

EXHIBIT E
-Supplemental Agreement Form

C-CAP-14-397-10-28

THE STATE OF TEXAS §
 §
COUNTY OF HIDALGO §

SUPPLEMENTAL AGREEMENT NO. 1
to WORK AUTHORIZATION NO. 1

THIS SUPPLEMENTAL AGREEMENT is made pursuant to the terms and conditions of paragraph 5 of the Agreement made by and between **HIDALGO COUNTY**, acting herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**", and Millennium Engineers Group, Inc. (MEG), Professional Laboratory of, Pharr, Texas, hereinafter called the "**Laboratory**".

WITNESSETH

WHEREAS, the **Owner** and the **Laboratory** executed the **Agreement** on the 17th day of March 2015 concerning Laboratory Testing for Heidelberg Subdivision (hereinafter referred to as the "**Project**"); and,

WHEREAS, Paragraph 1 of the **Agreement**, (Scope of Work), establishes the Professional Construction Materials Testing Laboratory Services required; and,

WHEREAS, it has become necessary to amend the Agreement to Exhibit "D" as hereinafter provided to include additional soil testing for the roadway section of Heidelberg Subdivision that will need Professional Construction Materials Testing Laboratory Services.

A. AGREEMENT

NOW THEREFORE, premises considered, the **Owner** and the **Laboratory** agree that said **Agreement** is amended as follows:

- I. Paragraph 2 of the **Agreement**, (Estimated Cost), is revised to

\$28,735.75

All other provisions are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the Laboratory and the Owner have caused this Supplemental Agreement to the Agreement for Professional Services to be executed as of the _____ day of _____, 2016.

THE LABORATORY:
MILLENNIUM ENGINEERS GROUP, INC.

BY:  _____

Address for Giving Notices:

5804 N. Gumwood Avenue, Pharr, Texas 78577

THE OWNER:
HIDALGO COUNTY

BY: _____
Ramon Garcia, County Judge

LIST OF ATTACHMENTS

- Exhibit "D" Cost Proposal
- Work Schedule (Soil Testing of Heidelberg Subdivision Roadways)

Revised
"Exhibit D"

HIDALGO COUNTY PRECINCT No. 1

Contract # C-CAP-14-397-10-28

WORK AUTHORIZATION NO. 1 – TOTAL AMOUNT BREAKDOWN

Proposal No.	Project Description	Previous Estimated Amount	Current Estimated Amount
Work Auth No. 1	Heidelberg Subdivison to now include additional soil testing of the roadway.	\$ 21,278.75	\$28,735.75
	<i>Total Amount</i>	<i>\$ 21,278.75</i>	<i>\$ 28,735.75</i>



**Work Schedule
Proposed Construction Materials Engineering & Testing Services
Heidelberg Subdivision Improvements Project**

SOILS SECTION

Task: Subgrade Sample at Roadway (Per Trip, 1 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	9	45.00	405.00
Standard Proctor (each)	3	200.00	600.00
Atterberg Limits (each)	3	70.00	210.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	4	30.00	120.00
Project Engineer (hourly)	1.5	115.00	172.50
Project Management (hourly)	.75	70.00	52.50
Clerical (hourly)	3	50.00	150.00
Sub-Total (per trip)	1	-	-
Sub-Total (per task)	1	1,750.00	1,747.00

Task: Subgrade density testing at Roadway (Per Trip, 1 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	12.95	45.00	582.75
Nuclear density test (each)	14	22.00	308.00
Vehicle trip charge (each)	4	37.00	148.00
Test Report (each)	4	30.00	120.00
Project Engineer (hourly)	2	115.00	230.00
Project Management (hourly)	.75	70.00	52.50
Clerical (hourly)	4	50.00	200.00
Sub-Total (per trip)	1	-	-
Sub-Total (per task)	1	1,641.25	1,641.25

