### SUPPLEMENTAL INFORMATION ADDENDUM NO. 2

PROJECT:	ITB 21-25-002 Blue Jay and McCall Road Realignment
CONTACT:	Alison Bruton, Purchasing Agent 912-754-2159 <u>abruton@effinghamcounty.org</u>
DATE ISSUED:	April 2, 2021

ITB 21-25-002 – Blue Jay and McCall Road Realignment is hereby amended as noted herein: BIDDER TO ACKNOWLEDGE RECEIPT OF ADDENDUM BY SIGNING ON THE SIGNATURE LINE BELOW AND INCLUDING A COPY WITH SUBMITTED BID. FAILURE TO DO SO MAY, AT THE OWNER'S DISCRETION, SUBJECT THE BIDDER TO DISQUALIFICATION

- <u>QUESTION:</u> The Scope of Work General Conditions states that administration and inspections will be performed by the county. Could you please clarify that this includes quality control and material testing? Also who is responsible for filing the Notice of Intent to Discharge, sampling and inspections?
   <u>ANSWER:</u> The inspections do NOT include quality control and material testing, for which the contractor shall be responsible. The County shall file the Notice of Intent, but the contractor shall be responsible for NPDES sampling and inspections. A line item for QC and material testing has been added to the bid form.
- <u>QUESTION:</u> Will the 6" GABC that is required beyond the limits of paving be measured for payment?
   <u>ANSWER:</u> The GAB extended 6" past pavement edge has been included in the 8" GAB quantities.
- <u>QUESTION:</u> Could you provide a current Google Earth overview of the project location?
   <u>ANSWER:</u> Aerial image provided. The contractor is advised to field evaluate current site conditions.
- 4) <u>QUESTION</u>: What does the landscaping bid item cover as there is no landscaping plans? <u>ANSWER</u>: Upon Further review of the plans and ROW documents, the County has determined the need for a line item for Landscape is not needed. Please refer to the new bid form.
- 5) <u>QUESTION:</u> What is the typical paving section for the driveways? <u>ANSWER:</u> Driveway paving thickness shall conform to roadway paving thickness where asphalt is required. Where pavement is required, 6" concrete thickness is required over 4" GAB.
- 6) <u>QUESTION:</u> What is the typical paving section for the shoulder widening in the mill and inlay section?

ANSWER: Shoulder widening areas are full depth pavement per roadway cross section.

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- 7) <u>QUESTION:</u> Could you add a pay item for the required leveling? <u>ANSWER:</u> A pay item for leveling has been added.
- 8) <u>QUESTION:</u> What is the typical paving section in the leveling areas? <u>ANSWER:</u> Pavement leveling thickness varies as leveling portions approach full super.
- <u>QUESTION:</u> Would you consider changing the X Slope on the paved shoulder to match the X Slope of mainline paving? <u>ANSWER:</u> In the full super, the paved shoulder matches cross section slope of mainline paving. CAD file with elevations has been provided.
- 10) <u>QUESTION:</u> Please clarify that thermoplastic will be allowed for the full lane rumble strips

<u>ANSWER:</u> Follow GDOT Standard Specifications and Construction details for Thermoplastic Rumble Strips. Thermoplastic is allowed. See Sheet 16 of the plan set.

- 11) <u>QUESTION:</u> Please provide a detail for the rumble strips on the paved shoulder. <u>ANSWER:</u> Follow GDOT Standard Specifications and Construction details for Ground in lane edge Rumble Strips. Preformed Rumble Strips placed with the final surface course is also acceptable. See GDOT standard details.
- 12) <u>QUESTION:</u> Is it the intent to clear the entire right of way?
   <u>ANSWER:</u> Yes. And all cleared areas must be properly grassed per GSWCC standards.
- 13) <u>QUESTION:</u> Please clarify the reflective requirements for the project signs. <u>ANSWER:</u> Per MUTCD.
- 14) <u>QUESTION:</u> There is a note below the schedule of values that says "Please include a formal detailed quote with your submission." What are you looking for regarding a "formal detailed quote"?
   ANSWER: Please disregard this As long as the bid form is completed a formal quote

<u>ANSWER:</u> Please disregard this. As long as the bid form is completed, a formal quote is not needed.

