
**10-003**

## GDOT PROJECT CSSFT-0010-00(292) Capacity Analysis Summary

### No-Build Existing and Anticipated Future Level of Service

Intersection	Traffic Control	Approach	Level of Service (AM/PM)		
			2011	2015 No-Build	2035 No-Build
SR 520/US 82 with North County Line Road and South County Line Road	Stop Control on North County Line Road and South County Line Road	NB	C/C	C/C	E/E

### Anticipated Future Intersection Level of Service

Intersection	Traffic Control	LOS (AM/PM)	
		2015 Build	2035 Build
SR 520/US 82 with North County Line Road and South County Line Road	Signal	B/B	B/B
SR 520/US 82 with North County Line Road and South County Line Road	Roundabout	A/A	A/A







# TRAFFIC ENGINEERING REPORT

## August 08, 2008

**FILE: State Route 520/ US 82 @ CR 459 / County Line Road**

**COUNTY: Dougherty**

**CITY: Rural**

### **REASON FOR INVESTIGATION:**

A request from Van Mason was forwarded to our office to determine if signalization, safety or other operational improvements are warranted.

### **TOPOGRAPHY:**

The northeast quadrant has an existing church that is set back approximately 400 feet from the intersection to the north on County Road 459/ County Line Road. The southeast quadrant has an existing store that is also set back from the intersection approximately 200 feet. Both the northwest and southwest quadrants are wooded lots.

County Line Road/ CR 459 in both the north and south directions has two lanes that average approximately 11 feet for a total of twenty-two (22) feet. State Route 520/US 82 traveling east and west is a divided four lane with a sixty (60) feet grass median. State Route 520/ US 82 is an Urban Principal Arterial. State Route 520/ US 82 has two (2) 12 feet lanes in both the east and west directions for a total of twenty-four (24) feet of travel lanes in each direction and a total of forty-eight (48) feet in both directions. State Route 520/ US 82 also has a three (3) feet paved outside shoulder with an eight (8) feet outside grass shoulder as an existing condition. The study intersection has an existing median crossover. At the median crossover the existing grass median narrows to fifty (50) feet.

The existing grade on County Line Road/ CR 459 as measured in the field on the north side of the intersection is 0.5%. The grade on the south side of County Line Road/ CR 459 is 1.2%. The existing grade as measured in the field on State Route 520/ US 82 traveling eastbound into the intersection is 0.3%. The existing grade as measured in the field on SR 520/ US 82 traveling westbound into the intersection is 0.9%.

**VEHICLE VOLUMES:**

The current two- way AADT for State Route 520/ US 82 at the study intersection is 16,350 vehicles per day.

**EXISTING TRAFFIC CONTROL:**

Existing Traffic Control consists of County Line Road/ CR 459 being stop controlled on both the north and south sides of the intersection. Approaching the intersection on County Line Road/ CR 459 stop ahead signs and the divided highway plaque on the stop sign are existing conditions. State Route 520/ US 82 traveling east and west has intersection warning signs with the side road name plaques in place. State Route 520/ US 82 and County Line Road are properly signed and marked according to the Manual on Uniform Traffic Control Devices (MUTCD).

**PEDESTRIAN MOVEMENTS:**

During the study there were no pedestrians observed.

**SPEED LIMITS:**

The posted speed limit on both State Route 520/ US 82 and County Line Road/ CR 459 is 55 mph. Speed samples were taken at this location on June 17, 2008. The 85<sup>th</sup> percentile speed is that speed at or below which 85% of the vehicles are traveling. The 85<sup>th</sup> percentile speed is often used as one of the key indicators of an appropriate speed limit for a road. Speed samples taken on State Route 520/ US 82 traveling both eastbound and westbound indicate that the 85<sup>th</sup> percentile was 67 mph eastbound and 70 mph westbound. The 10 MPH Pace speed was calculated and found to be 62- 71 MPH westbound and 60-69MPH eastbound. The average speed was 64 MPH eastbound and 65 MPH westbound. The vehicles sampled during the study were traveling, on average 9 to 10 mph above the posted speed limit. County Line Road (CR 459) is a stop controlled condition; therefore radar samples were not taken.

**ACCIDENT HISTORY:**

Currently the G.D.O.T. database reflects 24 accidents from March 2004 to December 2007 including 46 vehicles, 16 injuries, and 0 fatalities. Attached is a copy of the accident summary along with a collision diagram. Accident history and reports from the Georgia State Patrol were also evaluated. Based on the information provided to us, there were two time periods that included five or more angle intersecting accidents at the intersection in a twelve consecutive month period. The first time period was from September 18, 2004 to September 18, 2005, during this twelve month period there were eight (8) angle type accidents. The second time period is from December 1, 2006 to December 1, 2007, during this twelve month period there were five (5) angle type accidents. Below is a summary by year and type of accident at the study intersection.

**ACCIDENT HISTORY CONT.:**

- 2004- (6) Accidents with 1 injury: (4) Angles, (1) Rear end, (1) Not a collision with a motor vehicle
- 2005 - (5) Accidents with 3 injuries: (5) Angles
- 2006 - (8) Accidents with 4 injuries: (1) Head on, (5) Angles, (1) Rear end, (1) Not a collision with a motor vehicle
- 2007 - (5) Accidents with 8 injuries: (4) Angles, (1) Head on

Note: See attachment for accident summary sheet and collision diagram.

Note: There were a total of seventeen (17) angle intersecting accidents at the study intersection from September of 2004 to December of 2007. The accidents breakdown as follows: (3) Report not yet available (2007), (12) Failure to yield the right of way, (1) Improper U- turn, and (1) Failed brakes.

#### **OTHER INFORMATION:**

Twenty four hour traffic counts were conducted at the intersection on April 09, 2008. Turn movement counts were taken on State Route 520/ US 82 and County Line Road/ CR 459 on April 16, 2008 and are attached to this report. A delay count was performed at the study intersection on May 20, 2008 and is also attached to this report. Peak hour gap analysis was also performed on July 1, 2008 and the results are attached to this report.