SOILS Section Total

3,388.25



HMAC PAVEMENT SECTION

Task: HMAC Pavement Field Rolling Pattern Testing (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	4	50.00	200.00
Nuclear Density Test (each)	3	22.00	66.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	52.50
Project Management (hourly)	0.25	70.00	16.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	452.25
Sub-Total (per task)	3	452.25	1,356.75

Task: HMAC Pavement Laboratory Testing (Per Sample, 3 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Extraction & Gradation, percent asphalt (each)	1	250.00	250.00
Theoretical maximum specific gravity of mixtures (each)	1	60.00	60.00
Lab Density (each)	1	65.00	65.00
Sub-Total (per trip)	1	-	375.00
Sub-Total (per task)	3	375.00	1,125.00

Task: HMAC Pavement Field Coring (Per Trip, 1 trip estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	10	50.00	500.00
Coring Rig (each)	1	95.00	95.00
Asphalt Cores (each)	8	60.00	480.00
Asphalt Core Density (each)	8	40.00	320.00
Vehicle trips (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.50	115.00	57.50
Project Management (hourly)	0.25	70.00	17.50
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	1,387.00
Sub-Total (per task)	1	1,587.00	1,587.00

HMAC Pavement Section Total

4,068.75

Total Estimated Cost

\$7,457.00



Purchase Order COUNTY OF HIDALGO

PO# 735389

DATE: 12/08/15

PAGE NO: 1 OF 1

PO TYPE:

VENDOR: 400742

REQ: 00286978

PHONE: (956) 607-4448

Fax: (956) 683-6149

EMAIL: bgarcia@2gsllc.com

SHIP TO: COLONIA ACCESS PROGRAM

1902 JOE STEPHENS AVE., STE 101
WEBLACO TX 78599

2GS, LLC.
P.O. BOX 595
PENITAS TX 78576

CONTACT: Valde Guerra (956) 292-7025
SITE: EXECUTIVE OFFICE
CONTRACT NO: C-CAP-15-196-07-21

SPECIAL INSTRUCTIONS:

VENDOR NOTES

1. Do not add to, or alter this Purchase Order. This Order is not renewable.
2. TAX EXEMPTION: This Purchase Order may be accepted in lieu of Exemption Certificate.
3. This Order is also placed F.O.B. Destination. Vendor must repay all shipping costs.
4. Invoice with Purchase Order Only. Original Invoices are required customer copy may be accepted. Our number must appear on all invoices, bills of lading, and packages.
5. Payment will be made only for bills of lading and bill completed orders, unless otherwise indicated.

QTY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
1.00	EACH	<p>DO NOT DUPLICATE ORDER</p> <p>ROUND III BCAP - CSJ#1080314 HEIDELBURG SUBDIVISION</p> <p>C-CAP-15-196-07-21 C-CAP-15-257-10-06</p> <p>CC ROAD CONSTRUCTION - HEIDELBURG SUBDIVISION</p> <p>DRAINAGE CONSTRUCTION - HEIDELBURG SUBDIVISION - DRAINAGE COST (\$295,673.70) INTERLOCAL AGREEMENT BETWEEN HIDALGO COUNTY AND HIDALGO COUNTY DRAINAGE DISTRICT NO.1 AI-51676 05/29/15 REG. DRAINAGE DISTRICT NO.1 BOARD OF DIRECTORS MEETING - RECEIVABLE ACCOUNT 5-1312-126-30-000-002-0-000 = \$295,673.70</p> <p>TOTAL PROJECT \$824,327.70 BCAP \$528,654.00 DD#1 \$295,673.70</p> <p style="text-align: right;">TOTAL:</p> <p>agenda 52023 date 11-10-15</p> <p style="text-align: center;">***** For Hidalgo County use only</p> <p>5-1312-431-00-121-314-0-721 528,654.00</p>	528,654.00	528,654.00
		TOTAL:		528,654.00

