

HIDALGO COUNTY
Professional Construction Material Testing Laboratory
Services
Agreement # C-19-006-12-18

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 Pharr, Texas, hereinafter called "**Laboratory**".

PART 1. SCOPE OF WORK

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

Geo Technical & Construction Materials Engineering and Testing Services for the New Tax Office and Precinct Building Renovations project.

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 **\$75,037.50**. 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 4** of the Agreement.

PART 4. FUNDING

This Work Authorization No. **1** shall be funded through funding source:
Account No. 9-1353-419-40-121-253-0-730
Requisition Number 384794 (MUST BE INCLUDED AFTER CC APPROVAL)

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 scopes 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, David L. Fuentes, as to content and detail of this **Work Authorization No. 1**

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

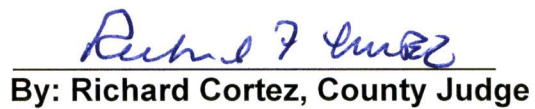
BY: _____

PART 8. ACCEPTANCE AND APPROVAL

This Work Authorization is hereby accepted, approved by Hidalgo County Commissioners' Court on 01-15-19 as indicated below and effective as of 15th day of January, 2019.

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

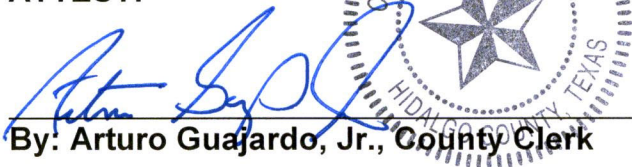
**THE OWNER:
HIDALGO COUNTY**



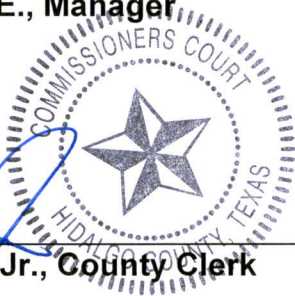
By: Richard Cortez, County Judge

By: Andres Palma P.E., Manager

ATTEST:



By: Arturo Guajardo, Jr., County Clerk



APPROVED BY
COMMISSIONERS' COURT
ON: 1/15/19

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 On-Call Professional Geo-Technical and Construction Materials Testing Services for Hidalgo County Precinct No.1 Projects, “**ON A AS NEEDED BASIS**” and the services are 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 devices 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 "C"
ENGINEER'S CONTRACT FEE SCHEDULE**

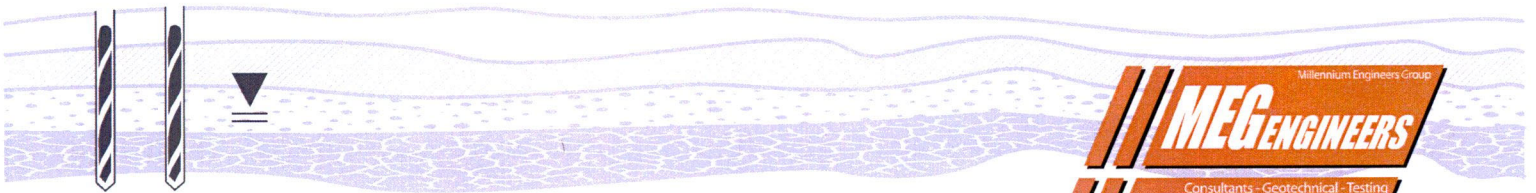
For the services to be provided by the ENGINEER the charge will be on the basis of the units and unit fee rates established in this schedule of tests, staff personnel services and additional services. The overtime premium, required by the Fair Labor Standards Act for nonexempt classifications, will be charged for overtime hours worked because of the County's requirements and its authorization. However, except for the overtime premium, the maximum charges shall not exceed the rates shown in this schedule.