- 15) <u>QUESTION:</u> Who will be responsible for on-site geotechnical and materials testing for acceptance? Will the contractor have to hire and pay for an independent lab for testing, and if so, can we get a schedule of tests that will be required?
  <u>ANSWER:</u> The contractor shall be responsible for hiring and paying for an independent lab for testing. All geotechnical and material testing information shall be sent to the County for their review. Testing requirements are defined in the GDOT Standard Specifications. Testing includes, but is not limited to, density tests on soil fill lifts, pavement densities, pavement cores, pavement mix material testing, concrete mix and on-site materials testing, materials certifications, stone gradation / sieve analysis, roadway subgrade proof roll, etc.
- 16) <u>QUESTION:</u> Could we get a base CAD file on the project to help facilitate lump sum earthwork takeoffs?
   <u>ANSWER:</u> The CAD file link is hereby issued.

- 17) <u>QUESTION:</u> Is there a Geotechnical report available on site? What is total asphalt thickness on the existing Blue Jay Rd and McCall Rd to be demo'd?
   <u>ANSWER:</u> Geotechnical report attached. Asphalt thickness at existing McCall Road was measured at about 5 inches with no rock base.
- 18) <u>QUESTION:</u> Utility Adjustment Schedule? Will the County contact them?

<u>ANSWER:</u> The County has reached out to all utility providers potentially impacted by the improvements. GA Power shall assess their two relocations of power poles separate from the project. All utility providers will be invited to the pre-construction meeting when a contractor is selected. Coordinative items will be addressed further at that point.

19) **QUESTION:** Who is going to make the decision on undercutting?

<u>ANSWER:</u> The testing agency hired by the contractor shall evaluate the soil conditions and make recommendations on extent and depth of undercutting required and/or alternatives to undercutting. The County and design engineer shall review the recommendations. The County shall have the final decision on how to proceed; ultimately, however, assuming the testing agency's recommendations are reasonable, the County and design engineer will generally accept one of the agency's recommendations.

- 20) <u>QUESTION:</u> Could you elaborate on the misc. landscaping? <u>ANSWER:</u> Landscape bid item has been deleted. See question #4 above.
- 21) <u>QUESTION:</u> How should the contractor coordinatively prepare for a proposed water main extension project on the south side of Blue Jay Road in this area? <u>ANSWER:</u> The selected contractor for the Water Line Loop A construction project is BRW Construction Group, LLC. A Pre-Construction conference was held on March 31, 2021. BRW was advised of this project and the County will provide a construction schedule as soon as it is available. BRW plans to make the water line installation in the vicinity of the project (Sheets 10 and 11 of the water line plans) a priority. Their work is should begin mid-April to early May. It is anticipated they will be complete in this area before a Notice to Proceed is issued for this project. However, bidders should assume that some level of coordination will be required. As stated during the pre-bid meeting, the water line is located on the south side of the road in this area and conflict should be minimal. See attached drawing from the Loop A project.
- 22) <u>QUESTION:</u> What sort of flared end section does the County prefer? <u>ANSWER:</u> The County prefers GDOT STD 1120. This is now reflected on the bid form.
- 23) <u>QUESTION:</u> It was stated in the pre-bid conference that the contractor would be responsible for quality control testing. Could you please provide a specification outlining the testing requirements? Also could you please add a bid item for NPDES monitoring and sampling?

<u>ANSWER:</u> See Question #15. Bid item for NPDES monitoring and sampling has been added to the bid form.

24) <u>QUESTION:</u> What scope of work is to be included for utilities relocation and coordination bid item?
 <u>ANSWER:</u> This is mostly coordinative in nature. The selected contractor will coordinate with utility companies to ensure proper construction scheduling of removal and replacement of power poles (by GA Power) and potential relocation of underground

telephone (by Windstream and Planters). This will also include coordination, as required, with the County water main project (see question 21).

