

### Richland County Transportation Ad Hoc Committee

December 16, 2021 - 4:00 PM Council Chambers 2020 Hampton Street, Columbia, SC 29201

### 1. CALL TO ORDER

### 2. APPROVAL OF MINUTES

a. Regular Session: November 18, 2021 [PAGES 2-3]

### 3. ADOPTION OF AGENDA

### 4. ITEMS FOR ACTION

<b>a.</b> Dirt Road Package M	[PAGES 4-16]
<b>b.</b> Atlas Rd. CE&I and Materials Testing	[PAGES 17-28]

### 5. ADJOURNMENT

The Honorable Overture Walker

The Honorable Overture Walker

The Honorable Overture Walker

The Honorable Overture Walker



### Transportation Ad Hoc Committee November 18, 2021–4:30 PM Council Chambers 2020 Hampton Street, Columbia, SC 29201

COMMITTEE MEMBERS PRESENT: Overture Walker, Chair, Bill Malinowski, Yvonne McBride, Paul Livingston and Jesica Mackey

OTHERS PRESENT: Allison Terracio, Michelle Onley, Derrek Pugh, Leonardo Brown, Patrick Wright, Lori Thomas, John Thompson, Michael Maloney, Allison Steele, Tamar Black, Justin Landy, Kyle Holsclaw, Jennifer Wladischkin, Stacey Hamm, Ashiya Myers, and Quinton Epps

1. **CALL TO ORDER** – Mr. O. Walker called the meeting to order at approximately 4:35 PM.

### 2. APPROVAL OF MINUTES

a. <u>Regular Session: October 26, 2021</u> – Ms. McBride moved, second by Ms. Mackey, to approve the minutes as distributed.

In Favor: Malinowski, McBride, Livingston, O. Walker and Mackey

The vote in favor was unanimous.

3. <u>ADOPTION OF AGENDA</u> – Ms. McBride moved, seconded by Ms. Mackey, to adopt the agenda as published.

In Favor: Malinowski, McBride, Livingston, O. Walker and Mackey

The vote in favor was unanimous.

### 4. ITEMS FOR ACTION

a. <u>Mitigation Credit Sales – Quick Trip Store in Lexington County</u> – Mr. Maloney stated staff recommends the credit sales of \$12,500/unit for wetland and \$125/credit for streams. The Quick Trip is using 2.21 credits in wetland and 900 credits in streams, which is broken down as 450 restoration and 450 preservation. Given those unit prices, the net proceeds to the County is \$131,972.09. The funds will be deposited in the Penny Tax fund.

Mr. Malinowski stated, for clarification, the mitigation bank is not strictly for use in Richland County.

Mr. Maloney responded in the affirmative.

Mr. Malinowski inquired as to what "HUC" stands for.

### Transportation Ad Hoc Committee September 28, 2021 -1-

Mr. Epps responded it stands for "Hydrologic Unit Code", which is a measurement of the watershed.

Mr. O. Walker inquired if the sale of the credits would facilitate the construction of a Quick Trip Store in Lexington County, but the benefit to Richland County would be \$100,890.

Mr. Maloney responded in the affirmative.

Mr. Epps stated this would allow for the investment in conservation properties to be repaid.

Mr. Malinowski inquired if there is still enough conservation for future projects.

Mr. Epps responded in the affirmative.

Mr. Livingston moved, seconded by Ms. Mackey, to forward to Council with a recommendation to approve the mitigation credit sales.

In Favor: Malinowski, Livingston, O. Walker, and Mackey

Not Present: McBride

The vote in favor was unanimous.

**b.** <u>Mitigation Credit Sales - Amick Farms rail upgrade in Saluda County</u> – Mr. Malinowski moved, seconded by Mr. Livingston, to forward to Council with a recommendation to approve the mitigation credit sales.

In Favor: Malinowski, McBride, Livingston, O. Walker and Mackey

The vote in favor was unanimous.

5. ADJOURNMENT – The meeting adjourned at approximately 4:42PM.

Transportation Ad Hoc Committee September 28, 2021 -2803-576-2050



### Agenda Briefing

Prepared by:	Michael Maloney, PE			Title:	Interim Director		
Department:	Transportation Division:						
Date Prepared:	November 24, 2021 Meeting Date:		Decem	ember 16, 2021			
Legal Review	Legal Review Patrick Wright via email				Date:	December 01, 2021	
Budget/Finance F	Budget/Finance Review Stacey Hamm via email				Date:	December 02, 2021	
Approved for con	sideration:	Assistant County Admir	nistrator	John	M. Tho	npson, I	Ph.D., MBA, CPM, SCCEM
Committee	Transportation Ad Hoc						
Subject:	Dirt Road Package M						

### **STAFF'S RECOMMENDED ACTION:**

The procurement process indicates the lowest, responsive, responsible bidder for Dirt Road Package M paving project is McClam & Associates in the amount of \$999,087.69 with a 15% contingency of \$149,863.15 for a total amount of \$1,148,950.84

### Request for Council Reconsideration: Xes

### FIDUCIARY:

Are funds allocated in the department's current fiscal year budget?	$\square$	Yes	No
If no, is a budget amendment necessary?		Yes	No

### **ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:**

This will come from the \$4,273,637.57 currently available in the FY22 budget. (JL 13320302).

### **COUNTY ATTORNEY'S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:**

None.

#### **REGULATORY COMPLIANCE:**

None applicable.

**MOTION OF ORIGIN:** 

There is no associated Council motion of origin.

Council Member	
Meeting	
Date	

### **STRATEGIC & GENERATIVE DISCUSSION:**

The Dirt Road Package M project consists of the paving of Bow String Rd., Maggie Hipp Rd., Rosa Dowdy Rd., and Tall Oaks Dr. This is approximately 0.72 miles of roadway, and these roadways are in Districts 1, 2, 9, and 10.