SOIL EXPLORATION AND GEOTECHNICAL SERVICES

Drilled Borings	
In Soil, 0 – 50 feet (per foot).....	\$32.00
In Soil, 50 – 100 feet (per foot).....	34.00
In Rock	By Quote
Non-Conventional Drilling.....	By Quote
Standard Penetration Test (each test).....	12.00
Texas Cone Penetration Test (each test).....	20.00
Shelby Tube Sampling (each test).....	20.00
Mobilization and Demobilization - In Rio Grande Valley (each trip)...	450.00
Mobilization and Demobilization - Outside Rio Grande Valley (each mile)	3.50/mile
Mobilization of Non-Conventional Drilling Equipment	By Quote
Trip Charge For Logger (each mile).....	0.80
Standby Time, Rig plus 2 man crew (per hour).....	200.00
Well Installation.....	By Quote
Technician To Log Soil Test Boring (per hour).....	75.00
Field Coordination	
Field Engineer (per hour).....	125.00
Utility Clearance (per hour).....	75.00
Flagman (per hour).....	75.00
Per Diem (If required)	Cost + 15%
Unconfined Compression (each test).....	45.00
Moisture Content (each test).....	13.00
Grout Backfill (per foot).....	5.00
Dozer/Clearing	Cost + 15%
Asphalt Pavement Coring (each core).....	100.00
Concrete/Asphalt Patch (per location).....	75.00

SOILS AND AGGREGATE SECTION

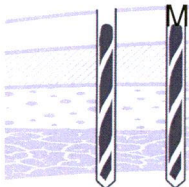
Material Preparation Time (per hour).....	\$75.00
Atterberg Limits (each test).....	80.00
Sieve Analysis	
Dry through No. 40 (each test).....	85.00
Additional Sieves (each sieve).....	12.00
Percent Passing No. 200 Sieve (each test).....	58.00



Moisture Density Relationship	
Standard Proctor (each test).....	220.00
Modified Proctor (each test).....	225.00
TxDOT Proctor (each test).....	225.00
Nuclear Density Test (In conjunction with Inspection)	
Nuclear Density Test (min. 3, each test).....	28.00
Depth Test (each test).....	6.00
Wet Ball Mill (each test)	240.00
Determination of Optimum Lime Content	
PI Method – (each test)	375.00
Tex 121-E - (each test)	375.00
PH Method - (each test)	375.00
Additional Points (each point).....	75.00
California Bearing Ratio (each test).....	750.00
Additional Specimens (each specimen).....	175.00
Small Moisture Content of Aggregates and Base (each test).....	13.00
Large Moisture Content of Aggregates and Base (each test).....	35.00
Linear Shrinkage (each test)	85.00
pH (each test).....	80.00
Resistivity of Soils (each test)	90.00
Specific Gravity (each test).....	75.00
Unit Weight (each test).....	45.00
Soundness (each test)	500.00
Sulfate Content (each test).....	80.00
Hydrometer (each test).....	275.00

BITUMINOUS SECTION

Material Preparation Time (per hour).....	\$75.00
Sieve Analysis for Fine and Coarse Aggregate (Tex 200-F or ASTM)	
Dry (each test).....	85.00
Additional Sieves (each sieve).....	12.00
Sand Equivalent (each test)	75.00
Extraction & Gradation, Percent Asphalt (each test).....	250.00
Asphalt Cores (each core).....	70.00
Asphalt Core Density (each core).....	70.00
Thickness of Cores (each core).....	60.00
Theoretical Maximum Specific Gravity (each test)	60.00
Lab Density (each test).....	90.00
Effect of Water on Bituminous Paving Mixtures (each test)	75.00
Hveem Stability (each test).....	105.00
Coring Rig (per day).....	95.00
Asphaltic Concrete Design and Other Services	By Quote
Percent Passing No. 200 Sieve (per test).....	58.00
Molding Specimens (per set).....	60.00



CONCRETE SECTION

Material Preparation Time (per hour).....	\$75.00
Slump Test (In conjunction with Inspection)	
Slump Test (each test).....	20.00
Air Content of Fresh Concrete (In conjunction with Inspection)	
Pressure (each test).....	25.00
Volumetric (each test)	35.00
Concrete Cylinder Compressive Strength Test (each cylinder).....	16.00
Strip & Hold Cylinder (each cylinder).....	15.00
Concrete Beam Flexure Strength Test	
6x6x22 (each beam).....	40.00
Strip & Hold Beam (each beam).....	15.00
Concrete Cores By Circumference Area (Min. 100 sq. in.).....	2.00/sq. in.
Sawing of Concrete Cylinders or Cores (per end, per core).....	25.00
Thickness of Cores (each core).....	15.00
Coring Rig (per day).....	95.00
Portland Cement Concrete Design or other services	By Quote