- 25) <u>QUESTION:</u> What scope of work is to be included for misc landscaping bid item? <u>ANSWER:</u> Omitted. Disregard.
- 26) <u>QUESTION:</u> Can a bid item and quantity be provided for the leveling required for the job?<u>ANSWER:</u> Done. See question 7.
- 27) <u>QUESTION:</u> Can the rumble strips be thermoplastic? <u>ANSWER:</u> Yes. See questions 10 and 11.
- 28) <u>QUESTION:</u> Is the existing intersection staying in place? Pavement demo is not shown on at the existing intersection. <u>ANSWER:</u> The actual existing intersection shall remain in place. The existing McCall Road leg of the intersection shall provide access for a future convenience store and shall dead end prior to the new intersection curve connection.
- 29) <u>QUESTION:</u> Testing and NPDES monitoring were mentioned to be done at the contractor's expense during the pre-bid meeting. Can the county provide more details as to which tests and how much monitoring is expected in the bid documents? <u>ANSWER:</u> NPDES monitoring per NPDES. See question 15 for other testing requirements.
- 30) <u>QUESTION</u>: The typical sections shown on plan sheet 15 have GAB six inches outside the pavement only on one side of the road. Can you please confirm this is correct? <u>ANSWER</u>: This is incorrect. Note was intended to be typical for both sides. Please see attached revised Sheet 15.
- 31) <u>QUESTION:</u> Are the two foot paved shoulders beside the areas to be leveled expected to be full depth?ANSWER: Yes

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### **BID FORM**

### **ARTICLE 1 - BID RECIPIENT**

1.01 This Bid is submitted to:

Effingham County Board of Commissioners

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

### **ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

### **ARTICLE 3 - BIDDER'S REPRESENTATIONS**

- 3.01 In submitting this Bid, Bidder represents that:
  - A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; and the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- E. Based on the information and observations referred to in Paragraph 3.01.D above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

- F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

### **ARTICLE 4 - BIDDER'S CERTIFICATION**

- 4.01 Bidder certifies that:
  - A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
  - B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
  - C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
  - D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2."fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

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### **ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, below:

For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

Item	Description	<b>Description</b> Quantity		Unit Price	Total
1	Mobilization	1	Units LS		
2	Traffic Control	1	LS		
3	Grading Complete	1	LS		
4	Remove Existing RCP	250	LF		
5	Remove Existing Pavement	4,400	SY		
6	Clearing and Grubbing	1	LS		
7	Utilities Relocations and Coordination	1	LS		
8	15" FES GDOT STD 1120	2	EA		
9	15" RCP	24	LF		
10	18" FES GDOT STD 1120	20	EA		
11	18" RCP	500	LF		
12	24" FES GDOT STD 1120	2	EA		
13	24" RCP	64	LF		
14	Remove and Replace Unsuitable Soil	200	CY		
15	8" GAB	12,500	SY		
16	12.5 MM 2" Superpave	1,400	TN		
17	19 MM 2" Superpave	1,400	TN		
18	6" Concrete	65	SY		
19	Rumble Strip	1	LS		
20	Raised Pavement Markers	1	LS		
21	Signage and Striping	1	LS		
22	Grassing	1	LS		
23	Construction Exit	3	EA		
24	Stone Dumped Rip Rap	75	SY		
25	Silt Fence Sensitive	1,400	LF		
26	Silt Fence Nonsensitive	5,015	LF		
27	QC/Material Testing	1	LS		
28	Remove Existing Concrete	140	SY		
29	12.5 MM Leveling	250	TN		
30	NPDES Monitoring/Sampling	1	LS		
31	Set Concrete Monuments Along R/W	2	EA		
TOTA	L CONSTRUCTION COST			9	<u> </u>

### **ARTICLE 6 - TIME OF COMPLETION**

- 6.01 Bidder agrees to commence work within ten (10) days after the Notice to Proceed is issued and to complete all Work within 200 calendar days from Notice To Proceed.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

### **ARTICLE 7 - ATTACHMENTS TO THIS BID**

- 7.01 The following documents are submitted with and made a condition of this Bid:
  - A. Required Bid security
  - **B**. Evidence of authority to do business in the state of the Project;
  - C. Drug Free Workplace Certification (Attachment A);
  - **D**. Promise of Non Discrimination Statement (Attachment B);
  - **E**. Disclosure of Responsibility Statement Bidders Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion (Attachment C);
  - **F**. Non Collusion Affidavit (Attachment D);
  - G. Contractor Affidavit and Agreement (E-VERIFY) (Attachment E);
  - **H**. Subcontractor Affidavit if applicable (E-VERIFY) (Attachment **F**);
  - I. List of Proposed Subcontractors (Attachment H);