During field inspection and measuring the intersection it was noted that the stop bars on County Line Road/ CR 459 were set back from the edge of pavement eight (8) feet on the north and south approach.

There was also an observation made during field work that vehicles traveling north and south on County Line Road/ CR 459 would pull out into the median crossover to make a left turn onto State Route 520/ US 82. At least three times during the field inspection there was a queue of two vehicles on both sides of the crossover waiting for a gap to make a left onto State Route 520/ US 82 or continue straight across. During this queue there were also vehicles getting into the left turn lanes to turn onto County Line Road/ CR 459 and these two left turn lanes were also getting queues of four or five vehicles.

Intersection Sight Distance (ISD) was measured using a driver's eye height of 42", 16' from edge of pavement and a vehicle height of 42" as per AASHTO guidelines. Sight distance measurements were also conducted as per the Geometric Design of Highways and Streets, Fifth Edition. The sight distance was checked in each direction from the stop conditions and the following results were noted:

- County Line Road/ CR 459 traveling north looking west- 1,945 feet
- County Line Road/ CR 459 traveling north looking east- 2,800 feet
- Median traveling north looking east- 2,820 feet
- Median traveling south looking west- 2,544 feet

#### **OTHER INFORMATION CONT.:**

- County Line Road/ CR 459 traveling south looking east- 2,341 feet
- County Line Road/ CR 459 traveling south looking west- 2,281 feet

All of the measurements taken from the field exceed the minimum requirements for a four lane divided roadway posted at 55 mph, which is 610 feet according to AASHTO.

### **CONCLUSIONS:**

Traffic counts that were taken at the study intersection reflected a high right turn volume onto County Line Road/ CR 459 if one is traveling east on State Route 520/ US 82. The left turn volumes on State Route 520/ US 82 westbound and County Line Road (CR 459) northbound during the AM peak hours were very high. Right turns reflected the same numbers in the PM peak hours from County Line Road (CR 459) southbound. Therefore, auxiliary lanes would be beneficial to the efficiency of the overall intersection. There were a high number of angle accidents; however 70% of the accidents were failure to yield the right of way. This is interpreted that vehicles are stopping and then pulling out in front of oncoming traffic.

The study intersection met the following signal warrants using the 70% factor.

- Warrant 1- 8 hour volumes- Satisfied
- Warrant 1A- Minimum vehicle Volumes- Satisfied
- Warrant 1B- Interruption of continuous traffic- Satisfied
- Warrant 1A&B- Combination of warrants- Satisfied
- Warrant 2- 4 hour volumes-Satisfied
- Warrant 3- Peak hour- Satisfied
- Warrant 3B-Peak hour volumes (1 hour)- Satisfied
- Warrant 7- Crash experience- Satisfied
- Warrant 8- Roadway network-Satisfied

The crash data was analyzed from the last three years and approximately eighty- five (85%) percent of the people involved were local citizens. The collisions were occurring prior to the median cross over, not in the cross over.

### **RECOMMENDATIONS:**

- Recommend considerations of an Intersection Operational Improvement Project to install a stop and go traffic signal at State Route 520/ US 82 @ County Line Road (CR 459). Left turn lanes on County Line Road (CR 459) and right turn (deceleration) lanes on State Route 520/ US 82 should also be installed in conjunction with signal. An additional recommendation that advanced warning flashers be installed to provide notice of the intersection and/ or new signal at the intersection.

**RECOMMENDATIONS CONT.:**

- The striping in the median needs to be re- furbished along with additional striping that would narrow the lane and limit the number of vehicles in this area. Install raised pavement markers in the hatched area to further enhance the effectiveness of the additional striping. The intersection warning signs on State Route 520/ US 82 should be double indicated. It is also recommended that this work be performed by district maintenance forces as soon as scheduling allows.

PREPARED BY:  DATE 8-8-08  
DISTRICT TRAFFIC OPERATIONS ENGINEER

RECOMMENDED BY:  DATE 8/8/08  
DISTRICT TRAFFIC ENGINEER

RECOMMENDED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
STATE TRAFFIC SAFETY & DESIGN ENGINEER

RECOMMENDED BY: \_\_\_\_\_ DATE \_\_\_\_\_  
DIRECTOR OF OPERATIONS

### ACCIDENT SUMMARY

March 2004- December 2007

SR 520/ US 82 @ County Line Road (CR 459)

Dougherty County

D=DIR. OF TRAVEL	VM=VEH. MANEUVER	TYPE=MANNER OF COLLISION
1 NORTH	1 TURNING LEFT	1 ANGLE
2 SOUTH	2 TURNING RIGHT	2 HEAD ON
3 EAST	3 U-TURN	3 REAR END
4 WEST	4 STOPPED	4 SIDESWIPE SAME DIR.
	5 STRAIGHT	5 SIDESWIPE OPP DIR.
	6 CHANGING LANES	6 NOT A COLLISION WITH A VEH.
	7 BACKING	
	8 PARKED	
	9 PASSING	
	10 NEGOTAITING A CURVE	

