



49 Park of Commerce Way, Suite 203  
Savannah, Georgia 31405

T: 912.228.3611  
www.pondco.com

February 12, 2024

Tim Callanan  
County Manager  
Effingham County Board of Commissioners  
804 S. Laurel Street  
Springfield, GA 31329

Re: **Effingham County – Professional Transportation Design Services Fee Proposal –  
Blue Jay Road – Corridor Study and Concept Design**

Pond & Company (Pond) is pleased to submit this proposal for transportation engineering design services for the above project. The paragraphs below describe the professional services and fees to accomplish this work.

**PROJECT UNDERSTANDING:**

Effingham County is looking to evaluate Blue Jay Road, from Sand Hill Road to the McCall Road/Blandford Road intersection, to determine improvements needed based on its current truck route designation and anticipated heavy freight operations and future connectivity. With its connection to Effingham Parkway and SR 21 (11.3 miles) to the east and connection to Sandy Hill Road with eventual extension to US 80 to the west, Blue Jay Road will be one of the main east-west corridors within Effingham County. Tasks will include traffic analysis, as well as the development of a concept layout and associated costs to identify impacts including adjacent properties, utilities, etc. The geometry of this layout will include all necessary tie-ins for various ongoing projects (design files to be provided by Effingham County). Analysis and recommendations will factor in previous studies, including the Effingham Transportation Master Plan (TMP), Coastal Empire Transportation Study, and the Southeast Roadway Network Expansion.

Due to the involvement of the City of Rincon, we are soliciting this proposal into (2) separate phases for funding reasons:

- Phase 1: Effingham County Responsibility – Blue Jay Road, from Sand Hill Road to McCall Road/Blandford Road (east of RR crossing)
- Phase 2: City of Rincon Responsibility – Blandford Road, from Sherwood Road to SR 21

**PROFESSIONAL SERVICES:**

The work in this proposal will consist of traffic analysis and traffic engineering report, along with concept layout and associated cost estimate. Pond, along with our subconsultants, will provide the traffic analysis and design services necessary for completing the tasks as described herein for Effingham County.

## ***Scope of Work***

### **Phase 1 – Task 1: Base Data Coordination**

*Task 1.1A:* Environmental Services – Pond will complete a preliminary Desktop Environmental and Cultural Resources Screening to identify potential resources or constraints within the project area. More specifically, Pond will conduct a thorough review of publicly available online data sources including, at a minimum:

#### **Environmental:**

- Georgia Department of Natural Resources (GADNR) Rare Species and Natural Community Data
- Georgia's Natural, Archaeological, and Historic Resources Geographic Information System (GNAHRGIS) Ecology Database
- Natural Resource Conservation Service (NRCS) Soils Maps
- United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Tool
- USFWS National Wetlands Inventory
- U.S. Geological Survey (USGS) National Hydrography Dataset
- USGS National Land Cover Database
- USGS Topographic Maps
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer
- Environmental Protection Agency (EPA) NEPAassist
- Georgia Environmental Protection Division (GAEPD) Hazardous Site Inventory

#### **Cultural:**

- Current and Historic Aerial Photographs (multiple sources)
- GNAHRGIS Cultural Database
- Georgia Archaeological Site File
- National Park Service National Register of Historic Places

*Task 1.1B:* Environmental Screening Report – An environmental screening report and GIS mapping of identified potential resources/constraints will be provided to document all findings.

*Task 1.1C:* Geotechnical Services – Pond will utilize the geotechnical subconsultant, Terracon, to complete asphalt pavement cores (21 total) with soil test borings at locations along Goshen Road. See Exhibit A for these locations.