### **ARTICLE 8 - DEFINED TERMS**

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

### **ARTICLE 9 - BID SUBMITTAL**

9.01 This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed):

By: \_\_\_\_\_

(Individual's signature)

Doing business as:

### Addendum No.2 ITB 21-25-002 – Blue Jay and McCall Road Realignment

A Partnership	
Partnership Name:	
By:	
By:	
Name (typed or printed):	
A Corporation	
Corporation Name:	(SEAL)
State of Incorporation:	
By:	
Name (typed or printed):	
Title:(CORPORATE SEAL)	
Attest	
Attest	
Date of Qualification to do business in <u>Georgia</u> is//	
Date of Qualification to do business in <u>Georgia</u> is//	
Date of Qualification to do business in <u>Georgia</u> is// <u>A Joint Venture</u> Name of Joint Venture: First Joint Venturer Name:	 (SEAL)
Date of Qualification to do business in <u>Georgia</u> is// <u>A Joint Venture</u> Name of Joint Venture:	 (SEAL)
Date of Qualification to do business in <u>Georgia</u> is// <u>A Joint Venture</u> Name of Joint Venture: First Joint Venturer Name:	(SEAL) y to sign)
Date of Qualification to do business in <u>Georgia</u> is// <u>A Joint Venture</u> Name of Joint Venture: First Joint Venturer Name: By: (Signature of first joint venture partner attach evidence of authority	(SEAL) y to sign)

(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed):	
Title:	
	e manner of signing for each individual, partnership, he joint venture should be in the manner indicated
Bidder's Business Address	
Phone No	Fax No
E-mail	
SUBMITTED on	, 20
State Contractor License No.	

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# Whitaker Laboratory, Inc.

P.O. Box 7078 2500 Tremont Road Savannah, Georgia 31418 (912) 234-0696 Fax (912) 233-5061

Email: info@whitakerlab.net

January 28, 2019

Effingham County Board of Commissioners 601 N Laurel Street Springfield, GA 31329

- Attention: **Fiona Charleton** fcharleton@effinghamcounty.org (912) 754-2159 Ext 4572
- Referencing: Report of Geotechnical Services for McCall Rd and Blue Jav Rd Intersection Effingham County, Georgia Report No.: 1-28-19-5

Dear Ms. Charleton:

In accordance with our proposal dated October 23, 2018, WHITAKER LABORATORY, INC. has conducted an evaluation of near surface subgrade soil conditions on this site for the purpose of providing site work preparation recommendations for planned new pavements.

As outlined in our proposal, Whitaker Laboratory, Inc. performed seven auger borings to a depth of five feet below existing grades within the planned pavement areas. Auger borings incorporated Dynamic Cone Penetration (DCP) testing at one-foot intervals throughout the depths of the auger borings. DCP testing is done with a 15-pound hammer falling 20 inches, driving a 1.5-inch diameter cone point, in accordance with ASTM STP-339. DCP testing provides an indication of the relative consistency, density and in-situ strength of the tested soils. Additionally, one pavement core was performed on McCall Road to determine the pavement section of the existing road.

### **Findings:**

• Very Loose to Very Firm Sands (SP-SM) were encountered at the ground surface and extended to the boring termination depths of 5 feet below the existing ground surface in all boring.

- Organic soils were encountered at the ground surface and extended to depths reaching 6 to 12 inches below the ground surface.
- Groundwater was encountered at depths ranging from 0.5 to 3 feet below the existing ground surface elevation at the time of boring. Please note that groundwater elevations can be expected to fluctuate with the season of the year, surrounding ground surface conditions and with recent rainfall amounts.
- The pavement section on McCall Road consisted of a full depth asphalt pavement section (approximately 5 inches thick). Stone base material was not encountered below the asphalt pavement.

### **Concerns:**

- Very loose and loose sands were encountered below the topsoil and extending to depths reaching 3 to five feet below existing grades.
- At the time of testing, the groundwater was encountered at depths ranging from 0.5 to 3 feet below the ground surface. **Dewatering will likely be required at the onset of earthwork construction on this site.** Typically, the groundwater level needs to be 24 inches below subgrade elevations to properly compact the subgrade and subsequent backfill materials. Although dewatering techniques consisting of well point systems, sump pits with pumps, and/or drainage ditches are typically effective methods to lower groundwater, the means and methods for dewatering should ultimately be the responsibility of the contractor.