#### SU=SURFACE CONDITION

1 DRY
2 WET
3 SNOWY
4 ICY
5 OTHER

#	DATE	TIME	INJ	FAT	D1	VM1	D2	VM2	TYPE	SU	D3	VM3	D4	VM4
1	03/19/04	19:33	0	0	02	05	03	05	01	01				
2	05/01/04	12:23	0	0	03	05			06	02				
3	09/18/04	18:20	0	0	02	01	03	05	01	01				
4	11/24/04	18:09	0	0	02	05	03	05	01	02				
5	09/18/04	18:40	0	0	02	03	04	05	01	01				
6	10/30/04	06:57	1	0	02	05	04	05	01	01				
7	01/03/05	18:36	1	0	02	05	03	05	01	01				
8	04/13/05	06:32	0	0	01	01	04	01	01	01				
9	09/30/05	14:15	2	0	01	05	03	05	01	01				
10	05/26/05	15:44	0	0	01	05	03	05	01	01				
11	05/08/05	15:07	0	0	02	05	03	05	01	01				
12	09/09/06	22:42	0	0	04	02			06	01				
13	02/20/06	18:21	0	0	02	05	03	05	01	05				
14	12/11/06	09:50	0	0	01	02	03	05	01	01				
15	03/10/06	19:51	0	0	01	05	03	01	01	01				
16	07/28/06	19:11	0	0	01	05	04	05	01	01				
17	09/27/06	18:19	4	0	02	01	03	05	01	01				
18	09/12/06	18:54	0	0	01	05	01	05	03	01				
19	10/02/06	19:25	0	0	02	05	03	05	01	01				
20	03/08/07	17:21	0	0	01	05	01	04	03	01				
21	12/29/07	13:40	6	0	02	05	04	05	01	02				
22	07/17/07	06:20	0	0	01	05	03	05	01	01				
23	09/28/07	18:28	2	0	01	05	03	05	01	01				
24	09/16/07	10:15	0	0	01	05	01	04	03	01				

Georgia Department of Transportation

710 West Second Street  
Tifton, GA 31793

WITHOUT  
RIGHT TURNS

SR 520 @ County Line Road, Dougherty County  
70% Factor

Signal Warrants - Summary

Major Street Approaches

Eastbound: SR 520

Number of Lanes: 2  
Approach Speed: 55  
Total Approach Volume: 3,853

Westbound: SR 520

Number of Lanes: 2  
Approach Speed: 55  
Total Approach Volume: 4,626

Minor Street Approaches

Northbound: CO LINE RD

Number of Lanes: 1  
Total Approach Volume: 846

Southbound: CO LINE RD

Number of Lanes: 1  
Total Approach Volume: 301

Warrant Summary (Rural values apply.)

- Warrant 1 - Eight Hour Vehicular Volumes ..... Satisfied
  - Warrant 1A - Minimum Vehicular Volume ..... Not Satisfied  
Required volumes reached for 4 hours, 8 are needed
  - Warrant 1B - Interruption of Continuous Traffic ..... Satisfied  
Required volumes reached for 9 hours, 8 are needed
  - Warrant 1 A&B - Combination of Warrants ..... Not Satisfied  
Required volumes reached for 4 hours, 8 are needed
- Warrant 2 - Four Hour Volumes ..... Satisfied  
Number of hours (6) volumes exceed minimum >= minimum required (4).
- Warrant 3 - Peak Hour ..... Satisfied
  - Warrant 3A - Peak Hour Delay ..... Not Satisfied  
Total approach volumes and delays on minor street do not exceed minimums for any hour.
  - Warrant 3B - Peak Hour Volumes ..... Satisfied  
Volumes exceed minimums for at least one hour.
- Warrant 4 - Pedestrian Volumes ..... Not Satisfied  
Required 4 Hr pedestrian volume reached for 0 hour(s) and the single hour volume for 0 hour(s)
- Warrant 5 - School Crossing ..... Not Satisfied  
Number of gaps > .0 seconds (0) exceeds the number of minutes in the crossing period (0).
- Warrant 6 - Coordinated Signal System ..... Not Satisfied  
No adjacent coordinated signals are present
- Warrant 7 - Crash Experience ..... Satisfied  
Number of accidents (9) is more than minimum (5) and volume requirements are met.
- Warrant 8 - Roadway Network ..... Satisfied  
Major Route conditions met. Volume requirements met.