### ADDITIONAL COMMENTS FOR CONSIDERATION:

The Engineer's Cost Estimate for this project was \$972,000.00, and the SLBE goal was 8.5%. There was one bidder that came in lower than McClam & Associates; however, that bidder only provided 5% of the SLBE goal and did not meet the good faith effort to achieve the goal.

There is a strong request by affected residents to commence this project package.

### **ATTACHMENTS:**

- 1. Procurement Award Recommendation Letter
- 2. Dirt Road Package L Bid Tab



Lindler's Construction of South Carolina, LLC (803) 276-6557 8253 SC-34 Newberry, SC 29108

Date: 11/05/2021

The following documents will be record of good faith efforts to utilize and achieve the SLBE goal of 8.5% for the project of "Dirt Road Package M" by Lindler's Construction.

We have contacted and sent certified letters to the following companies seeking various quotes on October 27<sup>th</sup>, 2021: CABRA Construction & Design, Inc – Asphalt Paving Shady Grove Construction, LLC – Asphalt Paving Southern Vistas, Inc – Asphalt Paving Taylor Brothers Construction Company, Inc – Asphalt Paving Chao & Associates, Inc – Surveying/ Staking Construction Support Services, LLC – Surveying/Staking Greens Landscaping & Lawn Service – Erosion Control

We have received receipts from five of the companies listed above, stating they have received our request which will be attached to this document. As of todays date, 11/09/21, we have not received any quotes from these companies.

We will be using Carolina Wrecking for a portion of SLBE. They will be providing crushed Concrete to use as stone base. Roughly 5% of the bid total.

Cameron Unger Cameron Unger (804) 366-7953 cameron@lindlers.com Estimator/ Project Coordinator Lindler's Construction

## Invitation to Bid



Project: Due Date for Bids:	Dirt Road Package M 11/6/2021 @ 11:00 A.M.
Submit Quote to:	Lindler's Construction of SC, LLC. – Estimating Department cameron@lindlers.com
Plan room:	*Contact Cameron Unger for an emailed set of plans*

We are seeking SLBE subcontractor and vendor quotes for:

• Asphalt Paving

Traffic Control

Construction
 Stakes/Lines/Grades

Erosion Control

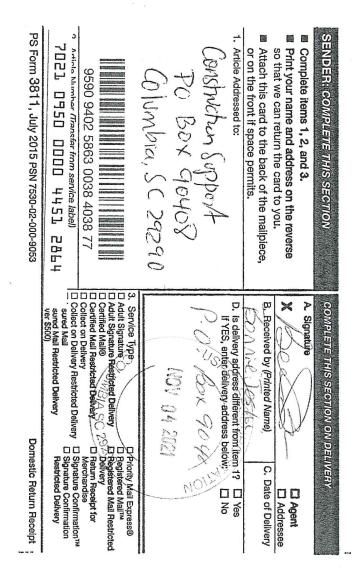
\*Please e-mail your "Bid Response" to us indicating your intent to Bid as soon as possible.

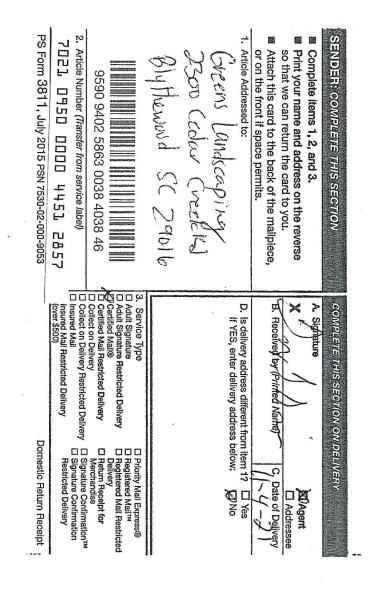
\*Quotes should be e-mailed to the e-mail address above.

\* All qualified bidders will not be discriminated against due to race, color, sex or country of origin.

For further information or coordination of your proposal, please contact: Cameron Unger at (803)276-6557 ext 104

	WE WILL BE BIDDING							
	WE WILL NOT BE BIDDING							
Company Nam	Company Name							
Person to Cont	Person to Contact							
Bidding								
(Please Circle A	ll That Apply)	DBE	WBE	MBE	SLBE			



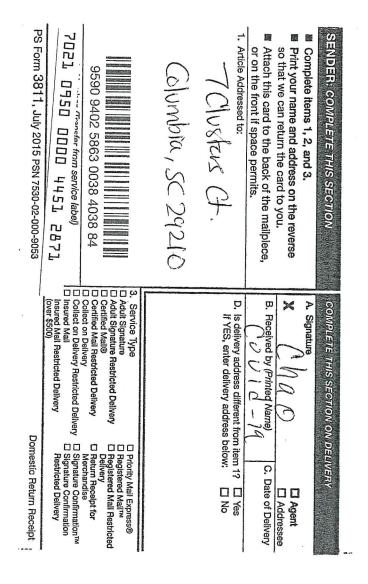


1.75

PS Form 3811, July 2015 PSN 7530-02-000-9053	2. Article Number (Transfer from service label) 7021 0750 0100 4451 2725	<ul> <li>SENDER: COMPLETE THIS SECTION</li> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverse so that we can return the card to you.</li> <li>Attach this card to the back of the malipiece, or on the front if space permits.</li> <li>Article Addressed to:</li> <li>Article Addressed to:</li> <li>ACUMPIA, SC</li> <li>OUMPIA, SC</li> </ul>
Domestic Return Receipt	3. Service Type       Priority Mail Express®         Adult Signature       Registered Mail™         Adult Signature       Restricted Delivery       Registered Mail Restricted         Certified Mail       Restricted Delivery       Registered Mail Restricted         Certified Mail       Restricted Delivery       Delivery         Collect on Delivery       Restricted Delivery       Delivery         Collect on Delivery       Signature Confirmation™         red Mail       Restricted Delivery       Signature Confirmation™         red Mail       Restricted Delivery       Signature Confirmation™         red Mail       Restricted Delivery       Signature Confirmation™	COMPLETE THIS SECTION ON DELIVERY         A. Signature         X. M. Signature         B. Received by (Printed Name)         C. Date of Delivery         Ded. W: (1 i a nd)         D. Is delivery address different from item 17         PES, enter delivery address below:

SENDER: COMPLETE THIS SECTION PS Form 3811, July 2015 PSN 7530-02-000-9053 С Print your name and address on the reverse so that we can return the card to you. Complete items 1, 2, and 3. 1. Article Addressed to: 7021 0950 0000 4451 2888 Autiple Minahan m or on the front if space permits. Attach this card to the back of the mailpiece, Multiplice 9590 9402 5863 0038 4038 91 columbia SC 29209 3. Service Type
 Adut Signature Restricted Delivery
 Certified Mail Restricted Delivery
 Certified Mail Restricted Delivery
 Collect on Delivery
 Collect on Delivery
 Collect on Delivery
 Signature Confirmation
 Signature Confirmation
 Signature Confirmation COMPLETE THIS SECTION ON DELIVERY A. Signature D, is delivery address different from item 1? Yes If YES, enter delivery address below: No B. Received by (Printed Name) ( 7 4 ) 1 1 5sured Mail Restricted Delivery (over \$500) Domestic Return Receipt : C. Date of Delivery Addressee

- 122- AG



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### SMALL LOCAL BUSINESS ENTERPRISE (SLBE) PARTICIPATION SHEET

### **Small Local Business Enterprises**

#### **Small Local Business Enterprises**

The COUNTY encourages CONTRACTORS to utilize firms from the COUNTY's SLBE certified directory where applicable. Additionally, the CONTRACTORS must complete the information below on each certified firm and submit it with its Solicitation response.

Information relative to the COUNTY's SLBE Ordinance and its Directory of Certified SLBEs can be found on the COUNTY's website at: http://www.rcgov.us

Information must be completed on this sheet and submitted with bid/proposal.

1.Name & Address of SLBE (Subcontractor or Supplier)	SLBE Firm	Scope/Type of Work	2.Estimated Percentage & Amount of Total Contract
Carolina Wrecking 141 Cont RD Columbia, SC 29203	Carolina Wrecking	supplier	4.5%

I hereby certify that this firm has been contacted and accepted the scope / type of work listed above. Furthermore, I hereby certify that SLBEs listed above are willing to perform the work and that I am committed to utilizing the above firm(s) on this contract. This form may be reproduced or additional sheets added in order to provide all requested information.

I declare under penalty of perjury that the information provided herein is true and correct. Firm Name: -iddlehrls Construction of SC

Signature: Date: ath ovember SWORN before me this day of

Notary Name (Printed):

Grady O. Lindler Jr. ature:

Notary Signature:

My Commission Expires: 10 Fich 2030

Rev 1 2018-10-08

### **HMH Contractors LLC**

dba

### **Carolina Concrete & Asphalt Recycling**

141 Cort Road (main office) 6421 Fairfield Road (recycling yard) Columbia, South Carolina 29203 Concrete and Asphalt Crushing, Removal & Disposal

Tel: 803/333-0599

Fax: 803/333-0962

Make checks payable to Carolina Concrete & Asphalt Recycling, Inc. (CCAR)

### **CONCRETE AND ASPHALT PURCHASE**

Crushed Concrete	\$10.00 per ton + sales tax (8%)
Crushed Asphalt	20.00 per ton + sales tax (8%)
Crushed Brick	10.00 per ton + sales tax (8%)
Shake Out Dirt	\$40.00 per load + sales tax (8%)

All loads must have a ticket. Be sure to complete purchaser name, address, and phone number for accounting. All sales are prepaid unless approved by the office.

Make checks payable to Carolina Concrete & Asphalt Recycling, Inc. (CCAR)

### CONCRETE AND ASPHALT DISPOSAL

Small Truck (Pickup load or small single axle)	\$ 50.00
Tandem axle truck	\$ 75.00
Tri-axle dump truck	\$100.00
Dump Trailer	\$125.00
Loads with rebar	\$100.00 per load extra

All prices are per load. **All disposals must be pre-approved**. Concrete and asphalt must be separated. All loads must be free from other debris or other metal. Supervisor at the dump has the right to refuse any load that he feels we cannot use. All loads must have a ticket. Be sure to complete purchaser name, address, and phone number for accounting. All sales are prepaid unless approved by the office.

Make checks payable to Carolina Concrete & Asphalt Recycling, Inc. (CCAR)

Hours of Operation - Mon/Thur 7:00 - 5:00 - Fri 7:00 - 11:30 - Sat/Sun Closed We now accept credit cards for payment. Account holders with balances older than 30 days will be placed on hold until their account balance is paid.

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### SCD

### Recycled PCC

Section 305 of the SCDOT's "Standard Specifications for Highway Construction, Edition of 2000" states that the contractor, at his or her option, may use Macadam Base, Marine Limestone Base, or Recycled Portland Cement Concrete Base when the contract specifies a graded aggregate base course. Experience has shown that the recycled concrete base provides an equivalent structural number to traditional base courses using virgin material. The recycled concrete aggregate must consist of sound, durable particles of crushed concrete, excluding block or pipe. When the contractor selects Recycled Portland Cement Concrete Base Course, the source is inspected, sampled, and tested before being approved by the Department. Old concrete that has reached the end of its service life can be recycled and reused as aggregate for new concrete mixtures.

Concrete yields 45% to 80% usable coarse aggregate and can be crushed and reused in new concrete or as a base material.