### Site Preparation Recommendations:

Subgrade for pavement sections should consist of a minimum of 24-inches of clean sand subgrade compacted to a density of 95% of its maximum dry density as determined by ASTM-D-1557. Pavement designs should also provide a minimum of 24-inches separation between the bottom of the base course material and the seasonal high ground water table.

Near surface soils on this site consist of sandy type soils, therefore should be adequate as subgrade soil for pavement sections. Due to the groundwater table residing as shallow as 0.5 feet below the existing grades, dewatering will likely be critical at the onset of earthwork construction to compact and stabilize exposed subgrade soils after stripping of topsoil and prior to placement of backfill/fill soil.

To provide a minimum of 24-inches of separation between the bottom of the base course material and the ground water table, site grades should be raised a minimum of 2.5 feet above existing grades or permanent dewatering measures shall be installed. Whitaker recommends that site grades be raised on this site.

Based upon encountered near surface soils, the following shall be performed to establish finished subgrade elevations for pavement sections on this site.

- Dewatering shall be performed as necessary.
- After dewatering, pavement areas shall be stripped of unsuitable surface soils/materials. Stripping depths should be anticipated to range from 6 to 12 inches or more below the ground surface to effectively remove all unsuitable near surface soils/materials
- After stripping, exposed subgrade soils at this elevation shall be thoroughly compact in-place with a large vibratory smooth drum roller (Cat CS 74 or equivalent centrifugal force range of 37,300 74,600 lb) to promote compaction efforts as deep as possible below the ground surface (dewatering likely critical to compact exposed subgrade at bottom of stripping depths).
- Once compaction efforts are complete, exposed subgrade at this elevation (bottom of stripping depths) should be proof rolled with a loaded dump truck to locate unstable or soft areas. Any unstable areas should then be investigated to determine the cause of the instability. Unstable areas may require dewatering to a lower depth and/or the installation of geogrid (Tensar TX-160) prior to backfill/fill placement.
- Bridge lifts (initial placement of backfill in excess of 12-inch loose lift) will <u>not</u> be acceptable due to the close proximity of bottom of pavement section elevations.
- Backfill material shall consist of coarse-grained soil classified as SW, SP, or SM-SP with a maximum of 12% passing a #200 sieve. All backfill/fill required to achieve finished subgrade elevations should be placed in maximum 8 inch loose lift thicknesses with each lift compacted to meet or exceed 95% of the soils modified proctor maximum dry density in accordance with ASTM-D-1557.

### **Pavement Section Recommendations:**

If the above is performed as recommended, the pavement sections will be constructed upon a minimum of 24 inches of well compacted, drained, sandy type soils. The below recommended asphalt pavement section is based upon the assumption that the sandy subgrade soils will yield a minimum CBR value of 10 if compacted to 95% ASTM D-1557 for a full 24-inch depth. Subgrades must be prepared in accordance with the Site Preparation Recommendations section above.

All subgrades and base courses shall be density tested and proofrolled prior to placement of subsequent lifts and/or layers of the pavement section. If a rain event of 0.5 inches or more, occurs after initial proof rolling and prior to subsequent placement of base or surface wearing course, the proof roll testing must be repeated just prior to additional work.

The below recommended pavement section should be considered standard and typical for the area. We have not been provided traffic data and/or been instructed to perform CBR testing on subgrade soils, therefore these pavement sections should not be considered a pavement design. The below recommended pavement sections are based upon the assumption that the sandy subgrade soils will yield a minimum CBR value of 10 if compacted to 95% ASTM D-1557 for a full 24-inch depth. Below recommended heavy duty sections should be utilized for all areas receiving truck traffic (delivery trucks and garbage trucks with 18-kip axle loads).

### ASPHALT PAVEMENT SECTIONS:

### LOW VOLUME ROADS WITH 18+ kip AXLE LOADS)

SUBGRADE:	Minimum – 24 inches of drained, compacted, coarse grained soil
BASE COURSE:	Minimum - 8-inches of Graded Aggregate Construction
BINDER COURSE:	Minimum - 2-inches of 19 mm Superpave
SURFACE COURSE:	Minimum - 2.0-inches of 9.5 mm Type II Superpave, or Minimum - 2.0-inches of 12.5 mm Superpave

In all projects, a minimum mat temperature of 185° F must be maintained through final roller pass.