# Georgia Department of Transportation

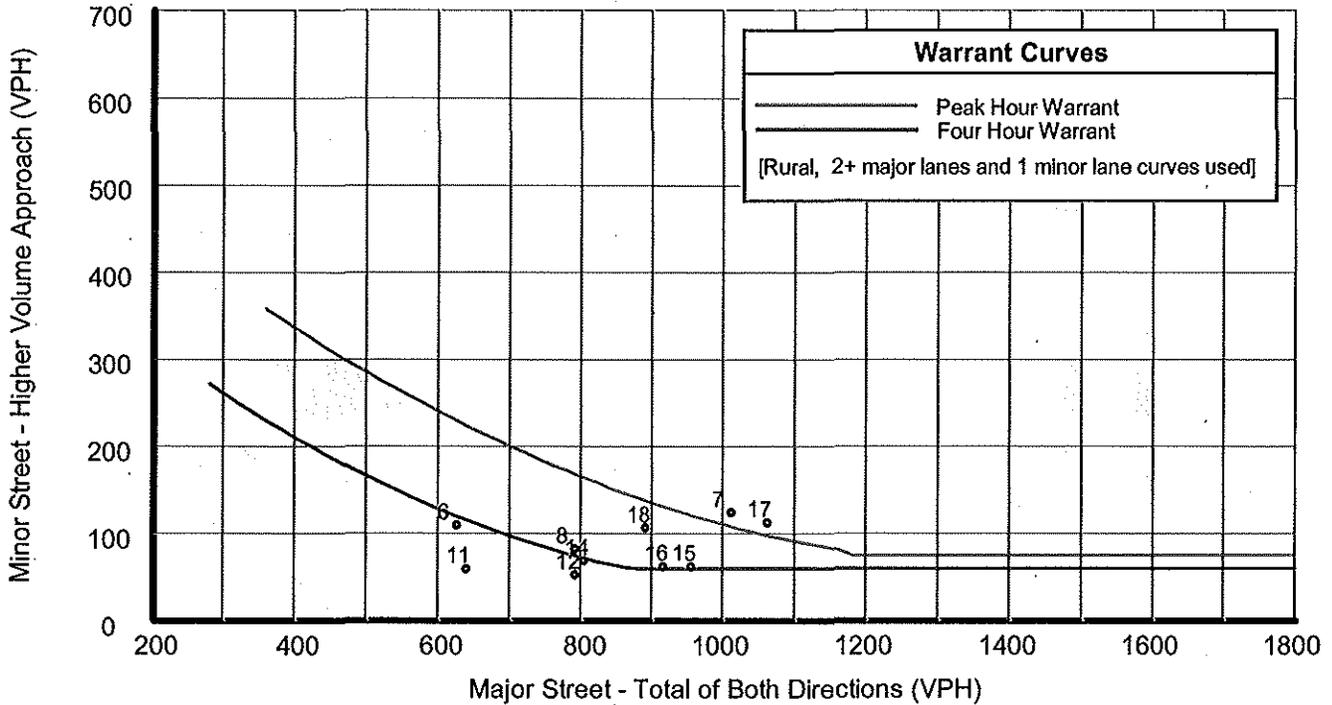
710 West Second Street

Tifton, GA 31793

SR 520 @ County Line Road, Dougherty County

70% Factor

## Signal Warrants - Summary



### Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
01:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
02:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
03:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
04:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
05:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
06:00	625	110	NB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
07:00	1,011	125	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
08:00	790	83	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
09:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
10:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
11:00	638	60	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
12:00	790	53	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
13:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
14:00	803	69	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
15:00	955	63	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
16:00	916	63	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
17:00	1,061	113	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
18:00	890	107	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
19:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
20:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
21:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
22:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
23:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---

# Georgia Department of Transportation

710 West Second Street  
Tifton, GA 31793

SR 520 @ County Line Road, Dougherty County  
70% Factor

## Signal Warrants - Summary

### Major Street Approaches

**Eastbound: SR 520/ US 82**

Number of Lanes: 2

Approach Speed: 0

Total Approach Volume: 4,499

**Westbound: SR 520/ US 82**

Number of Lanes: 2

Approach Speed: 0

Total Approach Volume: 4,730

### Minor Street Approaches

**Northbound: County Line Road/ CR 459**

Number of Lanes: 1

Total Approach Volume: 1,444

**Southbound: County Line Road/ CR 459**

Number of Lanes: 1

Total Approach Volume: 410

### Warrant Summary (Rural values apply.)

<b>Warrant 1 - Eight Hour Vehicular Volumes</b> .....	<b>Satisfied</b>
<b>Warrant 1A - Minimum Vehicular Volume</b> .....	<b>Satisfied</b>
Required volumes reached for 8 hours, 8 are needed	
<b>Warrant 1B - Interruption of Continuous Traffic</b> .....	<b>Satisfied</b>
Required volumes reached for 10 hours, 8 are needed	
<b>Warrant 1 A&amp;B - Combination of Warrants</b> .....	<b>Satisfied</b>
Required volumes reached for 9 hours, 8 are needed	
<b>Warrant 2 - Four Hour Volumes</b> .....	<b>Satisfied</b>
Number of hours (9) volumes exceed minimum $\geq$ minimum required (4).	
<b>Warrant 3 - Peak Hour</b> .....	<b>Satisfied</b>
<b>Warrant 3A - Peak Hour Delay</b> .....	<b>Not Satisfied</b>
Total approach volumes and delays on minor street do not exceed minimums for any hour.	
<b>Warrant 3B - Peak Hour Volumes</b> .....	<b>Satisfied</b>
Volumes exceed minimums for at least one hour.	
<b>Warrant 4 - Pedestrian Volumes</b> .....	<b>Not Satisfied</b>
Required 4 Hr pedestrian volume reached for 0 hour(s) and the single hour volume for 0 hour(s)	
<b>Warrant 5 - School Crossing</b> .....	<b>Not Satisfied</b>
Number of gaps $>$ .0 seconds (0) exceeds the number of minutes in the crossing period (0).	
<b>Warrant 6 - Coordinated Signal System</b> .....	<b>Not Satisfied</b>
No adjacent coordinated signals are present	
<b>Warrant 7 - Crash Experience</b> .....	<b>Satisfied</b>
Number of accidents (8) is more than minimum (5) and volume requirements are met.	
<b>Warrant 8 - Roadway Network</b> .....	<b>Satisfied</b>
Major Route conditions met. Volume requirements met.	