The soil test borings are planned to a depth of 5 feet below existing ground surface. The purpose of the field exploration would be to provide information on the pavement and shallow subsurface soil conditions. Laboratory testing will be completed for all samples. The results of the field and laboratory programs will be evaluated, and a geotechnical engineering report will be prepared under the supervision of a licensed professional engineer. The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans

- Subsurface exploration procedures
- Description of subsurface conditions
- Earthwork recommendations including site/subgrade preparation
- Recommended pavement options and design parameters

**Deliverables for Task 1.1:**

- Environmental Screening Report
- Geotechnical Report

**Phase 1 – Task 2: Traffic Analysis**

*Task 1.2A:* Traffic Data Collection – All traffic data collection will be performed by a sub-consultant and provided to Pond. The traffic counts listed below will be collected during an agreed/approved week that schools are in session:

- 6-Hour Turning Movement Count (6:00 – 9:00 AM – 4:00 – 7:00 PM):
  - Blue Jay Rd at SR 17
  - Blue Jay Rd at Emerald Crossing/Ruby Trail
  - Blue Jay Rd at Greystone Dr
  - Blue Jay Rd at Horsepen Rd
  - Blue Jay Rd at Oak Lawn Dr
  - Blue Jay Rd at Ottis Seckinger Rd
  - Blue Jay Rd at Blandford Way
  - Blue Jay Rd at Arcanti Dr
- 12-Hour Turning Movement Count (7:00 AM – 7:00 PM):
  - Blue Jay Rd at Sand Hill Rd
  - Blue Jay Rd at Midland Rd
  - Blue Jay Rd at Hodgeville Rd
  - Blue Jay Rd at McCall Rd West
  - Blue Jay Rd at McCall Rd East
  - Blandford Rd at McCall Rd
- 24-Hour Traffic Volume and Classification Counts:
  - Blue Jay Rd East of Sand Hill Rd
  - Blue Jay Rd East of SR 17
  - Blue Jay Rd East of Midland Rd
  - Blue Jay Rd East of Hodgeville Rd

*Task 1.2B:* Traffic Analysis – Pond will analyze the traffic along the corridor to determine what lane configuration (along Blue Jay Road) is most suitable for each intersection. Other corridor-wide geometrical and capacity improvements will be evaluated as well to accommodate increased freight, including increased radii at intersection, the addition of turn lanes, etc. Other recommendations from the Effingham Transportation Master Plan (TMP) and Southeast Roadway Network Expansion will be factored in as well.

Pond will coordinate with GDOT regarding the improvements for the Blue Jay Road Extension and Freight Upgrades, included within the Coastal Empire Transportation Study, as well as the Effingham Parkway Extension project. This assumes the input of previously completed and balanced forecasted volumes for Effingham Parkway and planning level traffic forecasting used in the Coastal Empire Study. Pond will coordinate with Effingham County to determine other ongoing developments or approved future developments. Pond will obtain the Traffic Impact Studies (TIS) from the county and input forecasted volumes. No trip generation will be included within this scope of work.

A review of crash history will be completed utilizing GDOT's GEARS and Numetric databases. Capacity analysis will be performed for each intersection using Synchro Software. This analysis will be performed for the AM and PM peak hours of the existing year, opening year, and design year. Analysis of the opening and design years will include a no-build condition. This analysis will be used to determine what improvements and alternatives are necessary to obtain acceptable operations.

The GDOT Intersection Control Evaluation (ICE) tool will be utilized to determine the potential improvements at the intersection of Blue Jay Road at SR 17. Stage 1 with a Waiver Request has been assumed since the existing intersection consists of a roundabout configuration.

*Task 1.2C: Traffic Engineering (TE) Report* – Pond will document the analysis results and recommendations in a Traffic Engineering Report.

*Task 1.2D: Effingham County Review* – Pond will submit the TE Report to Effingham County for comment/approval. This task includes (1) meeting with the county to discuss the report. We will respond to (1) round of comments and incorporate appropriate comments into the report.

**Deliverables for Task 1.2:**

- Traffic Engineering Report including forecast traffic volumes and analysis results

**Phase 1 – Task 3: Concept Layout**

*Task 1.3A: Base Mapping Setup:* Pond will utilize the electronic design files (i.e. DGN, DWG, etc) provided by Effingham County to develop the basemapping. This includes any applicable data, including topographic survey, GIS data (i.e. parcel data, roadway data, utility data, and contour information), and adjacent intersection improvement projects within the limits of this project. This information will be overlaid on high-resolution aerial imagery.