**Cement Americas** 

### Chrome and Steel Slag

In South Carolina, chrome and steel slag have been used successfully in HMAC on low volume routes where a lack of quality crushed stone aggregates makes the use of slag economically feasible. There is no longer a source of chrome slag in South Carolina, but there are sources of steel slag in the state. In April 1994, the SCDOT contracted with the National Center for Asphalt Technology (NCAT) at Auburn University to investigate the feasibility of using both chrome and steel slag in HMAC for high volume roads.

Research & Materials Laboratory Waste Materials Utilization Report

Printed on Recycled Paper

### Attachment 2

	Cherokee, Inc.	Corley Construction Company, LLC	Lindlers construction	McClam and Associates Inc
Total Cost	\$1,085,302.55	\$1,096,780.88	\$ 784,252.35	\$999,087.69

803-576-2050



### Agenda Briefing

Prepared by:	Michael Maloney, PE			Title:	Interim Director		
Department:	Transportation Division:						
Date Prepared:	November 24, 2021 Meeting		Meeting [	Date:	Decem	mber 16, 2021	
Legal Review Patrick Wright via email				Date:	December 01, 2021		
Budget/Finance Review Stacey Hamm via email				Date:	December 02, 2021		
Approved for con	sideration:	Assistant County Admir	nistrator	John	n M. Thompson, Ph.D., MBA, CPM, SCCEM		
Committee	Transportation Ad Hoc						
Subject:	Atlas Rd. CE&I and Materials Testing						

### **STAFF'S RECOMMENDED ACTION:**

Staff requests Council to approve the award of the Construction, Engineering & Inspection and the Materials Testing Work Authorization to F&ME for the Atlas Rd. Widening Project in the amount of \$1,179,994.00. Staff also requests Council approve a 15% contingency in the amount of \$176,999.10 for a total amount of \$1,356,993.10.

### Request for Council Reconsideration: Xes

### FIDUCIARY:

Are funds allocated in the department's current fiscal year budget?	$\boxtimes$	Yes	No
If no, is a budget amendment necessary?		Yes	No

**ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:** 

This will come from the \$6,955,438.65 currently available in the FY22 budget. (JL 13320001)

### **COUNTY ATTORNEY'S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:**

None.

### **REGULATORY COMPLIANCE:**

None applicable.

#### **MOTION OF ORIGIN:**

There is no associated Council motion of origin.

Council Member	
Meeting	
Date	

### **STRATEGIC & GENERATIVE DISCUSSION:**

The Atlas Rd. Widening project is anticipated to take 3 years to complete construction. This project is in the final permitting stage, and construction advertisement is expected to take place in January 2022.

Due to the size and complexity of this project, it will require full-time inspection every day that construction is taking place. On average, during the majority of the project a minimum of 2 inspectors will be required daily, and during some of the heavier construction periods the project will require 3 inspectors.

This project will also require materials sampling and testing in accordance with SCDOT specifications. This will require field density testing, asphalt plant sampling, and concrete sampling\testing.

The fee included in attachment 1 covers both the CE&I services and the materials sampling\testing required for this project.

### ADDITIONAL COMMENTS FOR CONSIDERATION:

F&ME is currently on both Transportation's approved on-call CE&I and on-call Materials Testing lists.

### **ATTACHMENTS:**

1. F&ME Fee Proposal



September 15, 2021

Ms. Allison Steele Assistant Director Richland County Transportation Department 2009 Hampton Street Columbia, SC 29204

Re: Proposal for Construction Engineering and Inspection Services, Sampling and Testing Atlas Road Widening Atlas Road Richland County, South Carolina FME Proposal No.: C2021037 R2

Dear Ms. Steele:

FME Consultants, Inc. (FME) is pleased to provide this proposal for construction engineering and inspection (CE&I) services and sampling and testing during the construction phase of the Atlas Road Widening Project in Richland County, South Carolina. We have provided a project description, scope of services, and fee for FME's proposed services.

Sincerely, **FME** 

Jeffrey D. Kinard, PE Senior Project Engineer

Madison P. DeVine, PE Special Inspections Manager

Acceptance of this proposal can be acknowledged by the client signing and returning a copy of this document.

Authorized Representative

Date



### **PROJECT INFORMATION**

FME understands that this project consists of the widening of Atlas Road and associated intersections improvements from approximately one thousand feet southwest of the intersection of Atlas Road and Shop Road to the intersection of Atlas Road and Garners Ferry Road. The project consists of widening Atlas Road from the existing two lanes to four travel lanes with a median, bicycle paths, and sidewalks. Also included in the project is the extension of two major drainage culverts as well the relocation of associated utilities and storm drainage.

FME understands that a Project Manager will be provided by Richland County. FME will support this project with multiple Senior Inspectors, Mid-Level Inspectors, a Survey Crew, an Administrative Assistant, and a Assistant Project Manager. FME also understands the manpower needed on this project will fluctuate as the project progresses. FME will also be providing material sampling and laboratory testing and asphalt plant inspection on this project.

FME was provided with a set of construction plans prepared by Cox and Dinkins, Inc. dated May 19, 2021. A construction schedule was not provided at the time of this proposal; Richland County developed an estimated construction schedule, and this schedule was used as a baseline for the assumptions used in the estimate.

### SCOPE OF WORK

FME's services will be provided on a full-time basis with the number of inspectors dependent upon the magnitude of work. FME proposes the following scope of work:

### Construction Engineering and Inspection and Material Sampling and Testing

### CEI Group Manager

- Coordination with Richland County on schedule
- Administer Contract with Richland County.
- Review and process F&ME's invoice to Richland County

### Assistant Project Manager Duties

- Coordination with Richland County, Contractor and FME staff on Inspection for project.
- Coordination with Richland County, Contractor and FME staff on sampling and testing for the project.
- Coordination with Richland County, Contractor and FME staff on asphalt plant inspection for the project.
- Coordination with Richland County on issues with construction.
- Track and record daily pay quantities for monthly Construction pay application verification.
- Verify and make a recommendation to Richland County on monthly contractor pay quantities.
- Proof Daily Work Reports from inspection staff.
- Collect required paperwork such as material tickets, required construction forms from staff.
- Proof required paperwork from inspection staff.
- Attend project meetings as requested.
- Proof sampling and testing reports.