# Georgia Department of Transportation

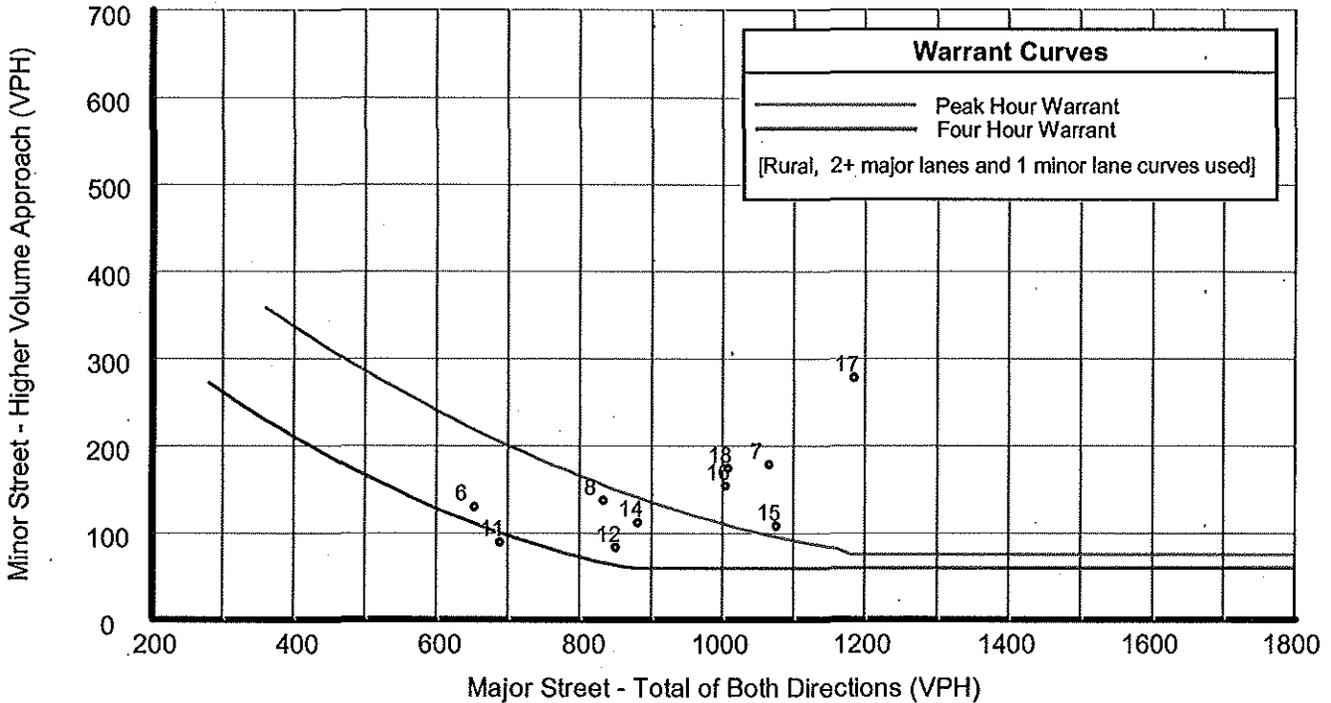
710 West Second Street

Tifton, GA 31793

SR 520 @ County Line Road, Dougherty County

70% Factor

## Signal Warrants - Summary



### Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
01:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
02:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
03:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
04:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
05:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
06:00	652	130	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
07:00	1,064	179	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
08:00	831	137	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
09:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
10:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
11:00	688	89	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
12:00	848	83	NB	420-Yes	105-No	Major	630-Yes	53-Yes	Both	504-Yes	84-No	Major
13:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
14:00	879	112	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
15:00	1,075	108	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
16:00	1,003	154	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
17:00	1,183	278	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
18:00	1,006	174	NB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
19:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
20:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
21:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
22:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
23:00	0	0	NB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---

TRAFFIC OPERATIONS  
DISTRICT 4  
TIFTON GA

File Name : SR 520 @ Co. Line R  
Site Code : 00000000  
Start Date : 4/16/2008  
Page No : 1