MASONRY SECTION

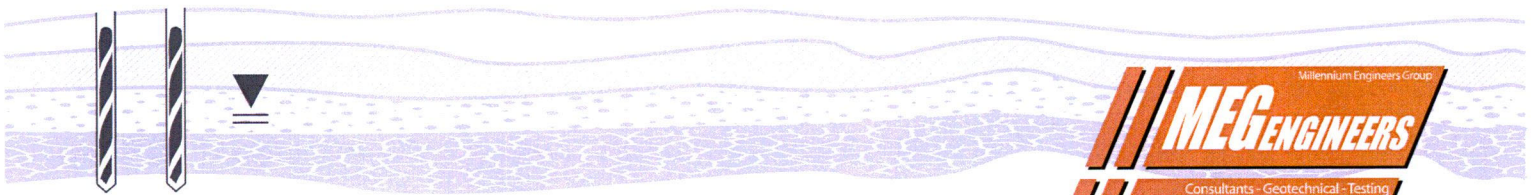
Material Preparation Time (per hour).....	\$75.00
Grout Prism (each prism).....	28.00
Mortar Prism (each prism).....	28.00

TECHNICIAN SERVICES

Soil Engineering Technician (per hour) (Min. 3 Hrs).....	\$75.00
Concrete Engineering Technician (per hour) (Min. 3 Hrs).....	75.00
Asphalt Engineering Technician (per hour) (Min. 3 Hrs).....	75.00
Masonry Engineering Technician (per hour) (Min. 3 Hrs).....	75.00
Senior Engineering Technician (per hour).....	77.00
Plant Inspection, Reinforcing Steel Inspection, Etc. (Min. 3 Hrs)	
Construction Inspection Engineering Technician Time (per hour).....	77.00
Plant Inspection, Reinforcing Steel Inspection, Etc. (Min. 3 Hrs)	
Engineering Specialist (per hour).....	77.00
Pier Inspection, Pile Load Inspections, Etc. (Min. 3 Hrs)	
Certified Welding Inspector (per hour) (Min. 4 Hrs).....	100.00

OTHER SERVICES

Vehicle Trip Charge (per trip) (within 25 miles of office).....	\$40.00
Vehicle Trip Charge (per mile) (beyond 25 miles of office).....	0.80
Other Testing Not Specified (Option 1)	Cost + 15%
Other Testing Not Specified (Option 2) (per hour).....	77.00
Other Services, Outside Services or Supplies.....	Cost + 15%



Test Reports (each report).....	30.00
Clerical/Administrative (per hour).....	63.00
Fax (per page).....	1.00
Photocopies	
8 1/2" x 11" (per page).....	0.12
8 1/2" x 14" (per page).....	0.15
11" x 17" (per page).....	0.20
Additional Insured (per request).....	200.00
 PROFESSIONAL SERVICES	
Principal Engineer (per hour).....	\$180.00
Project Engineer (per hour).....	165.00
Staff Engineer (per hour).....	125.00
 PROJECT MANAGEMENT AND COORDINATION OF SERVICES PROVIDED	
Applied to each invoice of net services provided	
Project Management (per hour).....	\$85.00

BASIC SERVICES AGREEMENT

MEG will charge overtime at the rate of 1.5 applicable for technicians for services performed before 7 AM and after 6 PM on Monday through Friday, after 8 continuous hours on the Client's project and on Saturday, Sunday and holidays.

Hours billed will be from our office at 5804 N. Gumwood, Pharr, Texas, port to port. Fractions of hours will be billed as whole hours. Technician hours will be billed a minimum of 3 hours.

Laboratory testing performed after normal work hours of 7 AM to 6 PM on Monday through Friday will be billed the test rate plus applicable overtime hourly charges.