- Proof plant inspection reports and test resuts
- Coordination with administrative assistant for transmittal of required reports and forms.

### Administrative Assistant Duties

- Collection of files from inspection staff including Daily Work Reports, Project Construction Forms (traffic control and erosion control inspection reports, daily tonnage verification reports, asphalt roadway reports, 700 forms, concrete tickets, asphalt tickets, proof roll verifications reports, etc.).
- Collection of material sampling and testing reports
- Collection of asphalt plant inspection reports
- Organization and transmittal of all reports to Richland County.
- Proof and transmit weekly timesheets to Richland County.

### Inspector Duties

- Perform inspection in accordance with SCDOT specifications for contractor pay items
- Complete daily work report to record job progress, conditions, and to record daily pay items
- Complete required construction forms including but not limited to the following:
  - Proof Roll Verification Reports
  - o Compaction by Nuclear Gage Reports
  - Pipe Compaction Installation Reports
  - Depth Check Records
  - Density Test Reports for Base
  - HMA Daily Tonnage Verification Reports
  - HMA Asphalt Roadway Reports
  - o Concrete Pre-pour Checklist
  - o Structural Concrete 700 forms
  - Traffic Control Inspection Reports (weekly and monthly nighttime)
  - Erosion Control Inspection Reports (weekly)
  - o Rain Log
  - o Seeding Inspection Forms
  - o Sediment and Grading Stabilization Log
- Obtain and deliver required sample for testing.
- Log collected samples for testing.
- SCDOT Level III certified asphalt inspector will perform asphalt plant testing and sampling as required by SCDOT specifications.
- Asphalt plant inspector will provide proper documentation of tests performed and samples collected.

### Survey Crew

• Survey verification of required items as requested by the Richland County Project Manager.

Page 3 of 7

The actual cost of our services is dependent on the construction schedule, final material quantities for the project, and the quality of construction (workmanship) of the contractor/subcontractor(s). We propose to provide our services on a unit cost basis according to the **unit rates** included with this proposal. FME recommends a **budget of \$1,179,994.00** that is based upon the below assumptions. A breakdown is provided in Exhibit B. Invoices will be submitted monthly.

### LMITATIONS AND ASSUMPTIONS

- a) FME assumes project duration is 3 years/36 months (18 months of inspection and material sampling and testing) with a work schedule of Monday through Friday at 8 hours per day/40 hours per week as needed for inspections per inspector.
- b) Project duration is based on a preliminary schedule provided by Richland County of 18 months of utility relocation (no inspection) and 18 months of construction.
- c) The FME budget was developed utilizing the previously approved Richland County Penny Transportation rates. These unit rates are attached in Exhibit A.
- d) A representative of Richland County will be responsible for scheduling FME staff with the assistant project manager with at least 48-hour notice.
- e) FME staff will be responsible for following FME and SCDOT safety policies. Site safety will be the responsibility of the contractor.
- f) Materials Sampling and Testing is included in this proposal.
- g) Laboratory Testing is included in this proposal.
- h) Material sampling and testing included in this proposal is limited to the quantities shown on the estimate sheet below. FME will not exceed these estimated quantities without written consent from Richland County.
- i) Utility coordination is excluded from this proposal.
- j) Final submission of Daily Work Reports and other SCDOT Forms will be the responsibility of the Richland County Project Manager and is excluded from this proposal.
- k) Reviewing or evaluating Change Orders from the contractor is excluded from this proposal.
- I) Reviewing or evaluating the Construction Schedule is excluded from this proposal.
- m) Evaluating plan reviews and value engineering submittals is excluded from this proposal.
- n) Coordination with railroad owner is excluded from this proposal. (Ex: CSX or Norfolk Southern).
- o) Inspection of work within the Railroad ROW, with exception of permitted work related to this contract, is excluded from this proposal.
- p) Retention of project files will be the responsibility of Richland County.



FEE

# EXHIBIT A



## **F&ME Consultants, Inc**

Date: 11/1/2019

Classification	Pay Unit	Consult. Unit Rates
Senior Principal	\$ per hour	\$250.00
Project Principal	\$ per hour	\$225.00
Senior Geotechnical Engineer	\$ per hour	\$175.00
Geotechnical Engineer	\$ per hour	\$150.00
Junior Geotechnical Professional	\$ per hour	\$95.00
Project Geologist	\$ per hour	\$90.00
Engineering Technician	\$ per hour	\$85.00
Senior Environmental Specialist	\$ per hour	\$125.00
Environmental Specialist	\$ per hour	\$85.00
CEI Group Manager	\$ per hour	\$200.00
CEI Project Manager	\$ per hour	\$195.00
CEI Assistant Project Manager	\$ per hour	\$185.00
Sr. Inspector	\$ per hour	\$110.00
Mid-Level Inspector	\$ per hour	\$85.00
Jr. Inspector	\$ per hour	\$75.00
Plant Inspector	\$ per hour	\$105.00
Graphics Designer	\$ per hour	\$72.00
Administrative Assistant	\$ per hour	\$65.00