Authorized by: Maitha Salazar

Handwritten signature and date:
12/10/15



Purchase Order COUNTY OF HIDALGO

PO# 723100

DATE: 03/24/15

PAGE NO: 1 Of 1

PO TYPE:

VENDOR: 284009

REQ: 00273932

PHONE: (956) 383-8522

Fax: (956) 383-0295

EMAIL:

SHIP TO: HIDALGO CO. PCT 1

1902 Joe Stephens Ave
WESLACO TX 78596

MILLENNIUM ENGINEERS GROUP, INC.
P.O. BOX 4569
EDINBURG TX 78540-4569

CONTACT:

SITE: COMMISSIONER, PRECINCT 1

CONTRACT NO: C-CAP-14-397-10-28

SPECIAL INSTRUCTIONS:

VENDOR NOTES

1. Do not add to, or alter this Purchase Order. This Order is not renewable.
2. TAX EXEMPTION: This Purchase Order may be accepted in lieu of Exemption Certificate.
3. This Order is also placed F.O.B. Destination. Vendor must repay all shipping costs.
4. Invoices each Purchase Order singly. Original Invoices are required customer copy may be accepted. Our number must appear on all Invoices, bills of lading, and packages.
5. Payment will be made only for bona fide and full completed orders, unless otherwise attached.

QTY	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
		DO NOT DUPLICATE ORDER		
		C-CAP-14-397-10-28 WORK AUTHORIZATION NO.1 HEIDELBERG SUBDIVISION & NO.2 LOREZANA SUBDIVISION APPROVED AI#48723 03/17/15 ROUND III BCAP PROJECTS		
1.00	EACH	CC WORK AUTHORIZATION NO.1 - CONSTRUCTION MATERIAL LAB TESTING SERVICES FOR BCAP RND III PROJECT - HEIDELBERG SUBDIVISION CSJ#1080314	21,278.75	21,278.75
1.00	EACH	CC WORK AUTHORIZATION NO.2 - CONSTRUCTION MATERIAL LAB TESTING SERVICES FOR BCAP RND III PROJECT - LOREZANA SUBDIVISION CSJ#1080422	3,408.75	3,408.75
		TOTAL:		24,687.50
***** For Hidalgo County use only				
		5-1312-431-00-121-314-0-339 ←	21,278.75	
		5-1312-431-00-121-422-0-339	3,408.75	

Authorized by: _____

Martha L Salazar me

HIDALGO COUNTY
Professional Construction Material Testing Laboratory Services
Agreement #C-CAP14-397-10-28

WORK AUTHORIZATION NO. 1

THIS WORK AUTHORIZATION is made pursuant to the terms and conditions of Section I.A. of the Agreement made by and between **HIDALGO COUNTY**, action herein by and through the **Commissioner's Court**, hereinafter called the "**Owner**," and, Millennium Engineers Group, Inc., professional Laboratory's of Edinburg Texas, hereinafter called "**Laboratory**".

PART 1. SCOPE OF WORK

The purpose of this Work Authorization is for the **Laboratory** to provide

Construction Materials Engineering & Testing Services for the Heidelberg Subdivision.

The scope of services to be provided by the **Owner** is identified in *EXHIBIT "A" – Scope of Services to be Provided by the Owner* attached hereto.

The scope of services to be provided by the **Engineer** is identified in *EXHIBIT "B" – Scope of Services to be Provided by the Laboratory* attached hereto.

PART 2. ESTIMATED COST

The estimated cost for services under this Work Authorization is \$21,278.75. This amount is based upon the costs outlined in the **Estimated Cost Proposal** attached hereto as **EXHIBIT "D"**.

PART 3. PAYMENT

Compensation and payment to the Engineer for the services established under this Work Authorization shall be made in accordance with Article/Part/Section _____ of the Agreement.