Project management will be billed for report review, coordination and management of project personnel at a rate of one hour for every two reports.

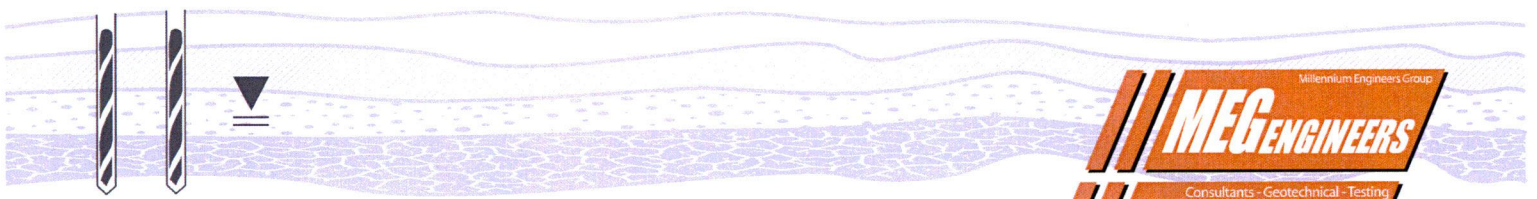


EXHIBIT D

“Proposal”



Work Schedule
Proposed Geo Technical & Construction Materials Engineering and Testing Services
New Tax Office and Precinct Building Renovations Project

SOIL BORINGS SECTION

Task: Five (5) 25' depth soil borings at Building Pad prior to construction
 Six (6) 10' depth soil borings at Pavement prior to construction (1 trip estimated)
 Measurement of Existing Materials, Soil Sampling, Laboratory Testing, and Foundation/Pavement
 Recommendations.

Line Item	Qty.	Unit Rate	Estimated Cost
Drilled Borings, Soil (per foot)	185	32.00	5,920.00
Standard Penetration Test (each)	70	12.00	840.00
Mobilization and Demobilization (each)	1	450.00	450.00
Technician to Log Soil Test Boring (per hour)	16	75.00	1,200.00
Soil Material Preparation (per hour)	8	75.00	600.00
Utility Clearance (per hour)	4	75.00	300.00
Atterberg Limits (each)	24	80.00	1,920.00
Sieve Analysis (each)	24	85.00	2,040.00
Moisture Content (each)	70	13.00	910.00
Vehicle trip charge (each)	3	40.00	120.00
Test Report (each)	1	30.00	30.00
Project Engineer (hourly)	8	165.00	1,320.00
Project Management (hourly)	6	85.00	510.00
Clerical (hourly)	4	63.00	252.00
Sub-Total (per trip)	1	-	16,412.00
Sub-Total (per task)	1	16,412.00	16,412.00



SOILS SECTION

Task: Proof Roll Inspection at Building Pad (Per Inspection, 1 inspection estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Senior Engineering Technician (Per Hour)	3	77.00	231.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per Inspection)	1	-	467.75
Sub-Total (per task)	1	467.75	467.75

Task: Backfill Sample at Utility Lines (Per Sample, 3 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Standard Proctor (each test)	1	220.00	220.00
Atterberg Limits (each test)	1	80.00	80.00
Percent Passing No. 200 Sieve (each test)	1	58.00	58.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	819.75
Sub-Total (per task)	3	819.75	2,459.25

Task: Subgrade Sample at Building Pad (Per Sample, 1 sample estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Standard Proctor (each test)	1	220.00	220.00
Atterberg Limits (each test)	1	80.00	80.00
Percent Passing No. 200 Sieve (each test)	1	58.00	58.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	819.75
Sub-Total (per task)	1	819.75	819.75

Task: Select Fill Sample at Building Pad (Per Sample, 5 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Standard Proctor (each test)	1	220.00	220.00
Atterberg Limits (each test)	1	80.00	80.00
Percent Passing No. 200 Sieve (each test)	1	58.00	58.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	819.75
Sub-Total (per task)	5	819.75	4,098.75



Task: Backfill density testing at Utility Lines (Per Trip, 16 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Nuclear density test (min. 3, each test)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	545.75
Sub-Total (per task)	16	545.75	8,732.00