Please note that specifications for the above mentioned base course and surface course can be found under Sections 310, 400, 815 and 828 of the Georgia Department of Transportation State of Georgia Standard Specifications Construction of Transportation Systems, 2001 Edition. The mix design must include "lime". All testing procedures, pavement densities, void ratios, and all criteria for final pavement approval must be agreed upon by the parties after completion of a rolling pattern or test strip segment. It must also be agreed that the reference to Georgia DOT Specifications shall mean the entirety of the specification. Portions of such Standard State pavement specifications are not stand alone provisions, and must be considered as mutually complementary provisions, to be used in their entirety. Selected portions of the Standard State specifications may be included, only after completion of a rolling pattern or test strip segment, and the agreement of the parties.

Several studies have shown that recycled concrete aggregates may have suitable physical and geotechnical properties for road construction; however, the studies related to leaching behavior and potential clogging have not been investigated in depth. Whitaker Laboratory recommends that recycled concrete aggregate and/or recycled masonry materials should not be used in project designs and construction where geotechnical fabrics are part of a drainage filter design. Such recycled materials have the potential for precipitating calcium-based compounds and causing clogging of the fabric filter materials

It was a pleasure to serve you and we look forward to further opportunities to assist you on this and other projects. If you have any questions or if we can be of further assistance, please do not hesitate to contact us at our office.

Respectfully submitted, WHITAKER LABORATORY, INC.

Jason H. Follo, P.E. Project Engineer

Black

Blake Jones, E.I.T. Staff Engineer

# Attachments

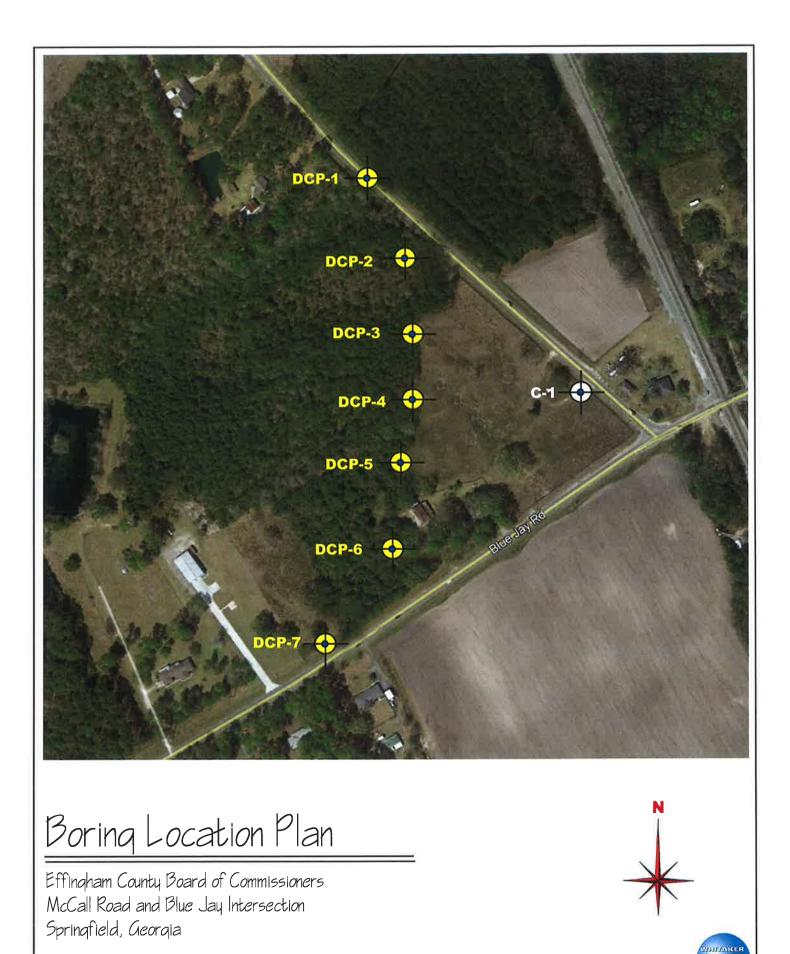
Site Vicinity Plan Boring Location Plan Auger Boring Logs



Site Vicinity Map

Effingham County Board of Commissioners McCall Road and Blue Jay Intersection Springfield, Georgia





ALL BORING LOCATIONS ARE APPROXIMATE, & ARE BASED ONLY ON FIELD ESTIMATES.