Groups Printed- Unshifted

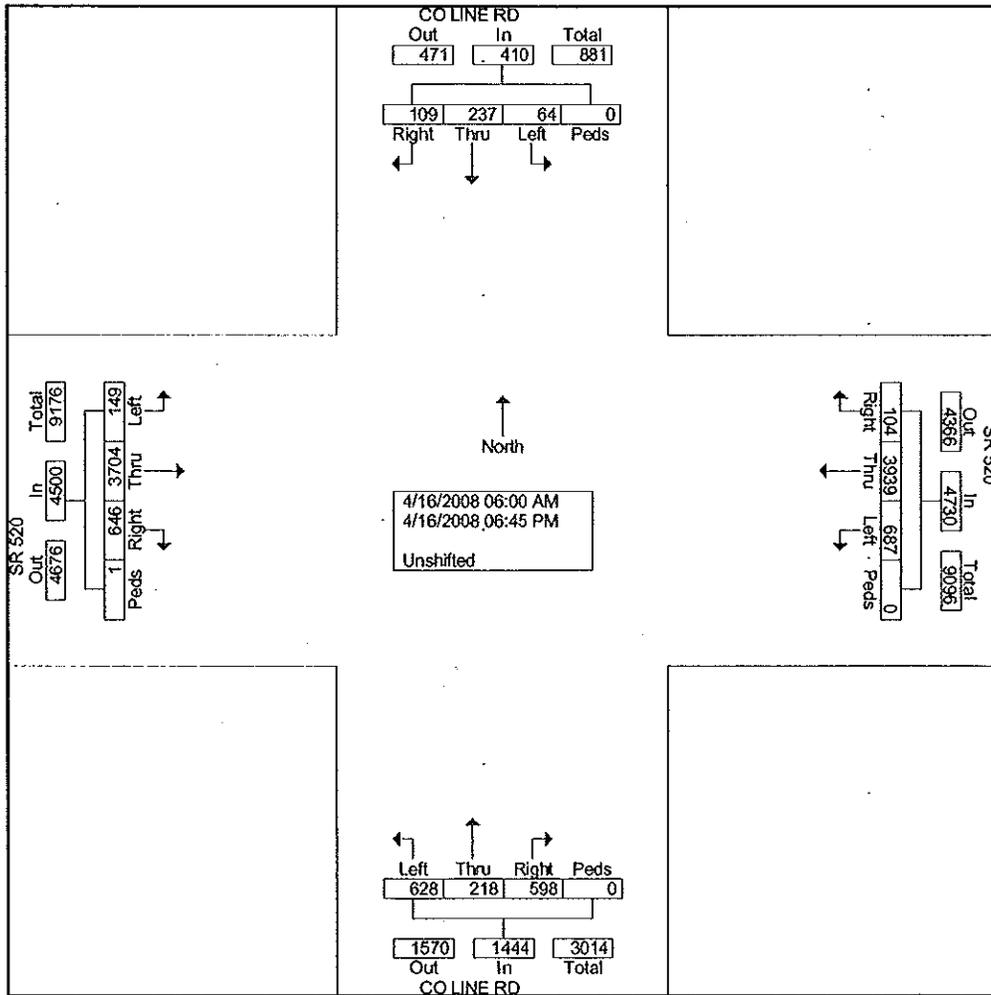
Start Time	CO LINE RD From North <b>SB</b>					SR 520 From East <b>WB</b>					CO LINE RD From South <b>NB</b>					SR 520 From West <b>EB</b>					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:00 AM	6	8	0	0	14	3	68	26	0	97	5	3	24	0	32	2	28	0	0	30	173
06:15 AM	4	5	0	0	9	3	95	24	0	122	1	1	27	0	29	7	29	0	0	36	196
06:30 AM	6	15	1	0	22	0	97	32	0	129	7	2	31	0	40	3	39	0	0	42	233
06:45 AM	4	10	2	0	16	0	98	36	0	134	7	1	21	0	29	9	52	1	0	62	241
<b>Total</b>	<b>20</b>	<b>38</b>	<b>3</b>	<b>0</b>	<b>61</b>	<b>6</b>	<b>358</b>	<b>118</b>	<b>0</b>	<b>482</b>	<b>20</b>	<b>7</b>	<b>103</b>	<b>0</b>	<b>130</b>	<b>21</b>	<b>148</b>	<b>1</b>	<b>0</b>	<b>170</b>	<b>843</b>
07:00 AM	2	6	2	0	10	3	105	40	0	148	11	2	22	0	35	12	84	1	0	97	290
07:15 AM	8	8	2	0	18	0	106	53	0	159	19	5	33	0	57	19	79	2	0	100	334
07:30 AM	4	7	1	0	12	2	151	42	0	195	11	2	27	0	40	11	83	1	0	95	342
07:45 AM	3	7	3	0	13	3	152	32	0	187	13	4	30	0	47	3	77	3	0	83	330
<b>Total</b>	<b>17</b>	<b>28</b>	<b>8</b>	<b>0</b>	<b>53</b>	<b>8</b>	<b>514</b>	<b>167</b>	<b>0</b>	<b>689</b>	<b>54</b>	<b>13</b>	<b>112</b>	<b>0</b>	<b>179</b>	<b>45</b>	<b>323</b>	<b>7</b>	<b>0</b>	<b>375</b>	<b>1296</b>
08:00 AM	7	6	3	0	16	0	127	22	0	149	18	3	21	0	42	6	77	2	0	85	292
08:15 AM	3	4	1	0	8	5	116	19	0	140	21	3	20	0	44	5	72	1	0	78	270
08:30 AM	2	4	1	0	7	1	109	19	0	129	10	2	17	0	29	10	68	1	0	79	244
08:45 AM	1	3	2	0	6	3	86	9	0	98	5	4	13	0	22	11	61	1	0	73	199
<b>Total</b>	<b>13</b>	<b>17</b>	<b>7</b>	<b>0</b>	<b>37</b>	<b>9</b>	<b>438</b>	<b>69</b>	<b>0</b>	<b>516</b>	<b>54</b>	<b>12</b>	<b>71</b>	<b>0</b>	<b>137</b>	<b>32</b>	<b>278</b>	<b>5</b>	<b>0</b>	<b>315</b>	<b>1005</b>
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
11:00 AM	1	8	1	0	10	1	70	11	0	82	5	5	7	0	17	11	68	0	0	79	188
11:15 AM	4	6	1	0	11	2	90	7	0	99	4	7	12	0	23	10	83	1	0	94	227
11:30 AM	0	3	1	0	4	1	82	7	0	90	7	5	12	0	24	5	70	1	0	76	194
11:45 AM	5	5	3	0	13	4	65	9	0	78	13	5	7	0	25	16	73	1	0	90	206
<b>Total</b>	<b>10</b>	<b>22</b>	<b>6</b>	<b>0</b>	<b>38</b>	<b>8</b>	<b>307</b>	<b>34</b>	<b>0</b>	<b>349</b>	<b>29</b>	<b>22</b>	<b>38</b>	<b>0</b>	<b>89</b>	<b>42</b>	<b>294</b>	<b>3</b>	<b>0</b>	<b>339</b>	<b>815</b>
12:00 PM	3	3	1	0	7	3	104	10	0	117	10	3	11	0	24	9	90	3	1	103	251
12:15 PM	2	3	3	0	8	6	103	11	0	120	6	3	14	0	23	15	87	1	0	103	254
12:30 PM	2	3	0	0	5	3	95	12	0	110	7	1	11	0	19	15	96	3	0	114	248
12:45 PM	1	7	1	0	9	3	87	7	0	97	7	1	9	0	17	4	81	0	0	85	208
<b>Total</b>	<b>8</b>	<b>16</b>	<b>5</b>	<b>0</b>	<b>29</b>	<b>15</b>	<b>389</b>	<b>40</b>	<b>0</b>	<b>444</b>	<b>30</b>	<b>8</b>	<b>45</b>	<b>0</b>	<b>83</b>	<b>43</b>	<b>354</b>	<b>7</b>	<b>1</b>	<b>405</b>	<b>961</b>
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
02:00 PM	3	5	3	0	11	2	80	14	0	96	13	5	22	0	40	14	89	4	0	107	254
02:15 PM	2	4	0	0	6	2	85	11	0	98	12	4	11	0	27	15	98	2	0	115	246
02:30 PM	1	5	2	0	8	1	97	9	0	107	11	3	7	0	21	17	104	5	0	126	262
02:45 PM	1	5	1	0	7	2	96	13	0	111	7	7	10	0	24	23	90	6	0	119	261
<b>Total</b>	<b>7</b>	<b>19</b>	<b>6</b>	<b>0</b>	<b>32</b>	<b>7</b>	<b>358</b>	<b>47</b>	<b>0</b>	<b>412</b>	<b>43</b>	<b>19</b>	<b>50</b>	<b>0</b>	<b>112</b>	<b>69</b>	<b>381</b>	<b>17</b>	<b>0</b>	<b>467</b>	<b>1023</b>
03:00 PM	5	3	2	0	10	3	103	9	0	115	13	3	9	0	25	18	101	3	0	122	272
03:15 PM	0	7	0	0	7	4	98	13	0	115	11	4	8	0	23	32	140	1	0	173	318
03:30 PM	2	4	2	0	8	2	101	23	0	126	8	11	13	0	32	34	123	4	0	161	327
03:45 PM	1	6	1	0	8	4	92	27	0	123	13	3	12	0	28	23	110	7	0	140	299
<b>Total</b>	<b>8</b>	<b>20</b>	<b>5</b>	<b>0</b>	<b>33</b>	<b>13</b>	<b>394</b>	<b>72</b>	<b>0</b>	<b>479</b>	<b>45</b>	<b>21</b>	<b>42</b>	<b>0</b>	<b>108</b>	<b>107</b>	<b>474</b>	<b>15</b>	<b>0</b>	<b>596</b>	<b>1216</b>
04:00 PM	2	5	3	0	10	4	94	13	0	111	20	9	10	0	39	18	90	9	0	117	277
04:15 PM	0	6	1	0	7	2	106	11	0	119	24	8	13	0	45	13	116	4	0	133	304
04:30 PM	3	9	3	0	15	7	111	14	0	132	29	6	7	0	42	23	121	1	0	145	334
04:45 PM	2	6	2	0	10	2	92	10	0	104	18	2	8	0	28	18	119	5	0	142	284
<b>Total</b>	<b>7</b>	<b>26</b>	<b>9</b>	<b>0</b>	<b>42</b>	<b>15</b>	<b>403</b>	<b>48</b>	<b>0</b>	<b>466</b>	<b>91</b>	<b>25</b>	<b>38</b>	<b>0</b>	<b>154</b>	<b>72</b>	<b>446</b>	<b>19</b>	<b>0</b>	<b>537</b>	<b>1199</b>