*Task 1.3B: Concept Layout* – Pond will utilize the basemapping from *Task 1.3A* to prepare a concept layout for Blue Jay Road, from Sand Hill Road to McCall Road/Blandford Road. The concept layout will indicate the proposed geometric improvements and potential impacts, including property/right-of-way, utility, etc. In addition, Pond will evaluate the realignment alternative for the intersection of Blue Jay Road at Sandhill Road, due to the possible US 280 extension. The concept will also be sure to accommodate a new sewer force main.

*Task 1.3C: Cost Estimate* – Pond will prepare a concept-level cost estimate for the concept layout, including right-of-way/property costs (county to provide right-of-way and easement costs).

*Task 1.3D:* Effingham County Review – Pond will submit the Concept Layout and Cost Estimate to Effingham County for comment/approval. This task includes (1) meeting with the county to discuss the plans. We will respond to (1) round of comments and incorporate appropriate comments into the plans. Pond will then attend a second meeting with the County to review the revised plans and address and final questions.

**Deliverables Task 1.3:**

- Concept Layout
- Cost Estimate

**Phase 2 – Task 1: Traffic Analysis**

*Task 2.1A:* Traffic Data Collection – All traffic data collection will be performed by a sub-consultant and provided to Pond. The traffic counts listed below will be collected during an agreed/approved week that schools are in session:

- 6-Hour Turning Movement Count (6:00 – 9:00 AM – 4:00 – 7:00 PM):
  - Blandford Rd/Ninth St at Sherwood Rd
  - Blandford Rd/Ninth St at Howard Ave
  - Ninth St at Middleground Road
  - Ninth St at Georgia Ave
  - Ninth St at North Carolina Ave
  - Ninth St at SR 21
- 24-Hour Traffic Volume and Classification Counts:
  - Ninth St East of North Carolina Ave

*Task 2.1B:* Traffic Analysis – Pond will analyze the traffic along the corridor to determine what lane configuration (along Blue Jay Road) is most suitable for each intersection. Other corridor-wide geometrical and capacity improvements will be evaluated as well to accommodate increased freight, including increased radii at intersection, the addition of turn lanes, etc. Other recommendations from the Effingham Transportation Master Plan (TMP) and Southeast Roadway Network Expansion will be factored in as well.

Pond will coordinate with GDOT regarding the improvements for the Blue Jay Road Extension and Freight Upgrades, included within the Coastal Empire Transportation Study, as well as the Effingham Parkway Extension project. This assumes the input of previously completed and balanced forecasted volumes for Effingham Parkway and planning level traffic forecasting used in the Coastal Empire Study. Pond will coordinate with Effingham County/City of Rincon to determine other ongoing developments or approved future developments. Pond will obtain the Traffic Impact Studies (TIS) from the city and input forecasted volumes. No trip generation will be included within this scope of work.

A review of crash history will be completed utilizing GDOT’s GEARS and Numetric databases. Capacity analysis will be performed for each intersection using Synchro Software. This analysis will be performed for the AM and PM peak hours of the existing year, opening year, and design year. Analysis of the opening and design years will include a no-build condition. This analysis will be used to determine what improvements and alternatives are necessary to obtain acceptable operations.

The GDOT Intersection Control Evaluation (ICE) tool will be utilized to determine the potential improvements at the intersection of Ninth Street at SR 21. Although Stage 1 with a Waiver Request might be sufficient, Stage 2 will be considered for overall alternative evaluation.

*Task 2.1C: Traffic Engineering (TE) Report* – Pond will document the analysis results and recommendations in the Traffic Engineering Report included in *1.2C*.

*Task 2.1D: City of Rincon Review* – Pond will submit the TE Report to the City of Rincon for comment/approval. This task includes (1) meeting with the city to discuss the report. We will respond to (1) round of comments and incorporate appropriate comments into the report.