Task: Subgrade density testing at Building Pad (Per Trip, 1 trip estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Nuclear density test (min. 3, each test)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	545.75
Sub-Total (per task)	1	545.75	545.75

Task: Select Fill density testing at Building Pad (Per Trip, 8 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Nuclear density test (min. 3, each test)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	545.75
Sub-Total (per task)	8	545.75	4,366.00

Task: Subgrade Samples at Paving Area for Lime Determination (Per Sample, 4 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Atterberg Limits (each test)	1	80.00	80.00
Percent Passing No. 200 Sieve (each test)	1	58.00	58.00
Sulfate Content (each test)	1	80.00	80.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	679.75
Sub-Total (per task)	4	679.75	2,719.00



Task: Lime Treated Subgrade Samples at Paving Area (Per Sample, 2 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Standard Proctor (each test)	1	220.00	220.00
Atterberg Limits (each test)	1	80.00	80.00
Percent Passing No. 200 Sieve (each test)	1	58.00	58.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	819.75
Sub-Total (per task)	2	819.75	1,639.50

Task: Flexible Base Sample at Paving Area (Per Sample, 1 sample estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Standard Proctor (each test)	1	220.00	220.00
Atterberg Limits (each test)	1	80.00	80.00
Sieve Analysis (each test)	1	85.00	85.00
Wet Ball Mill (each test)	1	240.00	240.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per sample)	1	-	1,086.75
Sub-Total (per task)	1	1,086.75	1,086.75

Task: Lime Treated Subgrade density testing at Paving Area (Per Trip, 2 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Nuclear density test (min. 3, each test)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	545.75
Sub-Total (per task)	2	545.75	1,091.50

Task: Flexible Base density testing at Paving Area (Per Trip, 4 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Soil Engineering Technician (Per Hour) (Min. 3 Hrs)	3	75.00	225.00
Nuclear density test (min. 3, each test)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	545.75
Sub-Total (per task)	4	545.75	2,183.00

SOILS Section Total

46,621.00



☒ CONCRETE SECTION

Task: Concrete testing at Footings & Panels (Per Pour, 4 concrete pours estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Concrete Engineering Technician (Per Hour) (Min. 3 Hrs)	5	75.00	375.00
Slump Test (each test)	1	20.00	20.00
Air Content, Pressure (each test)	1	25.00	25.00
Concrete Cylinder Compressive Strength Test (each cylinder)	4	16.00	64.00
Vehicle trip charge (per trip) (within 25 miles of office)	2	40.00	80.00
Test Report (each report)	2	30.00	60.00
Project Engineer (per hour)	1.0	165.00	165.00
Project Management (per hour)	0.5	85.00	42.50
Clerical / Administrative (per hour)	2	63.00	126.00
Sub-Total (per pour)	1	-	957.50
Sub-Total (per task)	4	957.50	3,830.00

Task: Concrete testing at Building Slab (Per Pour, 1 concrete pour estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Concrete Engineering Technician (Per Hour) (Min. 3 Hrs)	12	75.00	900.00
Slump Test (each test)	3	20.00	60.00
Air Content, Pressure (each test)	3	25.00	75.00
Concrete Cylinder Compressive Strength Test (each cylinder)	12	16.00	192.00
Vehicle trip charge (per trip) (within 25 miles of office)	2	40.00	80.00
Test Report (each report)	4	30.00	120.00
Project Engineer (per hour)	2.0	165.00	330.00
Project Management (per hour)	1.0	85.00	85.00
Clerical / Administrative (per hour)	4	63.00	252.00
Sub-Total (per pour)	1	-	2,094.00
Sub-Total (per task)	1	2,094.00	2,094.00