TRAFFIC OPERATIONS  
DISTRICT 4  
TIFTON GA

File Name : SR 520 @ Co. Line Rd  
Site Code : 00000000  
Start Date : 4/16/2008  
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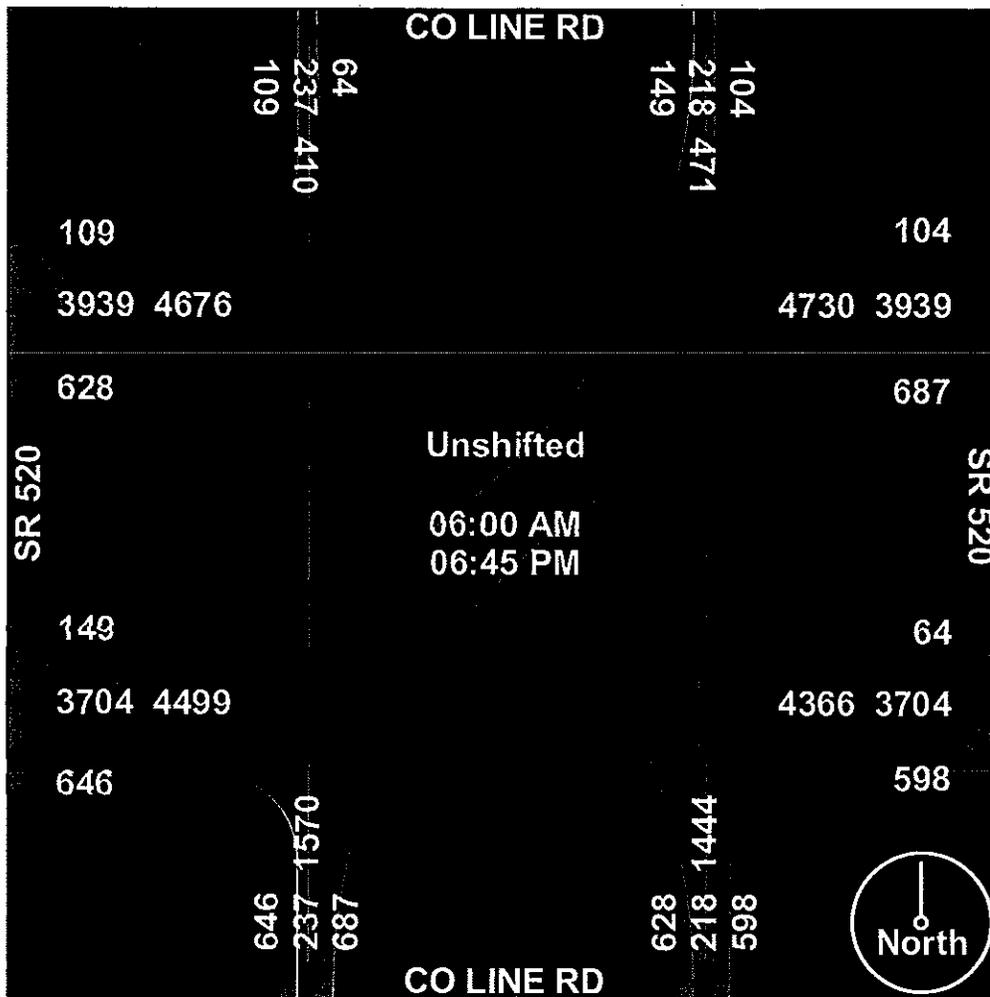
Groups Printed- Unshifted

Start Time	CO LINE RD From North					SR 520 From East					CO LINE RD From South					SR 520 From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
05:00 PM	4	3	2	0	9	6	106	14	0	126	46	10	13	0	69	24	124	6	0	154	358
05:15 PM	2	9	1	0	12	4	91	10	0	105	48	16	11	0	75	35	184	12	0	231	423
05:30 PM	1	8	1	0	10	1	105	15	0	121	47	12	16	0	75	30	140	13	0	183	389
05:45 PM	5	8	1	0	14	3	92	8	0	103	24	11	24	0	59	19	129	12	0	160	336
Total	12	28	5	0	45	14	394	47	0	455	165	49	64	0	278	108	577	43	0	728	1506
06:00 PM	1	3	2	0	6	5	103	15	0	123	22	13	13	0	48	33	127	4	0	164	341
06:15 PM	2	9	2	0	13	0	94	14	0	108	15	8	23	0	46	27	94	15	0	136	303
06:30 PM	1	4	5	0	10	2	106	12	0	120	10	12	14	0	36	26	101	11	0	138	304
06:45 PM	3	7	1	0	11	2	81	4	0	87	20	9	15	0	44	21	107	2	0	130	272
Total	7	23	10	0	40	9	384	45	0	438	67	42	65	0	174	107	429	32	0	568	1220
Grand Total	109	237	64	0	410	104	3939	687	0	4730	598	218	628	0	1444	646	3704	149	1	4500	11084
Approch %	26.6	57.8	15.6	0		2.2	83.3	14.5	0		41.4	15.1	43.5	0		14.4	82.3	3.3	0		
Total %	1	2.1	0.6	0	3.7	0.9	35.5	6.2	0	42.7	5.4	2	5.7	0	13	5.8	33.4	1.3	0	40.6	