**Deliverables for Task 2.1:**

- N/A – Included in Phase 1

**Phase 2 – Task 2: Concept Layout**

*Task 2.2A: Base Mapping Setup:* Pond will utilize the electronic design files (i.e. DGN, DWG, etc) provided by Effingham County to develop the basemapping. This includes any applicable data, including topographic survey, GIS data (i.e. parcel data, roadway data, utility data, and contour information), and adjacent intersection improvement projects within the limits of this project. This information will be overlaid on high-resolution aerial imagery.

*Task 2.2B: Concept Layout* – Pond will utilize the basemapping from *Task 2.2A* to prepare a concept layout for Blandford Road, from Sherwood Road to SR 21. The concept layout will indicate the proposed geometric improvements and potential impacts, including property/right-of-way, utility, etc. The overall conceptual layout will be completed in conjunction with the layout in *Task 1.3B*.

*Task 2.2C: Cost Estimate* – Pond will prepare a concept-level cost estimate for the concept layout, including right-of-way/property costs (county to provide right-of-way and easement costs).

*Task 2.2D: City of Rincon Review* – Pond will submit the Concept Layout and Cost Estimate to the City of Rincon for comment/approval. This task includes (1) meeting with the city to discuss the plans. We will respond to (1) round of comments and incorporate appropriate comments into the plans. Pond will then attend a second meeting with the city to review the revised plans and address and final questions.

**Deliverables Task 2.2:**

- N/A – Included in Phase 1

***Schedule***

Pond has estimated that *Task 1.1* through *Task 2.2* listed above can be completed within (10) months, following Notice to Proceed (NTP) from Effingham County and completion of traffic data collection services. Please note that this schedule timeframe is also dependent on subconsultant scheduling and agency review times.

**ASSUMPTIONS:**

The design plans will be prepared as a locally funded project and will not be prepared in accordance with all processes and requirement of the GDOT Plan Develop Process (PDP).

Services or tasks not specifically outlined above are excluded and would be considered additional services. Services not included in the scope:

- Full Engineering Design including Preliminary, Right-of-Way, and Final Design Plans
- The Conceptual Layout will consist of a Continuous Roll Plot. No Separate Layouts for the City Versus the County
- The Traffic Engineering Report will consist of a Single Report. No Separate Report for the City Versus the County
- Pond will obtain the Traffic Impact Studies (TIS) from the county and input forecasted volumes. No trip generation will be included within this scope of work.
- Traffic Analysis – Beyond Task 1.2 and 2.1
- Traffic Data Collection – Beyond Task 1.2 and 2.1
- Intersection Geometry for Roundabout Configuration is limited to General Footprint. Performance Checks (i.e. Fastest Path Analysis) will be Excluded
- Trip Generation for Existing or Future Developments
- Intersection Control Evaluation (ICE) Process
- Traffic Signal Plans
- Detailed Field Surveys for Natural or Cultural Resources
- Environmental Permitting
- Right-of-Way Staking, Right of Way Acquisition Services/Assistance
- Post Design, Construction Administration, and Bidding Assistance Services
- Other Items Beyond Scope Listed in Task 1 through Task 3
- Railroad Preliminary Engineering Review or Other Associated Fees
- Structural Design and/or Analysis
- ITS/Signal Communications Plans
- Lighting Plans
- Landscaping Plans
- Subsurface Utility Engineering (SUE) Services
- GDOT Plan Development Process (PDP)
- GDOT Concept Report
- Additional Meetings
- MS4 Analysis/Documentation
- Public Involvement
- Geotechnical Services
- Phasing of Construction and/or Design
- Hydraulic Investigation



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**PROFESSIONAL FEES:**

Pond proposes to accomplish all tasks for Phase 1 and Phase 2 for a Not-to-Exceed total of \$368,162.40 The fee details are listed in the attached Man-Hour Estimate and are based on the contracted unit rates, not to exceed lump-sum total of \$368,162.40 to be billed on a percent complete basis. The breakdown of Phase 1 and Phase 2 are shown below:

- Phase 1: Effingham County Responsibility – \$327,072.85
- Phase 2: City of Rincon Responsibility – \$41,089.55

If this fee and scope is acceptable, Pond & Company is available to begin work immediately. If you would like to discuss or modify the scope please contact me at FangmannR@pondco.com or Zach Puckett, who will serve as the Project Manager, at PuckettZ@pondco.com or via phone at (678) 336-7740.