PART 4. FUNDING

This Work Authorization No. 1 shall be funded through funding source:

Account No. 5-1312-431-00-121-314-0-339

Requisition Number 272809

PART 5. PERIOD OF SERVICE

This Work Authorization shall become effective on the date of final acceptance of the parties hereto, and terminate upon completion of scope of the work authorization.

PART 6. RESPONSIBILITIES AND OBLIGATIONS

This Authorization does not waive the parties' responsibilities and obligations provided under the **Agreement**.

PART 7. ACKNOWLEDGEMENT AND CONFIRMATION

Acknowledgement and confirmation by **Hidalgo County Precinct No. 1**, Commissioner, A.C. Cuellar, Jr., as to content and detail of this **Work Authorization No. 1**

**HIDALGO COUNTY
COMMISSIONER PRECINCT NO. 1:**

BY: AC Cuellar Jr

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on 03/17/2015 as indicated below and effective as of 17th day of March, 2015.

**THE LABORATORY:
MILLENNIUM ENGINEERS GROUP, INC.**

**THE OWNER:
HIDALGO COUNTY**

Raul Palma
By: **Raul Palma, President**

Ramon Garcia
By: **Ramon Garcia, County Judge**
APPROVED BY
COMMISSIONERS' COURT
ON: 3/17/15

ATTEST:

Arturo Guajardo, Jr.
By: **Arturo Guajardo, Jr., County Clerk**

LIST OF ATTACHMENTS

- EXHIBIT "A" - Services to be Provided by the Owner
- EXHIBIT "B" - Services to be Provided by the Laboratory
- EXHIBIT "C" - Work Schedule
- EXHIBIT "D" - Cost Proposal

EXHIBIT A

-Scope of Services to be provided by the County

The following provides an outline of the services to be provided by the Owner in the development of Projects (as defined and more particularly identified in Exhibit "A" attached to this Agreement).

General:

The Owner will provide to the Laboratory the following:

- 1) Provide the authorization to proceed with services through coordination with the project consulting and design Laboratory.
- 2) Payment for work performed by the Laboratory and accepted by the Owner in accordance with Article 3 of this Agreement.
- 3) Assistance to the Laboratory, as necessary, to obtain the required data and information from other local, regional, State and Federal agencies the Laboratory cannot easily obtain.
- 4) Provide any available relevant data the Owner may have on file concerning the projects.
- 5) Provide timely review and decisions in response to the Laboratory's request for information and/or required submittals and deliverables, in order for the Laboratory to maintain the agreed upon work schedule prepared in accordance with Exhibit "A" attached to this Agreement.
- 6) Attend and participate in progress meetings as required and as coordinated and conducted by Laboratory.
- 7) Provide the authorization to proceed with services on project by project basis through consulting design and construction Laboratory.

EXHIBIT B

-Scope of Services to be provided by the Laboratory

Exhibit "B"

Services to be Provided by Laboratory

The services to be provided by the LABORATORY in providing Geotechnical Laboratory Services, Construction Materials Testing Services, Construction Observation Services and Environmental Services for Hidalgo County Precinct No. 1 Projects, "ON A AS NEEDED BASIS" and projects is as follows:

A. Preliminary Phase:

- (1) Attend preliminary conferences with the OWNER and, if requested, with the funding agency and other government agencies or interested parties regarding the Project.
- (2) Provide for the necessary geotechnical investigation and testing necessary to develop the design.
- (3) Provide environmental studies as may be necessary to complete a project.
- (4) Provide assistance to the OWNER in providing material requirements and specifications for design, construction and maintenance projects.
- (5) Provide assistance to the OWNER in providing pavement design recommendations for the design, construction and maintenance projects.
- (6) Provide assistance to the OWNER in providing pavement rehabilitation recommendations for the design, and maintenance projects.
- (7) Provide assistance to the OWNER in providing pavement condition studies.