### UNIT RATE SHEET



# EXHIBIT B



F&ME Consultants         Materials Field Sampling and Testing         Atlas Road Widening         Project Summary         Thursday, September 16, 2021         Prepared by: JDK         Project Summary         Summary of Estimated Cost         F&ME Office Total         Project Inspection         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total         Senior Principle Engineer         Project Principle	\$312,780.00 \$528,840.00 \$280,084.00	F	
Atlas Road Widening         Project Summary         Thursday, September 16, 2021         Prepared by: JDK         Project Summary         Summary of Estimated Cost         F&ME Office Total         F&ME Office Total         F&ME Office Total         F&ME Office Total         F&ME FIELD TOTAL         Materials Field Sampling and Laboratory Testing         Survey Verification         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total         Classification         Senior Principle Engineer	\$312,780.00 \$528,840.00 \$280,084.00	F	
Project Summary Thursday, September 16, 2021 Prepared by: JDK Project Summary Project Summary  Project Summary  Classification Classification Senior Principle Engineer	\$312,780.00 \$528,840.00 \$280,084.00		
Thursday, September 16, 2021         Prepared by: JDK         Project Summary         Summary of Estimated Cost         F&ME Office Total         F&ME Office Total         F&ME FIELD TOTAL         Baterials Field Sampling and Laboratory Testing         Survey Verification         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total         Classification         Senior Principle Engineer	\$312,780.00 \$528,840.00 \$280,084.00		CONSULTANTS
Prepared by: JDK Project Summary Summary of Estimated Cost Summary of Estimated Cost F&ME Office Total F&ME FIELD TOTAL F&ME FIELD TOTAL Materials Field Sampling and Laboratory Testing Survey Verification CEPSCI Inspection CPM Scholeule Review PDA Testing Project Total Classification Classification Senior Principle Engineer	\$312,780.00 \$528,840.00 \$280,084.00		CONSULTANTS -
Project Summary Summary of Estimated Cost F&ME Office Total F&ME FIELD TOTAL Materials Field Sampling and Laboratory Testing Survey Verification CEPSCI Inspection CPM Schedule Review PDA Testing Project Total Classification Senior Principle Engineer	\$312,780.00 \$528,840.00 \$280,084.00		
Classification	\$312,780.00 \$528,840.00 \$280,084.00		
Classification	\$312,780.00 \$528,840.00 \$280,084.00		
F&ME Office Total         F&ME FIELD TOTAL         Materials Field Sampling and Laboratory Testing         Survey Verification         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total	\$312,780.00 \$528,840.00 \$280,084.00		
F&ME FIELD TOTAL         Materials Field Sampling and Laboratory Testing         Survey Verification         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total         Classification         Senior Principle Engineer	\$528,840.00 \$280,084.00		
F&ME FIELD TOTAL         Materials Field Sampling and Laboratory Testing         Survey Verification         CEPSCI Inspection         CPM Schedule Review         PDA Testing         Project Total         Classification         Senior Principle Engineer	\$528,840.00 \$280,084.00		
Materials Field Sampling and Laboratory Testing Survey Verification CEPSCI Inspection CPM Schedule Review PDA Testing Project Total Classification	\$280,084.00		
Classification Classi			
CPM Schedule Review PDA Testing Project Total Classification Senior Principle Engineer	\$38,400.00		
PDA Testing Project Total Classification Senior Principle Engineer	\$19,890.00		
Classification Senior Principle Engineer	\$0.00		
Classification Senior Principle Engineer	\$0.00		
Senior Principle Engineer	\$1,179,994.00		
Senior Principle Engineer			
· •	Hourly Rate		
· •	\$250.00		
	\$225.00		
Senior Geotechincal Engineer	\$175.00		
Geotechinical Engineer	\$150.00		
Junior Geoechnical Professional	\$95.00		
Project Geologist	\$90.00		
Engineering Technician	\$85.00		
Senior Environmental Specialist	\$125.00		
Environmental Specialist	\$85.00		
CEI Group Manager	\$200.00		
CEI Project Manager	\$195.00 \$185.00		
CEI Assistant Project Manager Senior Inspector	\$185.00		
Mid-Level Inspector	\$85.00		
Junior Level Inspector	\$75.00		
Asphalt Plant Inspector	\$105.00		
Graphics Designer	\$72.00		
Administrative Asssistant	\$65.00		
Unit Rates			
	Units	Rate	
Testing Soil Classification	each	\$199.50	
Loss of Ignition	each	\$105.00	
Bulk Unit Weight	each	\$100.00	
Specific Gravity	each	\$65.00	
Grain Size Distribution w/o Hyd.	each	\$65.00	
Grain Size Distribution w/ Hyd.	each	\$180.00	
Grain Size Distribution w/ wash 200 Sieve	each	\$105.00	
Atterburg Limits	each	\$82.00	
Moisture Contents	each	\$12.50	
Triaxial - CU w/ pore pressure measurements	each	\$1,000.00	
Direct Shear Standard Bracter Test	each	\$910.00	
Standard Proctor Test Modified Proctor	each each	\$105.00 \$155.00	
CBR Test @ 90%, 95%, 100%	each	\$155.00	
Unconfined Rock Compressive Strength	each	\$385.00	
Unconfined Compressive Strength of Soils	each	\$110.00	
Cement Testing	each	\$1,250.00	
Flyash Testing	each	\$1,200.00	
4" Concrete Compression Strength Testing of Cylinders (SET OF 3)	each	\$75.00	
Rebar Testing up to #10	each	\$300.00	
Rebar testing Greater than #10	each	\$350.00	
Bituinous Mixture Extraction	each	\$150.00	
Organic Content	each	\$77.00	
Aggregate Sieve Analysis	each	\$95.00	
PDA Testing			
PDA Testing Dynamic Pile Analyzer	per day	\$600.00	
Geophysical			Includes and includes the first
Field Operation of Ground Penetrating Radar	hour	\$220.00	Includes equipment and tech, no data reductions or processing
General			
•	per day		
ravement Coning	CaGII	\$170.00	
Field Operation of Ground Penetrating Radar		\$220.00 \$1,280.00 \$170.00	Includes equipment and tech, no data reductions or processing