TRAFFIC OPERATIONS  
DISTRICT 4  
TIFTON GA

File Name : SR 520 @ Co. Line R  
Site Code : 00000000  
Start Date : 4/16/2008  
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G R E S H A M  
S M I T H   A N D  
P A R T N E R S

March 26, 2012

### **CONCEPT MEETING MINUTES**

SR 520/US 82 at CR 459/County Line Road  
Intersection Improvement Concept  
CSSFT-0010-00(292), Dougherty County, PI No. 0010292  
GS&P Project No. 26340.16

MEETING                    March 22, 2012  
DATE:

PARTICIPANTS: Charles Robinson - Georgia Department of Transportation (GDOT), Office of Program Delivery  
Derrick Cameron - Georgia Department of Transportation (GDOT), Office of Program Delivery  
Joe Sheffield - Georgia Department of Transportation (GDOT), District 4  
Brent Thomas - Georgia Department of Transportation (GDOT), District 4  
Van Mason - Georgia Department of Transportation (GDOT), District 4  
Tim Warren - Georgia Department of Transportation (GDOT), District 4  
Shane Pridgen - Georgia Department of Transportation (GDOT), District 4  
Geno Hasty - Georgia Department of Transportation (GDOT), District 4  
Tony Cravey - Georgia Department of Transportation (GDOT), District 4  
Scott Chambers - Georgia Department of Transportation (GDOT), District 4  
Larry Cook – Dougherty County Department of Public Works  
Bill Bradley – Dougherty County Department of Public Works  
Michael Grimsley – Mitchell EMC  
Jim Russell – AT&T  
Jody Braswell - Gresham, Smith and Partners (GS&P)  
Eric Rickert - Gresham, Smith and Partners (GS&P)

DISCUSSION:        PROJECT CONCEPT TEAM MEETING

A concept team meeting was held on March 22, 2012 for the SR 520/US 82 at CR 459/County Line Road Intersection Improvement Concept, GDOT Project CSSFT-0010-00(292) at the GDOT District 4 Office.

Charles Robinson (GDOT Project Manager) welcomed everyone to the meeting. Everyone then proceeded with brief introductions. Charles Robinson then provided everyone with general project information such as the project name, county, city and project identification number. Charles then discussed the current project baseline schedule.

Charles then turned the meeting over to the design consultants Gresham Smith & Partners to review the draft concept report and concept layout. GS&P began by discussing the design methodology used to create the findings in the draft concept report and the proposed improvements. GS&P also showed the location of the parcel on the corner of South County Line

**Design Services For The Built Environment**



PROJECT TEAM CONCEPT MEETING MINUTES  
SR 520/US 82 at CR 459/South and North County Line Roads  
Intersection Improvement Concept  
CSSFT-0008-00(375), Dougherty County, PI No. 0010292  
GS&P Project No. 26340.16  
Page 2

Road and Acree Avenue that has recently been determined to be a historic resource by Georgia State Historic Preservation Office (SHPO). This recent historical resource discovery may cause a potential revision to the draft conceptual alignment of South County Line Road in order to minimize impacts to this resource and potentially avoid an off site detour with replacement of the railroad crossing. GS&P then discussed the recommended concept layout for the project and reviewed the content of the draft concept report.

1. GDOT-Program Delivery stated that the projected project schedule was environmental approval in July 2012, approved right of way by February 2013, and a construction let date of February 2014.
2. GDOT-District 4 inquired whether right turn lanes or a channelized right turn with a large radius could be added to South County Line Road at the intersection in order to convey turning movements while through movements are queued at the intersection. The design team responded that they would consider this in the design of this project.
3. Dougherty County questioned whether acceleration lanes could be added onto US 82/ SR 520 where the right turn radii were received from South County Line Road and North County Line Road. GDOT-District 4 responded that such acceleration lanes would conflict with other side road or driveways present along the highway.
4. GDOT-District 4 requested that the first utility submission be submitted soon at the request of the utility companies. The design team responded that they would submit the first utility submission on the following week. GDOT-District 4 also remarked that a Public Interest Determination Policy and Procedure was not recommended for this project.
5. The design team inquired whether temporary or permanent easement could be used for the proposed right of way outside of the roadway shoulder break points. GDOT-District 4 responded that required right of way would be needed outside of the construction limits for utility relocation. They further elaborated that right of way is preferred as permanent easement would potentially create access issues and that the cost between permanent easement and right of way would be about the same. GDOT-District 4 also noted that all acquisition of right of way on non –state routes such as County Line Road would need to be coordinated through the GDOT Office of Transportation Data.
6. The design team asked GDOT-District 4 whether they could obtain the additional survey database along South County Line Road if it was realigned to avoid the historic resource. GDOT-District 4 responded that an additional survey request would need to be coordinated through the GDOT Location office for survey crew availability.
7. GDOT-District 4 remarked that there had been a pedestrian fatality at the intersection last year.
8. The design team inquired whether or not design provisions should be made for any future maintenance resurfacing projects scheduled in the area that would impact this project. Both the design team, GDOT-District 4 and Charles Robinson agreed to coordinate with the GDOT Maintenance office to avoid duplicative efforts.
9. GDOT-District 4 requested in the draft concept report that their name be removed under the *Project Responsibilities* section for providing material pits and detours and show this as the solely as the contractor's responsibility.



PROJECT TEAM CONCEPT MEETING MINUTES  
SR 520/US 82 at CR 459/South and North County Line Roads  
Intersection Improvement Concept  
CSSFT-0008-00(375), Dougherty County, PI No. 0010292  
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Page 3

10. Dougherty County noted in the draft concept report under the *Other Projects in the Area* section that the county plans to widen Fleming Road in the near future. The County also stated that none of the roadways within the project are components of local bike routes

The concept team meeting was followed by a visit to the project site.

*This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.*

Prepared by: Eric Rickert, PE  
Project Engineer

Copy      File, Attendees