B. Design Phase:

- (1) Attend the OWNER'S and respective Party's meeting as requested for the purpose of explaining geotechnical investigation report recommendations and preliminary testing results and their impact to proposed design activities.
- (2) Perform any additional geotechnical investigations, testing and environmental studies necessary to collect information required in the design of the Project.
- (3) Provide assistance to the OWNER in providing material requirements and specification for design, construction and maintenance projects.
- (4) Provide assistance to the OWNER in providing pavement design recommendations for the design, construction and maintenance projects.
- (5) Provide assistance to the OWNER in providing pavement rehabilitation recommendations for the design, construction and maintenance projects.
- (6) Provide assistance to the OWNER in providing pavement condition studies.
- (7) Furnish the OWNER all necessary reports for preliminary design, design, construction and maintenance projects.

C. Construction/Maintenance Phase:

- (1) Attend the OWNER'S and respective Party's pre-construction and construction meetings as requested for the purpose of explaining geotechnical investigation report recommendation and preliminary testing results and their impact to proposed construction activities and establish coordination and lines of communication for proposed construction materials testing during construction activities.
- (2) Consult and advise with the OWNER during construction.

- (3) Provide construction materials testing for construction and maintenance projects as required by the project plans and specifications and/or specified by the project design engineer.
- (4) Review all material designs as requested by the OWNER and/or project design engineer.
- (5) Furnish the OWNER all necessary reports for construction and maintenance projects.
- (6) Provide construction inspection services as requested by the OWNER on construction and maintenance projects.

D. Miscellaneous/Other:

- (1) Act for OWNER in professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of the profession.
- (2) Perform all technical services under the general direction of a Licensed Professional Laboratory in the State of Texas and in substantial accordance with the basic requirements of the appropriate Standards of the American Society of Testing and Materials, where applicable, or other standards designated by County.
- (3) Employ testing machines which have been calibrated within a period not exceeding twelve (12) months from the time of use by device of accuracy traceable to the National Institute of Standards and Technology (NIST) of the United States Department of Commerce, and, upon request, submit to the OWNER or its authorized representative documentation of such calibration.
- (4) Promptly submit formal construction materials testing reports for all tests, observations, and services performed indicating where applicable, compliance with OWNER specifications or other documents. Such reports shall be completed and factual, citing the tests performed, methods employed, values obtained, parts of the structure and location at which the tests were made.
- (5) The plans and specifications prepared under this Agreement shall become the property of the OWNER upon completion of the work and payment in full of all monies due to the Laboratory.
- (6) Retain all pertinent records relating to the services performed for a period of five (5) years following submission of all reports, during which period the records will be made available to the Owner within a reasonable time.

NOTE: Change in and/or additional services to Scope will require prior approval from OWNER prior to undertaking.

EXHIBIT C

Work Schedule

Millennium Engineers Group, Inc. will go out to site on an as-needed basis to perform testing services. Services will be provided as requested by project personnel. A 24-hour notice will be required from project personnel.

EXHIBIT D

"Proposal"



**Work Schedule
Proposed Construction Materials Engineering & Testing Services
Heidelberg Subdivision Improvements Project**

EXISTING PAVEMENT (PRIOR TO CONSTRUCTION)

Task: Drilled Soil Borings at eight (8) locations of the roadway to a depth of 12" and laboratory testing including soil classification and engineering recommendations for the proposed improvements.

Line Item	Qty.	Unit Rate	Estimated Cost
Drilled Soil Boring (per foot)	8	19.00	152.00
Standard Penetration Test (each)	-	12.00	-
Mobilization and Demobilization (per trip)	1	350.00	350.00
Technician to log soil test boring (hourly)	5	54.00	270.00
Atterberg Limits (each)	8	70.00	560.00
Percent passing No. 200 Sieve (each)	4	45.00	180.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	1	115.00	115.00
Project Management (hourly)	1	70.00	70.00
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	1,814.00
Sub-Total (per task)	1	1,814.00	1,814.00