- WHITAKER LABORATORY, INC. 18 of 21

### WHITAKER LABORATORY, INC. P.O. BOX 7078 SAVANNAH, GEORGIA 31418

Project Name	McCall Rd and Blue Jay Rd Intersections			01/22/2019
Project Location	Effingham County, GA			
Boring Number		Field Engineer	Blake	Jones/Roy Pierce
Ground Surface E	evation	Ground Water Elevation	on	

Sample Sample Stratum **Visual Field Classification Blows/Foot** No. From То From То DCP-1 12" 0 Topsoil -1' - 2-3-2 Very Loose to Very Firm Brown Fine Sand 60" 12" -2' - 5-9-14 (SP-SM) -3' - 10-18-19 **Groundwater Encountered at 0.5 Feet** -4' - 13-25+ -5' - 5-10-13 DCP-2 6" 0 Topsoil -1' - 4-4-4 Very Loose to Very Firm Brown Fine Sand 6" 60" -2' - 3-5-6 (SP-SM) **Groundwater Encountered at 0.5 Feet** -3' - 6-8-8 -4' - 16-25+ -5' - 17-25+ 6" -1' - 6-13-15 DCP-3 Topsoil 0 6" 60" Frim to Loose Brown Fine Sand (SP-SM) -2' - 8-11-13 **Groundwater Encountered at 3 Feet** -3' - 11-11-11 -4' - 5-6-7 -5' - 8-7-8 6. 8" DCP-4 0 Topsoil -1' - 5-5-6 8″ 42" Loose Tan Fine Sand (SP-SM) -2' - 3-4-6 42" 60" Very Firm Brown Fine Sand (SP-SM) -3' - 6-5-7 **Groundwater Encountered at 2.5 Feet** -4' - 25+ -5' - 25+ 19 of 21

### WHITAKER LABORATORY, INC. P.O. BOX 7078 SAVANNAH, GEORGIA 31418

Project Name	McCall Rd and Blue Jay Rd Intersections			01/22/2019
Project Location	Effingham County, GA	4		····
Boring Number		Field Engineer	Blake	Jones/Roy Pierce

Ground Surface Elevation \_\_\_\_\_ Ground Water Elevation \_\_\_\_\_

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Sample	Sam	Sample Stratum		ample Stratum Visual Field Classification			Diama / Fast
No.	From	То	From	То	Visual Field Classification	Blows/Foot	
DCP-5			0	10"	Topsoil	-1' 5-7-7	
			10"	42"	Loose Tan Fine Sand (SP-SM)	-2' - 3-5-7	
			42″	60"	Loose to Firm Brown Fine Sand (SP-SM)	-3' - 6-8-11	
					Groundwater Encountered at 2 Feet	-4' - 3-4-6	
						-5' - 6-12-20	
DCP-6			0	8"	Topsoil	-1' - 7-7-9	
			8″	36"	Loose Tan Fine Sand (SP-SM)	-2' - 5-8-8	
			36"	60"	Very Firm Brown Fine Sand (SP-SM)	-3' - 3-6-6	
					Groundwater Encountered at 2 Feet	-4' - 18-25+	
						-5' - 14-25+	
DCP-7			0	10"	Topsoil	-1' - 5-7-8	
			10"	48"	Loose Tan Fine Sand (SP-SM)	-2' - 3-5-6	
			48"	60"	Firm to Very Firm Brown Fine Sand (SP-SM)	-3' - 7-9-11	
					Groundwater Encountered at 2.5 Feet	-4' - 5-11-17	
						-5' - 15-25+	
C-1			0	5″	Asphalt		
					No Graded Aggregate Base was Encountered		
					4		

All other terms and conditions in ITB 21-25-002 remain unchanged.

Effingham County reserves the right to reject any and all proposals, to waive any technicalities or irregularities and to award the offer based upon the most responsive, responsible submission.

Please sign receipt of this Addendum No. 2 below:

Print Name

Signature

Date

### END OF ADDENDUM NO. 2