Sincerely,

**POND & COMPANY**

Richard Fangmann, PE, PTOE  
Vice-President

Cc: Zach Puckett, PE  
Melissa Phillips

Attachments:  
Man-Hour Estimates

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**Client**

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**Signed** (Must be an Officer or Authorized Agent)

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**Typed Name**

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**Title**

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**Date**

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**Pond & Company**

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**Signed** (Must be an Officer or Authorized Agent)

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**Typed Name**

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**Title**

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**Date**





# Effingham County

## Blue Jay Road Corridor Study and Concept Sand Hill Road to SR 21 Project Length 11.2 miles

### SUMMARY BY PHASE

### COST AMOUNT OF CONTRACT PROPOSAL 2/12/2024

	PHASE AMOUNTS
Phase 1 Base Data Coordination	\$ 39,364.00
Phase 2 Traffic Analysis	\$ 103,848.40
Phase 3 Concept Design	\$ 224,950.00
<b>TOTAL DESIGN COST FOR ALL SEGMENTS</b>	<b>\$ 368,162.40</b>

**Effingham County**

Phase 1 Summary

**PROJECT: Blue Jay Road Corridor Study and Concept Sand Hill Road to SR 21**

Phase 1

Base Data Coordination

<b>PERSONNEL</b>	<b>EST. HOURS</b>	<b>RATE/HR.</b>	<b>COST \$</b>	<b>TOTALS</b>	
PRINCIPAL	0	\$ 250.00	\$ -		
PROJECT MANAGER	4	\$ 230.00	\$ 920.00		
SENIOR ENGINEER	0	\$ 200.00	\$ -		
MID LEVEL ENGINEER	0	\$ 130.00	\$ -		
SENIOR LANDSCAPE ARCHITECT	0	\$ 162.84	\$ -		
LANDSCAPE ARCHITECT	0	\$ 131.33	\$ -		
ADMINISTRATIVE	3	\$ 95.00	\$ 285.00		
<b>TOTAL DIRECT LABOR</b>				<b>7 Manhours</b>	<b>\$ 1,205.00</b>
<b>DIRECT COSTS (SPECIFY):</b>					
<b>ITEM</b>	<b>UNIT COST</b>	<b>QUANTITY</b>	<b>TOTALS</b>		
MILEAGE	\$ 0.55	0	\$	-	
REPRODUCTION	\$ 150.00	0	\$	-	
MAIL & DELIVERY	\$ 50.00	0	\$	-	
TRAVEL	\$ -	0	\$	-	
			\$	-	
<b>Direct Cost Total</b>			<b>\$</b>	<b>-</b>	
<b>SUBCONSULTANTS (LIST):</b>					
<b>SUB CONSULTANT</b>			<b>TOTALS</b>		
Environmental - POND			\$	7,524.00	
Geotechnical Services			\$	30,635.00	
<b>Subconsultant Sub Total</b>			<b>\$</b>	<b>38,159.00</b>	
<b>COST AMOUNT FOR PHASE</b>			<b>\$</b>	<b>39,364.00</b>	

**Effingham County**  
Phase 1 Detail

PROJECT: Blue Jay Road Corridor Study and Concept Sand Hill Road to SR 21  
Phase 1  
Base Data Coordination