	onsultants					
	Field Sampling and Testing ad Widening					FME
Task Deta						
	v, September 16, 2021					
Prepared by:						CONSULIANTS
Project D		1.50	years			
Task	Item	Quantity	Units	Rate	Total	Comments
1	Main Office Support					
	Project Principle	0	hours	\$225.00	\$0.00	Cordination with Richland County, invoice review, attend
F&ME	CEI Group Manager	156	hours	\$200.00	\$31,200.00	meetings as required 2 hrs per week
	CEI Project Manager		hours	\$195.00	\$0.00	
						Coordination for inspection, reviewing invoice, scheduling inspectors, tracking of monthly pay quantities, meetings,
						construction pay app review, proofing field reports, 16 hr per
F&ME	CEI Assistant Project Manager Senior Geotechincal Engineer	1,248 0	hours hours	\$185.00 \$175.00	\$230,880.00 \$0.00	week
	Senior Geotechinical Engineer	0	nours	φ175.00	\$0.00	Field reports collection and organization and transmital - 10
F&ME	Administrative Asssistant	780	hours	\$65.00		hours per week, added review for plamnt inspection reports
	Salary Total				\$312,780.00	
	Travel		miles		\$0.00	
	Motel Expense Per Deim		days days		\$0.00 \$0.00	
	Directs				\$0.00	
	Task Total				\$312 780 00	F&ME Office Total
					<b>**</b> • <b>*</b>	
2	Inspection					
	Roadway Inspection					
FME01	Conjer Inconstan	3,120	houro	\$110.00	¢242.200.00	40 hours per week for 18 months - Full time
FME01 FME02	Senior Inspector Junior Level Inspector	1,560	hours hours	\$110.00 \$75.00		40 hours per week for 12 months - Full time 40 hours per week for 12 months - Storm Drain, curb, misc
FME03	Senior Inspector	624	hours	\$110.00	\$68,640.00	40 hours per week for 4 months - Asphalt
	Salary Total				\$528,840.00	
	Vehicle Charge	0	Days	\$38.07		Local Project in Richland County - Daily Rate Waved
	Directs				\$0.00	
	Subtotal				\$528,840.00	
	Additional Inpection Support As Needed					
	not used	0	hours	\$0.00	\$0.00	
	not used	0	hours	\$0.00	\$0.00	
	not used	0	hours hours	\$0.00 \$0.00	\$0.00 \$0.00	
	not used not used not used Salary Total	0	hours hours	\$0.00 \$0.00	\$0.00 \$0.00 \$0.00 <b>\$0.00</b>	F&ME FIELD TOTAL
	not used not used not used Salary Total	0	hours hours	\$0.00 \$0.00	\$0.00 \$0.00 \$0.00 <b>\$0.00</b>	F&ME FIELD TOTAL
3	not used not used not used Salary Total	0	hours hours	\$0.00 \$0.00	\$0.00 \$0.00 \$0.00 <b>\$0.00</b>	F&ME FIELD TOTAL
3	not used not used not used Salary Total	0	hours hours	\$0.00 \$0.00	\$0.00 \$0.00 \$0.00 <b>\$0.00</b>	Coordination for sampling and testing, reviewing invoice,
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing	0 0 0	hours hours hours	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$528,840.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector	0 0 0 390 468	hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00	\$0.00 \$0.00 \$0.00 <b>\$528,840.00</b> \$72,150.00 \$51,480.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector	000000000000000000000000000000000000000	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$85.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector	0 0 0 390 468	hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$0.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector MicLevel Inspector Geotechinical Engineer Administrative Asssistant	0 0 0 390 468	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$85.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$39,780.00 \$10,140.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer	0 0 0 390 468 468	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$85.00 \$150.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$0.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector MicLevel Inspector Geotechinical Engineer Administrative Asssistant	0 0 0 390 468 468	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$85.00 \$150.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$39,780.00 \$10,140.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to
3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee	0 0 0 390 468 468 468	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$150.00 \$65.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$10,140.00 \$10,140.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week
3	not used not used not used <b>Salary Total</b> Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Asssistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used	0 0 0 390 468 468	hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$185.00 \$110.00 \$85.00 \$150.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$10,140.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production
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3	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total	0 0 0 390 468 468 468	hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$110.00 \$85.00 \$150.00 \$65.00 \$105.00 \$0.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$39,780.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production
3	not used not used not used <b>Salary Total</b> Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs	0 0 0 390 468 468 468	hours hours hours hours hours hours hours hours hours hours each	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$150.00 \$65.00 \$65.00 \$105.00 \$105.00 \$105.00 \$105.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$31,480.00 \$10,140.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$0,0000 \$0,00000 \$0,0000 \$0,0000 \$0,0000 \$0,00000 \$0	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production
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	not used not used not used Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Geotechinical Engineer Administrative Asssistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Concrete Testing</u>	0 0 0 390 468 468 468 468 156 360	hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$150.00 \$65.00 \$150.00 \$105.0	\$0.00 \$0.00 \$0.00 \$528,840.00 \$528,840.00 \$72,150.00 \$51,480.00 \$310,140.00 \$1173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00 \$0.00 \$342,650.00 \$26,084.00 \$68,734.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing
4	not used not used not used salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total	0 0 0 390 468 468 468 156 360	hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$150.00 \$150.00 \$150.00 \$150.00 \$105.	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$0.000 \$0.000 \$0.000 \$0.0	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments
4	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total	0 0 0 390 468 468 468 468 156 360	hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$150.00 \$65.00 \$150.00 \$105.0	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$0.000 \$0.000 \$0.000 \$0.0	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing
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4 SSS J. Jost	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechnical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total	0 0 0 390 468 468 468 468 156 360	hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$150.00 \$65.00 \$150.00 \$105.0	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$0.000 \$0.000 \$0.000 \$0.0	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments Total for Survey Verification
4 SSS J. Jost	not used not used not used Salary Total Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechnical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total	0 0 0 390 468 468 468 468 156 360	hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$150.00 \$65.00 \$150.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$1,280.00 \$1,280.00 \$1,280.00 \$1,280.00	\$0.00 \$0.00 \$0.00 \$528,840.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$0.000 \$0.000 \$0.000 \$0.0	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments Total for Materials Sampling and Testing For survey Verification
4 CSS J. Jost 5	not used not used not used Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total Survey Verification CSS hi Task Total	0 0 0 390 468 468 468 156 360 156 1 1 1 1 30	hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours hours	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$85.00 \$150.00 \$65.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$26,084.00 \$1,280.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00 \$38,400.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments Total for Survey Verification
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4 CSS J. Jost 5	not used not used not used Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Mid-Level Inspector Geotechinical Engineer Administrative Assistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing <u>Concrete Testing</u> Allowance for Laboratory Testing <u>Roadway</u> Non-Salary Task Total Survey Verification CSS hi Task Total	0 0 0 390 468 468 468 156 360 1 1 1 1 30 234	hours days days hours	\$0.00 \$0.00 \$0.00 \$10.00 \$150.00 \$150.00 \$150.00 \$150.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$170.00 \$38.07 \$38.07 \$38.00 \$1,280.000\$1,280.000\$1,280.000\$1	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$72,150.00 \$51,480.00 \$10,140.00 \$173,550.00 \$10,140.00 \$173,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$37,800.00 \$38,400.00 \$38,400.00 \$38,400.00 \$38,400.00 \$19,890.00 \$19,890.00 \$0.00	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments Total for Survey Verification Erosion Control Inspection and report, 3 hours per week for 1 months
4 CSS J. Jost 5	not used not used not used Task Total Materials Field Sampling and Laboratory Testing CEI Assistant Project Manager Senior Inspector Geotechinical Engineer Administrative Asssistant Direct Salary + OH + Fee ASPHALT PLANT INSPECTION Asphalt Plant Inspector not used Salary Total Pavement Coring Vehicle Charge Directs LABORATORY TESTING Allowance for Laboratory Testing Concrete Testing Allowance for Laboratory Testing Roadway Non-Salary Task Total Survey Verification CSS hi Task Total CEPSCI Inspector Not Used Direct Salary + OH + Fee	0 0 0 390 468 468 468 156 360 1 1 1 1 30 234	hours hours hours hours hours hours hours hours hours hours each Days each each each each adays	\$0.00 \$0.00 \$0.00 \$10.00 \$110.00 \$85.00 \$150.00 \$65.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$105.00 \$1,280.00 \$1,280.00 \$1,280.00 \$1,280.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$72,150.00 \$31,480.00 \$10,140.00 \$10,140.00 \$113,550.00 \$37,800.00 \$37,800.00 \$37,800.00 \$0.00 \$37,800.00 \$0.00 \$342,650.00 \$220,084.00 \$42,650.00 \$442,650.00 \$38,400.	Coordination for sampling and testing, reviewing invoice, scheduling staff, proofing field and test reports, added coordination for plant inspection Inspection staff for sampling and testing Inspection staff for sampling and testing Sampling and testing reports organization and transmital to Richland County 2 hours per week Assume 4 hours/day of production Laboratory testing Laboratory testing Laboratory testing Laboratory testing For survey verification of grades and alignments Total for Survey Verification Erosion Control Inspection and report, 3 hours per week for 1 months