Task: Concrete testing at Curb/Gutter and Sidewalk (Per Pour, 4 concrete pours estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Concrete Engineering Technician (Per Hour) (Min. 3 Hrs)	5	75.00	375.00
Slump Test (each test)	1	20.00	20.00
Air Content, Pressure (each test)	1	25.00	25.00
Concrete Cylinder Compressive Strength Test (each cylinder)	4	16.00	64.00
Vehicle trip charge (per trip) (within 25 miles of office)	2	40.00	80.00
Test Report (each report)	2	30.00	60.00
Project Engineer (per hour)	1.0	165.00	165.00
Project Management (per hour)	0.5	85.00	42.50
Clerical / Administrative (per hour)	2	63.00	126.00
Sub-Total (per pour)	1	-	957.50
Sub-Total (per task)	4	957.50	3,830.00

Concrete Section Total

9,754.00



MASONRY SECTION

Task: Masonry testing at Building (Per Inspection, 3 inspections estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Masonry Engineering Technician (Per Hour) (Min. 3 Hrs)	8	75.00	600.00
Grout Prism (each prism)	4	28.00	112.00
Mortar Prism (each prism)	3	28.00	84.00
Vehicle trip charge (per trip) (within 25 miles of office)	2	40.00	80.00
Test Report (each report)	5	30.00	150.00
Project Engineer (per hour)	2.50	165.00	412.50
Project Management (per hour)	1.25	85.00	106.25
Clerical / Administrative (per hour)	5	63.00	315.00
Sub-Total (per pour)	1	-	1,859.75
Sub-Total (per task)	3	1,859.75	5,579.25

Masonry Section Total

5,579.25



REINFORCING STEEL SECTION

Task: Reinforcing Steel Inspections (Per Trip, 7 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Senior Engineering Technician (Per Hour)	3	77.00	231.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	467.75
Sub-Total (per task)	7	467.75	3,274.25

Reinforcing Steel Section Total 3,274.25

STRUCTURAL STEEL SECTION

Task: Structural Steel Inspections (Per Trip, 3 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Certified Welding Inspector (per hour) (Min. 4 Hrs)	6	100.00	600.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	836.75
Sub-Total (per task)	3	836.75	2,510.25

Structural Steel Section Total 2,510.25



HMAC PAVEMENT SECTION

Task: HMAC Pavement Field Rolling Pattern Testing (Per Trip, 2 trips estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (hourly)	8	75.00	600.00
Nuclear Density Test (each)	6	28.00	168.00
Vehicle trip charge (per trip) (within 25 miles of office)	1	40.00	40.00
Test Report (each report)	2	30.00	60.00
Project Engineer (per hour)	1	165.00	165.00
Project Management (per hour)	0.5	85.00	42.50
Clerical / Administrative (per hour)	2	63.00	126.00
Sub-Total (per trip)	1	-	1,201.50
Sub-Total (per task)	2	1,201.50	2,403.00

Task: HMAC Pavement Laboratory Testing (Per sample, 4 samples estimated)

Line Item	Qty.	Unit Rate	Estimated Cost
Extraction & Gradation, percent asphalt (each test)	1	250.00	250.00
Theoretical maximum specific gravity (each test)	1	60.00	60.00
Lab Density (each test)	1	90.00	90.00
Hveem Stability (each test)	1	105.00	105.00
Test Report (each report)	2	30.00	60.00
Project Engineer (per hour)	1	165.00	165.00
Project Management (per hour)	0.5	85.00	42.50
Clerical / Administrative (per hour)	2	63.00	126.00
Sub-Total (per trip)	1	-	898.50
Sub-Total (per task)	4	898.50	3,594.00

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

Line Item	Qty.	Unit Rate	Estimated Cost
Asphalt Engineering Technician (Per Hour) (Min. 3 Hrs)	6	75.00	450.00
Coring Rig (per day)	1	95.00	95.00
Asphalt Cores (each core)	4	70.00	280.00
Asphalt Core Density (each core)	4	70.00	280.00
Test Report (each report)	1	30.00	30.00
Project Engineer (per hour)	0.5	165.00	82.50
Project Management (per hour)	0.25	85.00	21.25
Clerical / Administrative (per hour)	1	63.00	63.00
Sub-Total (per trip)	1	-	1,301.75
Sub-Total (per task)	1	1,301.75	1,301.75

HMAC Pavement Section Total

7,298.75

Total Estimated Cost

\$75,037.50