TASKS	Assumptions	No. of SHT	PRINCIPAL	PROJECT MANAGER	SENIOR ENGINEER	MID LEVEL ENGINEER	SENIOR LANDSCAPE ARCHITECT	LANDSCAPE ARCHITECT	ADMINISTRATIVE	TOTAL	% OF TOTAL HOURS
<b>Non-Drawing Tasks</b>											
Project Management	Invoices, progress reports (assumed 2 month duration)(1 hr/each)			1					1	2	28.6%
External Coordination Meeting											
Internal Coordination Meeting											
Coordination with sub	Assumes geotechnical			3					2	5	71.4%
<b>Drawing Tasks</b>											
<b>TOTALS</b>		<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>7</b>	<b>100.0%</b>

**Effingham County**

Phase 2 Summary

**PROJECT: Blue Jay Road Corridor Study and Concept Sand Hill Road to SR 21**

Phase 2

Traffic Analysis

<b>PERSONNEL</b>	<b>EST. HOURS</b>	<b>RATE/HR.</b>	<b>COST \$</b>	<b>TOTALS</b>
PRINCIPAL	31	\$ 250.00	\$ 7,750.00	
PROJECT MANAGER	67	\$ 230.00	\$ 15,410.00	
SENIOR ENGINEER	142	\$ 200.00	\$ 28,400.00	
MID LEVEL ENGINEER	296	\$ 130.00	\$ 38,480.00	
SENIOR LANDSCAPE AF	0	\$ 162.84	\$ -	
LANDSCAPE ARCHITECT	0	\$ 131.33	\$ -	
ADMINISTRATIVE	12	\$ 95.00	\$ 1,140.00	
<b>TOTAL DIRECT LABOR</b>				<b>548 Manhours</b>
			<b>\$</b>	<b>91,180.00</b>
<b>DIRECT COSTS (SPECIFY):</b>				
<b>ITEM</b>	<b>UNIT COST</b>	<b>QUANTITY</b>	<b>TOTALS</b>	
MILEAGE	\$ 0.67	520	\$	348.40
REPRODUCTION	\$ 150.00	0	\$	-
MAIL & DELIVERY	\$ 50.00	0	\$	-
TRAVEL	\$ -	0	\$	-
			\$	-
<b>Direct Cost Total</b>			<b>\$</b>	<b>348.40</b>
<b>SUBCONSULTANTS (LIST):</b>				
<b>SUB CONSULTANT</b>				<b>TOTALS</b>
Traffic Counts			\$	12,320.00
<b>Subconsultant Sub Total</b>			<b>\$</b>	<b>12,320.00</b>
<b>COST AMOUNT FOR PHASE</b>			<b>\$</b>	<b>103,848.40</b>



**Effingham County**

Phase 3 Summary

**PROJECT: Blue Jay Road Corridor Study and Concept Sand Hill Road to SR 21**

Phase 3

Concept Design

PERSONNEL	EST. HOURS	RATE/HR.	COST \$	TOTALS
PRINCIPAL	13	\$ 250.00	\$ 3,250.00	
PROJECT MANAGER	114	\$ 230.00	\$ 26,220.00	
SENIOR ENGINEER	426	\$ 200.00	\$ 85,200.00	
MID LEVEL ENGINEER	841	\$ 130.00	\$ 109,330.00	
SENIOR LANDSCAPE ARCHITECT	0	\$ 162.84	\$ -	
LANDSCAPE ARCHITECT	0	\$ 131.33	\$ -	
ADMINISTRATIVE	10	\$ 95.00	\$ 950.00	

**TOTAL DIRECT LABOR** 1404 Manhours **\$ 224,950.00**

**DIRECT COSTS (SPECIFY):**

ITEM	UNIT COST	QUANTITY	TOTALS
MILEAGE	\$ 0.55	0	\$ -
REPRODUCTION	\$ 150.00	0	\$ -
MAIL & DELIVERY	\$ 50.00	0	\$ -
TRAVEL	\$ -	0	\$ -
			\$ -