F&ME Consultants Materials Field Sampling and Testing Atlas Road Widening Task Detail Thursday, September 16, 2021 Prepared by: JDK



#### Testing Cost Breakdown

Description	Unit	Cost Each	Est. No. Req.	Subtotal	Comments
Soil Classification	each	\$199.50	92	\$18,354.00	Borrow Testing and onsite soils testing
Loss of Ignition	each	\$105.00		\$0.00	
Bulk Unit Weight	each	\$100.00		\$0.00	
Specific Gravity	each	\$65.00		\$0.00	
Grain Size Distribution w/o Hyd.	each	\$65.00		\$0.00	
Grain Size Distribution w/ Hyd.	each	\$180.00		\$0.00	
Grain Size Distribution w/ wash 200 Sieve	each	\$105.00	35	\$3,675.00	Concrete Materials Testing
Atterburg Limits	each	\$82.00		\$0.00	
Moisture Contents	each	\$12.50		\$0.00	
Triaxial - CU w/ pore pressure measurements	each	\$1,000.00		\$0.00	
Direct Shear	each	\$910.00		\$0.00	
Standard Proctor Test	each	\$105.00	4	\$420.00	Earthwork, Unclassified and Borrow
Modified Proctor	each	\$155.00	2	\$310.00	Stone Base
CBR Test @ 90%, 95%, 100%	each	\$550.00		\$0.00	
Unconfined Rock Compressive Strength	each	\$385.00		\$0.00	
Unconfined Compressive Strength of Soils	each	\$110.00		\$0.00	
Cement Testing	each	\$1,250.00	7	\$8,750.00	
Flyash Testing	each	\$1,200.00	7	\$8,400.00	
4" Concrete Compression Strength Testing of Cylinders (SET OF 3)	each	\$75.00	236	\$17,700.00	
Rebar Testing up to #10	each	\$300.00	26	\$7,800.00	
Rebar testing Greater than #10	each	\$350.00		\$0.00	
Bituinous Mixture Extraction	each	\$150.00		\$0.00	
Organic Content	each	\$77.00		\$0.00	
Aggregate Sieve Analysis	each	\$95.00	35	\$3,325.00	Stone Base and Concrete Materials
Geophysical					
Field Operation of Ground Penetrating Radar	hour	\$220.00		\$0.00	

Total \$68,734.00