EXISTING PAVEMENT Section Total

1,814.00

SOILS SECTION

Task: Initial Subgrade Sample for Determination of Optimum Lime Content at Roadway (Per Trip, 2 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	4	45.00	180.00
Determination of Optimum Lime Content, PI method (each)	1	275.00	275.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	57.50
Project Management (hourly)	0.25	70.00	17.50
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	647.00
Sub-Total (per task)	2	647.00	1,294.00

Task: Subgrade Sample at Roadway (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	45.00	112.50
Standard Proctor (each)	1	200.00	200.00
Atterberg Limits (each)	1	70.00	70.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	57.50
Project Management (hourly)	0.25	70.00	17.50
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	574.50
Sub-Total (per task)	3	574.50	1,723.50



Task: Flexible Base Sample at Roadway (Per Trip, 2 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	45.00	112.50
Standard Proctor (each)	1	200.00	200.00
Atterberg Limits (each)	1	70.00	70.00
Sieve Analysis (each)	1	55.00	55.00
Wet Ball Mill (each)	-	210.00	-
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	57.50
Project Management (hourly)	0.25	70.00	16.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	628.75
Sub-Total (per task)	2	628.75	1,257.50

(*)Task: Subgrade density testing at Roadway (Per Trip, 12 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	45.00	112.50
Nuclear density test (each)	3	22.00	66.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	57.50
Project Management (hourly)	0.25	70.00	16.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	370.50
Sub-Total (per task)*	12	370.50	4,446.00

Task: Flexible Base density testing at Roadway (Per Trip, 12 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (hourly)	2.5	45.00	112.50
Nuclear density test (each)	3	22.00	66.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.50	115.00	57.50
Project Management (hourly)	0.25	70.00	17.50
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	370.50
Sub-Total (per task)	12	370.50	4,446.00

SOILS Section Total

13,167.00

CONCRETE SECTION

Task: Concrete testing at Curb (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Concrete Engineering Technician (hourly)	5	50.00	250.00
Slump Test (each)	1	20.00	20.00
Air Content, Pressure (each)	1	25.00	25.00
Concrete Compressive Strength Test	4	16.00	64.00
Vehicle trip charge (each)	2	37.00	74.00
Test Report (each)	2	30.00	60.00
Project Engineer (hourly)	1.0	115.00	115.00
Project Management (hourly)	0.5	70.00	35.00
Clerical (hourly)	2	50.00	100.00
Sub-Total (per trip)	1	-	743.00
Sub-Total (per task)	3	743.00	2,229.00

Concrete Section Total

2,229.00



HMAC PAVEMENT SECTION

Task: HMAC Pavement Field Rolling Pattern Testing (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	4	50.00	200.00
Nuclear Density Test (each)	3	22.00	66.00
Vehicle trip charge (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.5	115.00	52.50
Project Management (hourly)	0.25	70.00	16.75
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	452.25
Sub-Total (per task)	3	452.25	1,356.75

Task: HMAC Pavement Laboratory Testing (Per Sample, 3 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Extraction & Gradation, percent asphalt (each)	1	250.00	250.00
Theoretical maximum specific gravity of mixtures (each)	1	60.00	60.00
Lab Density (each)	1	65.00	65.00
Sub-Total (per trip)	1	-	375.00
Sub-Total (per task)	3	375.00	1,125.00

Task: HMAC Pavement Field Coring (Per Trip, 1 trip estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	10	50.00	500.00
Coring Rig (each)	1	95.00	95.00
Asphalt Cores (each)	8	60.00	480.00
Asphalt Core Density (each)	8	40.00	320.00
Vehicle trips (each)	1	37.00	37.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	0.50	115.00	57.50
Project Management (hourly)	0.25	70.00	17.50
Clerical (hourly)	1	50.00	50.00
Sub-Total (per trip)	1	-	1,587.00
Sub-Total (per task)	1	1,587.00	1,587.00

HMAC Pavement Section Total

4,068.75

Total Estimated Cost

\$21,278.75