**Direct Cost Total \$ -**

**SUBCONSULTANTS (LIST):**

SUB CONSULTANT	TOTALS
	\$ -
	\$ -

**Subconsultant Sub Total \$ -**

**COST AMOUNT FOR PHASE \$ 224,950.00**



## Exhibit D – Site Location

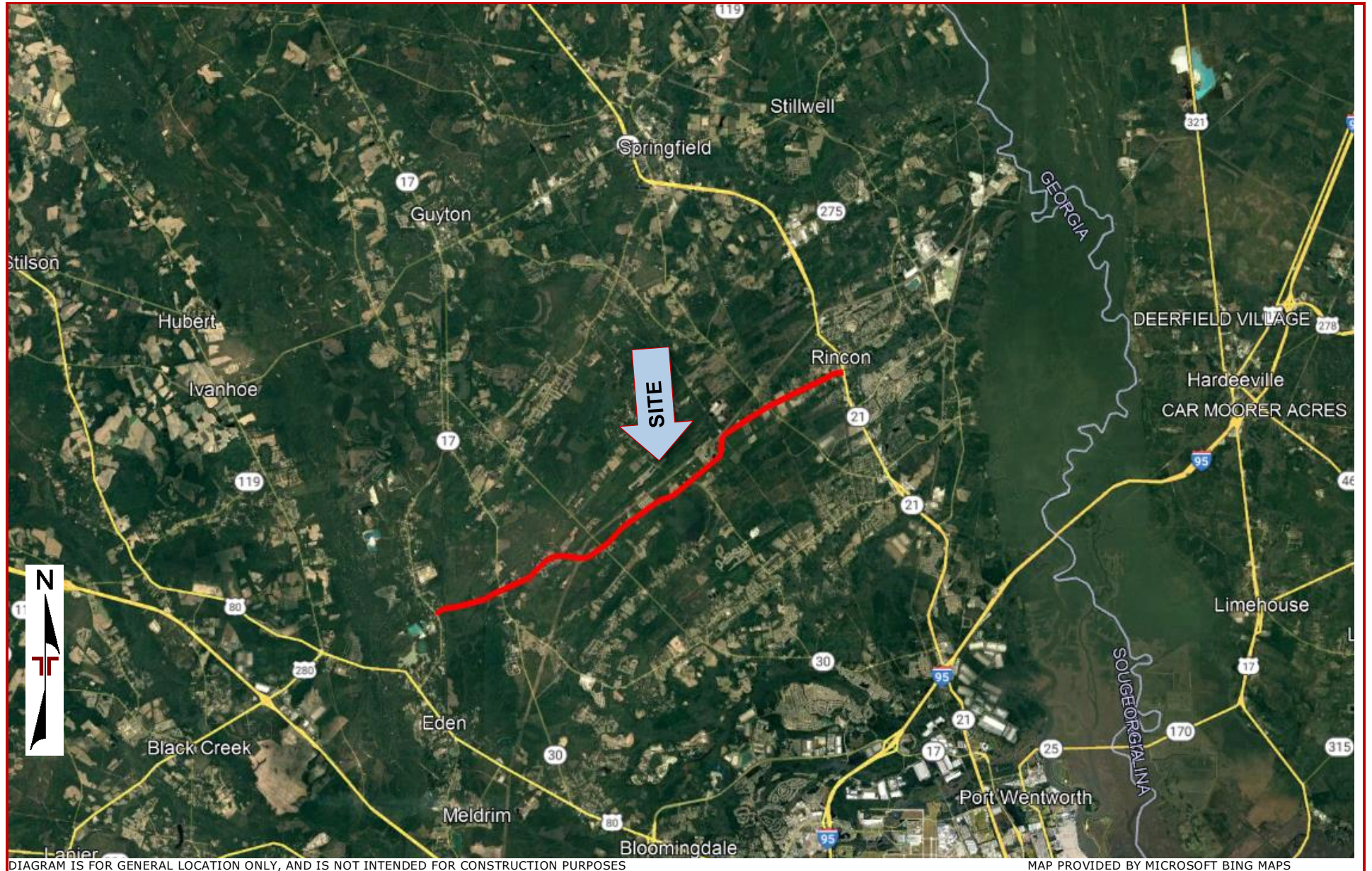


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS



### Exhibit E – Anticipated Exploration Plan

